



## The Possibility of Applying Agile Internal Auditing in the Iraqi Economic Units

**Hind Halim Mohamed Amin**

Baghdad University/ College of  
Administration and Economics/ Department  
of Accounting. Baghdad, Iraq

[hind.haleem1206a@coadec.uobaghdad.edu.iq](mailto:hind.haleem1206a@coadec.uobaghdad.edu.iq)

**Suad Adnan Noman Al-Shammari**

Baghdad University/ College of  
Administration and Economics /  
Department of Accounting.  
Baghdad, Iraq

[suad.a@coadec.uobaghdad.edu.iq](mailto:suad.a@coadec.uobaghdad.edu.iq)

Received: 1/3/2023

Accepted: 20/3/2023

Published: March / 2023



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International \(CC BY-NC 4.0\)](https://creativecommons.org/licenses/by-nc/4.0/)

### Abstract

The research problem is that the traditional methods of internal auditing are somewhat heavy with long and rigid procedures for the members of the audit process team, especially in light of the current developments that are reflected in the business environment and internal audit reports, so it is necessary to reconsider the traditional internal audit work method and assess the extent of its development by agile methods to reduce the time of the audit process on the activities and elements that add value and direct the effort and time to the activities and elements that add value to the work of the economic unit and the report of the internal auditor.

The research aims to study the possibility of applying agile internal auditing in the Iraqi economic units and to achieve the goal of the research. The researchers made a checklist to test the research hypothesis, which states (there are no applications of lean internal auditing methods in the local environment). For (6) private banks listed in the Iraq Stock Exchange, which number (69) banks, after reviewing the periodic reports prepared by the Central Bank of Iraq.

The researchers concluded that the most banks of the research sample applied to the graceful internal audit in the Iraqi economic units is the Ashur Bank, as it obtained the highest arithmetic mean it reached (2.55) and the highest relative importance as it amounted to (85.0%) and the second place the Iraqi Investment Bank got the arithmetic mean (2.48) and importance Relative (82.7%). In third place, the Khaleej Commercial Bank got an arithmetic mean (2.39) and relative importance (79.7%). In fourth place, the Trans-Iraq Bank got an arithmetic mean (2.28) and relative importance (76%). In fifth place, the Iraqi Islamic Bank got on the arithmetic mean (2.24) and relative importance (74.7%).

**Paper type:** Research Paper

**Keywords** Agile auditing, Agile internal auditing, economic units

## 1. Introduction

In light of recent developments, rapid change and increased competition in the business environment, Agile internal audit is of great interest to the economic units listed in the Iraq Stock Exchange. Economic units need to improve their operations, increasing the value of their business, increasing the efficiency and effectiveness of the work of the internal audit team, and streamlining the long routine procedures of the internal audit plan. Therefore, the need arose to use more flexible methods and tools in the internal audit work. This way guarantees reducing the waste of time and effort of the internal audit team, continuous improvement, and the preparation of periodic reports regularly accumulated what enhances the alignment of development and the needs of stakeholders and customers. The new name for these methods is agile internal auditing. In order to achieve the goal of the research, a research sample consisting of six private banks listed in the Iraq Stock Exchange was selected.

### 1.1 previous studies

Richard (2018) studied agility in auditing through interviews, opinion polls, and a questionnaire. The study reached results, the most prominent of which is that the audit team can use a new model that focuses on internal audit tasks in an iterative and more effective manner and in response to changing circumstances.

Beerbaum (2020) Studied the application of agile auditing and identifying the main characteristics of agile thinking and the practical procedures associated with the implementation of an agile methodology for regulating compliance with economic units.

PL Joshi (2021) Studied a retrospective and future review of agile internal auditing. This study focused more on the agile methodology as applied by internal auditors to provide quick information. Through interviews and a survey, the most prominent results of this study were that the transition from traditional auditing to agile auditing led to a change in the way internal auditing works and make the completion of audit work more transparent and efficient.

Wihelm (2021) Studied agile internal audit and the statement of knowledge about the factors that affect how to implement and cancel the work procedures of agile internal audit. Through opinion polls and questionnaire, the study reached the most prominent results, including that the flexible mentality of the members of the audit team and the innovative motivation remains constant, which leads to more flexibility in generating hypotheses based on Cross-case analyses.

Acharya (2021) Studied agile auditing to increase efficiency, as this study presents a comprehensive concept of agile auditing and two widely used methods in its framework are Scrum and Kanban.

Majeed (2022) Studied agile auditing in supporting the integration of governance, risk, and compliance in a sample of companies listed in the Iraq Stock Exchange, as the study focuses on the positive response that the agile approach performs in all fields, especially industrial ones, Through the checklist and questionnaire, the study reached results, including that the approach agile works to deliver the benefit of internal audit, behavioral support, and leadership.

