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Localization of salaries of public sector employees
in Iraq and its role in enhancing financial
inclusion in banks

توطين رواتب موظني القطاع العام في العراق ودوره في تعزيز الشمول المالي في البنوك

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#### **Abstract**

The aim of this paper is to determine the influence of the accounting information system on the localization of salaries on enhancing financial inclusion in banks. This study utilises the data from the content analysis of the 37 banks. The study used employees who have localized their salaries within the banks since the launch of the project until the end of 2021 (3,985,608) employees and the number is constantly increasing until all employees are localized in the country. This project is a step It is important towards expanding financial inclusion within the country, especially since its stated goal is to reduce the financial costs of the process of paying salaries, increase bank accounts opened with banks, and increase the number of individuals participating in the financial system, which will necessarily increase, as well as creating an atmosphere of competition among them in order to provide better Offers in order to obtain the largest number of customers (employees) who will localize their salaries (37) banks contributed to this project, in order to receive employees who wish to localize their salaries.



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# Keywords. Accounting information system, localization of salaries, financial inclusion in banks

#### 1.Introduction

Financial inclusion, Due to the extreme importance of financial inclusion in enhancing stability, it is one of the main goals that countries set in their calculations for the purpose of increasing financial depth, because of its positive effects and great importance in economic growth, income distribution, and reducing unemployment and poverty, and this interest in financial inclusion has increased with the increase in technological development. Digital dealings have develop a big part of dealings, so "financial inclusion" is directly related to technological expansion, and the "Central-Bank of Iraq" seeks to raise the level of "financial inclusion" within the country, through a set of measures it has taken to that objective, and among these measures are "the Central Bank of Iraq", signified by the expenses section, approved the task ("Financial Inclusion for a New Economic Beginning"), which goals to increase "financial inclusion" in a sustainable method, in corporation with the "Ministry of Planning, and in assistance with improve "financial inclusion" in the Arab countries for the drive of helping from the skill provided by them and their strategic partners.

The use of information systems has become an urgent necessity imposed by developments in the technological aspect exploiting it in administrative work and bringing distant geographical areas in the organization closer together through Investing in information, which has become one of the organization's most important resources at the present time, given the importance of the sector Banks in Iraq, especially for its role in economic stability, were intended institutions to develop and use information systems in order to serve its goals, ensuring their stability and continuity.

("The World Bank, the Global Alliance for Financial Inclusion (AFI) and the German International Development Agency (GIZ)", in order to develop the banking sector, increase the financial services provided to the public, attract the largest number of individuals and savings into the banking sector, decrease the volume of currency in circulation, and increase the number of thousands Within the banking system, there are also the initiatives launched by the Central Bank (the Large, Medium, and Small Enterprises Initiative since 2015 and subsequent years), which contributed to increasing the number of accounts and loans, as well as the

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salary localization process that was launched in 2016, which stipulates that all state employees must be within the banking system. The Iraqi banking system is in order for there to be a larger number of public within the financial system, to activate the monetary policy decisions represented by the Central-Bank of Iraq" to a greater extent, and to achieve its objectives quickly and with greater accuracy, and the trend towards electronic exchange instead of monetary exchange within the economy, and that increasing technological development leads to An increase in financial inclusion (Fadel & Obaid, 2019). Advanced technology, expanded use of the Internet, and increased use of mobile phones are important elements in increasing financial inclusion. Therefore, achieving an increase in the rate of financial inclusion requires accounting information system providing an advanced and rapidly spreading information technology infrastructure (Saber, 2022 & Brien et al., 2013).

#### 2. Literature review

The term "salaries localization" has been given many different names in the research that dealt with this topic. We can attribute this difference to the lack of a unified term that governs the process of distributing salaries and wages electronically in different countries. These names are (direct deposit, payroll card, smart card for paying salaries, etc.) Electronic payment of salaries, localization of salaries, etc.) and other designations according to research, published literature and reports specific to each country in the world. Through the above, several concepts were found for localizing salaries (Franklin, 2014).

The salary localization system has great financial and service importance for (state employees, banks participating in this project, public and private institutions that will localize their employees' salaries), and this importance varies from one bank to another. Every employee whose salary is localized is certain a different salary card by which he can "withdraw" his salary. From ATM machines and using it to purchase goods and services through various points of sale, and that the localization of the salary provides the employee with a package of banking products and services and facilities on loans, and that it helps the employee to save automatically by withdrawing only the money he needs (Al-Ukaili, 2017).

