

The Effectiveness of Using the Statistical Sample Method in Auditing Bank Accounts

Ashwaq Abdul Sada Kadhim¹, Farqad Faisal Jadaan Sallal², Dr. Amel Merzah Sakhil³

^{1,2,3} Al-Furat Al-Awsat Technical University

ARTICLE INFO

Published Online:
30 October 2024

Corresponding Author:
Ashwaq Abdul Sada
Kadhim

ABSTRACT

A The study aimed to illustrate the importance of using the statistical sample method in auditing accounts in government banks, The use of this method of auditing bank accounts is an important and effective tool for achieving better audit objectives and accurate information that contributes to enabling the external auditor to face any future objection to the validity of his opinion on the financial statements. To reduce personal judgment as much as possible, during the audit process, which reduces the impact of risk in financial lists using the statistical sample method, The research proceeded from a problem of knowing the effectiveness of using the statistical inspection method in improving the quality of the audit of bank accounts at Al Ahli Bank of Iraq, United Bank of Investment Bank, Investment, Credit Bank) Sample research, Based on a fundamental premise, the use of statistical inspection method in the audit of bank accounts leads to increased accuracy and effectiveness of the audit process, the research has reached a number of conclusions representing the most important,, recommended research, and the study included supplements complementing search purposes followed by a list of research sources.

KEYWORDS: audit, statistical sample, bank accounts

INTRODUCTION

The task of auditing bank accounts is vital in ensuring the transparency and financial credibility of financial institutions. One of the techniques used in this context is the use of statistical sample method in the analysis and auditing of bank accounts, This method aims to choose an representative and random sample of accounts to analyze rather than examine and audit all accounts individually. By analysing this statistical sample, results can be expected and effective recommendations made to improve the audit process. With continued progress in information technology and data analysis, the use of the statistical sample method in the audit of bank accounts has become more common and important as this method provides auditors with the opportunity to implement a comprehensive and effective audit of a representative sample of accounts, reducing the time and effort required to audit all accounts. A key advantage of using the statistical sample method is its ability to provide a reasonable level of accuracy and emphasize the quality of bank accounts, Using appropriate statistical techniques, auditors can estimate the extent of error that may result from the use of the sample and its representation of the total accounts. This helps to make correct decisions about financial risks and future recommendations. However, we must realize

that using the statistical sample method is not free from challenges and constraints, These challenges may include choosing a properly represented sample and determining the appropriate sample size to ensure accuracy of the results. In addition, using statistical inspection may require advanced statistical skills and experience in data analysis. This study aimed to explore the effectiveness of using the statistical sample method to audit bank accounts and assess its ability to achieve financial objectives and credibility in banking.

First Part: Study Methodology and Previous Studies

First: Problem of Study:

In view of the expansion of the activities of government financial institutions, including (banks), and for the purpose of achieving high levels of quality in auditing, This reduces the impact of risk on financial lists, and to achieve this requires these institutions to control and control their performance. This is done only with auditing methods that provide a reasonable level of accuracy that contribute to reducing time and effort and increasing the efficiency of the auditing process. The method of statistical inspection in the audit of bank accounts, the most common and important, The study comes to highlight the effectiveness of using the

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statistical sample method in auditing bank accounts, by answering the following question:

How effective is the use of the statistical sample method in improving the quality and effectiveness of auditing bank accounts?

Second: Hypotheses of Study

The research is based on a key hypothesis: (the use of the statistical sample method in the audit of bank accounts improves the accuracy and effectiveness of the audit process)

The following sub-hypotheses emerged from this hypothesis:

1-Using a statistical sample method to audit bank accounts, saves time and effort and increases the efficiency of the audit process
2-Using a statistical sample method to audit bank accounts reduces the impact of risk on financial statements.

Third: Importance of Study

The importance of research stems from knowing the effectiveness of using the statistical sample method in auditing bank accounts, as it helps increase efficiency and save time, achieving accuracy and reliability, detecting errors and fraud, and reducing the financial risks associated with auditing bank accounts, contributes to improving the quality and effectiveness of the audit process and enhances confidence in the banking institution and gives it greater credibility.

Fourth: Objectives of Study

Through this research, we seek to:

1-Clarify the concept of the statistical sample method and its role in improving the quality and effectiveness of the audit process.

2-Indicate the ability and reliance of auditors to use one of the methods of advanced statistical skills (statistical sample method) in data analysis.

3-Clarify the role of using the statistical sample method in reducing the impact of risk on financial lists.