## 2. Material and Methods

### 2.1 Agile internal audit

#### 2.1.1 concept

Economic units are constantly looking for ways to find a sustainable competitive advantage for their activities and develop audit programs. The best way to implement large and complex software-development processes is by using agile development methods that tend to reduce risks by striving to provide customers and stakeholders with useful applications. These risks are managed according to specific guidelines, i.e. Identifying them first and analyzing the extent of their danger second to deal with them according to their priorities (Alshathry and others, 2020: 1151-1152).

### 2.1.2 definition

Hohan (2018) defines agile internal audit means the most flexible and responsive approach to changes. The most important aspect is stakeholder participation and an increased focus on communication and transparency with the aim of completing testing, identifying problems, and agreeing to draft a draft within each sprint (Hogan, 2018: 3). Frost (2018) defines agile internal auditing as a method based on iterative and multi-functional development, all of which focus on providing business value and continuous improvement, as requirements and solutions evolve through cooperation between self-organizing teams (Frost, 2018: 4-5).

### 2.1.3 The importance of lean internal auditing in economic units

Its importance lies in the size of the benefits arising from its use. It increases the degree of efficiency of the audit process by focusing on the elements that have been identified collaboratively as a priority, testing the quality of audit programs, rapid response to the changing business environment, controlling the design, implementation, follow-up of these programs, and rearranging each process. Repeatedly after completing its audit, it reduces the time period for it instead of waiting until the end of the process. This in turn may enable the team to address problems immediately when they arise and develop new plans and goals in line with environmental changes such as working remotely in light of the spread of the (COVID-19) pandemic. In addition to its importance within the audit departments themselves, it is reflected positively among the team members through cooperation, communication, directing their focus towards exploiting opportunities and generating new ideas, rather than obliging them to document work only; appropriateness and harmony in the ideas generated and the operations performed. This guarantees saving time in the short-term and reducing waste of resources. Reducing costs within the audit departments in the medium term and more enjoyable and productive auditing in the long term enhance the added value of the process Audit (Deloit, 2020: 2-4).

### 2.1.4 The benefits of lean internal auditing

Bibi (2020) believes that the application of lean internal auditing in economic units helps to provide a high-quality view of business, respond to business change, a faster delivery cycle for the internal audit process, clearer results, and thus achieving customer and stakeholder satisfaction (Bibi, 2020: 3). The benefits of lean internal auditing are (Dhg, 2020: 2) as follows:

- 1- The ability to focus the internal audit process during periods of turbulence on activities and elements that add value and priority risks, as frequent meetings allow the team during short periods to quickly respond to such risks, turmoil, and crises and provide the best results.
- 2- Self-organization and empowerment through the development of cross-functional teams with the horizontal representation of the various functional areas of operations, finance, information technology, and compliance. allow for continuous learning of the team as well as maintaining workflow and making better decisions.
- 3- It provides communication and transparency by increasing the participation of stakeholders throughout the entire audit cycle. An agreement is drawn up before starting work with the main stakeholders from the economic unit to enhance this participation through early and continuous delivery, as well as continuing the work effectively with the least amount of delay.
- 4- Currently, the adaptation required to maintain daily operations may be difficult for economic units that did not previously adopt creativity and innovation, such as remote auditing, especially in light of the challenge of COVID-19, and the uncertainty of how long this matter will last leads to concern. However, the culture of lean internal auditing creates a safe environment for team members to take risks by trying new ways to work remotely and adapting to these challenges, as well as focusing on the process, which allows continuous development and improvement through meaningful discussions.

### 2.1.5 Lean internal audit functions

Lean internal audit refers to a change of mentality instead of promising a radical change of internal audit functions for economic units that have not yet realized the rapid transformation of business operations and have not changed their organizational structures in this direction. This change occurs because the basis of lean internal audit is the flexibility that highlights a series of methods aim to eliminate deficiencies, focus on real work, compliance with business strategies. In addition, these methods aim to provide a provision of risk-based assurance because they are insightful and proactive to encourage the development of units and show competence, which is one of the most important principles confirmed by the Institute of Internal Auditors (Baloglu, 2019: 45). Anything does not contribute to adding value to internal auditing. The agile methods of internal auditing are flexible and have the ability to change and even dispense with such things completely, that is, focus heavily on showing the added value to stakeholders, and its goal is to reduce the time it takes for audits and provide the best results, and efficiency and effectiveness work side by side (Chartered Institute of Internal Auditors, 2020: 2). The most important functions of lean internal audit (Mack and others, 2017: 20) are as follows:

- 1- Prepare for the planning process that looks forward to the future and identifies emerging disturbances and related business and needs through exchanging knowledge inside and outside the economic unit, as they work with other lines of defense in a unified and integrated manner and make decisions that are mutually supported by others in the economic unit.
- 2- Investing and raising the level of commercial and technical intelligence by controlling business strategies, risks, and the broader economic and competitive landscape, as they have the sufficient commercial acumen to identify and analyze the impact of disruptive changes and search for practitioners with experience in the industry.
- 3- Excellence in flexible operations through the development of the audit plan (planning, fieldwork, internal auditing, and reporting) as well as directing resources on a routine basis to help the economic unit manage and arrange them according to the need of the economic unit.

Osinubi (2017) added other functions of lean internal auditing represented (Osinubi, 2017: 1) as follows:

- 4- Cooperate and participate in a coherent manner with the risk-management function, and it is not related to coordination, scheduling, or continuity, but also participates in the results that are reached, which leads to a more comprehensive view.
- 5- Investing in continuous education and acquiring knowledge in data analytics, that is, there must be a talent and desire to learn in a timely manner, when taken into account in the procedures and steps that start from training on the basics of the internal audit process to anticipating the needs of stakeholders.

### 2.1.6 Characteristics of Agile Internal Auditing

Panday (2019) refers that the most important feature is the implementation of distinct planning and prioritization in iterative cycles through the audit team meetings, and thus the speed of decision-making as well as the close relationship with customers and stakeholders who contribute to the evaluation of feedback (Panday, 2019: 9). Its most important characteristics (PL Joshi, 2021: 15-16) are as follows:

- 1- Its focus is on cooperation between the audit team, customers, and stakeholders, which includes keeping the economic unit on the right track.
- 2- Customers and stakeholders participate directly in the internal audit process, as they notice the continuous development, and thus a high level of transparency.
- 3- It enhances the communication process by embracing the latest face-to-face communication technologies.
- 4- It can shorten the time between planning the operation and delivering the report.
- 5- It develops the report appropriately through flexibility in accepting changes in operations.
- 6- It provides of the report within a short period and at a high value.

7- Holding meetings within the team is considered one of its most important characteristics. Through these meetings, it evaluates whether the implementations of the process and performance are proceeding according to planning, and any bottlenecks that the team may face.

8- A multifunctional team through different job experiences that share to achieve the goal, that is, each member of the team plays multiple roles, thus providing continuous support.

9- Its integration with other risk and compliance applications helps in adding value to the traditional internal audit and control system within the economic unit.

10- In general, changing the mentality of thinking, is considered one of the factors for the successful implementation of the lean internal audit system, focusing on the needs of stakeholders and reducing waste, as well as improving audit cycles.

### 2.1.7 Steps of both traditional internal audit and lean internal auditing

The following table shows the steps of both traditional internal auditing and lean internal auditing:

**Table (1) shows the steps of both traditional internal auditing and lean internal auditing**

No	traditional internal audit	Agile internal audit
1	Preparing a comprehensive audit program as well as a special program for each audit task in itself, as it is prepared in the first year and updated annually according to new requirements and data.	It develops a list that can be constantly updated according to the developments of the processes and elements to be audited. This list is called the Audit Backlog, and its elements are usually ambiguous at first in terms of the timing required for completion or the targeted results. However, this ambiguity is gradually removed when frequent meetings are held among members of the audit team, management, and stakeholders.
2	Preceding the first step in preparing the audit program is the initial field survey. Thus, the program is considered (preliminary or experimental), as it is subject to modification during the audit process and according to the necessary requirements.	The results of the meetings can be used to improve the details of the list of unfinished (accumulated) operations, so that some elements will move to the top of the list and have priority in the audit process, according to the degree of importance and risks associated with the element. The program is not allowed to be experimental, but matters are discussed and dealt with immediately.
3	Obtaining the approval from the audit manager or supervisor to make program modifications, and they must be very important and written in the form of notes with a statement of the positive reasons, so these notes are part of the audit file and audit papers.	It obtains an allocation of financial and human resources based on the elements of highest and least value and defining these elements that are characterized by the definition of Ready for implementation. When starting to audit them, the time range is divided into short and specific periods called sprints.
4	Using the same modified programs on a new audit process only in the case of the same objectives and controls, as these programs are prepared for several years and are rarely updated.	It is necessary to set a goal for each race and a date for its completion, and it must be appropriate and not cause any pressure on the agile audit team, as these races take one to two weeks to sprint.
5	Informing and discussing with the internal audit team the plan and program of the process to be implemented, as it is	Interactive sessions among members of the internal audit team, stakeholders and presentations review the tests used, the

