



# **The Implementation of the Committee of Sponsoring Organizations (COSO) Decisions and their Effect on Reducing Money Laundering (A Field Study in Jordanian Financial Institutions)**

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## **Abstract**

This research aimed to examine the implementation of the Committee of Sponsoring Organizations (COSO) Decisions and their effect on reducing money laundering in Jordanian financial institutions. To achieve the objectives of the study, a descriptive analytical approach based on analyzing and interpreting the results and presenting proposals to address the problem was used. The study sample constituted of 254 workers in the financial departments, and the data collected using questionnaires distributed on workers in the financial departments (branch manager, head of department) and internal audit departments (customer service and reporting officer) in financial institutions. The results of the study indicated an increase in the level of importance of implementing the decisions of the committee sponsoring organizations in Jordanian financial institutions. The study also found that the level of importance of money laundering reduction in Jordanian financial institutions is high from the point of view of the sample individuals. The research proved that there is a statistically significant effect of the internal control dimensions according to the framework of the COSO in reducing the money laundering operations at Jordanian financial institutions

**Keywords:** Committee of Sponsoring Organizations (COSO) Decisions, Money Laundering, Financial Institutions, Jordan.



## 1. Introduction

As a result of tremendous technological developments, the level of risks to which operational processes in financial institutions have been exposed has increased precisely, and these risks may affect the objectives of the organizations which seek to achieve. Consequently, departments sought to violate an administrative system that contributes to avoiding exposure to these risks or even to reducing their level of impacts across the organization as a whole.

Jordan is currently surrounded by various risks because of political turmoil and wars, as this contributed to increase the rates of money laundering crimes in financial institutions. The crime of money laundering represents a pressure factor on the regulatory structure in Jordanian financial institutions, especially in light of weak economic entities in the surrounding countries that do not have the ability to confront money laundering crimes. The situation has worsened, where gangs have used financial institutions as transit points for drug smuggling, which increases the level of need for regulatory regimes in legislative and legal terms.

These legislations are related to the accounting profession, which makes accounting an important means in discovering financial crime, and given that the structure of internal control according to the framework of the Committee sponsoring organizations (COSO) is considered one of the most reliable references in developing internal control systems, the current research seeks to examine the implementation of the Committee of Sponsoring Organizations (COSO) Decisions and their effect on reducing money laundering in Jordanian financial institutions.

### 1.1 Research problem and questions

The problem of gangs' use of financial institutions as channels for money-laundering operations has gained international, regional and local attention. Several protective instructions have been issued to increase the level of internal control over financial institutions. International organizations have also paid attention to the auditing profession and the need to take an effective role in combating money laundering crimes and evaluating the regulations adopted in controlling and combating this crime.



Moreover, the internal control report emanating from the Committee of sponsoring organizations (COSO) is considered one of the most important means of internal control that has been adopted in American companies and a group of companies deployed in various countries of the world as a system of internal control in financial institutions (Al-Azmi, 2012: 3). Accordingly, the study problem can be summarized in the following main question: **What is the effect of the dimensions of the Committee of Sponsoring Organizations (COSO) Decisions on Reducing Money Laundering within Jordanian Financial Institutions (control environment, risk assessment, control activities, information and communications, monitoring) on reducing money laundering in Jordanian financial institutions?**

Several sub-questions emerge from the main question including;

1. What is the level of importance of implementing the decisions of the committee sponsoring organizations in Jordanian financial institutions from the point of view of the study sample?
2. What is the level of the importance of reducing money laundering in Jordanian financial institutions from the point of view of the study sample?

## **1.2 Research importance**

This research contributes to identifying the importance of reducing money laundering for the study sample and the effect of COSO decisions on reducing money laundering in Jordanian financial institutions. Clarifying this effect is one of the most important topics of interest to academics, legal professionals and workers in the Jordanian financial sector.

## **1.3 Research objectives**

This research seeks to achieve the following objectives:

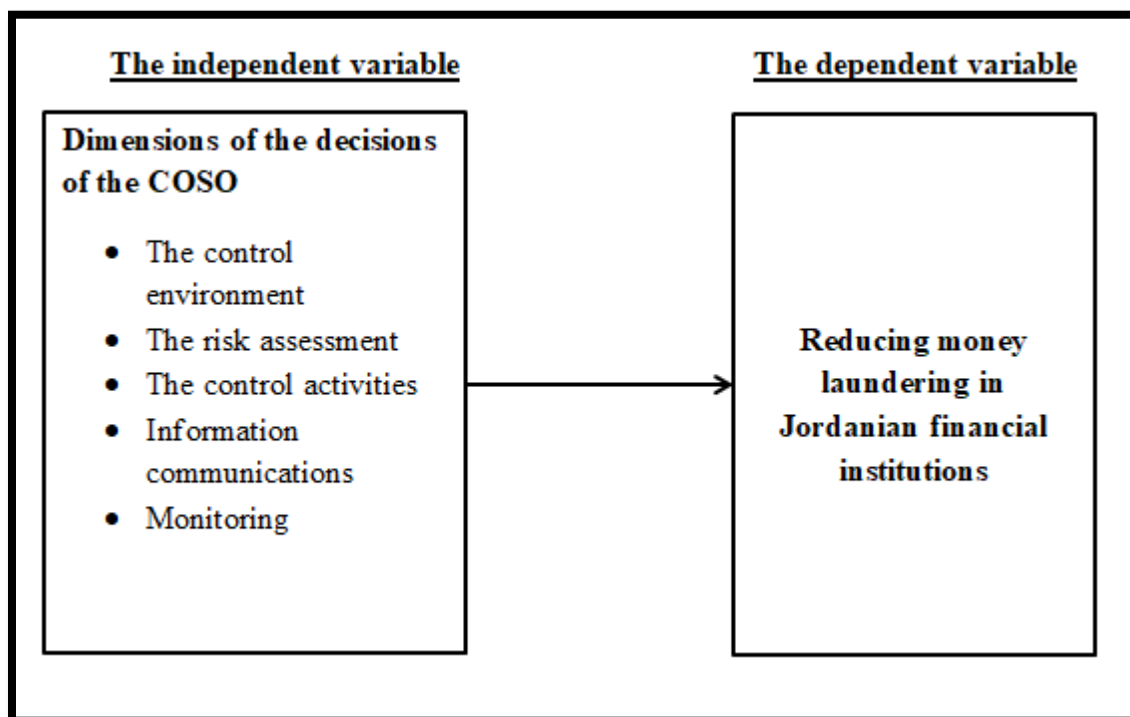
1. To examine the effect of the dimensions of the Committee of Sponsoring Organizations (COSO) Decisions on Reducing Money Laundering within Jordanian Financial Institutions (control environment, risk assessment, control activities, information and communications, monitoring) on reducing money laundering in Jordanian financial institutions.



