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## **The Role of SOX Act in Enhancing the Internal Control Systems of Kurdistan Banks**

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### **Abstract**

This Paper aims to present the role of Sarbanes-Oxley Act (SOX) in enhancing the Internal Control (IC) systems in banks, and to explain cons and pros of applying the act in developing countries.

The researchers display main topics of SOX Act, the possibilities for applying it in developing countries, and its impacts on IC system of banks.

They measured the role of SOX Act by distributing 50 questionnaires on a random group of bank's managers, and accountants in banks of Kurdistan. The questionnaires are analyzed by two statistical tools (Lean Diagnoses Tool and Fuzzy Logic) to get reliable information about the role of SOX Act in enhancing the IC systems in banks.

The researchers conclude that applying SOX Act in banks will make the IC systems in banks of developing countries stronger, and will provide managers and shareholders with high quality reports about IC systems in the banks.

**Keywords:** SOX Act, IC Systems, Banks of Kurdistan, LDT, and Fuzzy Logic

### **Introduction**

The effective system control is an essential part of bank management and a base of the safe and right operation of banking and finance organizations. The strong IC system can support to ensure that the aims and functions of a banking and finance organization will be met, that the bank will realize long-term profitability goals, .and preserve reliable managerial and financial reporting. This system can also assist to guaranty that the bank will respond with laws and regulations as well as policies, outline plans, internal rules, .and procedures, and reduce the risk of sudden losses or harm to the bank's reputation.

## **Sarbanes-Oxley Act**

### **The Concept**

Sarbanes-Oxley (SOX Act), or the Public Company Accounting Reform and Investor Protection Act of 2002, is the outcome of federal legislation sponsored by a senator and representative (Sarbanes, Paul, and Oxley, Michael).

SOX Act was developed as a result to issue raised by deceitful practices in accounting, just like those implicated in the WorldCom, Enron, and Tyco scandals, and the questions about governance in American firms that appeared in response to these events, threatening to shake investor trust in the financial business [1].

The Sarbanes-Oxley Act 2002 (SOX or the "Act" hereafter) has brought in several new mandates aimed at improving corporate financial reporting quality. These include provisions that enhance IC over financial reporting. (Section 404), auditor independence (Sections 201 and 203), audit committee effectiveness (Sections 202, 204, 301 and 407), and corporate executives' and directors' litigation costs (Sections 302, 807, and 906) [2].

SOX Act appeared to resolve the problems facing the financial transactions, IC system, disclosure, and governance in the firm [3].

### **The Content**

The Public Company Accounting Oversight Board (PCAOB) was founded by SOX Act and was laid out new principles for and limitations on firms, firm directors, and auditors. The Act is classified into eleven titles, as following [4]:

- Title I of the Act founds PCAOB, which is charged of supervision and registering public accounting firms and applying standards related to ICs and auditing.
- Title II of the Act addresses issues linked to the independence of the auditors and sets limitations on public accounting related firms to the term of non-auditing services, in addition to mandate frequently rotation of the coordinating and auditing partners.
- Title III of the Act covers the events of corporate responsibilities such as the independence of the auditing committee, incorrect impact on the attitude of audits, financial reports' executive certification, penalties concerning to financial restatements, and the professional responsibility for lawyers' rules.
- Title IV of the Act handles with increased financial disclosure, including disclosures in annual reports, increased interest provisions' conflict, the disclosure of transactions involving management or principal stockholders, the disclosure of the existence of an audit committee financial expert, and the much-discussed management estimation of IC.

- Title V of the Act focuses on conflicts of interest's analyst.
- Title VI focuses on SEC supplements and dominion.
- Title VII deals with studies and reports.
- Title VIII of the act addresses firms and the accountability of criminal fraud.
- Title IX focuses on the white-collar crime penalty enhancements.
- Title X addresses the signing the tax returns of the firm by chief executive officers.
- Title XI deals with firm fraud and accountability.

Each title has many sections addressed specifics details of the title, such as (section 302, and section 404).

