The Assessment of Internal Control System on Financial Performance
Dr. Mohammad Salim Elessa
Al- Balqa Applied University

Abstract:

This study aims to investigate the influence of internal control on the financial performance and applied in industrial corporations listed in Amman Stok Exchange (ASE), the data collected from respondent's opinions by questionnaires distributed on financial managers. The results showed the internal control which measured by using COSO framework components that included (control environment, risk assessment, control activities, information & communication and monitoring) have a significant impact on each of (ROA), (ROE) and (EPS). Further findings showed a negative impact of control environment and control activities on (ROA) and negative impact of risk assessment on (ROE) and (EPS) while the other COSO components has a positive impact on these financial performance measurements.

Background and Literatures:

The expansion and the globalization that is happened in the world wide economy and the multinational corporations around the world were faced with many difficulties in terms of technology that is used to operate to increase their market shares and the strong competition, As a result, internal control systems are received more attention in these corporations especially after circumstances such as Enron (2001) and World Com (2002) to improve and enhance the internal controls and we can find that under section (404) of Sarbanes Oxley act(2002).

Internal controls system is defined as the policies and procedures and processes designed to provide with reasonable assurance that corporation objectives will be achieved like safeguard assets, maintain records, provide accurate and reliable information, improve efficiency and comply with laws and regulations (Romney et al, 2015). In the earlier years, (Adams, 1993) proposed that an effective internal control can improve the performance of the corporation and it is operation. Further, internal controls will have significant positive effect on information reliability (Ninlaphay & Ngamtampong, 2013).

Furthermore, internal controls can improve the regulation compliance awareness and will have a significant

positive effect on the firm value as proposed by (Gatewongsa & Ussahawanitchakit, 2013).

In Jordan, Amman Stock Exchange (ASE) as a part of the worldwide economy is considered one of the developing countries, it is always seeking to improve and enhance its investments and business environment; however, it issued the corporate governance guidelines (2005) to improve the control environment in addition to adoption of international accounting standard (IAS) and international standard on audit (IAS) which is essential in development of the emerging capital markets which is positively and significantly associated with the use of international accounting standards. (Zeghal and Mhedhbi, 2011)

The industrial sector in Jordan is considered one of the most large and important components of the Jordanian economy. Corporations in this sector makes a thousands of monetary and non-monetary transaction per working day and there are a lot of money is invested in this sector must be protected and maintained, so they need effective internal control systems to help management to enhance and maintain corporation performance. For this reason, the current study aims to investigate the assessment of internal control system on the financial performance in industrial sector listed in Amman stock exchange (ASE).

After reviewing previous studies, it showed that internal control could affect the organizations performance and could be used as a first line defense from any fatal errors or fraud that might heart the organization stability and its owners. According to above I found from earlier like (Sright and Wright, 1996) which examined the relationship between internal controls strength and error occurrence, they found that deteriorated control settings will reflect understatement of assets and overstatement of liabilities and vice versa. Also (Caplan, 1999) examined the auditor decision to investigate the fraud within internal control quality and he found that week internal controls will hide fraud because of audit procedure routine do not distinguish between errors and fraud. On the other hand, (Smith et al, 2000) examined the interaction between the internal control assessment by the auditors and substantive testing of fraud detection and they found that it might provide a cost saving for the auditor.

The internal control is considered the first line defense for financial reporting quality as found in (Wang, 2013). Also (Wittayapoom and Limsuwan, 2012) examined how internal control effectiveness affects reliability of financial reporting in and the results showed that the effectiveness of internal control significantly positively affect the reliability of financial reporting. On the other hand (Milaela and Lulian, 2012) studied the internal controls and the impact on

corporate governance and they found that effective internal control system leads to fair presentation of financial reporting and thus increase the stakeholder confidence in financial reporting. In addition to (Ninlaphaya and Nagamtampon, 2013) examined the effects of internal control effictiveness on stakeholder credibility performance and the results showed that administrative control and accounting control have a significant positive effect on stakeholder credibility performance. Also (Krstic and Dundovic, 2012) examined the relationship between the internal controls and the enterprise risk management and they conclude that well designed internal control system can be useful to the organizations to achieve its objectives.

While (Gatewongsa and Ussahawanitchakit, 2013) studied the internal control strategy of beverage businesses and it is effect on goal achievement and they found that adoption of effective internal control strategies would help the organization to achieve their goal. On the other hand, internal control is considered a key factor from any corporate governance practices.