Fifth: Tool of Study

Researchers used this study quantitative method through bank accreditation (Al Ahli Bank of Iraq, United Investment Bank, Investment Bank, Credit Bank) listed on Iraq Stock Exchange and for the financial period (2020,2019,2018,2017,2016, 2015)

Sixth: Previous Studies: Study (Krait and others) 2018 – entitled 1-

The role of joint auditing in increasing the efficiency of the use of statistical inspection in auditing accounts (field study in the Syrian business environment).

The study aimed to identify the method of joint auditing of financial statements and the stages to be taken to complete the audit process using statistical inspection. The study found that there is a role of joint auditing in reducing the risk of using statistical inspection in auditing. In particular, audit work is divided among joint auditors based on established audit cycles or corporate functions.

2-Study (Mohammed -, 2010) entitled

Use of samples in auditing commercial banks' accounts and difficulties in using them "field study". The study aimed at highlighting the most important statistical concepts relating to the method of sampling and presenting the most important factors influencing the selection and analysis of audit samples in Yemeni commercial banks and the extent to which the auditors of the Republic of Yemen agree to follow the best methods of inspection when checking the elements of the financial statements; And trying to shed light on the most important difficulties facing the auditor when choosing the audit samples and to identify the auditor's awareness of audit risks and reduce the impact of such risks on financial statements using statistical inspection.

3-Study (Djerba) 2008 – entitled:

Problems arising from the use of the statistical sample in the audit process and areas of the External Auditor's contribution to mitigating its impact on the financial statements. Analytical study of the views of external auditors in the Gaza Strip.

This study aimed to clarify the problems arising from the use of the statistical sample in the audit process and the areas of the External Auditor's contribution to mitigating its impact on the financial statements. The study found problems in the application of the statistical sample to the Gaza Strip auditors, namely, how to select the inspection plan suited to the objective of the selection, determining both the size of the community in question and the appropriate sample size, as well as the selection of the sample's vocabulary in a manner that ensures its proper representation of the society from which it was withdrawn, and, finally, the subsequent evaluation of the sample results.

What distinguishes the current study from previous studies.

This study has distinguished itself from previous studies being one of the studies looking for the effectiveness of using the statistical sample method in the audit of bank accounts, while previous studies have addressed (Krait and Others Study, 2018) Recognize the Joint Audit Method of Financial Data and the Stages to be done to complete the audit process using statistical inspection, and other studies (Mohammed Study, 2010) highlighting the most important statistical concepts regarding the method of sampling and presenting the most important factors influencing the selection and analysis of audit samples in Yemen's commercial banks, and

identifying the extent to which auditors in the Republic of Yemen agree to follow the best inspection methods when checking the elements of financial lists, either study (Jabboua, 2008) aimed to clarify the problems arising from the use of the statistical sample in the audit process and the areas of the External Auditor's contribution to mitigating its impact on financial lists, propose ways to improve effectiveness, and determine the feasibility of applying an institutional work system in response to these dynamic variables as necessary to improve the structure of health work in Palestine.

Second Part: Theoretical Aspect

First research - theoretical framework on auditing using statistical sampling method.

1-The concept of statistical samples.

The statistical sample is a partial group of society drawn in a specific scientific manner, because it is difficult to examine each member of the community and is a limited part of a group or population that aims to represent the characteristics and characteristics of this population or group in general. Statistical samples are used in research and statistical studies to obtain information about populations or large groups in an effective and economical manner. The inspection includes a series of processes aimed at building a representative sample of the target research community (Angers, 2006).

2-Definition of statistical sample.

The sample is defined as that comprehensive reflection of the qualities of the community of origin but miniature, and also means a fixed percentage taken from the community of origin, which helps to reach the community of study, while providing a basis for predicting the future of the phenomenon or the problem studied (Qureshi, 2006), defined as a multi-kind and multi-purpose package based on mathematics science and used in various areas of life (Al-Shamrti, Credit, 2005)

3-Types of statistical sample.

Sample types are multiple, spread into two methods, the first, random sample style, and the second, non-random sample method:

Method 1: Random sample.

This method is used if members of the original community are known, in which case random selection is made on the basis that all members of the community have equal chances of choosing without interference from the other party, and of the types of random or probable method:

1-Simple Sample

This type of random sample is selected if the study community is homogeneous, It is either using the draw, so that numbers are determined for all members of the original community of study, Using the random number table, the researcher identifies numbers from the random number table longitudinal or accidental. If the exact number of the sample

is met, he selects the individuals with the same numbers in the original community of study, and after the researcher ends, the individuals are the selected sample (Al-Mir, Qasimi, 2001).