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Elements of the information system: there are several elements of the systems, the most important of which are. Firstly, inputs: they are all the resources that are entered into the system to be transformed into useful information, i.e. they provide the system Its needs include raw materials, energy, human and material efforts, data, etc. Secondly, processing: it is all the operational activities that take place on the inputs for the purpose of transforming them it produces useful outputs that help decision makers make sound decisions. Thirdly, outputs: they are the final results arranged from conducting the processes and transformational activities of the system, and they vary depending on the system.

Localization project for state employees' salaries. The task to focus the salaries of state employees was initiated depend on a decision issued by the "General Secretariat of the Council of Ministers in 2016". The goal of the project was to pay salaries to state employees through cards issued by banks operating in Iraq in cooperation with financial payment companies that supply these cards to the banks. The scheme goals to decrease the full cost of the process of paying salaries and saving cash within the banking system. The benefit to workers is that they obtain a bank account with all ATMs and points of sale inside and outside the country, such as profit from all "other banking services provided by banks". For example, gaining loans and others, in addition to the security provided by using cards instead of keeping cash. The Central Bank's strategy is based on making a safe present their offers, and the employee has the right to select the bank as per the better banking services and the most appropriate prices. This project is a step It is important towards expanding financial inclusion within the country, especially since its stated goal is to decrease the financial costs of the process of paying salaries, increase bank accounts opened with banks, and increase the number of individuals participating in the financial system, which will necessarily increase, as well as creating an atmosphere of competition among them in order to provide better Offers in order to obtain the largest number of customers (employees) who will localize their salaries (Andrew, 2001). (37) banks contributed to this project, in order to receive employees who wish to localize their salaries accounting information system (Hosein et al., 2013). The Central Bank established the National Exchange System (which is an electronic money transfer system among Banks and "electronic payment service providers through points of sale and

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ATMs", as the person holding a "credit card" can make financial "withdrawals and purchases" from vending machines and points affiliated with other banks throughout the country, without the need to rely on the branches of the bank in which he deposited his money1) "this system workings to decrease the cost of withdrawal for individual citizens if their money is withdrawn from other bank branches, in order to reduce the costs of financial services provided by banks to the greatest possible extent and make them suitable for all members of society".

# 3. Research Methodology

Figure (1) shows the numbers of employees who have localized their salaries within the banks since the launch of the project until the end of 2021 (3,985,608) employees, and the number is constantly increasing until all employees are localized in the country accounting information system (Esmeray, 2016). The process of localizing salaries has contributed significantly to enhancing financial inclusion within The country by increasing the number of bank accounts created for employees and increasing the number of electronic cards given to them, as well as increasing the financial services provided by banks in order to attract their employees, and increasing banking awareness among the public.

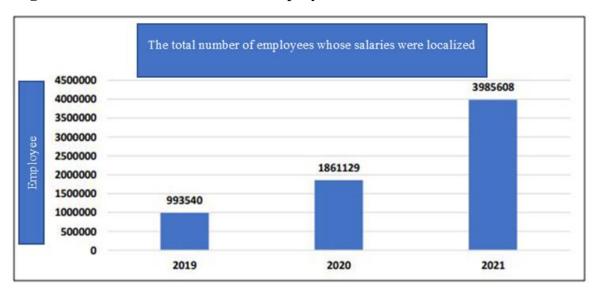


Figure (1) shows the numbers of employees

First: Financial inclusion indicators: "The Central Bank of Iraq" measures the level of financial inclusion in the country using two basic indicators: ACCESS and USAGE. Each of these two indicators includes a set of sub-indices as follows:

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## **Banking density and penetration index**

The banking density and banking penetration index is one of the important indicators in measuring and determining the level of "financial inclusion" in the country, as it based on primarily on the bank branches that are spread throughout the country, in order to distribute "financial services" to the public, so this indicator is concerned with the number of bank branches within the economy, accounting information (system, 2011) Grande. The increase in bank branches was not very large, and the year 2021 witnessed a slight increase in the number of branches. "Banks, as it reached (905) branches, while in 2020 it was (891) branches, as this increase was reflected in the rise in the banking density index, as it reached (45.51) in 2021 after it was (45.06) in 2020, and this was attended by a reduction in banking perception, It reached (2.19) in 2021 after it was (2.21) in 2020, and this is a result of population growth at a rate greater than the growth in the number of bank branches in Iraq, and Table No. 2".