Also (Klamm et al, 2012) studied the determents of the persistence of internal control weaknesses and the results indicated that good corporate governance practices is vital to establish a strong internal control on financial reporting. Also

(Nuryaman, 2012) examined the influence of corporate governance practices on the company's financial performance and the results showed that the practice of corporate governance would positively affect the operational performance and would also positively influence the stock performance. Furthermore, (Octivia, 2013; Nur'ainy et al, 2013) concluded that implementing a good corporate practice will significantly impact the corporation performance. Also (Ebaid, 2013) results showed that applying strong corporate governance is related to earrings quality and it could enhance the investor's perception about the process of financial reporting.

Study problem:

This study tries to know the assessment of internal control system on the financial performance of the industrial corporations sector listed on (ASE), through the following questions:

1- What is the impact of internal control system on the return on assets (ROA) for the industrial corporations listed in (ASE)?

2- What is the impact of internal control system on the return on equity (ROE) for the industrial corporations listed in (ASE)?

3- What is the impact of internal control system on the earning per share (EPS) for the industrial corporations listed in (ASE)?

Study goal and Importance:

This study aims to assess the internal control system via investigate the impact of internal control system on the financial performance in industrial corporations sector listed in (ASE).

The importance of this study was rose through the increased demand on more reliable financial information delivered to the stakeholders to protect the firms from any kind of risks that might face and this will increase efficiency and effectiveness of the corporations operations, and to ensure that they are comply with regulation and laws based on well-established internal control system.

Study framework and model:

The study framework is used to present the relationships between the internal control system and financial

performance, which measured by return on assets (ROA), return on equity (ROE) and earning per share (EPS).

The study framework is illustrated in the following figure:
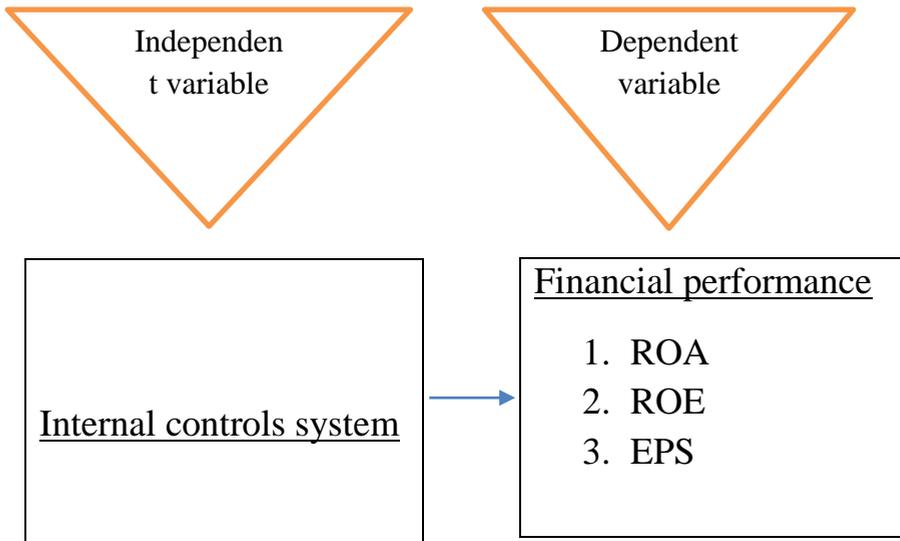
Hypotheses development:

Based on the study framework above the hypotheses were the following:

H1: the internal control system will have an impact on the return on assets (ROA) for the industrial corporations listed in (ASE).

H2: the internal control system will have an impact on the return on equity (ROE) for the corporations listed in (ASE).

H3: the internal control system will have an impact on the earning per share (EPS) for the corporations listed in (ASE).

Methodology:

This study is a descriptive analytical study that used a questionnaire to collect the primary data needed to achieve the purpose of this study.

Study variables:

Independent variable in this study is the internal control system. The internal control system is measured by using Committee of Sponsoring Organizations (COSO) framework for internal control system that is contained five components which are: (control environment , risk assessment, communication and information, monitoring and control activity) (Gupta, 2008; Jokipi, 2010; Romney and Steinbart, 2015).