2. To reveal the level of importance of implementing the decisions of the committee sponsoring organizations in Jordanian financial institutions from the point of view of the study sample.
3. To reveal the level of the importance of reducing money laundering in Jordanian financial institutions from the point of view of the study sample.

### 1.4 Research model

The current study relies on the independent variable that includes the dimensions of the decisions of the COSO, which includes the control environment, risk assessment, control activities, information and communications and monitoring. The dependent variable is represented in reducing money laundering in Jordanian financial institutions.



**Figure 1: Research model**

(Developed by the researcher referring to Al-Khiro (2013), Al-Azmi (2012), Badawi (2011))



## 1.5 Research hypothesis

The research seeks to test the following hypothesis:

- There is no statistically significant effect at the level of significance ( $\alpha \leq 0.05$ ) of the internal control elements according to the framework of the COSO with its dimensions (regulatory environment, risk assessment, control activities, information and communications, monitoring) on reducing money laundering operations at the Jordanian financial institutions

## 2. Literature review

This section is divided into four main parts, including the internal control system according to COSO, Jordanian financial institutions, the crime of money laundering, and the contribution of internal control in accordance with the (COSO) framework in reducing money laundering.

### 2.1 The internal control system according to The Committee of Sponsoring Organizations of Tread way Commission (COSO)

In 1987 the Committee was established to sponsor the organizations in order to supervise the National Committee which is specialized in preparing fraudulent financial reports. The National Committee is tasked with identifying the factors that contribute to circumventing financial reports and trying to limit proposals to auditors and educational institutions in this regard. In 1992, the Committee for Sponsoring Organizations issued the Integrated Framework for Internal Control, which represented the reference for internal control procedures for various countries of the world (COSO, 2013).

In 2013, the sponsoring committee of organizations updated this framework due to the wide technological development and the need for more laws and regulatory systems for companies, increased competition and accountability, globalization of markets, and labor market complexities. The amendments included a set of improvements aimed at facilitating the application of the elements of the framework, as the basic concepts were formalized to become principles associated with the five elements of the effectiveness of the regulatory system (Tysiac, 2014).



The internal control system seeks to achieve a set of goals that are important to the operational environment, as the achievement of these goals includes all companies of all types and objectives. Therefore the departments seek to achieve the internal control system according to COSO. These goals include the following (Wiley, 2016: 537):

1. Operational goals: as these goals focus on ensuring the effectiveness of the organization's special operations, protecting assets from loss, and enhancing organizations 'ability to achieve profitability.
2. Report Objectives: These goals are concerned with internal and external reports and ensure that they observe various regulations and laws, in addition to protecting these reports from exposure to fraud or errors.
3. Compliance goals, where this goal is focused on assessing the organization's level of compliance with laws, regulations to enhance the level of its performance effectiveness.

### *2.1.1 Components of the internal control structure in accordance with the framework of the Committee sponsoring organizations*

The internal control system consists of five basic elements and dimensions, including:

1. Control environment: It refers to the standards that need to be implemented in the organizations internal control system .These standards are considered necessary to enhance the level of performance effectiveness in the organization and to enable the rest of the elements to achieve the expected benefit from them (Arens, et.al., 2014:312). The control environment includes a set of criteria such as; moral values, the nature of the organizational structure, designing special policies in human resources such as maintaining and attracting competencies, firmness in implementing administrative laws, and establishing special systems in rewards and incentives.
2. Risk assessment: where risks are defined as the likelihood of an organization to expose to a specific event that negatively impacts the organization's ability to achieve goals (Mushtaha, 2015: 263). This process includes identifying and analyzing risks and determining how each risk is dealt with.



In this case, the management must analyze the potential risks that could affect the stability of the organization (Al-Khiro, 2013: 419).

3. Control activities: This step includes ensuring that the procedures which have been put in place in the organization to avoid and deal with risks have been adhered to (Al-Khalidi, 2015: 305). The implementation of these activities is done at the level of various administrative levels and in all construction operations (Al-Thunaibat, 2015: 181-182).

Among the most prominent control activities are the evaluations of the performance level, data processing, strengthening the level of physical control, separation of tasks, and delegation.

4. Information and Communication: these are the technologies that are used in implementing internal control works, which increase the organization's ability to achieve its goals. Communication allows to share knowledge and to collect information necessary for the work of the organization. Communications are divided into internal and external, as internal communications allow the flow of information across all workers in the organization, while external communications allow access to external information related to the facility (Al-Khiro, 2013: 409).
5. Monitoring activities: These are the measures that the organization implements to ensure the organization is moving in the right direction and achieving the required goals.

## **2.2 Jordanian financial institutions**

The financial system in Jordan consists of banks, insurance companies, and Brokerage firms, where banks are considered one of the largest components of the financial system, where the assets at the end of 2015 reaching about 48 billion dinars. As for financial institutions, they are defined as an entity that practices the financial activities stipulated in Article 37 of the Jordanian Banking Law, with the exception of private activities in accepting deposits.

The changes and developments that have occurred in financial institutions have contributed to increasing the level of challenges facing banks, such as financial liberalization and increasing the level of competition between banks regarding goods and services.



As a result, banks have sought to enhance their ability to meet current challenges by developing internal and external control systems (Al-Rugaibat, 2014: 29). The Central Bank is one of the most professional bodies in overcoming the challenges facing the banking sector, where the challenges are represented in the debt problem of defaulters and various banking violations (Jabr, 2003: 133).