### **The Objectives:**

The SOX Act has many objectives, as following <sup>[5]</sup>:

1. Reporting- Upgrade Disclosures
  - Management certification
  - Evaluation of ICs
  - Off-balance sheet and pro forma disclosures
  - Real time issuer disclosures
2. Roles- Strengthen Corporate Governance
  - Auditor communications and audit committees
  - Audit committee standards
3. Relationships- Intensify Auditors Independence
  - Prohibition of certain services by auditors
  - Audit partner rotation
  - Restrictions on company hiring of audit team members
4. Enforcement- Increase Oversight
  - PCAOB Authority
  - Increases SEC reviews of public filings
5. Penalties- Broaden Sanctions

- Forfeiture of certain bonuses and profits

## IC System

### The Definition:

An IC system depends on different styles and measures prepared into firm and performed within it to check the following four objectives <sup>[6]</sup>:

1. The protection of assets
2. The checking of the reliability and accuracy of accounting information.
3. The promotion of operational capacity
4. The performance of specific managerial policies.

A firm that obtains these four objectives is typically one with good corporate governance. . This goes to manage a firm in a fair, clear, and accountable method to save the all the stakeholder groups' interests.

COSO deals with IC as a system drawing the policies, plans, and steps performed by management of a firm to save its assets <sup>[7]</sup>.

Generally, the individuals interested in this effort are the directors of entity's board, the managers, and other important people in the firm.

### The Objectives:

The managers of organization typically has three broad goals to design an effective IC system <sup>[7]</sup>:

#### Operations Goals

These relate to effectiveness and efficiency of the firm's activities, including financial and operational performance objectives, and safeguarding assets against loss.

#### Reporting Goals

These relate to internal and external financial and non-financial reporting and may encompass reliability, transparency, timeliness, or other conditions as set forth by recognized, regulators standard setters, or the policies of firm.

#### Compliance Goals

These relate to adherence to laws and regulations to which the entity is subject.

### The Components:

COSO's IC—Integrated framework, the most widely accepted IC framework in the United States, draws five components of IC that management applies and performs to give reasonable assurance that its control objectives will be met. Each component has many controls, but auditors concentrate on those prepared to prevent or detect material misstatements in the financial statements<sup>[9]</sup>.

The COSO's IC components include the following<sup>[8]</sup>:

**Control environment****Risk assessment****Control activities****Information and communication****Monitoring****The Relationship of Objectives and Components**

There is a direct relationship which exists between objectives, this relations are what an entity strives to achieve, components, which show what is required to apply the objectives, and the organizational structure of the firm (the operating units, legal entities, and other)[10].

The relationship can be shown in the form of a cube, as shown in figure (1)

- The three categories of objectives; operations, reporting, and compliance, are represented by the columns.
- The five components are represented by the rows.
- An entity's organizational structure is represented by the third dimension.



Figure 1. The Cube of COSO

**SOX Act and IC System****The role of SOX Act**

The fresh requirements ought to enhance entities' IC over financial reporting by qualifying additional suitable identification and treatment of weak points.

Many scholars and researchers believe that through the creation of an outstanding management requirement, entities will learn from their valuation operations and remediate specified lack on an outstanding foundation, which must result in extra reliable financial reporting and greater investor trust.

Even with these new requirements, it is possible that management fraud or errors will happen and not be discovered. IC over financial reporting is purposed to supply sensible assertion about the accuracy of financial reporting.

This is a good level of assertion, but it is not perfect. As the PCAOB standard realizes, there is no system of IC perfectly safe from human error or from manipulation and collusion. Even the best IC over financial reporting cannot give perfect assertion that an entity is free of fraud or that misstatements in financial reporting will always be denied or revealed on a timely base. Investors and other financial statement users or individuals must also recognize that the reports on IC over financial reporting issued by managers and the independent auditor do not supply any form of assertion on the validity of an entity's business strategies or its capability to realize financial goals.

### **The Sections 302 and 404**

The sections 302 and 404 of SOX Act appoint the different functions of the managers, the committee of the audit, and the external auditors. However, these two sections do not specifically appoint the functions of internal auditors.

These sections do it express that management is taking charge of the sufficiency of ICs.

The certification by these officers required by Section 302 states that[11]:

- Are accountable for posting and looking after ICs.
- Have designed such ICs to guarantee that material input relating to the source and its integrated subsidiaries is made known to such officers by others over those organizations, especially during over the time in which the frequent reports are being prepared.
- Have estimated the activity of the ICs' issuer within 90 days before the date of the report.
- Have shown their final results about the activity of their ICs based on their estimation as of that date in the report.

Section 302 asks managers quarterly certification of disclosure controls and procedures, not only financial reporting controls

It also asks them to evaluate and to report on the activity of disclosure controls and transactions with respect to the quarterly and yearly reports.

Section 404 of SOX Act asks managers to develop and to monitor of transactions and controls to make their required assurance about the adequacy of ICs over financial reporting, also the required confirmation by an external auditor of managers assurance.