## The concept of localization of salaries

The term "salaries localization" has been given many different names in the research that dealt with this topic. We can attribute this difference to the lack of a unified term that governs the process of distributing salaries and wages electronically in different countries. These names are (direct deposit, payroll card, smart card for paying salaries, etc.) Electronic payment of salaries, localization of salaries, etc.) and other designations according to research, published literature and reports specific to each country in the world. Through the above, several concepts were found for the localization of salaries, which we review in the following table: Table (2-1) Salary localization concepts.

# The writer or researcher year page concept

Harrison 2018 1 it is a prepaid card provided by an employer to fee employees' net salaries. Once the employer credits funds into the employee's explanation, the employee can then utilize it to buying items, withdraw cash and pay bills. These cards remove the need for paper checks. 2Khudair 2018 17 It is a payment method made through organizations (private or governmental) such as (salaries and wages) using electronic funds transfer (EFT), by transferring funds directly

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from the main bank account to the personal bank account opened in one of the banks using automated clearing systems. 3 Central Bank of Iraq 2018 8 It is about opening bank accounts (IBAN) for all state employees linked to debit cards. 4 Social Security Administration 2017 1 It is a safe and simple way to receive your salary by sending your salary payments to your bank account by the organization in which you work.

Al-Quraishi et al., 2019, 211 One of the types of electronic payment methods for salaries and wages. It provides security and ease for workers to collect their salaries and wages electronically instead of the old traditional methods, through an electronic card given to them based on a current or savings bank account in one of the banks or even without A bank account, and thus receive their salaries the moment they are deposited into their accounts or bank cards via ATMs or points of sale (Nagaraju, 2017). A set of procedures to transform the salary payment process from the traditional mechanism to the electronic payment process using electronic cards. It is a process of transferring risks and services to another party, which is the payroll bank. Source: Prepared by the scholar depend on the above literature.

Based on the above, salary localization can be defined as one of the methods of electronic payment for salaries and wages. It provides security and ease for workers to collect their salaries and wages electronically instead of the old traditional methods, through an electronic card given to them based on a current or savings bank account in one of the banks or... Even without a bank account, they can receive their salaries instantly deposited into their accounts or bank cards via ATMs or points of sale (POS.(

# The importance of localizing salaries

The salary localization system has great financial and service importance for (state employees, banks participating in this project, public and private institutions that will localize their employees' salaries), and this importance varies from one bank to another. Every employee whose salary is localized is given a different salary card over which he can remove his salary. From ATM machines and using it to purchase goods and services through various points of sale, and that the localization of the salary provides the employee with a package of banking products and services and facilities on loans, and that it helps the employee to save

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automatically by withdrawing only the money he needs (Al-Ukaili, 2017: 1). This importance is as follows:

- 1-2-2-2The importance of localization for banks participating in this system
- a. The salary localization project is one of the financial inclusion projects that withdraws the cash mass stored inside homes to the banks through the dealings of workers in the government and private sectors with the banks (www.economy-news.net, 2017.(
- B. The interaction of the large group in society, represented by employees in the government and private sectors, with banks has a great benefit, which is that the salaries that are not withdrawn by employees (savings) increase the cash liquidity of the banks and may use them as loans to businessmen, and thus the salaries of state employees become a tributary of economic development (www alshuhadaa.com, 2018.(
- C. Investing in ATMs rises the size and value of credit accounts, reduces banking transaction costs, decreases the number of employees and the number of banking divisions and thus support the bank's benefit (Delgado et al, 2004:31.(
- Dr. Banks generate revenues from this field by collecting fees, commissions, and returns in exchange for providing this service (Berry, 2017: 13.(
- The importance of localization for employees whose salaries are localization. To open a salary account, no initial deposit is required by the employee.
- B. There are no account maintenance fees for payroll calculations (Rahman, 2011:19.(
- C. The process of localizing an employee's salary is optional, meaning the employee cannot be forced to localize his salary with a specific bank. Rather, the employee has the right to select one bank from the group of participating banks to localize salaries (Saunders, 2015:4).
- Dr. Direct deposit provides a guarantee that your salary will be in your bank account as of the bank initial on payday (Rezaei et al., 2015:549.(
- H. Individuals depositing in direct credit do not have to create a bank credit on payday and perhaps delay in line, but rather the credit is done automatically in coordination between the organization in which the employee works and the bank where the salary is located (Cindy Tarallo, 2014: 1.(

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And the. Convenience: Payroll localization is a convenient method as employee cardholders have full access to their funds through bank branches throughout the country (American Payroll Association, 2018: 2-4.(

#### 4. Results

Table (2) display the "descriptive statistics" in completely the "variables" in the "sample" of banks. The table shows the banking spread, banking density, numbers of banks and populations from 2017 to 2021.