The central bank is responsible for the following (Al-Rugaibat, 2014: 29):

1. Financial evaluation of financial institutions.
2. Ensuring the financial efficiency of banks and the ability of banks to fulfill their obligations.
3. Determining the size of assets in banks
4. To analyze of the nature of the problems facing financial institutions
5. To suggest appropriate solutions to the problems facing financial institutions.
6. Ensuring that financial institutions adhere to compliance with laws and regulations.

### 2.3 Money laundering crime

Money laundering is defined according to the Jordanian Anti-Money Laundering Law No. (46) of the year 2007 as “*Every conduct involving acquisition, possession, disposing od, moving, managing, keeping, exchanging, depositing, investing of funds or manipulating its value or movement and transferring, or any action that leads to conceal or disguise its source, origin, nature, place, disposition mean, ownership or related rights, which knowledge that funds are proceeded of one of the crimes stipulated*” in article (4) of this law.

There are many activities that result in money laundering, the most important of which are (Al-Omari, 2000: 24; Abdullah, 2008: 235):

- 3 The drug trade activity, where the money resulting from drug trafficking activities is considered the main source of money laundering.
- 4 Financial and administrative corruption activities: This includes activities of bribery, the seizure of public money, and embezzlement due to violating the rules of internal auditing.





5 Arms trade activities: The arms trade is an operation that produces illicit money, so that it takes place in complete secrecy, away from the control of the competent authorities.

The researchers did not agree on the existence of a specific method for money laundering, but it is carried out through a set of stages, which are summarized in the following points (Al-Rashdan, 2007: 57; Abdullah, 2008: 26):

1. The stage of money placement: It is one of the most sensitive stages of money laundering according to the ease of detecting the criminal at this stage. This stage depends on the criminal investing the illegal money in a certain way, such as converting it into a foreign currency or buying valuable jewelry in it.
2. Layering stage: This stage includes the use of funds from more than one source to keep suspicions away from the original illegal source.
3. Integration stage: This is the last stage of money laundering, in which the crime of money laundering is completed, where the illicit money becomes clean money and the owner can dispose of it.

#### **2.4 The contribution of internal control in accordance with the (COSO) framework in reducing money laundering**

According to the previous explanation, the internal control framework in accordance with the COSO framework provides three categories of objectives, including; the operational goals, reporting goals, and compliance goals which must be integrated with the five components of COSO framework. Researcher concluded the following points on the contribution of the implementing of the COSO framework in combating money laundering:

- With regard to the objectives of the reports, these reports must be established in accordance with a set of professional standards that are reliable and transparent, and this is precisely what the Anti-Money Laundering audit program requires in detecting and monitoring suspicious financial operations.



- Some developed countries have already been able to enact laws that require companies to conduct a special audit to determine the level of companies' adherence to special regulations in combating money laundering crimes (Alessandro, 2015). As a result, a trend has emerged specializing in the fight against money laundering called "An Independent AML Audit". This audit is concerned with clarifying the extent of companies and organizations' commitment to follow local laws related to money laundering. It also aims to assess the level of efficiency of automated systems in monitoring, controlling foreign assets, and providing special training programs in the fight against money laundering.

### **3. Research methodology**

To achieve the objectives of the study, a descriptive analytical approach based on analyzing and interpreting the results and presenting proposals to address the problem will be used.

#### **3.1 Population and study sample**

The study population consists of (insurance companies, Brokerage firms, exchange companies, commercial banks operating in Jordan) located within the borders of the capital, Amman.

Among the most important reasons that prompted the researcher to not cover the whole society, is its inability to reach all exchange companies because of its distance and geographical distribution within the capital, and the length of time that the researcher can take to study all exchange companies, where the percentage that the researcher was unable to reach them (39.8%) ) Out of society, while (24.6%) of commercial banks, insurance companies and Brokerage firms refused to cooperate with the researcher according to instructions issued by the administration not to receive the questionnaire. Some companies believed that the researcher seeks to obtain some confidential information about them. Thus, the researcher was able to cover (35.6%) out of the Jordanian financial institutions.



The researcher chose a purposive sample that is appropriate and representative of the study community who cooperated with the researcher and who was able to reach them. This sample constituted (35.6%) represented by workers in the financial departments (branch manager, head of department) and internal audit departments (customer service and reporting officer) In financial institutions, the number of their employees is (470) individuals, which is the sample that the researcher intends to choose it because it has useful data for the study and to produce results or indicators that can be generalized. The researcher distributed (303) questionnaires. (255) questionnaires were retrieved and one questionnaire was excluded due to incomplete response on it. Thus, the questionnaires subject to analysis reached (254) questionnaires. The following table represents the number of questionnaires distributed, retrieved and valid for the purposes of statistical analysis.

**Table 1 :The names of financial institutions, their numbers and their ratios, and the number and percentage of companies that cooperated with the researcher and that were reached  
(Prepared by the researcher by reference to the central bank data)**

Numb.	Jordanian financial institutions			Companies that the researcher was unable to reach		Companies that did not cooperate with the researcher		Companies that the researcher was able to reach and collaborate with	
	Companies	Numb.	Ratio (%)	Numb.	Ratio (%)	Numb.	Ratio (%)	Numb.	Ratio (%)
<b>1</b>	Exchange	91	47.6	76	39.8%	-	-	15	7.9
<b>2</b>	Financial liaison	56	29.3	-	-	24		32	16.7
<b>3</b>	Insurance	31	16.2	-	-	17		14	7.3
<b>4</b>	Commercial banks (main branch)	13	6.8	-	-	6		7	3.7
<b>Sum</b>		191	100	76	39.8	47	24.6	68	35.6



**Table 2: The number of questionnaires distributed, retrieved and valid for the purposes of statistical analysis**

Numb.	Institutions	Distributed questionnaires		Retrieved questionnaires		Valid questionnaires	
		Numb.	Ratio (%)	Numb.	Ratio (%)	Numb.	Ratio (%)
1	Exchange	96	31.7	76	25.1	76	25.1
2	Financial liaison	50	16.5	45	14.9	44	14.9
3	Insurance	93	30.7	79	26.1	76	26.1
4	Commercial banks (main branch)	64	21.1	55	18.2	55	18.2
<b>Sum</b>		303	100	255	84.2	254	83.8

### 3.2 Questionnaire design

The researcher developed a questionnaire as a tool for the study. It was developed in a way that suits the variables of the study, through looking at previous studies related to the subject of the study where the questionnaire consisted of the following parts:

- **Section 1:** Questions related to demographic information, represented by (gender, age, educational qualification, job experience, job title).
- **Section 2,** which includes:
  - Paragraphs related to the measurement of study variables (the control environment, risk assessment, control activities, information and communications, monitoring), which represents the decisions of the Committee sponsoring organizations COSO as an independent variable
  - Paragraphs related to measuring the dependent variable, which is reducing money laundering in Jordanian financial institutions.

