AMERICAN JOURNAL OF ECONOMICS AND BUSINESS MANAGEMENT

ISSN: 2576-5973
Vol. 6, No. 10, 2023

The Impact of Lean Accounting Principles on Mitigating Black Box Accounting Practices - A Field Study on the Opinions of Employees at the Bank of Baghdad

Khalid Aziz Farhan
College of Education for Human Sciences, University of Kirkuk, Iraq
khalid.aziz@uokirkuk.edu.iq

Abstract: The utilization of the accounting profession involves a range of questionable practices, including fraudulent activities and deceptive maneuvers, aimed at manipulating financial information for personal or institutional advantage. These procedures are frequently intricate and challenging to grasp, with the intention of obscuring financial information from recipients and stakeholders of financial institutions. In order to address and minimize such activities, financial institutions elect to implement lean accounting concepts. Hence, the primary objective of this study is to examine the influence of lean accounting principles, namely lean planning, performance metrics facilitating the shift towards lean practices, timely information dissemination, and improved internal accounting control, as an independent variable on the reduction of black box accounting practices as a dependent variable within the Bank of Baghdad. In order to accomplish the research objectives, the researcher established an extensive theoretical framework and methodological framework. Additionally, a questionnaire was devised as a means of data collecting, utilizing pre-existing scales. The questionnaire consisted of (30) questions that encompassed the research variables. The researcher utilized a descriptive methodology by conducting a comprehensive literature review, and employed an analytical technique by testing and analyzing the hypotheses of the study. A theoretical framework was constructed to depict the research variables and their interrelationships, accompanied by a series of hypotheses to be examined using suitable statistical techniques with the aid of the SPSS software. The study sample comprised (91) individuals who were employees of the Bank of Baghdad, including managers, accounting department managers, and auditors. The study found a statistically significant and relevant association between the implementation of lean accounting principles and the utilization of black box accounting techniques inside the Bank, as evidenced by the correlation coefficient at the aggregate level. The researcher additionally offered a number of suggestions, one of which emphasizes the importance for the Bank of Baghdad's management to prioritize the implementation and incorporation of lean accounting principles as a means to address and mitigate opaque accounting practices.

Keywords: Lean Accounting Principles, Black Box Accounting.

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

INTRODUCTION:

In recent years, there has been a notable surge in the adoption of black box accounting procedures by accountants. Black box accounting is a form of accounting that ensures the confidentiality of an organization's financial operations and the management of its funds, thereby safeguarding this information from investors, creditors, and the general public. The increasing attention towards this subject can be ascribed to the occurrence of operational risk incidents associated with accounting, which are widely thought to have precipitated the downfall of numerous entities.

In contrast, financial organizations endeavor to attain openness in the disclosure of information as a means to cultivate confidence among beneficiaries. The principles of lean accounting offer precise and prompt information to enhance decision-making, enhance performance, and increase profitability. The primary objective of lean accounting is to enhance the openness of information presentation, hence mitigating the utilization of opaque accounting procedures that employ deceitful methods for personal advantage or to favor a particular entity.

It is imperative to recognize the anticipated financial advantages associated with the implementation of lean thinking in accounting processes, while also prioritizing the development and execution of strategies aimed at attaining these benefits. Maximizing value necessitates the utilization of information and data to foster long-term enhancements, while concurrently establishing a connection between performance measurement and value development drivers to underscore the significance for the beneficiary.

Lean accounting principles are a set of approaches employed within the broader framework of lean management. These principles aim to facilitate the attainment of favorable outcomes and a robust level of dependability in financial institutions. This is achieved by the provision of data that is distinguished by its integrity, objectivity, and a steadfast emphasis on the core aspects of information. Furthermore, it is imperative to use prudence and meticulousness when providing this information in a thorough manner.

Chapter One: Research Framework

First: Research Problem

Banks, both in a general context and specifically those operating in Iraq, encounter challenges related to intricate accounting procedures, interconnected responsibilities, and overlapping relationships. These factors contribute to the perpetuation of certain unfavorable practices aimed at concealing or obscuring specific data that is crucial for disclosing the current state of affairs. These flaws in financial accounts may not be identified by regulatory agencies, shareholders, or the general public. Although there have been notable enhancements in cash flows, it is important to note that certain issues pertaining to banking operations may not be discernible through financial data alone. As a result of these aforementioned concerns and additional factors, conventional approaches employed in managerial accounting systems have shown to be insufficient. The utilization of conventional accounting systems has resulted in the generation of inaccuracies within financial reports, consequently bringing attention to some questionable activities that have the potential to

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

impede advancements in the field of accounting. Therefore, it is imperative for Iraqi bank officials to acquire a comprehensive understanding of lean accounting concepts in order to facilitate agile processes and mitigate the occurrence of deceptive and questionable activities, such as the utilization of "black box" accounting methods.

Therefore, the problem of this research lies in identifying the impact of lean accounting principles on reducing "black box" accounting practices among a group of employees in the Bank of Baghdad. Therefore, posing the following questions can help clarify the problem's content:

1. Is there a significant relationship between lean accounting principles and "black box" accounting practices in the bank under study?
2. Does lean accounting principles have an impact on reducing "black box" accounting practices in the bank under study?

Secondly: The Significance of the Research

1. Building a Knowledge Framework for Research Topics (Lean Accounting Principles, Black Box Accounting Practices) and their Dimensions by tracking the theoretical paths of specialized literature, and then providing conceptual introductions that describe the interpretive trends of these topics.
2. Diagnosing and testing the current state of the main and subsidiary study variables by presenting the response trends of the surveyed individuals in Bank of Baghdad in Iraq.
3. Directing the leadership at Bank of Baghdad to focus on Lean Accounting principles, and utilizing them to develop the ability to adapt to changes and reduce the practices of the Black Box Accounting, aiming to gain a competitive advantage and create value.
4. Providing an intellectual and scientific framework to create a contemporary decision-making model that aligns with the nature of challenges faced in the Iraqi environment, considering factors like speed and adaptability.