It asks too managers to record and evaluate the design and process, and report on the activity, of its IC over financial reporting.

Also, Section 404 asks an external auditors' issuer to straighten manager's rating of ICs and to issue a report about that.

Although sections 302 and 404 do not allow specific responsibilities to the committees of the audit. The services that may be done by the internal audit actions in gathering the requirements of Sections 302 and 404 must not intervene with the requirement of the internal auditor's independence and objectivity standards.

These standards can provide the framework for an good internal audit activity, and the recommended function of the internal audit activity in helping an entity to meet its sections 302 and 404 commitment must be consistent with the standards.

### **Practical Part**

#### **IC Systems in Banks:**

IC systems are a critical component of risk management; however, they can be quite the investment. And balancing the potential cost of them versus maintaining profitability of the organization can often be a challenge for banks. Maximizing the efficiency and effectiveness of ICs is one way to achieve goals on multiple ends of the spectrum.

No matter the shape or size of a bank, following these measures can lead to more efficient and effective ICs:

- **Establishing efficient separation of duties** – preventing one employee from performing conflicting duties and protecting the organization against undetected fraud and errors.
- **Increasing reliance on system controls** – enabling controls that function continuously, consistently and more efficiently than manual controls
- **Focusing attention on crucial issues** – determining and investing IC resources in the issues that are a top priority to the organization

By focusing on the balance of efficiency and effectiveness, banks can leverage ICs to better manage risk.

#### **The Analysis Tools:**

In this paper, the researchers use 2 statistical tools to evaluate the role of SOX Act in enhancing the IC systems of Kurdistan banks, these tools are:

#### **Fuzzy Logic Tools:**

Fuzzy sets were introduced by Prof. Lotfi A. Zadeh in 1965, where plentiful degrees of membership are pliable, and were specified with a number between 0 and 1. The stage of going away for fuzzy sets is purely the popularization of the evaluation set from the pair of numbers  $\{0,1\}$  to all the numbers in  $[0,1]$ . This term is called the function of membership and is indicated as  $A$ , and in this method we own fuzzy sets. Functions of membership are mathematical tools to indicate flexible membership to any

set, forming and quantifying the concept of symbols. They can symbolize a subjective concept of an ambiguous class, just like chairs in a hall, size of people, and performance among others[13]. Moreover, when linguistic variables are applied, these degrees can be well-managed by particular functions. Irrationality can be qualified in expressions of what is known as the fuzzjective[14], [15].

### **Lean Diagnosis Tool:**

The preferable method to know the Lean progress is by measuring it employing an audit system. Many organizations have developed the Lean Diagnostic Tool (LDT) to cover all aspects of a Lean Production System. The audit has been developed across a large group of companies to manufacture best practice criteria. The LDT gathers a shot of the lean industrialization culture and kaizen actions over a particular site. In order to achieve this, the tool gauges the level of implementation and improvement observed in a number of key lean components which include<sup>[16]</sup>:

- Leadership
- Organization and human resources
- Culture
- Quality
- Operational basics
- Lean plant layout
- Supply chain
- Safety and environment
- Financial systems
- Innovation

The LDT can be a tool to tell us how lean systems are improving and supporting in planning the following steps. This measure is critical in evolving a lean culture and the talent to tolerate the important and precious improvements. Simply, it is hard to live PCDA (Plan-do-check-act) without test its outcomes.

The LDT outcomes are illustrated on a spider diagram to display the sum progression in each component as well as an aggregate total explaining the site lean sum.

The LDT is a great spot to begin benchmarking each year outcomes and then get a yearly planning day to design your top-level policy and raise the speed of lean improvements over the performance.

### **Measuring The role of SOX Act in IC System**

The researchers distributed randomly a refereed questionnaire to 50 bank's managers, and accountants in banks of Kurdistan. The questionnaires are analyzed by the two statistical tools to get reliable information about the role of SOX Act in enhancing the IC systems in banks.

The researchers collected professional opinions on the role of SOX Act in enhancing the management, the audit committee, and the external auditors in IC of the Kurdistan banks according to COSO's IC system framework by the questionnaire, and analyzed them by Fuzzy Logic and LDT.