The final image of the questionnaire consisted of (35) paragraphs divided into: (28) paragraphs that measure the independent variable decisions of the COSO Committee, and (7) paragraphs measuring the dependent variable limiting money laundering in Jordanian financial institutions.



The researcher adopted the Likert scale in the questionnaire to give more flexibility to the sample members in the selection, where its values ranged between (1) which indicates strongly disagree and (5) which indicate strongly agree.

Based on that, the relative importance was determined according to the following:

- The degree of approval is very high: It includes the paragraphs that have obtained mean averages greater than (4.2).
- The high degree of approval: it includes a group of items whose mean averages ranges between (3.41 - 4.2).
- Medium degree of approval: it includes a group of items whose mean averages ranges between (2.61 - 3.4).
- Low approval level: It includes a group of items whose mean averages ranges between (1.81 - 2.6).
- Very low degree of approval: it includes a group of paragraphs that have obtained mean averages less than (1.8).

### **3.3 The validity and reliability of the study tool**

#### *3.3.1 The validity of the study tool*

- **Virtual validity**

The researcher presented the study tool to a group of academic arbitrators with experience and specialization to express their opinion on it in terms of the appropriateness of the paragraph for the content, the adequacy of the study tool in terms of the number of paragraphs, their comprehensiveness, the diversity of their content and the evaluation of the level of language drafting, or any other notes they see. The arbitrators' observations and suggestions were studied, and the amendments were made in light of the recommendations and opinions of the arbitrators such as: clarification of some terms, amendment of the content of some paragraphs, amendment of some paragraphs to be appropriate, removal or merging of some paragraphs, and correcting some errors of language formulation.



### • Structural validity

Structural validity is one of the tools of the instrument's validity, which measures the degree of correlation of the degree of each paragraph with the total degree of its axis. The following table shows the correlation coefficient of each of the paragraphs of the study tool with the total degree of its axis. Items that are negative or whose correlation coefficient is less than (0.25) are considered to be low and it is preferable to delete them.

**Table 3 :Paragraph correlation coefficients with the overall grade of its axis**

Dimensions of Study											
Regulatory environment		Risk assessment		Control activities		Information and communications		Monitoring		Reducing money laundering	
Paragraph	Correlation	Paragraph	Correlation	Paragraph	Correlation	Paragraph	Correlation	Paragraph	Correlation	Paragraph	Correlation
1	0.878	7	0.818	14	0.815	19	0.814	24	0.678	29	0.866
2	0.831	8	0.740	15	0.765	20	0.840	25	0.819	30	0.881
3	0.824	9	0.762	16	0.853	21	0.841	26	0.838	31	0.836
4	0.837	10	0.833	17	0.730	22	0.854	27	0.744	32	0.806
5	0.621	11	0.846	18	0.778	23	0.857	28	0.757	33	0.849
6	0.737	12	0.816							34	0.881
		13	0.778							35	0.823

It is clear from the previous table that the factors for distinguishing between the paragraphs ranged between (0.621-0.881), which are excellent distinctions that are higher than (0.25).

### 3.3.2 The reliability of the study tool

The reliability of the instrument used to measure the variables included in the questionnaire was also confirmed by calculating the value of the Cronbach Alpha factor. The result is statistically acceptable if its value is greater than (0.60), and whenever the value approaches one (1), i.e. 100%, this indicates higher stability degrees for the study tool (Sekaran, & Bougie, 2010).



Looking at the data in the following table, we find that the result of the Alpha Cronbach for the final sample was (96.85%), so the study tool can be described with consistency, and that the data obtained through it are appropriate to measure the variables and are subject to a high degree of reliability.

**Table 4: The reliability of the study tool for the study variables**

Variable	Dimension	Cronbach Alpha	Numb. Of paragraphs
Decisions of the COSO Organizing Committee	Regulatory environment	%86.75	6
	Risk assessment	%90.27	7
	Control activities	%84.65	5
	Information and communications	%89.49	5
	Monitoring	%82.30	5
<b>The overall index of the paragraphs of the decisions of the sponsoring committee COSO</b>		<b>%95.72</b>	28
<b>Reducing money laundering</b>	The overall index of the paragraphs of reducing money laundering	<b>%93.45</b>	7
<b>Overall index of paragraphs of the study tool</b>		<b>%96.85</b>	35

### 3.3 Normal distribution test

One-Sample Kolmogorov-Smirnov Test was used to test the distribution of data naturally if the number of cases is greater than (50).

**Table 5: Test the normal distribution of data**

Variables	Mean average	Standard deviation	K-S	sig
<b>Decisions of the COSO Organizing Committee</b>	<b>3.919</b>	<b>0.5425</b>	<b>0.933</b>	<b>0.349</b>
<b>Regulatory environment</b>	4.0171	0.54096	0.910	0.379
<b>Risk assessment</b>	4.0394	0.60800	1.521	0.070
<b>Control activities</b>	3.8173	0.66465	1.186	0.120
<b>Information and communications</b>	3.9024	0.69344	1.123	0.160
<b>Monitoring</b>	3.7551	0.66395	1.099	0.178
<b>Reducing money laundering</b>	<b>3.832</b>	<b>0.7475</b>	<b>1.240</b>	<b>0.093</b>



Based on the data shown in previous Table; the data distribution was normal, where the value of Sig for all dimensions reached values greater than 5% and the values of the K-S test for all dimensions less than (5).