	<p>considered essential and includes several procedures, as follows:</p> <ol style="list-style-type: none"> <li>1- Risk assessment is a very important procedure to determine the final scope of the risk-based audit process.</li> <li>2- It conducts direct interviews with the entities subject to the audit process and inquiring about the elements and activities under suspicion and concern in order to include them within the scope of the process.</li> <li>3- Determine the requirements for compliance and regulatory compliance with laws.</li> </ol>	<p>results of the process, and any notes about the workflow. In addition, they determined which elements have been completed and have met the conditions for definition of done. Therefore, these sessions help to determine the value of the report that will be delivered in each race.</p>
6	<p>The traditional internal audit team must have sufficient information to determine and choose the procedures and steps as well as the audit strategy. This step includes:</p> <ol style="list-style-type: none"> <li>A- Determine the standards and policies to be followed.</li> <li>B- Determine compliance requirements.</li> <li>C - Determine the methods necessary to carry out the evaluation of the audit process.</li> </ol>	<p>Preparing interim progress reports (progressive product) at the end of each race. Accordingly, the management of the audit team decides in agreement with the stakeholders, whether there is a need for greater assurance or accuracy and high quality and continuation of the work or being satisfied with the results and ending the race. In other words, if what is required is to verify of a good level of assurance and this level has been reached after the first race, so the team can issue a summary report accordingly and move on to check the next item in the audit backlog list. In contrast, if it reveals the need to go deeper into this level, the agile audit team must explain this to the stakeholders and move forward with that, and this ensures continuous improvement on the course of the race and the scope of the audit as a whole.</p>

Source: prepared by the researchers.

### 3. Discussion of Results

This topic deals with a presentation of the results that have been reached. They form the basis for proving or denying the research hypothesis, which states (there are no applications of lean internal auditing methods in the local environment of the banks from the research sample), as a checklist was used consisting of (30) lists distributed to banks research sample. The list was analysed using statistical indicators for measuring the reality of the application of lean internal auditing in banks, the research sample.

#### 3.1 Checklist analysis:

Private banks were chosen as a community for the research, which consisted of (69) banks listed in the Iraq Stock Exchange, and (6) banks were selected as a sample for the research, represented by (Trans-Iraq Bank, Ashur Bank, Khaleeji Commercial Bank, Iraqi Investment Bank, Mansour Investment Bank, Bank Iraqi Islamic Investment and Development).

For the purpose of measuring the level of application of the lean internal audit work method, a checklist was prepared, which included a set of questions addressed to workers in the audit and internal control departments of the banks of the research sample, and their numbers are shown in the following table:

**Table (2) shows the distribution of checklists among the banks of the research sample**

Bank name	Bank across Iraq	Ashur Bank	Gulf Commercial Bank	Iraqi Investment Bank	Mansour Investment Bank	Iraqi Islamic Bank for Investment and Development	total
No	4	5	5	3	3	10	30

The table is from the work of the two researchers.

### 3.2 Descriptive Statistics:

To find out the sample's answers about the paragraphs of the checklist, the study will use ratios, frequencies, weighted arithmetic mean, and standard deviations. To find out the direction of the answers, we will compare the arithmetic mean with the hypothetical mean. The arithmetic is smaller than the value of the hypothetical mean. This means that the answers are directed toward non-applied. As for the value of the hypothetical mean, it is calculated in the following way:

Hypothetical mean = sum of measure alternatives/number of alternatives

hypothetical mean =  $(1+2+3) / 3 = 2$

### 3.3 Show results by banks

**Table (3) shows the results of the descriptive statistics by banks**

	Arithmetic mean	Standard deviation	Relative importance (%)	order of relative importance	Direction of the response level	Variation coefficient (%)
Bank across Iraq	2.28	0.56	76.0	4	applied	24.6
Assyria Bank	2.55	0.48	85.0	1	applied	18.8
Gulf Commercial Bank	2.39	0.32	79.7	3	applied	13.4
Iraqi Investment Bank	2.48	0.31	82.7	2	applied	12.5
Iraqi Islamic Bank	2.24	0.14	74.7	5	applied	6.25

Table (3) shows that the most banks of the research sample applied to the graceful internal audit in the Iraqi economic units is the Ashur Bank, as it obtained the highest arithmetic mean, it reached (2.55) and with the highest relative importance as it amounted to (85.0%) and in the second place the Investment Bank got, The Iraqi Bank has an arithmetic mean of (2.48) and a relative importance of (82.7%). In the third place, the Khaleeji Commercial Bank got a mean of (2.39) and relative importance of (79.7%).) And in the fifth place, the Iraqi Islamic Bank obtained an arithmetic mean of (2.24) and relative importance of (74.7%), as shown in the following figure:

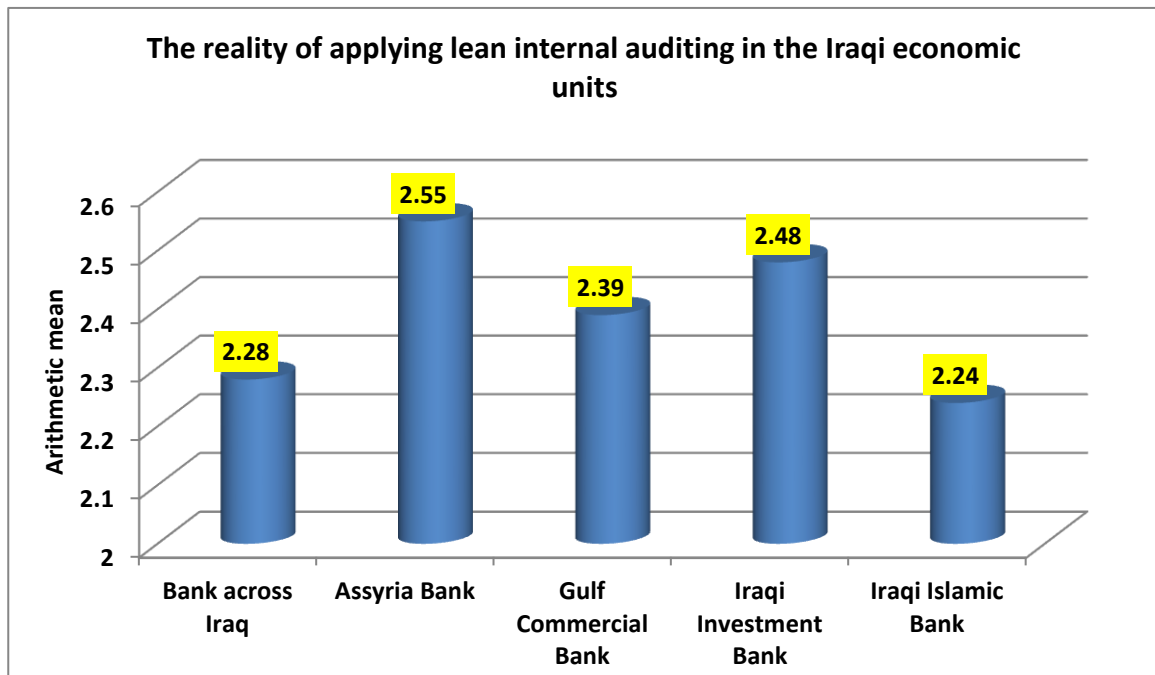


Figure (1) shows the reality of applying lean internal auditing in Iraqi economic units

Through Figure (1), the values of the coefficient of difference, show which of the variables the sample members were more homogeneous in their answers, where the lowest coefficient of difference is the most homogeneous. Therefore, we note that the Iraqi Islamic Bank came first in terms of homogeneity, followed by the Iraqi Investment Bank, followed by the Khaleej Commercial Bank, followed by the Bank Assyria, and followed by a bank across Iraq. We also note that the standard deviation values were compatible with the values of the coefficient of difference, where the lowest value in the standard deviation was matched by the lowest value of the coefficient of difference, and this greatly supports the homogeneity of the data, as in the following figure:

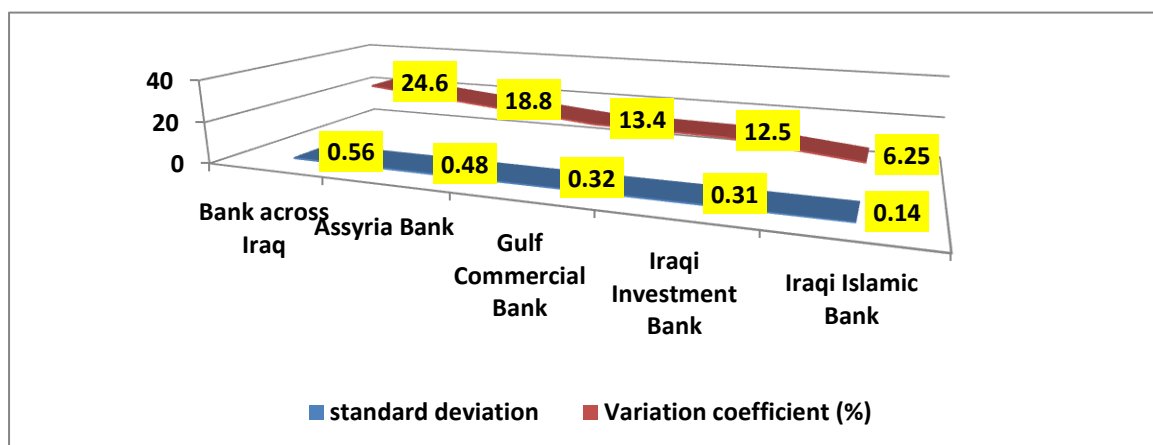


Figure (2) shows the coefficient of variation and standard deviation



**Show results by paragraphs****Table (4): The arithmetic mean, ratios, and direction of answering the checklist, the reality of the application of lean internal auditing in the Iraqi economic units**

paragraphs	Applied (%)	Fairly applicable (%)	Not Applicable (%)	Arithmetic mean	standard deviation	direction of the answer
1-There is a list that can be constantly updated according to the developments of the processes, activities, and elements that need to be audited, called the Audit Backlog	56.7	36.7	6.7	2.50	0.63	applied
2-Holding frequent meetings during short periods of time between members of the internal audit team, management, and stakeholders	66.7	30.0	3.3	2.63	0.56	applied
3-The team will be able, through the results of the meetings, to identify the unfinished (accumulated) elements and activities to move to the top of the list and have priority in the audit process, according to the degree of importance and risks associated with them	80.0	16.7	3.3	2.77	0.50	applied
4-There is an allocation of financial and human resources to the higher and lower value elements and activities in the list of accumulated elements and the definition of ready elements.	53.3	43.3	3.3	2.50	0.57	applied
5-The time range for checking any element is divided into short and specific periods of time that last from one to two weeks, called sprints	33.3	60.0	6.7	2.27	0.58	applied
6-Determine the goal of each race and its end date before starting it, so as not to cause any	53.3	40.0	6.7	2.47	0.63	applied

pressure on the agile internal audit team						
7-The members of the agile internal audit team will have interactive sessions during each race with the stakeholders and provide them with presentations that review the tests used, the results of the process, and any notes about the workflow	66.7	26.7	6.7	2.60	0.62	applied
8- Interim progress reports are prepared at the end of each race, and accordingly; the management of the agile audit team decides with the stakeholders, whether there are enough results, ending the race at this level, and moving on to check the subsequent items in the audit backlog list or continuing and deepening	53.3	43.3	3.3	2.50	0.57	applied
9-Organizing small multifunctional and multidisciplinary teams supported by experts in agile methods for each race according to the work tasks to be performed	30.0	56.7	13.3	2.17	0.65	applied
10-Flexible planning in developing an agile audit plan in regular coordination with the executive departments and the audit committee for a short period every three months	50.0	43.3	6.7	2.43	0.63	applied
11-Constantly updating the agile audit plan and conducting frequent risk assessments. These assessments are related to the work objective for each race, which	56.7	43.3	--	2.57	0.50	applied

includes planning, fieldwork, internal auditing, and preparing the report in a cycle of .one to two weeks						
12-Focusing the work of the agile internal audit team on the outcome of the audit process and depends on the daily interaction and frequent contact of the team on an ongoing basis, which increases coordination with the entity subject to .the audit process	56.7	40.0	3.3	2.53	0.57	applied
13-Agile internal audits, including sprints, take a short period of time, and then the focus is mainly on adding value and reporting the result immediately at the end of each race, and this allows the auditor to remove deficiencies and stop operations that do .not add value	53.3	43.3	3.3	2.50	0.57	applied
14-Agile internal audit relies on two frameworks: the Scrum framework and the .Kanban framework	26.7	53.3	20.0	2.07	0.69	applied
15-The Scrum framework focuses on efficiency and quality, as self-organizing cross-functional teams meet to discuss their progress and how far has the team completed its tasks? What is the next task to be done in the ?selected list	33.3	43.3	23.3	2.10	0.76	applied
16- The scrum framework is used to provide service to customers through sprint races every two weeks on average and to share these races with customers, which	23.3	56.7	20.0	2.03	0.67	applied

enables internal auditors to make appropriate changes to activities and elements to add value to them immediately						
17-The head of Scurm meets with the agile internal audit team and stakeholders to decide on the next activity to start auditing and planning to set the required goals	20.0	46.7	33.3	1.87	0.73	Not applied
18-The Kanban framework is used to improve the overall productivity of the team, i.e. workflow in general, and its focus is on the full efficiency of the audit development team, and new tasks are not accepted until the completion of old tasks without pressure on them, i.e. the team continues to work without exhausting itself	30.0	53.3	16.7	2.13	0.68	applied
19-The Kanban framework relies in its work on (Kanban boards) whiteboards for four columns, various cards, and sticky notes. In these columns, it records the tasks that are required, currently required, and previously completed	30.0	46.7	23.3	2.07	0.74	applied
20-Presenting results within short periods of time, i.e. at the end of each meeting, discussing recommendations and evaluating problems with stakeholders, and dealing with them immediately to follow up on procedures with management	66.7	33.3	--	2.67	0.48	applied