Thirdly: Research Objectives

The primary objective of the research is to investigate the impact of lean accounting principles on reducing black box accounting practices. Other objectives include:

1. To determine the extent of awareness within the Bank of Baghdad, the field of study, regarding the concept of lean accounting and its principles, and its application in reducing black box accounting practices.
2. Presenting the ways in which the management's capabilities in the field of lean accounting principles can be emphasized and their role in reducing black box accounting practices in the sample of the Bank of Baghdad.
3. Testing the correlation between lean accounting principles and the reduction of black box accounting practices in the researched field.
4. Analyzing the impact relationship of lean accounting principles on reducing black box accounting practices in the researched field.

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

5. Providing a set of conclusions and recommendations that can benefit the efforts of the studied bank (Bank of Baghdad) in evaluating and improving its current work.

Fourth: Assumed Research Plan

In order to effectively handle the research topic within its methodological framework, it is necessary to build a hypothetical diagram that clearly outlines the study variables and dimensions, as well as the logical links that exist among them. The proposed research design can be visually depicted in Figure (1), which presents two distinct categories of variables: the independent variable (Lean Accounting Principles) and the dependent variable (Black-Box Accounting Practices).

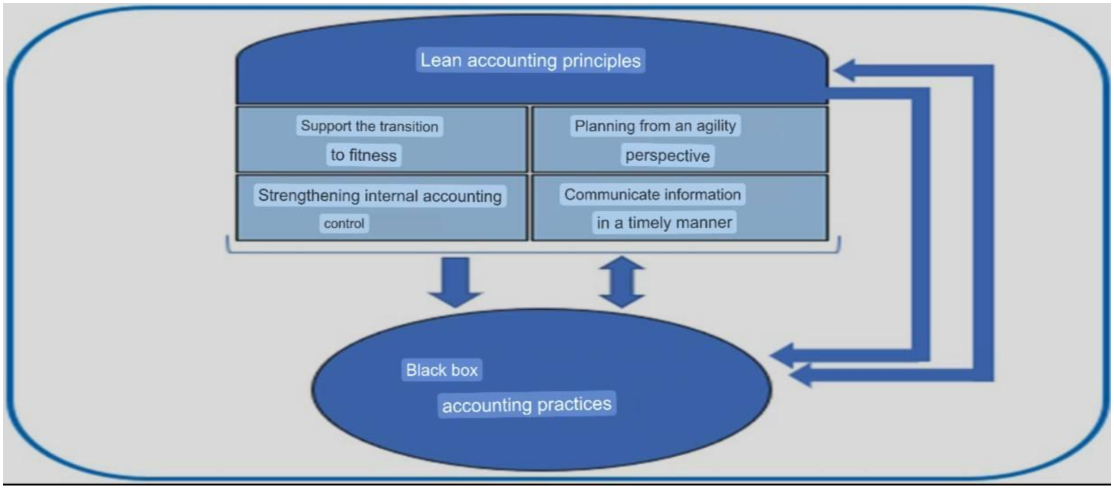


Figure (1) - Hypothetical Research Diagram

Source: Prepared by the researcher.

Fifth: Research Hypotheses

Hypothesis 1: There is a significant correlation between lean accounting principles and black box accounting practices at the overall level.

Hypothesis 2: There is a significant effect of lean accounting principles on reducing black box accounting practices at the overall level.

Sixth: Research Methodology and Tool

1. **Research Methodology:** The researcher adopted a descriptive-analytical approach.
2. **Research Tool (Data Collection Methods):** The primary data for this study were collected using a questionnaire as the main tool to gather information from the field. Secondary data were obtained through contributions from researchers in the variables of the research (Lean Accounting Principles, Black Box Accounting Practices).

Seventh: Research Tool Validation

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

1. Face Validity Measurement: The questionnaire was presented to a group of experts, numbering 11, and their opinions were generally positive towards most of the items. Some significant modifications were made, helping to assess the validity of these items through appropriate corrections.

2. Questionnaire Reliability Test: The researcher assessed the reliability of the questionnaire using Cronbach's Alpha test. The Cronbach's Alpha coefficient for the overall research sample was 0.87. Furthermore, for the research variables, it was 0.85 for lean accounting principles and 0.81 for black box accounting practices. These high and positive Cronbach's Alpha values indicate strong internal consistency and reliability of the questionnaire.

Eighth: Research Limitations

1. Spatial Limitations: The spatial limitations of the research include focusing on the application within the scope of the Baghdad Bank as a field of study in Iraq.

2. Temporal Limitations: The temporal limitations of the research encompass the period designated for the research preparation, which ranges from May 10, 2020, to December 1, 2020.

3. Human Scope Limitations: The human scope limitations of the research encompassed a sample of employees from the Bank of Baghdad in Iraq under study. The sample included categories such as department managers, auditors, and accountants as the targeted population.

4. Subject Scope Limitations: The subject scope limitations were represented by (Lean Accounting Principles, Black Box Accounting Practices).

The Second Chapter: The Theoretical Framework of the Research

First: The Conceptual Framework of Lean Accounting

1. Lean Accounting Concept:

The notion of Lean Accounting is widely recognized as a key area of interest among both researchers and practitioners. The significance of implementing lean thinking inside economic entities lies in its crucial role in facilitating continual improvement and development across multiple processes. The primary objective is to optimize accounting procedures in order to minimize inefficiencies and enhance performance by removing instances of waste and inefficiency across different resources (Monroy et al., 2013: 371). The concepts mentioned were also examined by Al-Janabi (2018) in his publication titled "Lean Approach." Al-Janabi underlines the significance of Lean Accounting as a fundamental aspect and approach for attaining integration and implementing the notion of a lean company.

The notion of Lean Accounting is often regarded as a comprehensive financial learning system that encompasses the entire firm, rather than being limited to the accounting function alone. The alteration in the dynamics between operational processes and financial metrics can be attributed to the fundamental tenets of lean economics. It is imperative for the entire organization to acquire knowledge of these novel relationships and include the dynamic context of these relationships into its financial analysis. According to Haskin (2010), organizations utilize their management accounting system to establish a harmonious connection between the organization's strategy and its business model, specifically in terms of operational procedures. This is achieved by furnishing pertinent data

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

to all levels of management, enabling them to make informed decisions and conduct financial analysis. (Haskin, 2010: 33).