Simple random sample is the probability of choosing any unit = size

Community Size \ Sample pN n

2- Regular Sample

This type of sample is selected if the study community is homogeneous, similar to the simple sample, but the regular sample differs from the simple sample in the steps of its composition. Where the distance between the numbers of the sample personnel is equal.

3-Class Sample.

Selection is made in this type of sample if the study community is heterogeneous; Since it consists of different categories or layers, we find the possibility of choosing any unit by dividing the sample size in the layer by the layer size $h / n h$

cluster sample. 4-

This type of sample is selected if the study community is at the level of a large State. Where it is difficult for him to use the simple sample, regular sample or class sample (Zidane, 2011)

$$p_i = \frac{M_i}{\sum_i^n M_i} * \frac{m}{M_i} = \frac{m}{\sum_i^n M_i}$$

Method 2: Non-random sample.

The sample is unlikely and is used by the researcher if the members of the original community are not known for the study. In this case, the non-random selection is made, by the intervention of the researcher so that he selects individuals and leaves individuals to identify and of this type of method:

1-Chance sample:

The researcher selects the members of this sample by accident, i.e. without previous arrangement with them, and when using the shell selection input, the sample units are selected without any deliberate bias (Lutfi, 2007)

2-Share Sample:

In order to introduce the quota sample, the researcher divides the study community into categories, and then selects a number of individuals from each category commensurate with the size of the class in the study community.

3-Purpose Sample:

The researcher selects the individuals of this sample if he realizes that they are achieving the purposes of his study (Stranger, 2012)

Research - Auditing bank accounts Second

1-The concept of scrutiny.

The American Accounting Association defined auditing as "a systematic and objective process for obtaining and evaluating evidentiary evidence in relation to facts about economic facts and events, in order to verify the degree of conformity between those facts and specific standards, and to communicate the results to users of information interested in such verification (Friday, 2009), includes the modern concept of internal audit as an evaluation and independent activity within the facility and is regarded as an advisory function, in addition to extending its activity to all types of administrative oversight (Jarbu 'a, 2006).

2-Internal audit of banks:

a set of independent systems or aspects of activity within the bank established by the administration To serve them in the continuous realization of operations and restrictions to ensure the accuracy of accounting and statistical data and to ensure that the value of precautions taken to protect the Bank's assets and property is adequate; In ensuring that bank employees follow the policies, plans and administrative procedures established for them and in measuring the viability of such policies, plans and all other means of control in the performance of their purposes and proposing improvements to be made to them, so that the project reaches maximum productivity.

Internal auditing is one of the fundamental pillars on which the Bank's various regulatory regulations are based.

It aims to ascertain the accuracy and effectiveness of the regulations and procedures applied in the bank, relying on people with scientific qualification, scientific experience and full independence to present their opinions and prepare various reports to solve them and communicate them directly to the parties concerned.

The emergence of scrutiny and its attainment of this level of development was inevitable, due to the large size and complexity of banks

Its functions have increased branch overlap, which has made it more difficult for bank owners to control its functioning, especially by real and financial flows (Ben Azouz Ali and others, 2013)

3- Internal audit procedures in banks

Changes in the economic and financial environment in recent years have led to new factors affecting the banking sector, such as technology, sharp competition, which affects financial enterprises' returns.

When examining the source of this weakness, it is often apparent that it results from the accumulation of poor control over liabilities and risks, and the disruption of these banks' internal control system. The internal audit procedures of banks can be limited to:

a. Clear definition of internal control objectives

The general objectives are often set by the Bank's public administration, which has the material means to ensure progress

Although each financial institution has its own specificities and objectives, the executive organs do not deviate too much from common general objectives, which give internal control all the necessary means to achieve the following objectives:

Maintaining operations insurance

. Raising the effectiveness and quality of services-

. Ensure that the achievement of the Department's objectives is respected-

(Baghdad Radia, 2012)

b. Use of the procedural manual.

The Procedure Manual is an effective means of controlling and properly executing operations, especially since banks' activity is highly risk-optimized. Individuals and officials must be directed to carry out less risky banking operations, but in practice we encounter two situations:

-There is either no evidence of executive action, as a result of officials' lack of awareness of its usefulness.

-The guide is present but not exploitable, owing to its inappropriateness in situations or the complexity of its users' difficulty in understanding it.