Dependent variable in this study is the financial performance, which is measured by using profitability

indicators, which are: (return on assets (ROA), return on equity (ROE) and earnings per share (EPS).

Return on assets (ROA) and return on equity (ROE) was measured as the ratio of how much the company earned net profit over amount of assets and the amount of equity respectively(Nuraman, 2012). Earnings per share (EPS) was measured as the ratio of the profit after tax to the total number of shares outstanding at the end of each fiscal year (Gibson, 2011)

Population and sample:

The population was the industrial corporations listed in Amman stock Exchange while the sample was 40 companies picked and selected randomly from this sector for the period 2015.

Data collection methods:

Data is collected from primary data sources using a questionnaire as a data collection method, each company received one questionnaire then collected completely. This method is considered appropriate to investigate and get appropriate answers from financial managers worked in the industrial sector. The questionnaire divided to six sections and uses a five-point liker scale to indicate the level of agreement and disagreement of respondents.

The complementary data taken from secondary sources, which included articles, researches and bocks.

Data analysis and statistical method:

This study used the both descriptive statistics and analytical statistics, applied statistical package for social sciences (SPSS) software to complete the study analysis and multiple and simple regression analysis to determine the impact of internal control system on financial performance.

Data analysis and hypotheses testing results:

Data analysis results:

Table (1)

Means, standard deviations and relative importance related to financial performance indicators.

Items	M	SD	RL	Level	Rank
1. Does the internal control have positive effect on the return on assets?	4.10	0.58	82.0	High	3
1. Does the internal control have positive effect on the return on equity?	4.20	0.70	84.0	High	2

1. Does the internal control have positive effect on the earning per share?	4.25	0.45	85.0	High	1

Table (1) includes the questions assessing the financial performance from the point of view of sample answers, as noted the (EPS) was the highest mean (4.25) reflecting a good performance indicator according to the sample's responses followed by the (ROE) with a mean of (4.20) and finally by the (ROA) as an indicator for the financial performance by a mean of (4.10).

Table (2)

Means, standard deviations and relative importance related to all dimensions of internal control.

Dimensions	M	SD	RI	Level	Rank
Control Environment	4.01	0.34	80.2	High	5
Risk Assessment	4.03	0.39	80.6	High	4
Controls Activities	4.07	0.50	81.4	High	3
Information and Communication	4.27	0.48	85.4	High	1
Monitoring	4.20	0.40	84.0	High	2

Table(2) includes the dimensions of internal control, as noted the information and communication has ranked the first

dimension by a mean of (4.27) while the least important dimension was control environment by mean of (4.01).

Table (3)

Means, standard deviations and relative importance related to control environment.

Items	M	SD	RI	Level	Rank
1. Appropriate statement of mission and objective can be found in my company.	4.05	0.70	81.0	High	3
2. Our Management closely monitor the implementation of internal control system.	3.88	0.68	77.6	High	4
3. We have a formalized policy and procedure.	4.25	0.58	85.0	High	1
4. The management shares a clear chart for authorities and responsibilities.	4.18	0.53	83.6	High	2
5. There is a job description for any one.	3.70	0.64	74.0	High	5
Total of control environment	4.01	0.34	80.2	High	

Table (3) includes the control environment, as noted item that stated (we have a formalized policy and procedure) has ranked the first by a mean of (4.25) while the least rank was for item (there is a job description for any one) by a mean of (3.70), this dimension has satisfied an overall mean of (4.01) which reflects a high degree.

Table (4)

means, standard deviations and relative importance related to Risk Assessment.

Items	M	SD	RI	Level	Rank
1. Evaluation of internal factors that affecting our goals.	4.34	0.60	86.8	High	1
2. Management of "how risk" was implemented by managers.	3.92	0.67	78.4	High	3
3. In operational functions managers be aware of the risks in their areas.	3.98	0.46	79.6	High	2
4. Managers evaluate external environment that might affect the strategies achievement.	3.88	0.70	77.6	High	4
Total of Risk Assessment	4.03	0.39	80.6	High	

Table (4) includes the risk assessment, as noted item that stated (evaluation of internal factors that affecting our goals) Has ranked the first by a mean of (4.34) while the least rank was for item (managers evaluate external environment that might affect the strategies achievement) by a mean of (3.88), this dimension has satisfied an overall mean of (4.03) which reflects a high degree.

Table (5)

Means, standard deviations and relative importance related to Controls Activities.