According to Hansen et al. (2009: 577), Lean Accounting can be defined as a collection of principles, tools, and practices that are designed to facilitate the lean system. Its primary objective is to foster continuous improvement within the economic unit by emphasizing cost management, as opposed to traditional cost accounting methods that can distort product costs and hinder continuous improvement initiatives. The definition provided aligns with the perspective of Shuja'a (2015: 11), who characterizes it as a systematic methodology and modus operandi that employs various methodologies and instruments to minimize inefficiencies and financial losses in the realm of resource allocation and accounting procedures. Consequently, it serves to give vital information to relevant parties, thereby facilitating transparency.

According to Garrison (2010: 325), the term refers to an accounting system that effectively oversees the financial activities of a company, facilitating the provision of both financial and non-financial information crucial for the successful execution of lean strategy and attainment of financial objectives. Maskell et al. (2012: 74) have characterized it as an approach aimed at the effective management of accounting and financial operations through the optimization of routines, the reduction of conventional processes, the provision of information to stakeholders to facilitate informed decision-making, the minimization of time and costs, and the elimination of superfluous processes that do not contribute value.

Furthermore, Al-Masoudi and Al-Qaisar (2016: 116) provided a description of Lean Accounting as a collection of procedures designed to scrutinize the activities of an accounting firm with the objective of optimizing efficiency by removing non-value-added activities and reducing waste while simultaneously enhancing value.

Based on the available information, it can be inferred that Lean Accounting is a methodology and approach employed inside the Lean framework, sometimes referred to as waste-free accounting. The primary objective of this approach is to effectively eliminate any wasteful or repetitive procedures that do not contribute any value to the accounting operations. The objective of this initiative is to furnish precise and punctual information to facilitate informed financial decision-making and promote transparency.

2. The importance of Lean Accounting can be summarized as follows:

The significance of Lean Accounting surpasses other Lean methodologies due to the multitude of issues that organizations have when it comes to financial reporting and account closure within the framework of Lean operations. In addition, Lean operations are distinguished by their emphasis on efficiency and accuracy, which highlights the need for a lean accounting system that can effectively handle financial matters with the necessary swiftness and precision (Al-Janabi, 2018: 179). According to Laura (2010: 211), Lean Accounting refers to the modifications made by organizations to their accounting processes in order to align with the principles of Lean thinking. According to Tuğçe (2015: 29), Lean Accounting offers fast and straightforward information, while also assessing performance based on value streams in order to optimize profitability. The use of Lean methods to accounting, control, and measurement processes within an organization is analogous to the application of Lean methods to other operational aspects inside businesses. The objective is to

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

minimize inefficiencies, optimize capabilities, expedite procedures, eradicate faults and flaws, and enhance the transparency and comprehensibility of the process (Ahakchi, 2012: 283).

The importance of Lean Accounting can be summarized as follows: (Maskell, 2012: 206) (Laura, 2010: 10)

a. Value Stream Focus: In Lean Accounting, the emphasis is placed on value streams, rather than individual departments, processes, or products, in both financial and operational reporting. There is less focus on the efficiency of individual departments or operations, and more emphasis on the overall value stream.

b. Timely Financial Reporting: In Lean Accounting, financial and operational reports are prepared at the value stream level and are typically available weekly, as opposed to traditional complex financial reports.

c. Maximizing Customer Value: In Lean Accounting, the members of the value stream team clearly focus on the value created. When we truly understand customer value, we have full control over the processes that create that value.

d. Making Informed Decisions with the Scorecard: Lean Accounting uses the "scorecard," a one-page report that displays the three aspects of the value stream that determine value stream operating and financial results and value stream performance.

e. Much Less Work: Lean Accounting requires far fewer transactions needed to maintain the records compared to control systems for traditional organizations. There is a clear path for making changes in Lean Accounting, so processes within the organization become more controlled.

f. Financial Data in Simple Language: Lean Accounting provides financial reports that are easily understandable to anyone within the organization. Information is presented in a straightforward manner in the balance sheet and income statements, and it's easy to use the simple income data because it doesn't include misleading or confusing data.

3. Traditional Accounting vs. Lean Accounting:

Lean Accounting was developed to break down the barriers and complexities of traditional accounting. Therefore, there are fundamental differences between the two approaches, and Table (1) illustrates these differences.

Table (1) The Differences Between Traditional Accounting and Lean Accounting

S	Points of Difference	Traditional Accounting	Lean Accounting
1	transactions	Routine and complex transactions	Easy-to-understand and straightforward terms
2	Supplier accounts	The operation of these accounts consumes a significant amount of time in the accounting department	It requires very little auditing
3	Customer accounts	A large number of purchase orders	Reducing the number of purchase orders received from key customers

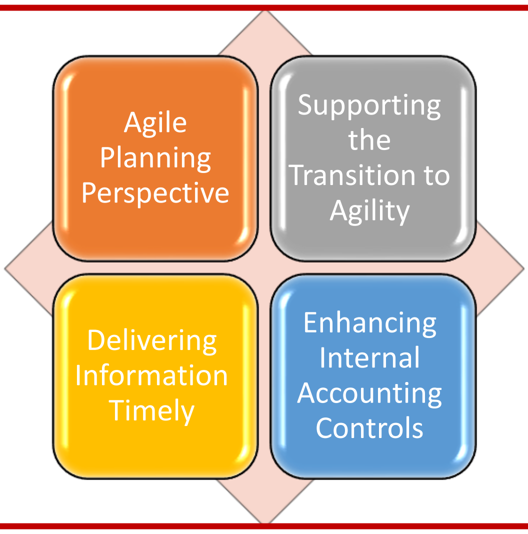
ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

			by encouraging them to use electronic purchase orders
4	Focus	It focuses on completing transactions	It focuses on delivering customer value
5	The goal	Maximizing profitability	Maximizing value and consequently maximizing profitability
6	Technology	Using mostly paper-based transactions and access	Using modern technology and internet networks

Source: Al-Janabi, Mohammad Maysar Hasan, (2018), "Lean Methodology," First Edition, Noor Publishing, Germany.