To ensure the effectiveness of the Procedural Manual, it must be characterized by:

. -Clarity and comprehensiveness in its content

. -Be at the disposal of all concerned

. -It is executed tightly

. Review the substance of the Guide on an ongoing basis-

c. Segregation of posts

One of the characteristics of internal control is to ensure the separation of heterogeneous functions and functions, in other words the separation of both:

-Certification and authorization functions, often carried out by certain persons of the public administration.

-Execution tasks for banking operations, accounting, treasury and others.

-The tasks of monitoring and auditing all processes and procedures, since the latter are multiple, it cannot be ensured that they are constantly examined, so the best means of control remains self-monitoring.

d. Objectivity in accounts:

The objective of the accounts is necessary for banking transactions. Therefore, banks record a very large number of account numbers, through which all financial and accounting transactions are carried out. Therefore, it is necessary to have a system that shows and explains the reality of these accounts, in such a way that the bank avoids the risks we often find in banking establishments.

e- Effective internal audit:

Internal control ensures that operations are carried out properly conforms to the bank's internal procedures system ", it considers the first level of surveillance to be integrated into the prevailing system, It guarantees their application, but the banking profession carries many risks that must be controlled, By identifying the most risk-prone processes such as account

registration guarantees, loans and others, so banks need a second level of oversight that is internal audit that verifies the integrity of implementation, Verification is the control control, so as to validate the authenticity and credibility of the information used in banks, It also ensures the application of the Department's general rules and policies and seeks to achieve effectiveness, which is a very important element in banks' work, since the risks of ineffectiveness may lead to total paralysis of the system.

f- Efficiency of the Information and Performance Control System:

Performance monitoring is defined as a set of techniques and systems designed to constantly assess and improve results achieved, which gives internal control dual assurance by:

1- Assessment of results:

Which allows the bank to know its situation through a registration information system, and through this The system detects internal control errors and deviations and the source of the differences recorded for estimated budgets.

2-Improved outcomes:

The system must ensure banks the means to constantly search for the greatest possible effectiveness improved returns and rapid detection of registration errors and adaptation to the ocean and its changes.

Based on this, over time scrutiny has shifted from an assessment revealing errors to a process of estimating and predicting such errors, especially in banks' dealings with new systems or equipment for exploitation, which often require special control procedures to avoid poor control of the system. (Jabboua, 2008)

Third Research- Effectiveness of auditing using the statistical sample method and its role in reducing the impact of risk on bank accounts' financial statements.

1-Sampling concept.

Statistical samples are a technique currently used by observers when performing oversight functions, namely when assigned to oversight functions that include a wide variety of data, as the use of statistical samples contributes significantly to shortening time and effort, and reducing cost. At the same time maintaining accuracy and objectivity in drawing the final results of oversight work, and accordingly, the use of statistical sampling method has an important role to play in facilitating the work of supreme oversight agencies in auditing bank accounts.

2-Areas of use of statistical samples in the audit of bank accounts.

It is professionally accepted that the auditor does not thoroughly examine all operations recorded in the facility's books but examines a sample of those operations. Most audit tests are conducted on the basis of samples, where the auditor arrives at conclusions on the validity of the operations recorded in Bedford Establishment and its account balances

by examining a sample. In general, it can be said that the inspection methods used in the audit are when performing two types of tests:

A-Inspection and evaluation of internal control systems:

When applying this method to tests of compliance with the control procedures, the reviewer usually tries to determine the operational effectiveness of the control procedure, depicting deviations from the established internal control policies and procedures.

B-Audit of the validity of operations and balances:

Detailed verification tests, where preview of variables is used in it, Where detailed verification tests are carried out to estimate the total value of a particular item, or the financial value of the errors likely to be contained in this item, That is, the work here is based on numerical values in order to verify that the items of financial lists are free from significant errors that have a general effect that can be used when examining internal control systems or verification. From the validity of the balances and operations one of the input of the inspection is the statistical inspection or non-statistical inspection (Al-Rufai, 2017)

