

PERCEIVED EFFECT OF INTERNAL CONTROL ON THE FINANCIAL PERFORMANCE OF MANUFACTURING FIRMS IN KURDISTAN REGIONAL GOVERNMENT OF IRAQ

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ABSTRACT

The study examines the effects of internal control on financial performance of manufacturing firms in Kurdistan Regional Government of Northern Iraq (KRG). This comes in the wake of facing a series of challenges that are being faced by the manufacturing industry in Kurdistan Regional Government (KRG) which include capacity utilization and funding problems. Deductions made have exhibited that the utilization of internal control is strongly presumed to ensure that management and workers strictly confine to their duties of working towards improving the success of the manufacturing firms in Kurdistan. Regression analysis was applied on the 142 responses that were retrieved using SPSS 22. The obtained findings showed that the control environment, control activities and internal auditing are positively related to financial performance.

Key words: Internal Audit, Financial Performance, Control Environment, Control Activities.

INTRODUCTION

Internal control measures have recently changed in both focus and composition and this includes the way in which firms have employed them as well. One of the major motive behind changes in internal control is surrounded with vast activities of gross corporate misconducts. Thus, internal control aids in eradicating these issues by ensuring that financial reporting is clearly and properly undertaken (Mawanda, 2008). International investment is strategic step for country due to lack of capital and technology transfer and it is generally well known as Foreign Direct Investment (FDI) (Adl.Nawzad, 2020). Foreign direct investment (FDI) acts as a scaffold too many a countries' economies, shielding these economies from experiencing a severe boom-bust cycles that characterize modern capitalist economies. FDI is also the essential ingredient to the growth and development of most economies (Othman et al., 2019). Meanwhile, manufacturing firms in Kurdistan Region of Iraq (KRG) have been going through a series of challenges. Among such challenges is the ingoing financial crisis which has greatly undermined business objectives to expend in size and into other sectors. NRTTV reports that a total of 6000 projects have been halted. Major sectors that have been affected by the financial sector in KRG are the manufacturing sectors especially the oil industry in which oil sales have been falling subsequently at a very high rate. Oil prices fell drastically from US\$140 a barrel in 2008 to US\$44 in November 2016. (Trading economic, 2016) . This research inquiry, therefore, seeks to delve into the antecedents and the effects of knowledge management and information technology through an empirical study that will focus on the manufacturing industry (Othman, Al-Kake, Diah, et al., 2019).

on the results of this study investors and policy makers may see a reason to improve the financial system in an attempt to achieve higher levels of return and less risks (Hasan et al., 2019).

The institute further outlines the need for guidelines to ensure an effective role of both internal and external audit in public sector governance (Saeed et al., 2020). International investment is strategic step for country due to lack of capital and technology transfer and it is generally well known as Foreign Direct Investment (FDI) (Adl.Nawzad, 2020). Numerous benefits have been reaped since the adoption of the traditional costing system and they are a necessity for helping companies determine their actual cost(Omar & Hasan, 2020).

The study is of paramount importance as it provides insights and solutions to current internal control issues that are hampering financial performance especially that of manufacturing firms in KRG. Furthermore, the manufacturing sector in KRG is a pillar to KRG's economic success and hence measures that can improve financial performance are greatly welcomed. Thus, this study provides measures that can be used to enhance such financial performance. In addition, little has been done to explore the area of internal control issues that are hampering financial performance in the Middle East. Thus, this study will be among the few that address such issues pertaining to the Middle East. Contributions will be made by this study to literature sources in the area of internal control and financial performance.

1.1 Theories of internal control

1.1.1 Theory of the firm

Theory of the firm as based on assertions that seek to highlight how firms are organized, their existence and the nature of boundaries they encounter in the industry (Thomas, 2008).This theory also covers how heterogeneous activities of firms affect the performance of an individual firm. Most importantly, it covers factors that determine firm performance.

This theory asserts that the main objective of the firm is to maximise profits and hence it must properly manage its resources, inputs and costs so as to positively influence performance. In line with this theory and idea, profitability is regarded as the best indicator of firm performance. This concurs with internal control strategies that are targeted at ensuring that objectives are realigned to produce the required financial performance and failure to do leads to undesired outcomes.

Kantarelis (2007) also contend that investors will invest in firms which are capable of generating more profits from investors' funds. This is true in any situation especially KRG in which manufacturing firms are in dire need of funds. Such funds will only be made available on the account that a high rate of return is feasible.

On the other hand, actions by other firms will force other firms to realign their strategies and this is because there is perfect information. Information availability in KRG is not that perfectly available but most firms are capable of knowing what other firms are doing and how economic factors are revolving.

1.1.2 Agency theory

The agency theory is based on the idea that management of the firm are agents of the investors (Ross, 1973). This theory assumes that the objectives of the management are always contrasting those of its investors and hence the need to monitor, control and assess management. Internal control thus ensures that management's objectives do not significantly deviate from those established by the owners of the business. Moreover, it seeks to ensure that corporate risk such as the risk of fraud by management are avoided and eradicated (Eisenhardt, 1989). This theory thus emphasises the use of internal auditing to monitor, control and assess performance of the organization and its management. These aspects are important in improving financial performance and have a unilateral association with financial performance.