4. Principles of Lean Accounting:

This paragraph endeavors to examine the fundamental principles of Lean Accounting, with a specific emphasis on cultivating adaptability within accounting operations. The process commences with the establishment of a comprehensive plan, which is then reinforced by facilitating the construction procedures. then, the expeditious dissemination of pertinent information is prioritized, culminating in the activation of control mechanisms. The present study is grounded on the theoretical framework proposed by Monroy et al. (2012: 30).



Form (3) Principles of Lean Accounting

Source: Prepared by the researcher based on (Maskell & Baggaley, 2006: 36)

a. Planning from a lean perspective: According to Wempe (2011: 53), the use of lean principles in planning involves the utilization of several tools such as sales policies, value stream costing, financial and operational planning, and energy analysis. This technique facilitates the organization's holistic planning by leveraging agile accounting information. It is imperative to establish a comprehensive understanding of the present and prospective circumstances when embarking on a lean transition. When embarking on the lean transformation process, it necessitates a shift in mindset away from prioritizing production improvement and short-term cost reduction, as commonly observed in the context of large-scale production. According to Ogar et al. (2017: 43), the implementation of lean planning involves the utilization of many lean accounting tools, including

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

financial and operational planning, value stream costing, and sales policies. These tools contribute to the development of an integrated plan for the firm. Furthermore, Al-Bayati (2018: 400) highlights the significance of adopting a lean viewpoint in the planning process, which can be achieved through several techniques such as planning and budgeting, assessing the effects of lean improvements, capital planning, and investing in human resources.

b. Performance Metrics Supporting the Transition towards Agility: According to Wempe (2011: 53), the use of lean principles in planning involves the utilization of several tools such as sales policies, value stream costing, financial and operational planning, and energy analysis. This technique facilitates the organization's holistic planning by leveraging agile accounting information. It is imperative to establish a comprehensive understanding of the present and prospective circumstances when embarking on a lean transition. When embarking on the lean transformation process, it necessitates a shift in mindset away from prioritizing production improvement and short-term cost reduction, as commonly observed in the context of large-scale production. According to Ogar et al. (2017: 43), the implementation of lean planning involves the utilization of many lean accounting tools, including financial and operational planning, value stream costing, and sales policies. These tools contribute to the development of an integrated plan for the firm. Furthermore, Al-Bayati (2018: 400) highlights the significance of adopting a lean viewpoint in the planning process, which can be achieved through several techniques such as planning and budgeting, assessing the effects of lean improvements, capital planning, and investing in human resources.

c. Delivering information in a timely manner: The underlying concept of this approach is to ensure the dissemination of concise and up-to-date information to all individuals, regardless of their affiliation with the organization. The aim is to present the information in a manner that is easily comprehensible, without any unnecessary intricacies or obstacles in its transmission (Maskell & Baggaley, 2006: 38). The notion of delivering information in a timely manner is a crucial aspect of lean accounting. In order to uphold this value, management employs visual management boards as a means of providing assistance and reinforcement (Blocher et al., 2010: 773). The timely delivery of information can be facilitated through several activities, including the preparation of financial reports, the creation of visual reports that encompass both financial and non-financial performance measurements, as well as decision-making processes (Al-Bayati, 2018: 400).

d. **Promoting Internal Accounting Control:** This principle is predicated on the utilization of lean methodologies and practices in the realm of accounting processes, as it is widely acknowledged that a significant portion of accounting procedures inherently possess inefficiencies and non-value adding activities, commonly referred to as waste or Muda. Hence, certain lean accounting methodologies are employed to mitigate inefficiencies, necessitating their precision and application for both oversight and evaluation purposes. The tools mentioned in the study conducted by Al-Taie (2017: 40) are the Value Stream Map, Kaizen method, Target Cost, and the Score Box.

The enhancement of internal accounting control can be facilitated by using strategies such as lean operational control-based internal control and inventory assessment (Al-Bayati, 2018: 400). There are multiple control methods that facilitate and guarantee the execution of lean accounting modifications, including the Sarbanes-Oxley approach, which is employed to enhance projects, mitigate risks, and strengthen internal control (Maheshwari et al., 2009: 310).

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

Secondly: The conceptual framework for black box accounting.

1. **The concept of black box accounting:** In recent years, there has been a notable surge in the adoption of black box accounting procedures within the accounting profession. Black box accounting is a form of accounting that aims to uphold the anonymity of an organization's financial activities, which are overseen on behalf of investors, creditors, and the general public. The increasing attention towards this subject might be ascribed to operational risk incidents pertaining to accounting, which are widely thought to have precipitated the downfall of numerous entities. The notion of black box accounting originates from the disciplines of science, computers, and engineering, wherein the black box symbolizes a method of operation (LIBERTO DANIEL, 2020: 1).

Black box accounting refers to the utilization of an accounting system that deviates from traditional approaches by not accurately or comprehensively representing revenues and expenses. Institutions employ this style of accounting in order to obscure information that investors may find undesirable, such as significant levels of debt or other data that could have adverse effects on the organization's stocks or its capacity to obtain necessary funding (Richard & Grenci, 2004: 1876).

According to Scott (2003: 12), it has been observed that black box accounting procedures may not be deemed illegal as long as they conform to generally accepted accounting principles or international accounting standards. Nevertheless, these practices are widely regarded as ethically questionable due to their intention to obfuscate a transparent and precise depiction of an entity's fiscal well-being, achieved through the utilization of intricate frameworks for the presentation of financial information. In a similar vein, LIBERTO DANIEL (2020: 1) observed that organizations may employ intricate accounting methodologies to obfuscate financial data, thereby rendering it less accessible or comprehensible. This practice is often adopted with the intention of concealing information that investors may prefer not to readily perceive, such as substantial levels of debt, at the cost of transparency. This is due to the potential adverse effects that such information and data may have on the organization's stock performance or its capacity to obtain finance.