Areas of use of statistical samples in the audit of bank accounts



(Al-Rufai, 2017) Source

3-What are the risks in bank accounts

Banks face many risks that may be caused by the bank's own activities and the environment in which it operates Therefore, these risks must be dealt with by an appropriate mechanism, in order to achieve this, banks must adopt comprehensive risk management and reporting fees. ", including proper oversight by the Board of Directors and Senior Management in order to identify, measure and monitor all relevant risks. In order to give a clear picture of the risk management process in banks, internal auditing is a kind of control procedure through which the efficiency and adequacy of all procedures within the bank are examined and evaluated and therefore viewed by some as the focus of the oversight structure, which is responsible for verifying the ability of the rest of the control tools to physically protect access, ensure the integrity of financial statements, promote adherence to management policies and enhance operational efficiency, This contributes to operationalizing risk management and evaluating the effectiveness of the internal control system in addressing and reducing all risks to the bank. (Village, 2004), and the Institute of American Internal Auditors defines risk as "A concept used to measure uncertainties in operations which affects an organization's ability to achieve its objectives, and

can have a positive impact, calling it opportunities risk or threat ", and risk-prone assets are classified into financial assets such as cash material assets such as buildings, human resources such as workers and managers, and intangible assets such as information and policies " Defined as the bank's risk of unexpected and unplanned losses or fluctuating return expected from a particular investment (Satisfied, 2012)

4-Types of risks

Banks are exposed to several risks arising from the nature of the activity, on the one hand, and from developments in commercial banks' operating mechanisms and the diversity of banking services provided to customers, which can be summarized below:

A-Credit Risk:

The unwillingness or unwillingness of the Party involved to fulfil its obligations and these risks are associated with so-called State risks. Credit risks include items within the budget such as loans, bonds and budget items such as letters of guarantee or secured appropriations.

B- Market Risk:

Market risk is known as risk of exposure to losses resulting from market factors and includes risk The following :

Interest rate risk. 1-

These risks are the result of a change in interest rates up and down depending on each bank's position.

To the liquidity available to it, for example: there is a risk that the bank will suffer a loss when providing surplus liquidity in the event of a fall in the interest rate. When liquidity is scarce, the bank will have to meet the satisfaction of the bank market, which is likely to suffer a loss in the event of a rise in the interest rate.

2-Pricing risks:

arising out of the avoidance of asset prices, in particular the invoice portfolio, as well as factors Internal and external effects on pricing risks such as economic conditions. (Al-Azawi, others, 2010)

3- Exchange rate risk:

Is the risk of fluctuating FX/FX prices against the national currency in case of consumption

Bank of foreign currency denominated assets This is especially because foreign exchange markets have been experiencing sharp volatility lately, Exchange rate risks arise from the existence of an open position in foreign currencies, both for each currency and for the total currency position, and from unfavourable movements in exchange rates. Open position includes spot and forward transactions in their various forms, which fall under the name of derivatives. (Abdullah, 2006)

C- Liquidity risk:

These risks are often caused by the bank's inability to attract new deposits from customers or by The Bank's weak management of assets and liabilities. The bank resorts to bank markets whenever it lends to its customers, in order to be able to fulfil its commitments to fulfil loan requests from the

bank's customers. The less the bank borrows from financial markets, the less it can maintain a good profit margin on its loans. (Banking, 2012)

D- Operating risks :

Losses resulting from non-adjustment A and from weak procedures, and salute losses are attributable to workers' inadequacy, revelation and infringement of internal regulations, or those resulting from external events. In the content of the European Directive on the Adequacy of the Bank's Own Funds, the definition of operational risks also includes legal risks with the exception of strategy and reputation risks, and the Basel Committee excludes in its definition of this category only strategic risks

:E- Business risks, include

1-Legal Risks:

Legal risks arise as a result of unexpected liabilities, or an asset's value as a result

lack of proper legal opinion. Or the adequacy of documents confirming the bank's ownership of that asset, foremost among which are the laws imposed by central banks, relating to liquidity ratios, statutory reserves, permissible credit ratios and controls limiting geographical expansion (Khazal, 2012)

:2-Strategic risks

are those current or future risks that can have an impact on the Bank's revenue and capital

As a result of making the wrong decision or the wrong implementation of the decision and the inadequate response to the changes in the sector banking.

:3-Transaction risk

As much as we hear about the US dollar moving up or down in the financial markets Against German Mark or sterling, for example, the bank must have the ability to protect its funds and those of its clients against these fluctuations, whether up or down (Saad, Sarah, 2020).