Table (1) shows the main components, and subcomponents of COSO framework

TABLE I. COSO FRAMEWORK COMPONENTS

Code	Component	Subcomponent
C1	Control environment	
C1-1		Integrity and ethical values
C1-2		Commitment to competence
C1-3		Board of director or audit committee participation
C1-4		Management's philosophy and operating style
C1-5		Organizational structure
C1-6		Human resource policies and practices
C2	Risk assessment	
C2-1		Risk assessment processes
C2-2		Categories of management assertions
C3	Control activities	
C3-1		Adequate separation of duties
C3-2		Proper authorization of trans. and activities
C3-3		Adequate documents and records
C3-4		Physical control over assets and records
C3-5		Independent checks on performance
C4	Information and communication	
C4-1		Occurrence
C4-2		Completeness
C4-3		Accuracy
C4-4		Posting and summarization
C4-5		Classification
C4-6		Timing
C5	Monitoring	

The questionnaire has 2 parts. The first part polls the opinions of selected respondents about the role of SOX Act in enhancing the IC system in Kurdistan banks according to COSO framework and the second one polls the opinions of selected respondents about the materiality of COSO framework components and subcomponents.

Table (2) shows the result of analyzing the questionnaire outcomes by Fuzzy Logic.

TABLE II. THE ANALYZED RESULTS

Code	Materiality	Impact	Fuzzy weight
C <sub>1</sub>	26%	31.6%	8.22%
C <sub>1-1</sub>	4%	25%	1.00%
C <sub>1-2</sub>	3%	35%	1.05%
C <sub>1-3</sub>	12%	58%	6.96%
C <sub>1-4</sub>	3%	13%	0.39%
C <sub>1-5</sub>	1%	5%	0.05%
C <sub>1-6</sub>	3%	22%	0.66%
C <sub>2</sub>	21%	11.2%	2.35%
C <sub>2-1</sub>	14%	24%	3.36%
C <sub>2-2</sub>	7%	32%	2.24%
C <sub>3</sub>	22%	20.8%	4.58%
C <sub>3-1</sub>	8%	17%	1.36%
C <sub>3-2</sub>	4%	22%	0.88%
C <sub>3-3</sub>	5%	31%	1.55%
C <sub>3-4</sub>	2%	14%	0.28%
C <sub>3-5</sub>	3%	20%	0.60%
C <sub>4</sub>	17%	20%	3.40%
C <sub>4-1</sub>	4%	16%	0.64%
C <sub>4-2</sub>	3%	19%	0.57%
C <sub>4-3</sub>	5%	17%	0.85%
C <sub>4-4</sub>	2%	12%	0.24%
C <sub>4-5</sub>	1%	15%	0.15%
C <sub>4-6</sub>	2%	21%	0.42%
C <sub>5</sub>	14%	23%	3.22%

To measure the level of deviation of applying SOX Act in IC system of Kurdistan banks by examining the financial statements and audit reports of 5 banks in Kurdistan (Cihan bank, Erbil bank, North bank, RT bank, and KI bank), the researchers use LDT.

Table (3) shows the values of key lean components, and figure (2) illustrates the values by radar chart.

TABLE III. THE VALUES OF KEY LEAN COMPONENTS

Key Lean Components	Values
Leadership	18%
Organization and human resources	23%
Culture	8%
Quality	49%
Operational basics	27%
Lean plant layout	19%
Supply chain	37%
Safety and environment	41%
Financial systems	62%
Innovation	31%

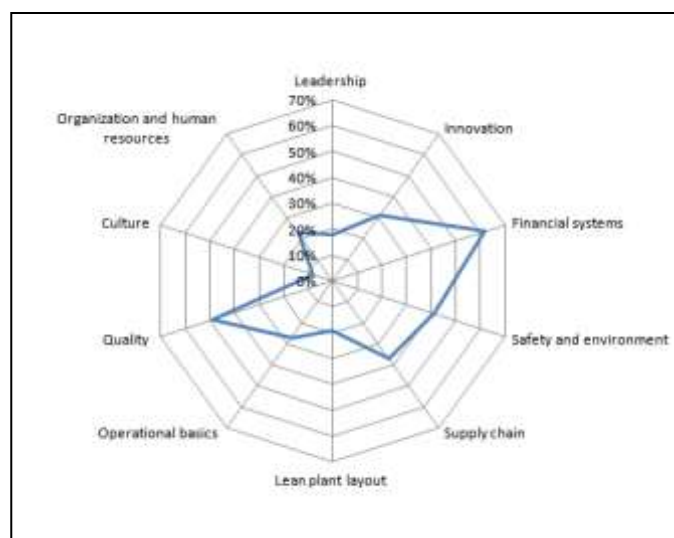


Figure 2. The Radar Chart of LDT

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