The table is from the researcher's work based on the results of the SPSS program

Table (4) shows the reality of the application of lean internal auditing in the Iraqi economic units. We note that all the paragraphs tended towards the applied, as the values of the arithmetic medians for them reached greater than the value of the hypothetical mean, except for the paragraph (the head of Scurm meets with the lean internal audit team and stakeholders. To decide the next activity to start with by auditing and planning to determine the required goals) It tended towards non-application, as the value of the arithmetic mean was (1.87), which is smaller than the value of the hypothetical mean. We also note the highest applied paragraph (the team can, from the results of the meetings, identify the unfinished elements and activities (accumulated) to move to the top of the list and have priority in the audit process, and according to the degree of importance and risks associated with it) with a rate of (80%) and the highest arithmetic mean, as it reached (2.77), The least applied paragraph is (the Scurm framework is used to provide service to customers through sprint races every two weeks on average and to share these races with customers, which enables internal auditors to make appropriate changes to activities and elements to add value to them immediately) with a rate of (23.3%) and the lowest arithmetic mean for the application, it reached (2.03), which is close to the value of the hypothetical mean, which is (2). This indicates that this paragraph is somewhat closer to the applicable one, as its percentage reached (56.7%). The standard deviation values ranged between (0.48-0.76), which means that the answers of the sample were homogeneous

### 3.4 Checklist Hypothesis Test

#### 3.4.1 Testing the hypothesis, which states:

Null hypothesis: There are no applications of lean internal auditing methods in the local environment of the research sample banks.

Alternative hypothesis: There are applications of lean internal auditing methods in the local environment of the banks of the research sample.

The results appeared as shown in Table (5):

**Table (5) shows the t-test for one sample**

Arithmetic mean	standard deviation	hypothetical mean	The calculated t value	degrees of freedom	Tabular t-value (5%)	indication
2.37	0.34	2	5.87	29	2.06	Positive D

**The table is from the work of the two researchers based on the results of the SPSS program**

The calculated t-value was (5.87), which is greater than its tabular value at the level of significance (0.05) and the degree of freedom (29) and amounting to (2.06). This means rejecting the null hypothesis and accepting the alternative hypothesis, i. The value of the arithmetic means for this axis, which is (2.37), is greater than the value of the hypothetical mean, which is (2).

## 4. Conclusions

1. Agile methods enable traditional internal auditing to reduce and remove hierarchies of routine procedures, as well as to bring about change in the work of the internal audit team to ensure success and continuity.
2. The existence of applications of agile internal auditing methods in the local environment of the research sample banks.
3. All the banks of the research sample apply the agile internal audit, and the most applied bank is the Assyrian bank, and the least applied bank is the Iraqi Islamic Bank for Investment and Development.
4. Agile methods in internal auditing are a tool that focuses on the spirit of team participation with stakeholders to improve the business of the economic unit.

5. Agile methods in the internal audit depend on implementing frameworks, selecting new methods, and merging them with traditional methods to spread modern ideas and communicate them to multiple other teams, as well as building a plan based on choosing procedures that add value and reducing procedures that do not add value to the work of the economic unit.

## References

1. Alshathry and others, Sara, Betoool, Norah, Nor Shahida, Risk Management in Agile and Waterfall Models: A Review, International Journal of Advanced Science and Technology, 2020.
2. Baloylu, Gurol, Agility for Internal Audit: A study of a Business in the Turkish Financial sector, Journal of Accounting Institute \_ Journal of Accounting Institute, Istanbul \_ Turkey, (2019).
3. Beerbaum, Dirk, Application of agile audit: A case study research, Aalto University School of Business, Department of Accounting, Helsinki, Finland, 2020.
4. Bibi, Wael, My thoughts: What Exactly is An Agile Internal Audit? (2020).
5. Chartered Institute of Internal Auditors, Lean Auditing, (2020).
6. Deloitte, Adopting Agile In harmony with the International Standards for the professional practice of Internal Auditing (the standards), (2020 ).
7. Dhg, Benefits of utilizing Agile Internal Audit Methodology during COVID-19 Disruption, (2020 ).
8. Frost, Robert, Leveraging Agile With and its, SF IIA Fall seminar, (2018).
9. Ganann, Laura, Beyond Agile: Walmarts Journey to Value \_ Driven & Customer \_ Centric Auditing, (2020).
10. Hogan, Lorraine, Using Scrums and Sprints \_ Adopting Agile for Internal Audit, Citigroup, (2018).
11. Mack and others, Mark, Sean, Kevin, Staying the course toward True North: Navigating disruption, State of the Internal Audit profession study, (2017).
12. Majeed, Nour Sahib, The Role of Lean Auditing in Supporting the Integration of Governance, Risk, and Compliance, An Applied Study \_ of a Sample of Companies Listed in the Iraq Stock Exchange, Master's Thesis in Accounting Sciences - College of Administration and Economics - Iraqi University, (2022).
13. Osinubi, Femi, The Agile Internal Audit Function: Stakeholders expect more Internal Auditors, (2017).
14. Panday, Gangaram, DevOps and Agile in control A study report by NOREA, 2019.
15. PL Joshi, A Review of Agile Internal Auditing: Retrospective and Prospective, International Journal of Smart Business and Technology, 2021.