PART THREE: PRACTICAL SIDE

First: Coding and characterization of study variables

First: -Prime sample size

Determining sample size in the cash unit preview requires knowing five factors or determinants

1-Preliminary judgement on relative importance:-

The first judgement on relative importance is the basis for determining the amount of acceptable distortion used in determining the size of the sample. The method of statistical inspection of the cash units does not require the allocation of the first judgement on relative importance in order to achieve acceptable misrepresentation. The first judgment on the relative importance of the financial statements as a whole is seen as acceptable misrepresentation in all applications. Since the Accounting and Auditing Standards did not provide any formal professional guidance on quantifying relative importance, the guidance used by some major international auditing offices will be relied upon in practice. These include:-

- a. 5% to 10% of net profit before tax if it is large and 10% applies if it is small.
- b. From 0.5% to 1% of total assets.

1% of owners' rights

From 0.5% to 1% of total revenue.

- c. Variable percentage, depending on whether total assets or revenues are greater

Since debt calculation is a budget calculation, 0.5% of total assets will be relied upon as an initial judgement of relative importance.

Table 1. Bank Capital Sample Study

Credit Bank	Investment Bank	United Investment Bank	National Bank of Iraq	Year
301809851	279554000	321716551	263708128	2015
306898511	283082677	301703155	267139192	2016
315456738	283083000	297437697	267513283	2017
313498305	283102000	303730081	268424123	2018
297126650	260626000	303471678	269467762	2019
293699445	265274450	303817559	262925705	2020
304748250	275787021.2	305312786.8	266529698.8	Total

The results of table (1) indicate the following:

The total capital held by the Al-Ahli Iraqi Bank (IQD 266529698.8) is therefore the following:

$$266529698.8 * 0.5 = 133264849.4 \text{ IQD}$$

2-The total capital held by the United Investment Bank (IQD 305312786.8) is as follows:

$$305312786.8 * 0.5 = 152656393.4 \text{ IQD}$$

3-The total capital held by the Investment Bank (IQD 275787021.2) is IQD and the inflow account is thus as follows:

$$275787021.2 * 0.5 = 137893510.6 \text{ IQD}$$

4-The total capital held by the Credit Bank amounted to IQD 304748250 and the inflow account is thus as follows:

$$304748250 * 0.5 = \text{IQD } 152374125$$

2-Assumption of percentage of average misrepresentation in society's vocabulary

These assumptions relate to community groups that contain misrepresentations and since depositors' accounts are usually more vulnerable to inequality than to exaggeration, it is desirable to assume an amount equal to 100% to misrepresentation and 50% to misrepresentation.

. 3-Society's book value

Table 2 presents the society's book value recorded in bank books.

Table 2. Inventory Value of Banks Sample Study

Credit Bank	Investment Bank	United Investment Bank	National Bank of Iraq	Year
1.042	1.042	1.042	0.042	2015
1.151	0.151	0.151	1.151	2016
1.143	0.143	0.143	1.143	2017
1.352	1.352	1.352	1.352	2018
1.24	1.24	1.24	1.24	2019
1.001	0.001	1.001	1.001	2020
1.155	0.655	0.822	0.988	Total

Among the results of table (2), we conclude that:

a-The inventory value of the Iraqi National Bank was $7393645026 * 0.988 = 7306153560$

b-The United Investment Bank's book value was $7272443016 * 0.822 = 5974311938$

c-The Investment Bank's book value was $7548956196 * 0.655 = 4943308149$

d-The Credit Bank's book value was $7526687699 * 1.155 = 8692069844$

4-Select the preview using statistical equation

$$n = \frac{BV}{[TM - (EM \times EF)] / RF}$$

Where:-

n = Sample size

BV = Book Value

TM = Acceptable misrepresentation

EM = Estimated Misrepresentation

EF = Expansion Factor

RF = Reliability Factor

From the application of the equation we conclude the following:-

a-The sample size of the Iraqi National Bank (164) was a cash unit selected from the bank to perform the audit tests

b-The sample size of the United Investment Bank (134) was a cash unit selected from the bank to perform the audit tests

c-The sample size of the investment bank (111) was a cash unit selected from the bank to perform the audit tests

d-The sample size of the Credit Bank (195) is a cash unit selected from the Bank to perform the audit tests.

The number of shares of Al-Ahli Bank of Iraq

$$2- EM = 0, EF = 1.6, RF = 3$$

5-Sample size determination using adjective preview tables

The sample size can be determined using the previous data as follows:

1-National Bank of Iraq

Acceptable top misrepresentation 152656393.4 IQD

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Minimum acceptable misrepresentation of IQD 152656393.4.

The average percentage assumption of distortion is 50%.

The average percentage assumption of misrepresentation is 100%.

Acceptable risk rate for incorrect acceptance 5%.

Bank's book value IQD 7393645026.

Estimated bank misrepresentation .