The practices of black box accounting are considered unethical despite often adhering to accounting rules in the recording of financial transactions. However, the black box accounting approach conflicts with the principle of transparency, aiming to conceal the financial health of the entity and its performance as much as possible within the boundaries set by regulators. Examples of this include revenue, profit, and inventory restatements (Sahiti & Bektashi, 2015: 96). The main criticisms of black box accounting practices are outlined by Agarwal & Medury (2014: 8).

a. Black box accounting is the intentional use of complex bookkeeping methodologies that entities may adopt to present themselves in a better light and hide information they do not want investors to easily see.

b. Black box accounting relies on complex accounting methodologies involving a lot of guesswork, making it difficult for outsiders to accurately determine how to access these numbers. When this is the case, investors may be forced to take the entity's word for it, allowing the entity to effectively inflate its profits to boost or support its stock price and paint a rosier picture than it actually is.

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

c. Black box accounting is often achieved without violating any laws by exploiting generally accepted accounting principles (GAAP) and the flexibility of International Financial Reporting Standards (IFRS). In some cases, these gray areas can benefit wrongdoers.

d. Following the rules loosely and being legal does not make black box accounting acceptable. Given that it is designed to obscure a clear and accurate picture of the entity's financial health, this approach is generally considered unethical and rejected.

Based on the aforementioned information, black box accounting refers to the intentional utilization of intricate financial transactions and accounting reports with the aim of concealing the financial state of an entity. This phenomenon is frequently observed when management want to conceal the actual magnitude of a company's liabilities or when the organization has encountered an abnormally elevated level of risk, potentially resulting in heightened difficulties and responsibilities. The degree of obscurity observed in accounting processes potentially facilitates the acquisition of supplementary funding that would otherwise be unattainable had more transparent financial information been disclosed to the investment community.

2. **Objectives of implementing black box accounting:** The process of black box accounting is highly intricate, rendering the precise interpretation of financial data practically unattainable. The act of concealing undesirable facts is frequently employed (Scott, 2003: 12). The term "black box accounting" is commonly employed in a critical manner to characterize complex and deliberate accounting practices. Organizations commonly adopt black box accounting practices as a means to portray a higher level of financial stability than their true financial standing. In the process, organizations may employ intricate methodologies and strategies to obscure losses or enhance profits while disclosing their financial gains. In order to obfuscate individuals, institutions may employ technical and superfluous jargon or incorporate unfamiliar material, and it is widely considered that decoding black box accounting necessitates the expertise of a proficient individual who possesses the ability to unravel its intricacies (Agarwal & Medury, 2014: 10).

According to David et al. (2003: 418), the phenomenon of black box accounting arises when an organization engages in deceptive practices by intentionally concealing and distorting undesirable financial resources. This can also involve the utilization of unnecessarily intricate bookkeeping techniques, which create a convoluted landscape of accounting complexities, thereby making the interpretation of financial data akin to navigating through a maze. For instance, individuals may engage in concealing their financial obligations from investors as a means to circumvent any limitations on their ability to secure funding. The financial information is presented using intricate accounting methodologies, which can make the numbers appear more confusing rather than providing clarity. This includes adjustments made to revenue, inventory, profits, the utilization of derivatives, and the involvement of off-balance sheet partnerships (Agarwal & Medury, 2014: 9).

The primary objectives of adopting these practices are as follows (Pai et al, 2011: 314):

a. Concealing Details Not to Be Shared with Investors, Including Large Debt Amounts: This practice involves hiding specific financial details, such as substantial debt amounts, that organizations do not want to disclose to investors.

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

b. Complicating Financial Data and Reports for the Purpose of Making Them Difficult to Interpret: Black box accounting practices intentionally make financial data and reports more complex, making it challenging for outsiders to interpret them.

c. While black box accounting practices are often executed without violating regulations, they are considered unethical by many due to their opacity.

d. Organizations take such measures to present themselves in a more favorable light and hide information they do not want investors to easily see.

e. Black box accounting is the deliberate use of complex accounting methodologies.

f. Manipulating revenue, profits, inventory, and utilizing off-balance-sheet derivatives and partnerships.

3. Accounting Methods in the Black Box:

There are numerous methods and practices of black box accounting that organizations may employ to serve the interests of their managers in achieving their objectives. These practices, as outlined by David et al. (2003: 419), include:

a. Early Revenue Recognition: Early recognition of revenue that arises when management intentionally acknowledges future revenues that do not belong to the reporting period. The entity recognizes the full amount of revenues during the current financial period to maximize profits, even though the earnings have not been realized yet.

b. Expense Deferral: Delaying the recognition of expenses that occur by having managers intentionally postpone the recognition of certain capital expenditures during the current financial period and then bypass relevant accounting constraints in subsequent financial periods.

c. Non-Recurring Expenses: This is where expenses that do not occur continuously are deliberately included within regular operating expenses on the income statement to reduce operating profit.

d. Doubtful Debt Reserves and Contingent Liabilities: Managers may reduce doubtful debt reserves intentionally by claiming that they are overly optimistic estimates of collectible customer debts, rather than using the net present value of possible recoveries. Managers may also make judgments intentionally to recognize contingent liabilities as emergencies.

e. Asset Depreciation and Useful Life: Managers may provide optimistic estimates of an asset's useful life to reduce depreciation expenses for the period instead of writing off assets over a shorter time period. Managers can extend the period over which an asset is depreciated, leading to an increase in reported profits by reducing depreciation expenses.

f. Technical Jargon and Complexity: Black box accounting practices may involve using technical language that is difficult to understand to describe disclosure processes.

g. Merger and Capital Infusion: Black box accounting can be practiced through the merger of an entity with another and artificially increasing capital for the purpose of obtaining financing from different parties (Richard & Grenci, 2004: 1877).