1.1.3 Contingency theory

The contingency theory is based on ideas that the internal structure of the firm should match its contingencies (1995). According to this theory, the behaviour of the firm which is also synonymously referring to internal control approaches, are determined by the external environment, culture and technology. Implications can however be made from this theory that contingencies such as resources or inputs must be manipulated to influence output which has in turn effects on profits. Thus, profit maximization is contingent to available resources and the ability to control costs.

Internal control in this case is meant to effectively utilize available resources and control costs within prescribed limits so that profits are effectively maximized.

Arguments are sometimes placed against the contingency theory citing that it was developed in an era where socialism was the norm and hence it may fail to apply in most cases (Woods, 2009). However, it still garners support from researchers and Cadez&Guilding, (2008) outlined that it allows internal auditors to attain internal control effectiveness through improved internal control strategies.

Contribution from this theory points to the idea that there are factors that influence firm performance and such factors pertain to organizational culture, size, structure, technology and the external environment. Thus, the ability to effectively enhance firm performance hinges on the ability of internal control to influence these factors.

This theory helps to describe why different firms have different internal control designs and strategies. This stems from the idea that a certain organizational structure is not universally applicable to other organizations (Njeri, 2014). The ability to achieve sound performance is thus rather viewed to be as a result of the interplay of a firm's internal strategies and its structure, size, environmental changes and available technology.

It can be deduced from this theory that there is a relationship that exists between financial performance, internal control effectiveness and the context in which internal control practices are made. Such a relationship also depends on organizational culture, size, structure, technology and the external environment. This alternatively implies that the extent to which internal auditing affects financial performance also depends on these factors

1.2 Internal control

There are endless definitions that can be appointed to internal control and have developed over a drawn out stretch of time. The most relevant definition is by Statement of Auditing Standards (SAS,300) internal control is characterized as every one of the arrangements and strategies received by the management and administration of an element to help with accomplishing their target of guaranteeing, similarly as practicable, the systematic and proficient lead of its business, including adherence to interior approaches, the defending of benefits, the avoidance and identification of fakes and blunders, the precision and culmination of bookkeeping records, and the auspicious planning of dependable monetary data. Internal control framework can likewise be viewed as a procedure which is affected by administration, board executives, and other staff, to contribute sensible affirmation as far as accomplishing an association's goals concerning the proficient and powerful operations, consistence with material laws and directions, unwavering quality of money related reporting and also defending the association's notoriety (Kaplan, 2008)

Then again, the Committee of Sponsoring Organizations (COSO) 1992, depicted internal control as a technique affected by a part's directorate, association and other work urge anticipated that would give sensible attestation with regards to the accomplishment of centres in three portrayals which are sensibility and ability of operations, persistent nature of budgetary reporting at long last consistence with proper laws and orientation.

Juheno (1999) hypothesized that internal control assumes a vital part in corporate administration frameworks as it helps an association to plan precise and finish money related articulations toward the end of each monetary period. A firm may likewise support, or secure against working dangers by executing utilitarian controls. These dangers may identify with assembling exercises and mechanical procedures.

In the interim, the sole reason for internal controls is to find out and help firms accomplish their fancied destinations. Interior controls additionally help firms to ingrain, financial effectiveness and viable operations, deliver quality items and administrations predictable with the association's central goal; shield assets against misfortune because of waste, mishandle, blunder, mistakes and misrepresentation; elevate adherence to laws, directions, administration mandates and contracts; create and keep up dependable budgetary and administration information; and precisely show that information in opportune reports (Hevesi, 2005). Besides, working compelling internal control framework relies on upon such particular strategies, which are attempted by administration.

According to the International Accounting Standards (IAS), internal control can be categorized as an organizational plan that controls documents, protects assets, demarcates duties that is engaged in accounting control, supervision,

authorization and approvals, routine and automatic checks, vocation and rotation of duties, record keeping and cost feasibility activities (COSO, 2013). In its nature, internal control also has features that characterise it and Hohler, (2005) established that internal controls are classified mainly into control environment and control activities according to stipulations made by Statement of *Auditing Standards* ((SAS, 30). Nevertheless, Larry E. et al.,(2007)outlined that there are five components that constitute CoCo's control framework and these are control environment,risk assessment,control activities,information and communication, and monitoring.

1.2.1Responsibilities of internal control

Internal control is used for several purposes but the most frequent and significant uses were identified by Mawanda (2008). He established that internal control is mainly designed to detect and prevent undesired outcomes. Other responsibilities of internal control can be decomposed into;

- I. Safeguard assets
- II. Promote reliability
- III. Promote integrity
- IV. Ensuring compliance to given laws and regulations
- V. Promote effectiveness and efficiency in the use of resources.