**Table2.** Banking penetration and banking density in Iraq

Banking	Banking	Number of	Population: one	Year
spread	density	bank	thousand people	
		branches		
2.27	44.05	843	37.140	2017
2.26	44.16	865	38.200	2018
2.25	44.25	888	39.300	2019
2.21	45.06	891	40.150	2020
2.2	45.51	905	41.190	2021

**Source.** Central Bank of Iraq, 2021 Statistical Bulletin

When relating Iraq with some Arab countries, "we find that Iraq occupies a lagging rank in the feast of the number of divisions, and Figure (90) shows that the percentage of Iraq in the index of the number of bank branches per 100,000 adults reached (%3.9) which is the lowest among the comparison countries for the year 2020, which means a low level of banking penetration in Iraq".

# The spread of electronic payment services

"In order to attract a larger number of the public into the banking system and try to increase operations within the financial system and use electronic payment tools, and gradually get rid of cash dealing, it is necessary to increase electronic payment services, which is one of the main goals that the Central-Bank of Iraq seeks to achieve, as this indicator measures the level of spread of electronic payment services".

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Figure 2 shows the number of (POS), (POC) and (ATM) per 1000 km, as it is clear that there is an increase in the number of (ATM), (POS) and (POC) devices throughout Iraq, as it is noted that the number of ATMs has increased over the area of Iraq from (1.5%) in 2017 to (3.6%) in 2021. As for (POS) devices, their spread across Iraq has increased from (2.1%) in 2017 to (19%) in 2021. As for (POC), their numbers have increased from (11.7%) in 2017 to 3.35% in 2021, and it is expected that these percentages will increase in the future in accordance with the directions of the Central-Bank of Iraq in this regard.

The spread of electronic payment services throughout the Iraq 40.0 33.5 29.5 30.0 26.6 19.0 20.0 15.1 11.7 8.9 10.0 5.0 5.1 3.6 1.5 2.1 0.0 2021 Source: Central Bank of Iraq, statistical website Number of devices ATM Number of devices POS Number of devices POC

Figure (2) shows the number of (POS), (POC) and (ATM)

Source: Central Bank of Iraq, statistical website

Similarly, with concern to the extent of automatic payment facilities to the population of Iraq each 100,000 people, it is still low, and the aim for this is cash trade and the conclusion of financial transactions among persons and merchants manually, since this culture has not extent, and this process is still mysterious to most shop owners, particularly in common and remote areas, hence, "most commercial markets and stores deal with cash and not POS devices". As for ATM devices, their spread is incomplete to malls, profitable centers, some government sections, and bank branch headquarters, and there are no plans extent in community areas, and Figure 5. It shows that there was a slight increase in electronic payment services in 2021, as the relation of the number of ATMs to the population (100,000) people extended (3.8%) after it was (2.9%) in 2020, and POC devices extended

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(35.7%) in 2021 after it was 32.2% in 2020, while POS devices rose to 20.2% in 2021 after it was 9.8% in 2020.

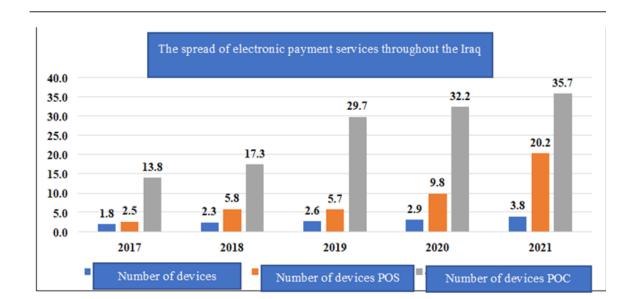


Figure (3) shows the number of devices of payment service.

The percentage of ATMs in Iraq is considered low if this percentage is compared to the percentages of countries close to Iraq, and Figure 3.