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

Thirdly: The Theoretical Relationship Between Study Variables.

The adoption of lean accounting has become increasingly prevalent among firms seeking to effectively navigate and excel within a fiercely competitive business landscape. Prior to 2004, there was a lack of clear definition for lean accounting processes. The year 2005 witnessed the convening of the Lean Accounting Summit, which served as a platform for the gathering of prominent figures and experts in the realm of lean accounting. A resolution was reached to formulate a written composition entitled "Principles, Practices, and Tools of Lean Accounting." The aforementioned principles were centered on promoting transparency within the accounting process, minimizing operations that do not contribute value, and eradicating unethical behaviors (Maskell, 2012: 205).

There exist several potential challenges within accounting procedures that may not be adequately captured in financial statements. One illustrative instance involves the scenario where earnings may exhibit a decline when there is a decrease in inventory, despite a notable enhancement in cash flows. As a result of these aforementioned challenges and additional factors, conventional approaches employed in management accounting systems have shown to be insufficient. Traditional accounting methods frequently incorporate distortions and practices inside financial reporting that have the potential to impede business advancement. Hence, it is imperative for senior executives and financial experts to possess a comprehensive understanding of the process of converting conventional accounting procedures into a novel framework that facilitates the implementation of lean practices (Ahakchi, 2012: 284).

The incorporation of lean accounting principles into contemporary accounting methodologies is attributable to their ongoing facilitation of waste reduction or elimination within operational processes. The approach entails the restructuring of individuals and workers into cross-functional teams with the aim of attaining ongoing process improvement and optimizing performance while simultaneously lowering expenses. This objective is accomplished through the elimination of activities that do not contribute value and the organization of value-adding activities in a manner that facilitates uninterrupted operational flow. Moreover, lean accounting places significant emphasis on the provision of precise, transparent, and prompt reporting, hence mitigating the prevalence of deceptive techniques within accounting procedures.

The third section: Practical Aspects of the Research

Firstly: Field Description and Research Sample

1. Description of the Research Field: Baghdad Bank is the first bank to obtain a license in Iraq. It started operating in 1992 with a focus on meeting the needs of the national economy. The bank was established after amending Article 5 of the Iraqi Central Bank Law and operated continuously until 1998. It then diversified its service portfolio to include a wider range of banking services after the Central Bank of Iraq allowed private banks to engage in banking activities. In 2005, Baghdad Bank underwent a significant transformation when Gulf Bank United and Iraq Holding Company acquired 49% of its capital.

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

2. Description of the Research Sample: The research sample consisted of employees working at Baghdad Bank, including accountants, auditors, and department managers, as the targeted group. A total of 95 questionnaires were distributed, and 91 valid questionnaires were returned for analysis, making them the basis for the study's findings.

Secondly: Description and Diagnosis of the Research Variables:

1. **Description and Diagnosis of Lean Accounting Principles:**

Table (2) presents the findings of the analysis and assessment of the independent variable, namely Lean Accounting Principles. This variable encompasses four distinct dimensions, each consisting of a total of ((20) items that are evenly distributed among these dimensions. A significant proportion of the participants in the research sample (78.8%) expressed agreement with the importance of this variable. A smaller percentage of individuals (14.6%) maintained a neutral stance, while a minority (6.3%) disagreed on the relevance of this characteristic. The variable's overall mean was found to be 3.98, accompanied with a standard deviation of (0.86) and a variation coefficient of (0.216).

Regarding the dimensions, the dimension labeled "Support for Lean Transformation" was found to be the most important in terms of the Lean Accounting variable. A significant majority (81.1%) of the persons in the research sample agreed on its significance. The proportion of individuals who had a neutral stance was (11.5%), while those who expressed disagreement with the significance of the subject constituted (7.4%). The mean value for this dimension was found to be (4.00), accompanied with a standard deviation of (0.89) and a variation coefficient of (0.22).

Conversely, the dimension labeled as "Planning from a Lean Perspective" was found to have the lowest level of importance when considering the Lean Accounting component. This was supported by a significant majority (75.6%) of the persons sampled for the research. The proportion of individuals who maintained a neutral stance was (18.8%), while those who expressed disagreement with the significance of the subject constituted (5.6%). The dimension under consideration exhibited a mean value of (3.97), accompanied with a standard deviation of (0.87) and a coefficient of variation of (0.22).

Table (2): Description and Diagnosis of the Independent Variable

Lean accounting principles	**I completely agree, I agree.**	**Neutral.**	**I disagree, I strongly disagree.**	**The arithmetic mean.**	**The standard deviation.**	**The coefficient of variation.**
Planning from a Lean Perspective	**75,6**	**18,8**	**5,6**	**3,97**	**0,87**	**0,22**
Supporting		**11,5**	**7,4**	**4,00**	**0,89**	**0,22**

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

the transition towards agility.	81,1					
Timely delivery of information.	79,4	13,7	6,8	3,97	0,81	0.20
Enhancing internal audit control.	77,8	15,2	7	3,99	0,87	0,21
The overall average.	**78,8**	**14,6**	**6,3**	**3,98**	**0,86**	**0,216**

Source: From the outputs of the statistical software program (SPSS).

2. **Description and Diagnosis of Black Box Accounting Practices:** Table (3) presents the findings of the analysis and evaluation conducted on the dependent variable, namely Black Box Accounting Practices. This variable encompasses a total of 10 distinct elements. The majority of participants in the research sample, specifically 78.2%, expressed agreement about the significance of this characteristic. In contrast, 14.9% maintained a neutral stance, while 6.7% had a dissenting viewpoint. The variable's mean score was calculated to be 3.93, with a standard deviation of 0.87 and a coefficient of variation of 0.22.

In relation to the specific items, item (Y8) shown the highest level of significance when considering the variable of Black Box Accounting Practices. The findings of the study indicate that a majority of the research sample, specifically 82%, expressed agreement with the significance of the item under investigation. A smaller proportion, 12.3%, maintained a neutral stance, while a minority, 5.7%, expressed disagreement. The item's average score was found to be 4.03, with a standard deviation of 0.80 and a coefficient of variation of 0.19.