Table 3. shows this.

Al-Jedu (3) Sample Size Determination Using the Qualities Preview Tables of the Iraqi National Bank

Minimum	The upper limit	Statement
152656393.4	152656393.4	Acceptable misrepresentation
100%	50%	÷ average assumption of misrepresentation
15265639304	76328196.7	=
7393645026	7393645026	Book Value ÷
0.021	0.010	= Acceptable exception rate
0	0	Estimated exception rate
99	49	Sample size according to qualitative inspection table according to the bank's estimated exception rate (0)

The sample size is determined by 99 singles because it is the largest of the two sizes calculated on the one hand and because one sample will be selected both for overstatement and unjust misrepresentation. Compared to the sample size calculated using statistical equation $164 = n$, the sample size using adjective preview tables is larger, so the sample size will be determined by 99 singles. Thus, all the study sample banks will follow the same sample size

Sample selection and auditing of bank accounts -:Second Account balances represent logical liabilities for which audit tests will be performed. For the purposes of these tests, the bank's vocabulary must be determined between 1 and 6 years. Table (4) shows the society of the bank's debt accounts from 2015 to 2020.

Table 4. Civil Bank Liability Account

Cumulative	Liabilities	Year
175605735	175605735	2015
391892584	216286849	2016
636335817	244443233	2017

816668944	180333127	2018
1002084058	185415114	2019
1257291661	255207603	2020
1257291661		Total

Thus the selection of sample vocabulary is selected based on the regular preview method, this method of selection is referred to as the probability proportionate to the size. The selection of sample on this basis gives each individual dinar in the society an equal opportunity to choose with the division of society into a group of equal dinars, representing each total inspection interval (K). The preview interval (K) is selected as follows:

$$k \frac{N}{n}$$

By application we hav:

$$k \frac{1257291661}{99} = 12699915.77$$

(12699915.77) inspection spacer is selected1

Table 5. Sample vocabulary

Extent of logical surveillance numbers	random number ¹
From 0.1 to 52095	52095
12752010.77 to 12804105.77	12752010.77

LABORDE,1975,Tables statistiques et financières », 2ème édition, p. 114 Random number based on

Detailed tests of the balances are performed on the logical units and then the test results are applied to the random dinar contained in the logical unit. In the case of misrepresentations, they are accounted for and determined whether they are overvalued or reduced.

PART FOUR: CONCLUSIONS AND RECOMMENDATIONS

First: Conclusions

- 1-The statistical inspection method allows auditors to make conclusions about the whole set of transactions or accounts based on a smaller and manageable subset, This method is particularly useful in the context of auditing bank accounts, where the volume of transactions can be very large and examining each transaction individually is impractical.

2-Auditors can significantly reduce the amount of time and resources required for the audit process. This is critical in the field of banking, where millions of transactions may occur and cannot be audited individually.

3-The statistical preview method reduces the cost of auditing, and since only part of the transactions are audited, the overall expenditure on the audit process is minimized without significantly compromising the quality of the audit.

- 4-Using a statistical sample method to audit bank accounts reduces the impact of risk on financial statements.
- 5-The statistical inspection method provides a framework for selecting transactions in an impartial manner, which can help in obtaining objective and reliable results. Where the auditor inadvertently selects samples based on personal judgment, the statistical inspection method is based on mathematical principles to ensure randomness and representation.
- 6-The statistical inspection method assesses the overall error in society based on the errors in the sample.
- 7- This can provide valuable insights into the accuracy of financial records and help auditors assess the relative importance of errors.
- 8--The accuracy of the results depends heavily on the sample design "If the sample does not represent the entire population, the conclusions drawn may not be accurate.
- 9-Auditors can draw high-quality conclusions about financial statements and underlying transactions with a specific level of confidence.

Second: Recommendations

- 1-Auditors should exercise caution in interpreting the results and consider the impact of any possible errors on the audit's public opinion.
- 2-Auditors must overcome the constraints and challenges associated with sampling to ensure the reliability and relevance of their findings, through proper planning, implementation and interpretation of statistical inspection results is critical to take advantage of the benefits of the statistical inspection method in the audit process.
- 3-Auditors should have a deep understanding of statistical principles and the nature of the transactions being audited.
- 4-The auditors should analyze the errors in the sample and classify them to understand their nature and impact.
- 5-Auditors also need to consider potential constraints and ensure that the sample represents society, that the statistical inspection method is appropriate for audit objectives, and that the results are properly analysed and interpreted.
- 6-Audit objectives need to be clearly defined, which can be tantamount to verifying the existence of bank balances, the completeness of registered transactions, or the accuracy of transactions during a period.