### **3.4 Study procedures**

After selecting the study population, the researcher visited the financial institutions that the researcher was able to access and which collaborated with her, as they constituted 35.6% of the study population. The process of distributing and collecting questionnaires lasted for a period of (3) months from the date (1-9-2016 to 1-12-2016). After that, the researcher entered data and statistically processed it on the computer, and SPSS programming was used in conducting descriptive analysis and testing hypotheses through the use of a set of statistical methods such as percentages, mean, and standard deviation. Also a set of statistical methods and indicators was applied through Kalmogorov - Smirnov test, Cronbach Alpha, Multiple Linear Regression, VIF test and Simple Linear Regression.

## **4. Results analysis and discussion**

### **4.1 Description of the characteristics of the study sample**

This part of the study aims to show the frequencies and percentages of demographic information for the study sample towards the first part of the questionnaire, in terms of gender, age, educational qualification, job experience, job title, and below is an explanation of the sample answers.



**Table 6: the frequencies and percentages of demographic information for the study sample**

Variable	N.	Categories	Frequencies	Percentages (%)
<b>Gender</b>	1	Male	177	%69.7
	2	Female	77	%30.3
		Sum.	254	<b>%100</b>
<b>Age</b>	1	From 20- less than 35 years old	146	%57.5
	2	36-Less than 45 years old	75	%29.5
	3	46- Less than 55 years old	29	%11.4
	4	Over 55 years old	4	%1.6
		Sum.	254	<b>%100</b>
<b>Educational qualification</b>	1	Diploma or below	33	%13
	2	BA	172	%67.7
	3	M.A.	38	%15
	4	Ph.D.	11	%4.3
		Sum.	254	<b>%100</b>
<b>Job experience</b>	1	Less than 5 years	64	%25.2
	2	5- 10 years	100	%39.4
	3	10-15 years old	62	%24.4
	4	Over 15 years old	28	%11
		Sum.	254	<b>%100</b>
<b>Job title</b>	1	Branch Manager	19	%7.5
	2	Internal Auditor	123	%48.4
	3	Head of the Department	30	%11.8
	4	Customer Service Officer	13	%5.1
	5	Reporting officer	65	%25.6
	6	Other	4	%1.6
		Sum.	254	<b>%100</b>

The results of Table showed that 69.7% of the sample are male, and they are 177 individuals, while 30.3% are female, and they are 77 individuals. 57.5% of the sample are between the ages of 20 years - less than 35 years old, and they are 146 individuals, followed by 29.5% of the sample aged between 36 years - less than 45 years old, and they are 75 individuals. 67.7% Of the sample have a Bachelor's degree, and they are 172 individuals, followed by 15% of the sample have a master's degree, and they are 38 individuals, followed by 13% of the sample with a diploma degree, and they are 33 individuals, while 4.3% of the sample have their doctoral qualifications, and they are 11 individuals.



This is an indication that most of the sample members have university degrees that enable them to understand and understand the subject of the study and answer questions of the study tool with the required efficiency and accuracy. The results also show that 39.4% of the sample experience ranges between 5-10 years, and they are 100 individuals, followed by 25.2% of the sample whose experience is less than 5 years, and they are 64 individuals, followed by 24.4% their experience ranges between 10-15 years.

#### 4.1 Description of study variables

##### 4.1.1 Description of the independent variable COSO decisions

This part of the study relates to the description of the independent variable of the decisions of the COSO Organizing Committee in order to determine the level of importance of implementing decisions of the COSO Organizing Committee. To determine this, the mean, standard deviation, percentage, and rank were calculated for the responses of the study sample individuals as in the following table.

**Table 7: Means and Standard Deviations for COSO Dimensions**

Decisions of the COSO Organizing Committee	Dimension	Mean	Standard deviation	Percentage (%)	Rank	The level of importance
	Regulatory environment	4.0171	0.54096	80.3	2	High
	Risk assessment	4.0394	0.60800	80.8	1	High
	Control activities	3.8173	0.66465	76.3	4	High
	Information and communications	3.9024	0.69344	78	3	High
	Monitoring	3.7551	0.66395	75.1	5	High
	Overall index	<b>3.9197</b>	<b>0.54256</b>	<b>%78.4</b>		High



It is clear from the table that the values of the averages of the independent variable (COSO decisions) are all of high scores ranging from (3.755-4.0394), where the (risk assessment) dimension got the highest, and (observation) got the lowest rank, and the total rate of the variable (3.9197). Thus, it appears that the level of COSO decisions is within the high level. This result was consistent with the study of Eulerich et al (2015) and Badawi (2011), which achieved high levels from the point of view of the respondents, as the study of Eulerich et al, (2015) indicated that internal control is a central and important factor in corporate governance, and that there is a large and intense interaction between the function of internal control and the audit committee on one hand, and the efficiency and effectiveness of corporate governance and internal audit and risk management processes on the other hand.

#### *4.1.1.1 Regulatory environment*

The following table shows the mean, the standard deviation, and the ranking of the respondents' answers on the control regulatory dimension, which were measured based on (6) paragraphs.

The table indicates that this dimension achieved a mean average (4.0171) at a rate of (80.3%) of the total scale area, and with a standard deviation of (0.5409), which indicates that the level of the regulatory environment is high from the point of view of the respondents. This result was consistent with the study of Al-Khairu (2013) and Badawi (2011), which achieved high levels from the point of view of the sample individuals, as Al-Khairu (2013) concluded that the audit committees are committed to applying specific tasks and responsibilities and It has the powers to exercise its role effectively in combating money laundering.