Conversely, item (Y7) was found to have the lowest ranking in terms of relevance within the variable. A majority of the research sample, namely 75.9%, expressed agreement about the significance of this issue. A smaller proportion, 18.8%, maintained a neutral stance, while a minority, 5.3%, disagreed. The item's average score was found to be 4.02, accompanied by a standard deviation of 0.89 and a coefficient of variation of 0.22.

Table (3) Summary of Black Box Accounting Practices.

Black Box Accounting Practices.	I completely agree, I agree.	Neutral.	I disagree, I strongly disagree.	The arithmetic mean.	The standard deviation.	The coefficient of variation.

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

Y1	78.5	13.2	8.3	3.79	0.87	0.22
Y2	76.8	15.1	8.1	3.70	0.88	0.23
Y3	78.1	14.4	7.5	3.86	0.86	0.22
Y4	78.9	14.4	6.7	4.00	0.85	0.21
Y5	78.3	15.4	6.3	3.99	0.86	0.21
Y6	78.5	15.1	6.4	3.94	0.88	0.22
Y7	75.9	18.8	5.3	4.02	0.89	0.22
Y8	82	12.3	5.7	4.03	0.80	0.19
Y9	79	14.8	6.2	4.00	0.87	0.21
Y10	76.8	16.3	6.9	3.98	0.88	0.22
The overall average.	78.2	14.9	6.7	3.93	0.87	0.22

Source: Prepared by the researcher based on the outputs of the statistical software program.

Thirdly: Testing the Research Hypotheses.

1. **Testing the First Hypothesis:** It states that "there is a significant positive correlation between lean accounting principles and black box accounting practices as evidenced by their dimensions at the overall level." Table (4) presents the results of testing the relationships related to this hypothesis.

Table (4) Correlation Analysis.

The explanatory variable. / The response variable.	Lean accounting principles.
Black box accounting practices.	***0.68**

N=91 $0.05 \leq P^*$

According to Table (4), there is a noteworthy positive association between the integration of lean accounting principles and the utilization of black box accounting techniques. This is supported by a correlation coefficient of (0.68), which is statistically significant at a significance level of (0.05). This implies a correlation between the two variables. The findings of this study indicate that an increased level of interest among research participants in lean accounting principles is associated with a reduction in black box accounting practices. This reduction is achieved by eliminating confusion in accounting operations and enhancing their comprehensibility for all stakeholders involved. The acceptance of the principal hypothesis at the bank level is based on the statistical analysis conducted to determine the association between the study variables.

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

2. **Testing the Second Hypothesis:** It states that "there is a significant impact of lean accounting principles on reducing black box accounting practices, as evidenced by their dimensions at the overall level." Table (5) illustrates this impact as follows:

Table (5) Analysis of Impact Relationships.

The explanatory variable. / The response variable.	Lean accounting principles.			F
	β0	**β1**	**R^2**	
Reducing black box accounting practices.	0,682	0,697)*11,103(	0,45	90,07

(*) Indicates the calculated T-value.

N=91 DF=1. 89 P ≤ 0.05*

According to the findings presented in Table 5, the regression analysis demonstrates a statistically significant positive association between the implementation of lean accounting principles as independent factors and the reduction of black box accounting methods as the dependent variable. The obtained (F) value of (90.07) exceeds the critical value for a significance level of 0.05 and degrees of freedom (1, 89). The R2 value of (0.45) suggests that (45%) of the variance in black box accounting methods may be accounted for by the impact of lean accounting concepts.

Upon examining the coefficient (β1), it can be observed that a unit increase in the interest regarding lean accounting principles results in a (0.697) alteration in the reduction of black box accounting procedures. Regarding the coefficient (β0), it suggests that the bank in question is actively engaged in mitigating opaque accounting practices, irrespective of the efficacy of lean accounting principles.

Moreover, the computed (t) value of (11.103) exhibits significance and surpasses the critical value at a significance level of 0.05, given the degrees of freedom (1, 89). Hence, the acceptance of the second key hypothesis is warranted, since it posits a substantial influence of integrated lean accounting principles in mitigating the prevalence of opaque accounting procedures inside the examined bank.

Chapter Four: Conclusions and Recommendations.

First: Conclusions

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

1. There is a significant positive correlation between combined lean accounting principles and the reduction of black box accounting practices in the bank under study, as indicated by their variables' correlation coefficient at the overall level.

2. There is a significant positive impact of combined lean accounting principles on reducing black box accounting practices, suggesting that an increased interest in lean accounting principles by the bank's management will contribute to reducing black box accounting practices.

3. The study ranks lean accounting principles in order of importance, as perceived by the research sample: (1) Supporting the transition towards agility, (2) Timely delivery of information, (3) Enhancing internal audit control, and (4) Planning from an agility perspective.

4. Black box accounting is a contemporary term that focuses on using complex language to mislead the public about the true financial data.

5. Adopting lean accounting principles aims to provide accurate, suitable, reliable, and transparent information to improve the quality of accounting processes, reduce process flow time, and, consequently, mitigate deceptive practices.

Second: Recommendations

1. It is essential to focus on modern and contemporary methods used in management accounting at Baghdad Bank in order to reduce deceptive practices.

2. The bank's management should recognize the importance of lean accounting in banking institutions and its direct impact on black box accounting practices. The absence of this focus could lead to missed opportunities for the bank to achieve growth, expansion, sustainability, and excellence.

3. The bank should direct its efforts toward uncovering and significantly reducing deceptive operations and practices by simplifying the value stream, clarifying accounting process steps, and emphasizing the core principles of lean accounting.

4. There is a need to develop and adopt lean accounting principles within the bank under study in a comprehensive and precise manner, as these principles represent modern approaches aimed at achieving excellent performance and protecting the bank's operations from deceptive practices.

5. The bank's leadership should prioritize the study and enhancement of black box accounting management continuously, making it a working philosophy among the bank's leadership and emphasizing direct customer focus.