Items	M	SD	RI	Level	Rank
1. Our company has adequate physical controls.	4.08	0.61	81.6	High	2
2. The management carefully review the control system.	4.00	0.69	80.0	High	4
3. Proper separation of authorization used.	4.02	0.70	80.4	High	3
4. There is an adequate separation of duties.	4.35	0.55	87.0	High	1
5. Our company follows a fit documentation and keeping procedure.	3.90	0.59	78.0	High	5
Total of Controls Activities	4.07	0.50	81.4	High	

Table (5) includes the controls activities, as noted item that stated (there is an adequate separation of duties) has

ranked the first by a mean of (4.35) while the least rank was for item (our company follows a fit documentation and keeping procedure) by a mean of (3.90), this dimension has satisfied an overall mean of (4.07) which reflects a high degree.

Table (6)

Means and standard deviations and relative importance related to Information and Communication.

| Items	M	SD	RI	Level	Rank
1. The reports and of operation provide essential and timely information for decision-making.	4.45	0.49	89.0	High	1
2. The network of communication utilized effectively.	3.99	0.62	79.8	High	3
3.There is no problems when obtaining information related to employees work task.	4.37	0.70	87.4	High	2
Total of Information and Communication	4.27	0.48	85.4	High	
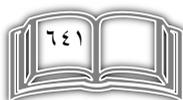
`Table (6) includes the information and communication, as noted item that stated (the reports and of operation provide essential and timely information for decision-making) has ranked the first by a mean of (4.45) while the least rank was for item (the network of communication utilized effectively) by a mean of (3.99), this dimension has satisfied an overall mean of (4.27) which reflects a high degree.

Table (7)

Means, standard deviations and relative importance related to Monitoring.

Items	M	SD	RI	Level	Rank
1. The internal auditors make appropriate recommendation for management to improve.	4.28	0.51	85.6	High	1
2. Internal audit report addresses weakness in our internal controls system.	4.19	0.57	83.3	High	3
3. Managers implementing of day-to-day controls.	4.15	0.75	83.0	High	4
4. The internal audit department we have sufficiently staffed.	4.24	0.48	84.8	High	2
5. Internal auditor has a high independency to perform duties.	4.14	0.60	82.8	High	5
Total of Component Monitoring	4.20	0.40	84.0	High	

Table (7) includes monitoring, as noted item that stated (the internal auditors make appropriate recommendation for management to improve) has ranked the first by a mean of (4.28) while the least rank was for item (internal auditor has a high independency to perform duties) by a mean of (4.14), this dimension has satisfied an overall mean of (4.20) which reflects a high degree.

Hypotheses testing results:

1- The first hypothesis:

H0: The internal control system will not have an impact on the return on assets (ROA) for the industrial corporations listed in (ASE).

H1: The internal control system will have an impact on the return on assets (ROA) for the industrial corporations listed in (ASE).

To test this hypothesis multiple linear regression was used, the results are included in the following:

Table (8)

model summary results and coefficients for multiple regression of (ROA).

Internal control dimensions	R	R²	F	Sig	β	T	Sig t
Control environment					-0.81	-2.45	0.021

Risk assessment	0.713	0.508	6.84	0.001	0.62	1.64	0.119
Controls activities					-1.20	-1.88	0.051
Information & communication					0.14	0.42	0.698
Monitoring					1.90	3.58	0.001

Constant =0.916

Table(8) indicates F value = 6.84 > table F, also sig.= 0.001< 0.05, this is mean the relationship between internal control and (ROA) is statistically significant and the test will reject Ho and accept H1, so the internal control system will have an impact on the return on assets (ROA) for the industrial corporations listed in (ASE).

The relationship between internal control and (ROA) was high and positive according to R= 0.713, the internal control explains about 50.8% of the variation in (ROA) based on R²= 0.508.

Viewing t values and sig. columns will appears the results of simple regression, the control environment and monitoring affects (ROA) and to be significant according to its t values= -2.45 and 3.58 > table t for each respectively, or sig. values= 0.021 and 0.001<0.05 for each respectively, the coefficients that will included in the multiple regression for these two variables were= -0.081 and 1.90 respectively.

The multiple regression equation here is:

(ROA)= 0.916 – (0.81 ×control environment) + (0.62 × risk assessment) - (1.20× control activities) + (0.14× information & communication) + (1.9 × monitoring).