**Table 8: shows the mean, the standard deviation, and the ranking of the respondents' answers on the control regulatory dimension**

	Num.	Paragraphs	Mean	Standard deviation	The level of importance	Relative importance	Rank	
<b>Regulatory dimension</b>	1	The control procedures used clarify the expected behavior of employees across the different administrative levels.	3.9488	0.67225	High	79%	5	
	2	Internal control procedures reinforce integrity and ethical values with employees	4.0551	0.69222	High	81.1%	2	
	3	Internal control procedures reinforce integrity and ethical values with clients	3.9921	0.74913	High	79.8%	4	
	4	The organizational structure helps employees know their powers and responsibilities.	4.0551	0.75764	High	81.1%	3	
	5	The employees are responsible for certain parts of the control system based on the job description of each employee	4.1024	0.60085	High	82%	1	
	6	The administration has set a set of control procedures and policies for implementation within the facility in a special guide	3.9488	0.70103	High	79%	6	
	Overall index			<b>4.0171</b>	<b>0.54096</b>	High	<b>80.3%</b>	



#### 4.1.1.2 Risk assessment

The following table shows the mean, the standard deviation, and the ranking of the respondents' answers on the risk assessment, which were measured based on (7) paragraphs.

**Table 9: the mean, the standard deviation, and the ranking of the respondents' answers on the risk assessment**

	Num.	Paragraphs	Average Mean	Standard deviation	The level of importance	Relative importance	Rank	
Risk assessment	7	The organization faces a variety of internal and external risks	3.9528	0.80373	79.1%	High	6	
	8	Internal control procedures are the first line of defense to address the risks associated with each job.	3.7638	0.90197	75.3%	High	7	
	9	Internal oversight staff participate in the discussion of control procedures to address the potential risk	4.2795	0.70893	85.6%	Very high	1	
	10	Management depends on modern technologies in the process of assessing risks, whether by identifying them or facing them	4.1732	0.75542	83.5%	High	2	
	11	Management has taken a number of sound measures to address risks.	4.0984	0.70722	82%	High	3	
	12	The management is adjusting internal controls to cope with changes in risks	4.0315	0.76934	80.6%	High	4	
	13	Employees have an awareness of identifying and categorizing the risks they face when performing their work	3.9764	0.68829	79.5%	High	5	
	Overall index			<b>4.0394</b>	<b>0.60800</b>	<b>80.8%</b>	<b>High</b>	



The table indicates that this dimension achieved average mean (4.0394) at a rate of (80.8%) of the total scale area, and with a standard deviation of (0.608), which indicates that the level of risk assessment is high, from the point of view of the sample individuals. This result agreed with the study of Al-Khairu (2013) and Badawi (2011), which indicates to the high level of risk assessment from the point of view of the sample individuals. The study of Al-Khairu (2013) indicated that the essence of the work of internal control is to determine the risks facing achieving the goals of the organization Then, setting priorities to manage those risks.

#### *4.1.1.3 Control activities*

The following table shows the mean, the standard deviation, and the rank of the respondents' answers to the control activities dimension, which were measured according to (5) paragraphs.

This dimension achieved average mean (3.8173) with a rate of (76.3%) of the total scale area, and with a standard deviation of (0.6646), which indicates that the level of control activities is high from the point of view of the sample members. This result was in agreement with the study of Al-Khairu (2013) and (Badawi, 2011). The study of Al-Khairu (2013) concluded that control activities are an important part of the process that the organization seeks to achieve, and it represents management mechanisms to achieve the goals of the organization.



**Table 10: The mean, the standard deviation, and the rank of the respondents 'answers to the control activities dimension**

	Num.	Paragraphs	Average Mean	Standard deviation	Relative importance	The level of importance	Rank	
Control activities dimension	14	The administration adopts a set of physical and electronic control activities to protect the institution's assets	3.9685	0.76419	79.4%	High	2	
	15	Control activities include mechanisms to evaluate the performance of workers in various organizational locations.	3.6732	0.90208	73.5%	High	4	
	16	The institution has control and control controls that prevent access to data and tangible assets	3.8465	0.88691	76.9%	High	3	
	17	The administration is keen on applying the principle of separating tasks and not directing conflicting tasks for the employee	4.0079	0.77507	80.2%	High	1	
	18	The Foundation uses the complaints method as a control tool	3.5906	0.88335	71.8%	High	5	
	Overall index			<b>3.8173</b>	<b>0.66465</b>	<b>76.3%</b>	<b>High</b>	

#### 4.1.1.4 Information and communications

The following table shows the average mean, the standard deviation, and the rank of the respondents 'answers to the information and communications dimension, which were measured according to (5) paragraphs.



**Table 11: The average mean, the standard deviation, and the rank of the respondents' answers to the information and communications dimension**

	<b>Num.</b>	<b>Paragraphs</b>	<b>Average Mean</b>	<b>Standard deviation</b>	<b>The level of importance</b>	<b>Relative importance</b>	<b>Rank</b>
<b>Information and communications</b>	19	The Foundation has an effective internal information network to provide managers with the information they need	3.7047	0.85939	High	74.1%	5
	20	The Foundation has an effective internal information network to provide managers with the information they need. The corporation collects and uses appropriate information related to supporting the work of internal control	3.8622	0.87607	High	77.2%	3
	21	The Foundation works to organize the delivery of information internally related to the goals and oversight responsibilities necessary to support the oversight work	3.7598	0.85823	High	75.2%	4
	22	The Corporation has an appropriate strategic plan for developing information systems	4.0984	0.75585	High	82%	1
	23	The Corporation has an effective communications mechanism to provide information to interested external parties	4.0866	0.77535	High	81.7%	2
	Overall index		<b>3.9024</b>	<b>0.69344</b>	<b>High</b>	<b>78%</b>	





This dimension achieved average mean (3.9024) with a rate of (78%) of the total scale area, and with a standard deviation of (0.69344), which indicates that the level of information and communication is high from the point of view of the sample. This result agreed with the study of Al-Khairu (2013) and Badawi (2011), where the Al-Khairu study (2013) concluded that in order to consider the internal control system effective, there must be an appropriate and reliable information in the organization, whether financial or non-financial information in relation to internal events as well as external. Al-Badawi study (2011) showed the necessity of having a strong information and communication system in NGOs, because of the importance of this matter in achieving the goals of the internal control system

#### *4.1.1.5 Monitoring*

The following table shows the average mean, the standard deviation, and the rank of the respondents' answers to the monitoring dimension, which were measured according to (5) paragraphs.