The Arabic sources:

Here are the references in APA format:

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

1. Al-Bayati, G. A. S. (2018). The Feasibility of Implementing Lean Accounting in Iraqi Industrial Companies: A Case Study at the Hand-Made Gas Filling Plant in Kirkuk City. Kirkuk University Journal of Administrative and Economic Sciences, 8(1).
2. Al-Janabi, M. M. H. (2018). Lean Approach. Noor Publishing.
4. Shuja, M. F. (2015). The Role of Lean Accounting in Cost Reduction: An Applied Study on Fine Paper Company. Master's Thesis, Middle East University.
5. Atiya, K. M. B. (2017). The Availability of Lean Accounting Implementation Factors in Industrial Companies in Gaza Sector: An Analytical Field Study. Master's Thesis, Islamic University of Gaza.
6. Al-Masoudi, H. A. J., & Hamza, A. A. (2016). Integration between Lean Accounting Techniques and Sustainable Balanced Scorecard. Iraqi Journal of Administrative Sciences, 12(50).
7. Al-Mousawi, A. N. K., & Abbas, S. M. A. (2015). The Use of Lean Accounting Tools to Support Lean Production Systems and Evaluate the Performance of Economic Units. Al-Kut Journal of Economic and Administrative Sciences, 17.

The foreign sources:

1. Agarwal, G.K. and Medury, Y. (2014), "**Internal Auditor as Accounting Fraud Buster**", The IUP journal of accounting research & audit practices, Vol 13.pp.
2. Ahakchi, Roy; Ahakchi, Rana; Yangjh, Sattari Batol and Alilou, Mansour, (2012), "**Lean Accounting, Adaptation Tool Lean Thinking and Lean Production**", World Applied Sciences Journal, 17(8).
3. Bierstaker James L, Richard G Brody, Carl Pacini, (2006), "Accountants' perceptions regarding fraud detection and prevention methods", Managerial Auditing Journal 21(5):520-535.
4. Blocher, Edward J; stout, David E; Cokins, Gary, (2010), "**Cost Management a strategic emphasis"**, fifth edition, MC Graw – Hill Irwin, New York.
5. Chopra, Abha (2013**), "Lean Accounting-An Emerging Concept"**, International Journal of Marketing, Vol. 2, No. 8, PP. 79-84, India.
6. Daniel Haskin, (2010), "**Teaching Special Decisions in A Lean Accounting Environment**", American Journal of Business Education –Volume 3, Number 6.
7. David L. Scott, (2003), "**An A to Z Guide to Investment Terms for Today's Investor**", Houghton Mifflin Company. Published by Houghton Mifflin Company, all rights reserved.
8. David, J. S., MacCracken, H. and Reckers, P. (2003), "**Integrating Technology and Business Process Analysis into Introductory Accounting Courses**", Issues in Accounting Education, 18, 4, 417-425.
9. Davis, Charles E; Davis, Elizabeth, (2012), "**Accounting**", John Wiley and Sons, Inc., USA.
10. Garrison, R., Noreen, E., Brewer, P. (2010),"**Managerial Accounting**", 13Th Edition, McGraw Hill, Irwin.
11. Hansen, R. & Others, (2009), "**Cost Management Accounting & Control**" 6th edition, South Western Cengage Learning, USA.

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

12. Kateryna Ogar, Muhammad Abdus Samad, Yumeng Shu, (2017), "**Value Creation with Lean Accounting -optimizing utilization of resources through the value chain applying management accounting techniques in a package around management control system**", Master Program in Accounting and Finance, Accounting and Management Control, BUSN79 Degree Project, Spring.
13. Laura, Cretu (2010), "**Lean Accounting Anew Global Approach"**, The Journal Ovidius University Annals Economy, Romania.
14. LIBERTO DANIEL, (2020), "**Black Box Accounting**", CORPORATE FINANCE & ACCOUNTING.
15. Maheshwari. SN, Maheshwari. SK, (2009), "**Corporate Accounting**", Fifth Edition, Vikas Publishing House Pvt Ltd.
16. Maskell, Brian H. & Baggaley, Bruce L., (2006), "**lean accounting: What's it all about?**", target Volume 22, Number 1, first issne.
17. Maskell, Brian; Baggaley, Bruce; Grasso, Larry, (2012), "**Practical Lean Accounting Aproven system for measuring and managing Lean enterprise"**, second edition, BMA Ine cherry Hill.
18. Monroy, Carlos and Nasiri, Azadeh and Pelaez, Miguel, (2013), "**ABC, Td ABC, Lean accounting: Accounting Systems Approach to Manufacturing**", Management Accounting Journal, Vol. 24, No. 5.
19. Pai, P.F. and Hsu, M.F. and Wang, M.C. (2011), "**A support vector machine-based model for detecting top management fraud**", Knowledge based systems Journal Vol. 24, pp. 314–321.
20. Richard T. Grenci & Grenci Anthony F, (2004), "**A Spreadsheet Solution to Black Box Accounting**", AMCIS 2004 Proceedings. 224. http://aisel.aisnet.org/amcis2004/224. (1876 -1877)
21. Sahiti Arben & Bektashi Mejdi, (2015), "**Detection Techniques of Fraud in Accounting**", European Journal of Economics and Business Studies 2(1):96.
22. Stephen L. Woehrle, Louay Abou-Shady, (2010), "**Using Dynamic Value Stream Mapping and Lean Accounting Box Scores to Support Lean Implementation**", American Journal of Business Education –Volume 3, Number 8.
23. Tuğçe Uzun Kocamis, (2015), "**Lean Accounting Method for Reduction in Production Cost in companies**", ISTANBUL University Vocational School of Social Science Accounting and Tax Department.
24. Wempe, William F, (2011), "**Financial Consequences from Implementing Lean Manufacturing with the Support of Non-Financial Management Accounting Practices**", Management Accounting Section (MAS) of American Accounting Association (AAA) conference.

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 10 in Oct-2023 https://www.globalresearchnetwork.us/index.php/AJEBM