It displays the percentage of the number of ATMs per 100,000 adults in a group of Arab countries. It is clear that Iraq has the lowest percentage of the number of ATMs among the group of comparative countries. It is worth noting that the average percentage of the number of ATMs per 100,000 adults in countries Middle East and North Africa (26.1) in 2020, which requires banks to growth the number of these plans in order to provide the best services to the public, which helps in increasing the number of individuals entering the financial system, and increasing the level of financial inclusion that the Central Bank aims to achieve.

# 2. USAGE Financial Services Usage Index

A- The spread of mobile payment services:

The development of the payment system is considered one of the most important methods through which financial inclusion can be enhanced in any economy, and mobile payment operations are one of these methods, as they facilitate many financial operations and help in completing them quickly and accurately.

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Therefore, access to payment operations... Through mobile phones and completing other financial transactions represents a very advanced form of financial development, so the Central Bank of Iraq has granted permission to mobile companies to contribute to the electronic payment process via mobile phones, and to provide services such as transferring money, paying bills, purchasing electronic cards, and recharging prepaid lines. The process of depositing and withdrawing cash to and from the wallet, through approved centers, and Figure (7(

It display the financial activity of each firm, which was measured by the amounts moved through it. It is noted that Zain Cash has control over financial transfer operations, as the percentage of amounts transferred through it to the total amounts transferred through mobile payment companies increased (46.4%) in 2018 to (46.4%) 78.7%) in 2021, while Asia Company's transfer rate decreased from (53.6%) in 2018 to (18%) in 2021. As for People's Wallet Company, it began its work in 2020 and its percentage of transferred amounts to the total amounts was low due to its recent However, it increased from (0.03%) in 2020 to (3.2%) in 2021. The increase in competition between companies reflects positively on financial development, and helps more in developing the financial services provided by companies.

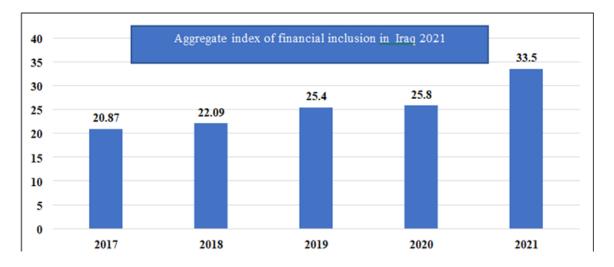
# 3. Measuring the aggregate index of financial inclusion in Iraq

The aggregate index of financial inclusion depends on two main indicators (access and use) to determine the progress achieved in the level of financial inclusion. It is considered a reflection of the extent of progress achieved in the level of financial inclusion 1. The results in Figure (8) indicate an increase in the value of the aggregate index of financial inclusion from (20.8%) in 2017 to (33.5%) in 2021. This growth in the value of the aggregate financial inclusion index reflects the success of the policies of the Central Bank of Iraq in promising financial inclusion and growing individuals' confidence in their dealings with the formal financial sector. It is due to the noticeable rise in the number of bank explanations as a result of the salary localization policy, as well as the noticeable increase in the number of ATMs and opinions of sale, which have been increasing in new times. Figure 4 shows the aggregate index of financial inclusion in Iraq 2021.

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**Figure (4)** shows the aggregate index of financial inclusion in Iraq 2021



#### 5. Conclusion

The salary localization system has great financial and service significance for (state employees, banks participating in this mission, public and private institutions that will localize their employees' salaries), and this significance varies from one bank to additional. Every employee whose salary is localized is given a different salary card through which he can withdraw his salary. When comparing Iraq with some Arab countries, we find that Iraq occupies a lagging rank in the extent of the number of divisions, and Figure (90) shows that the percentage of Iraq in the index of the number of bank branches per 100,000 adults reached (%3.9) which is the lowest among the comparison countries for the year 2020, which means a low level of banking penetration in Iraq. The goal of the scheme was to pay salaries to state employees by cards issued by banks effective in Iraq in cooperation with financial payment companies that supply these cards to the banks. The project goals to decrease the total cost of the process of paying salaries and protection cash in the banking system. The benefit to workers is that they obtain a bank account that allows them to transaction with all ATMs and opinions of sale inside and outside the nation, in addition to advantage from all other banking services providing by banks.

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#### **Conflicts of Interest**

The author declares no conflict of interest.

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