This dimension achieved an average mean of (3.7551) with a rate of (75.1%) of the total scale scale, and with a standard deviation of (0.6639), which indicates that the level of monitoring is high from the point of view of the sample individuals. This result was consistent with the study of Al-Khairu (2013); (Awad, 2012) and (Badawi, 2011), where the study of Al-Khairu (2013) concluded that the monitoring component monitors the internal control components and ensures that they are working properly. One of the most important internal audit activities is examining and evaluating the appropriateness, adequacy and effectiveness of the organization's internal control system and the quality of performance in implementing the responsibilities identified therein.



**Table 12: The average mean, the standard deviation, and the rank of the respondents' answers to the monitoring dimension**

Monitoring dimension	Num.	Paragraphs	Mean	Standard deviation	The level of importance	Relative importance	Rank
	1	The Foundation makes evaluations of operational operations at various administrative levels	3.9331	0.85248	High	78.7%	2
	2	The Foundation makes evaluations of operational operations at various administrative levels. The organization uses several types of monitoring and evaluation activities (performance reports, production reports, sales reports ... etc.)	3.7047	0.80722	High	74.1%	3
	3	Control activities are the responsibilities of the Internal Audit Department	3.5787	0.87550	High	71.6%	4
	4	The results of monitoring reports are used when developing internal control systems and strategies in the future	3.5472	0.95125	High	70.9%	5
	5	The results of the monitoring reports contribute to addressing the deficiencies of making the right decisions	4.0118	0.84574	High	80.2%	1
	Overall index		<b>3.7551</b>	<b>0.66395</b>	<b>High</b>	<b>75.1%</b>	



#### *4.2 The description of the dependent variable (reducing money laundering in financial institutions)*

This part of the study relates to the description of the dependent variable which is reducing the money laundering in order to determine the level of the importance of reducing money laundering in Jordanian financial institutions from the point of view of the study sample. To determine this, the average mean, standard deviation, percentage, and ranking of the responses of the study sample individuals were calculated, as it is shown in the following table, which was measured according to (7) paragraphs.

This dimension achieved an average mean of (3.8324) at a rate of (76.6%) of the total scale area, and with a standard deviation of (0.74758), which indicates that the level of importance of money laundering reduction in Jordanian financial institutions is high from the point of view of the sample individuals. This result was in agreement with the study Al-Janabi (2014) and Al-Dujji (2012), where the study of Al-Janabi (2014) concluded that money laundering is one of the most dangerous and most harmful phenomena on contemporary societies. Al-Dujji study (2012) concluded that the growing phenomenon of money laundering is due to several reasons that differ in severity and degree of impact from one country to another, because they depend on the degree of awareness of citizens to deal with laws and regulations. The results of the current study differed with the study Kutubi (2011), which found a weakness in the fight against money laundering in the financial sector in Bangladesh.



**Table 13: The average mean, the standard deviation, and the rank of the respondents' answers to the dependent variable (reducing money laundering in financial institutions)**

	Num.	Paragraphs	Mean	Standard deviation	The level of importance	Relative importance	Rank	
reducing money laundering	29	The Foundation's management provides written instructions and procedures related to combating money laundering	3.9961	0.86886	High	79.9%	1	
	30	The management of the establishment takes adequate care to verify the identity of the customer	3.9685	0.85222	High	79.4%	2	
	31	The Corporation's management is working on developing the procedures used in the fight against money laundering	3.8583	0.85949	High	77.2%	3	
	32	The Corporation's administration is working to qualify its workers to combat money laundering	3.8150	0.89421	High	76.3%	5	
	33	The Corporation's management is obliged to maintain the customers' financial records within the legal period	3.6378	0.92115	High	72.8%	7	
	34	The Foundation's management works in coordination with the institutions concerned with combating money laundering	3.8386	0.83968	High	76.8%	4	
	35	Enterprise management classifies clients according to the degree of risk associated with them	3.7126	0.93678	High	74.3%	6	
	Overall index			<b>3.8324</b>	<b>0.74758</b>	<b>High</b>	<b>%76.6</b>	



#### 4.4 Study hypothesis test

This part of the study relates to testing the study hypotheses in order to clarify the behavior of the relationships between the study variables, and the level of significance ( $\alpha \leq 0.05$ ) was adopted as a basis for rejecting or accepting the hypotheses as the hypothesis states “*There is no statistically significant effect at the level of significance ( $\alpha \leq 0.05$ ) of the internal control elements according to the framework of the COSO with its dimensions (regulatory environment, risk assessment, control activities, information and communications, monitoring) on reducing money laundering operations at the Jordanian financial institutions*”. This hypothesis was tested using a multiple linear regression test and the results of the hypothesis test were as shown in the following table.

**Table 14: The results of the multiple regression test for the impact of the effectiveness of internal control according to the framework of the committee sponsoring organizations with their dimensions combined in reducing money laundering operations in Jordanian**

COSO Decision	Standard deviation	Beta Value	T Value	Sig.
Regulatory environment	0.073	0.148	2.782	*0.006
Regulatory environment	0.073	0.132	2.221	*0.027
Control activities	0.069	0.017	0.276	0.782
Information and communications	0.061	0.375	6.610	*0.00
Monitoring	0.058	0.319	6.207	*0.00
<b>R value</b>	0.863			
<b>R<sup>2</sup> value</b>	0.744			
<b>R<sup>2Adj</sup> value</b>	0.739			
<b>Calculated F value</b>	144.305			
<b>DF</b>	248/5			
<b>(F) value</b>	2.21			
<b>sig</b>	*0.00			
<b>Result of hypothesis</b>	<b>Rejected</b>			



The table indicates that there is a statistically significant effect of the elements of internal control according to the framework of the Committee sponsoring organizations (COSO) in reducing money laundering operations in Jordanian financial institutions, where the level of significance reached (0.00) as it appeared through the calculated value of F which is (144.305) which is It is greater than its tabular value of (2.21), at the significance level ( $\alpha \leq 0.05$ ) which also represents the significance of this model.