REFERENCES

1. Angers, Morris "Methodology for scientific research in humanities", Saharawi translation et al. 2006. i 2, Algeria, Kasbah Publishing House.
2. Mr. Ahmed Lutfi's Secretary, Audit and Assurance Services, University House, Alexandria, 1, 2008.
3. Ben Azouz Ben Ali and others, Risk Management, Derivatives, Financial Engineering, Writer's Publishing House Distribution, Amman, 2013
4. Jarbu 'a, Yusuf, 2006 ", Areas of Contribution of Internal Audit Function to the Financial and Administrative Management of the Islamic University of Gaza in the State of Palestine", Research and Studies for the Development of the Audit Profession to Address Contemporary Problems, Group III.
5. Juma, Ahmad Hilmi, 2009, ", The entrance to the audit and confirmation, Al-Safam Publishing and Distribution House, i 4, Amman.
6. Khaled Al-Mair, Idris Qasimi, 2001, ", Educational research curricula Educational composition series" Issue 16, New Success Press, 1, Casablanca, Morocco.
7. Khaled Amin Abdullah, "Local and International Banking Department", Wa 'el Publishing House, Amman, 2006.
8. El Rufai Ibrahim El Rufai Mubarak, Audit Lectures, Alexandria University, 2017.
9. Abdelkarim Ghraib, 2012, "Scientific research curriculum in the sciences of education and humanities, publications of the world of education, new success press, 1, Casablanca, Morocco.
10. Krait, Essam and others, "The Role of Joint Auditing in Increasing the Efficiency of Statistical Inspection Use in Auditing (Field Study in the Syrian Business Environment)", Journal of the University of Tishrin Research and Scientific Studies, Series of Economics and Law, Volume (40) Issue (1), 2018.
11. Salman Zeidan, ", Scientific Research Curriculum, Dar Ibn Hazam, 1, Beirut, Lebanon, 2011.
12. Al-Shamarti, Hamid and Fascination, Supporter, "Statistical Methods in Decision Making" Magdulai Publishing House Distribution, First Edition, Jordan, Amman, 2005.
13. Qureshi, Abdelkarim "Lectures in the methodology of scientific research presented to the students of Master's Education," Department of Psychology and Education Sciences, University of Quedi Marbah and Raghla, Algeria, , 2006.
14. Mohammed, Afaf Farhan Abdu, "Use samples in auditing accounts of commercial banks and difficulties in using them" Field Study, "Master's thesis, University of Aden, Faculty of Administrative Sciences, 2010.
15. Jarbu 'a, Yusuf Mahmood, "Problems arising from the use of the statistical sample in the audit process and areas of the External Auditor's contribution to mitigating its impact on financial statements", Rafidain Development Journal, vol., 30 issue, 91 of Iraq, 2008.
16. Baghdad Radia, "The Role of Internal Audit in Activating Banking Risk Management, International Forum on: Managing Financial Risks and Their Implications for the Economics of the World", Faculty of Economics, Commerce and

Management Sciences, University of Boueira, Algeria, 2012.

17. Al-Azawi, Mohammed Abdulwahab and others, "Financial crises, enrichment for publication and distribution, first edition, Jordan, 2010.
18. Nidal Khazal, Impact of Operational Risks in Electronic Banking in Light of Basel Principles 2, Journal of Accounting and Financial Studies, Institute of Technical Management, Baghdad, No. 20, 2012.
19. Gamar, Sa 'ud, Zagdudi, Sarah, "Internal audit role in banking risk management - Field study in a group of banking agencies in the state of Būreg Tower and Setif CPA- BEA- BADR" Mission of Magstervay Economics, Mohammed Bashir University, 2020.
20. Mohammed Abdel Fattah Al-Masirfi, Banking Department, Al-Manasah Publishing and Distribution House, Amman, 2012.
21. Jean Yves saulquin , "Gestion des ressources humaines et performance des services : les cas des etabliss- ements socio-sanitaire",Revue de gestion des Ressource Humaines n °36, Editions Eska -, Paris , Juin 2000, p20.
22. Parmenter,D., " Performance Measurement", Financial Management , London , Feb 2007
23. Hoque. Z, & James.W., "Linking Balanced Scorecard Measures to Size and Market Factors : Impact on Organizational Performance", Journal of Management Accounting Review , Vol.12,USA, 2000.