## امكانية تطبيق التدقيق الداخلي الرشيق في الوحدات الاقتصادية العراقية

أ.م.د. سعاد عدنان نعمان الشمري  
جامعة بغداد/ كلية الادارة والاقتصاد/ قسم  
المحاسبة/ بغداد/ العراق

الباحث/ هند حليم محمد امين  
جامعة بغداد/ كلية الادارة والاقتصاد/ قسم المحاسبة.  
بغداد/ العراق

[Suaad.a@coadec.uobaghdad.edu.iq](mailto:Suaad.a@coadec.uobaghdad.edu.iq)

[hind.haleem1206a@coadec.uobaghdad.edu.iq](mailto:hind.haleem1206a@coadec.uobaghdad.edu.iq)

Received: 1/3/2023

Accepted: 20/3/2023

Published: March / 2023

هذا العمل مرخص تحت اتفاقية المشاع الابداعي نسب المصنّف - غير تجاري - الترخيص العمومي الدولي 4.0

[Attribution-NonCommercial 4.0 International \(CC BY-NC 4.0\)](https://creativecommons.org/licenses/by-nc/4.0/)



### مستخلص البحث

تتمثل مشكلة البحث في أن الأساليب التقليدية للتدقيق الداخلي ذات إجراءات طويلة وصارمة لأعضاء فريق عملية المراجعة ، خاصة في ظل التطورات الحالية التي تنعكس في بيئة الأعمال وتقارير المراجعة الداخلية ، لذا فهي ضروري لإعادة النظر في أسلوب عمل التدقيق الداخلي التقليدي وتقييم مدى تطوره بأساليب رشيقة لتقليل وقت عملية التدقيق على الأنشطة والعناصر التي تضيف قيمة وتوجه الجهد والوقت إلى الأنشطة والعناصر التي تضيف قيمة إلى عمل الوحدة الاقتصادية وتقرير المدقق الداخلي.

ويهدف البحث إلى دراسة إمكانية تطبيق التدقيق الداخلي الهزيل في الوحدات الاقتصادية العراقية ، ولتحقيق هدف البحث قام الباحثان بعمل قائمة مراجعة لاختبار فرضية البحث والتي تنص على (لا توجد تطبيقات داخلية رشيقة). طرق التدقيق في البيئة المحلية). لعدد (6) مصارف خاصة مدرجة في سوق العراق للأوراق المالية ، وعددها (69) مصرفاً ، بعد الاطلاع على التقارير الدورية التي يعدها البنك المركزي العراقي.

وخلص الباحثون إلى أن أكثر بنوك عينة البحث المطبقة على التدقيق الداخلي الرشيق في الوحدات الاقتصادية العراقية هو مصرف آشور ، حيث حصل على أعلى متوسط حسابي حيث بلغ (2.55) وأعلى أهمية نسبية حيث بلغ (85.0٪) وفي المرتبة الثانية حصل بنك الاستثمار العراقي على المتوسط الحسابي (2.48) والأهمية النسبية (82.7٪). في المرتبة الثالثة حصل مصرف الخليج التجاري على متوسط حسابي (2.39) وأهمية نسبية (79.7٪). في المرتبة الرابعة حصل مصرف عبر العراق على متوسط حسابي (2.28) وأهمية نسبية (76٪). وفي المرتبة الخامسة حصل البنك الإسلامي العراقي على المتوسط الحسابي (2.24) والأهمية النسبية (74.7٪).

نوع البحث: ورقة بحثية.

**المصطلحات الرئيسية للبحث:** التدقيق الرشيق ، التدقيق الداخلي الرشيق ، الوحدات الاقتصادية .