2- The second hypothesis:

H0: The internal control system will not have an impact on the return on equity (ROE) for the industrial corporations listed in (ASE).

H1: The internal control system will have an impact on the return on equity (ROE) for the industrial corporations listed in (ASE).

To test this hypothesis multiple linear regression was used, the results are included in the following:

Table (9)

model summary results and coefficients for multiple regression of (ROE).

Internal control dimensions	R	R²	F	Sig	B	T	Sig t
Control environment					0.95	3.81	0.003
Risk	0.84	0.70	13.4	0.00	-	-	0.00

assessment	2	8	1	0	0.9 8	3.4 5	4
Controls activities					0.7 5	1.4 0	0.14 3
Information & communicatio n					0.5 1	1.4 8	0.13 9
Monitoring					0.4 1	1.2 0	0.31 2

Constant = -2.11

Table(9) indicates F value = 13.41 > table F, also sig.= 0.000< 0.05, this is mean the relationship between internal control and (ROE) is statistically significant and the test will reject Ho and accept H1, so the internal control system will have an impact on the return on assets (ROE) for the industrial corporations listed in (ASE).

The relationship between internal control and (ROE) was high and positive according to R= 0.842, the internal control explains about 70.8% of the variation in (ROE) based on R²= 0.708.

Viewing t values and sig. columns will appears the results of simple regression, the control environment and risk assessment affects (ROE) and to be significant according to its t values= 3.81 and -3.45 > table t for each respectively, or sig.

values= 0.003 and 0.004<0.05 for each respectively, the coefficients that will included in the multiple regression for these two variables were= 0.95 and -0.98 respectively.

The multiple regression equation here is:

(ROE)= -2.11 + (0.95 ×control environment) - (0.98 × risk assessment) + (0.75× control activities) + (0.51× information & communication) + (0.41 × monitoring).

3- The third hypothesis:

H0: The internal control system will not have an impact on the return on assets (EPS) for the industrial corporations listed in (ASE).

H1: The internal control system will have an impact on the return on assets (EPS) for the industrial corporations listed in (ASE).

To test this hypothesis multiple linear regression was used, the results are included in the following:

Table (10)

model summary results and coefficients for multiple regression of (EPS).

Internal control dimensions	R	R²	F	Sig	β	T	Sig t
Control					0.68	2.89	0.013

	0.857	0.734	11.42	0.000			
environment							
Risk assessment					-0.61	-2.91	0.024
Controls activities					0.70	2.98	0.046
Information & communication					0.75	3.23	0.004
Monitoring					0.21	0.32	0.681

Constant =0.415

Table(10) indicates F value = 11.42 > table F, also sig.= 0.000< 0.05, this is mean the relationship between internal control and (EPS) is statistically significant and the test will reject Ho and accept H1, so the internal control system will have an impact on the return on assets (EPS) for the industrial corporations listed in (ASE).

The relationship between internal control and (EPS) was high and positive according to R= 0.857, the internal control explains about 73.4% of the variation in (EPS) based on R²= 0.734.

Viewing t values and sig. columns will appears the results of simple regression, the control environment, risk assessment, controls activities and information & communication affects (EPS) and to be significant according to its t values= 2.89, -2.91, 2.98, 3.23 > table t for each respectively or sig. values= 0.013, 0.024, 0.046 and 0.004<0.05 for each respectively, the coefficients that will

included in the multiple regression for these variables were= 0.68, -0.61, 0.70 and 0.75 respectively.

The multiple regression equation here is:

(EPS)= 0.415 + (0.68 ×control environment) - (0.61 × risk assessment) + (0.70× control activities) + (0.75× information & communication) + (0.21 × monitoring).

Summary of Results and conclusions:
The study findings were as the following:

1- The financial performance was the highest indicator on (EPS) followed by (ROE) then (ROA).

2- The relative importance of dimensions of internal control in its effect on financial performance sorted as the following ranking: information and communication, monitoring, controls activities, risk assessment and control environment respectively.

3- The internal control system will have a significant impact on the (ROA, ROE and EPS) and the relationship was high for all.

4- The impact of some components of internal control were negative like control environment and control activities on (ROA), also risk assessment on (ROE and EPS), while the other components were positive on these financial performance measurements.

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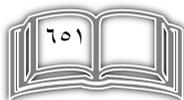
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