It is shown from the results of the partial analysis of this hypothesis that each of the following (information and communications, monitoring, control environment, risk assessment) has made a contribution by influencing the reduction of money laundering operations in Jordanian financial institutions, which appears through the (Beta) values of (0.375), (0.319), (0.148), (0.132) and (T) values of (6.61), (6.207), (2.782), (2.221) respectively at the level of ( $0.05 \geq \alpha$ ), while the dimension of the control activities has not shown any contribution to the effect within the group, which appears through the values of (Beta) and (T) values at a greater level of significance (0.05) and shown in Table (4-10).

Based on that, we reject the null hypothesis (HO), as it was proven that there was a statistically significant effect at the significance level ( $0.05 \geq \alpha$ ) of the internal control dimensions according to the framework of the COSO in reducing the money laundering operations at Jordanian financial institutions.

## 5. Conclusion

The results of the study indicated an increase in the level of importance of implementing the decisions of the committee sponsoring organizations in Jordanian financial institutions, which ranged between (75.1% - 80.8%) towards the decisions of the Committee sponsoring organizations (COSO) due to the excellence of its five dimensions (control environment, risk assessment, control activities, information and communications, monitoring).

The study also found that the level of importance of money laundering reduction in Jordanian financial institutions is high from the point of view of the study sample.



The research proved that there is a statistically significant effect of the internal control dimensions according to the framework of the COSO in reducing the money laundering operations at Jordanian financial institutions.

Based on the research results, the researcher recommends the following:

1. The need for Jordanian financial institutions to adhere to internal controls by protecting the first institutions against illegal uses, in addition to implementing highly efficient operational procedures that ensure the proper management of laws and regulations.
2. Increasing the effectiveness and efficiency of information and communication systems in a manner consistent with current developments.
3. Acquainting employees with risk management and their responsibilities to ensure they are able to deal with and disclose risks.
4. Developing regulatory policies to comply with international standards.

## References

- Abdullah, A. (2008), Money Laundering Crime on the Internet, (2008), New University House, Alexandria, Egypt.
- Al-Azmi, F. (2012).The role of boards of directors in applying internal control standards and their impact on achieving the goals of Kuwaiti industrial companies, Master Thesis, Middle East University, College of Business, Department of Accounting.
- Al-Dujji, A. (2012). The Role of Oversight and Auditing in Combating Money Laundering, Journal of Administration and Economics, University of Baghdad, No. 93, (2012).
- Alessandro,Thomas, (2015,) How Audit Department can develop an Effective AML Program, available at: <http://www.acams.org/cams-audit/>.
- Al-Janabi, F. (2014). The Role of Administrative and Banking Policies in Combating Money Laundering and its Relationship with Achieving Banking Strategic Objectives: An Exploratory Study of a Sample of Iraqi Banks, Baghdad University College Journal of Economic Sciences, Issue of the Fifth Scientific Conference, (2014).



- Al-Khalidi, N. (2015). The extent of commitment of higher education institutions in Palestine to the elements of internal control in accordance with the COSO framework: the case study of the Gaza Strip, Al-Azhar magazine, series of humanities, volume 17, No. 1
- Al-Khiro, I. (2013). Improving the Effectiveness of the Internal Control System According to the COSO Model, Journal of Economic and Administrative Sciences, Volume 19, No. 70.
- Al-Omari, A. (2000). The Crime of Money Laundering: An International View of its Social, Systemic, and Economic Aspects, (2000), Al-Yamamah Press Foundation, Riyadh, Saudi Arabia.
- Al-Rashdan, M. (2007). Money Laundering Crimes and the Standing of Jordanian Legislation, (2007), Dar Qandil Amman, Jordan.
- Al-Rugaibat, G. (2014). Banks and Specialized Financial Institutions, First Edition, (2014), Wael Publishing and Distribution House, Amman, Jordan.
- Al-Thunaibat, A. (2015). Auditing in light of International Standards: Application and Theory, Fifth Edition, (2015), Dar Wael, Amman, Jordan.
- Arens, A. A., Elder, R.J. and Beasley, M.S., (2014), Auditing and Assurance Services: An Integrated Approach, (15th Edition) New Jersey, Prentice Hall.
- Awad, T. (2012). The Relationship between the Elements of Internal Control and the Quality of Banking Services: A Field Study on Banks Operating in the Gaza Strip from the Workers' Point of View, Master Thesis, Islamic University of Gaza, Faculty of Commerce, (2012), Palestine
- Badawi, A. (2011). The Impact of the Structure of the Internal Control System According to the COSO Framework on Achieving the Control Objectives: A Case Study of Civil Organizations in the Gaza Strip, Master Thesis, Islamic University of Gaza, College of Commerce.
- COSO, (2013), The Committee of Sponsoring Organizations of Tread way Commission, Available at <https://www.coso.org>.
- Eulerich, Marc; Velte, Patrick; & Theis, Jochen, (2015), Internal Auditor's Contribution to Good Corporate Governance: An Empirical Analysis for The One-Tier Governance System With a Focus on The Relationship Between Internal Control Audit Function and Audit Committee, Corporate Ownership & Control, Vol 13, Issue 1





- Jabr, H. (2004). Financial Institutions, Second Edition, (2004), Al-Quds Open University Publications, Amman, Jordan
- Kutubi, S. Shawgat,(2011),Combating Money-Laundering by the Financial Institutions:An Analysis of Challenges and Efforts in Bangladish,World Journal of Social Science, Vol 1, No.2, pp:36-51
- Mushtaha, S. (2015). Evaluation of the compatibility of internal control systems in Palestinian public shareholding companies with the COSO framework and the impact of this on the performance and value of the company, Al-Azhar University Journal in Gaza, Humanities Series, Volume 17, No. 1.
- Sekaran, U., & Bougie, R., (2010), Research methods for business: A skill building approach, 5 Edition, NY: John Wiley & Sons Inc., New York.
- Tysiac, Ken. (2014), Five Key Defenses against Risk, Journal of Accountancy, 11th February.
- Wiley,CMAexcel, Learning System Exam Review,2016,Institution of Management Accountant (IMA).