1.2.2 Positive attributes of internal control

The most notable benefit of internal control is that it helps the organization to manage possible risks that can impair the ability of the organization to attain its stipulated goals. Effective internal control systems are therefore those measures that can warranty safety of shareholders' money invested into the firm. In addition, effectiveness and efficiency can also be reaped from deploying internal control measures which aids in improving external and internal reporting. It is from such reporting that compliance with the governing laws and regulation will be made (Whittington &Pany, 200). It is imperative to notice that the world is going a series of challenges and hence risks will continue to emerge and grow. Hence, an effective internal control is one that can identify, assess and manage such risks. Such an effort is rewarded through profits (John, 2011).

1.2.3Limitations of internal control

Arguments can be placed that is apparently difficult to have what is known as perfect internal control. This is because that are a lot of factors that can always disturb intended course of action. Such limitations are posed by things such as stress, fatigue,misunderstandings and human error (Njeri, 2014).

There are also costs that are associated with internal control measures. Internal control can be so costly to implement. This is because it requires that certain structure be in place, of which they must be expensive to acquire. More changes in the organization might cost the organization time. Resources on the other hand, have to be made available and this means financial resources themselves will be folded towards the acquisition of such resources.

1.2.4 Factors surrounding effective internal control

1.2.4.1 Monitoring

Monitoring is a strategy that involves evaluating the nature of the internal control systems after some time. Since internal controls are procedures, it is generally acknowledged that they should be satisfactorily observed with a specific end goal to survey the quality and viability of the framework's execution after some time. According to Millichamp (1999), the term separation of duties is used these days for internal responsibilities. The prime method of control is the separation of those duties which if mixed, might enable an individual to document and process an entire transaction. The term separation of responsibilities is applied in these days for internal tasks. This means that control over the separation of responsibilities can enable individuals to do their work separately, for example, a complete transaction would be recorded and processed by an individual employee.

In addition, De Paula et al (1990) demonstrated that there are many control system developments that are designed to secure that a satisfactory standard is maintained in designing, implementing, testing as well as documenting new systems and controls. Auditors have to review controls to secure the establishment of staffs that is divided into a number of sections. There must be a clear definition of separation of duties in terms of responsibilities between each section. As a result, the auditor must ensure that all computer routines have been documented properly, which means

unauthorized people are not admitted to access the computer room. Programmers are also not allowed to access to the computer room except at times they want to test the programs during periods of time when they fail to access the source of documents.

1.2.4.2 Information and communication

Internal control requires that all pertinent details be provided as well as documented and disseminated using an established channel at a predefined time frame that can enable individuals to take their responsibility of financial reporting. In addition, information systems generate financial compliance and operational pertinent details which make it feasible to move and protect the firm. Moreover, the ability of the management to make good decisions is affected by the quality of the available information. This implies the information should be appropriate, accurate, timely and can be accessible by the company. There must be effective flow of information in and across all parts of the organization (Theofanis et al., 2011). Hence, information and communication is needed at all levels of organization because it promotes efficient internal control and helps the company achieve objectives.

1.2.4.3 Control environment

The control environment helps to establish the operating climate for a business association and affects the control cognizance of its workers. It is the establishment for every single other segment of internal control, giving order and structure. Control environment elements incorporate the honesty, moral qualities and fitness of the substance's kin; administration's theory and working style; the way administration allocates power and obligation, and arranges and builds up its kin; the consideration and bearing given by the directorate" (COSO, 1992). The control environment forms the foundation of the entire internal control process. It also consists of actions such as, ethics and integrity of the employees, monitoring and managing the controls, entrusting the persons who perform the duties, audit committees or board of directors, the philosophy of management, organizational hierarchy and operating style (COSO, 2013).

1.2.4.4 Risk assessment process

Risk assessment provides an indication of possible hazards that may undermine a firm's operations and possibly its survival. Such risks if not identified, assessed and dealt with, may render the organization incapable of operating. Internal control thus offers the firm with the ability to identify, assess and deal with possible risks. Such a process also enables the firm to take advantage of these risks by positively influencing its activities and thereby making profits out of them. Thus Aikins (2011) purports that there is an upward association ship between risk management and financial performance.

1.2.4.5 Control Activities

Millichamp (1999) posits that it refers to procedures, policies, and mechanisms that are put place to ensure an effective functioning management. Control activities are prevalent at any organizational stage, department and will encompass a wide range of activities of approval, verification, reconciliations, safeguarding assets, demarcation of duties and reviewing operating performance (Aikins, 2011). Sound and effective control activities require that appropriate and accurate documentation of policies and procedural guidelines be available so as to provide a roadmap of how they are to be executed.

1.3 Financial performance

As indicated by Stevenson (2004) execution is the result of an individual or gathering commitment of advancement in any movement prompting to unfriendly or good outcomes. In monetary terms, money related execution can likewise be viewed as a measure of an association's approaches and operations. It gives a sign of an association's general financial wellbeing during a given period of time and can be utilized to assess comparative firms over a similar industry or to analyze businesses or segments in accumulation. There are a wide range of approaches to gauge an organization's financial potency. This is often observed through return on assets (ROA) and the company's return on investment (ROI), esteem included, among others and is a subjective degree of the way a company can utilize assets from its important technique of commercial enterprise and generate income (Mishkin, 2007) .

Interior control frameworks are amazingly compelling in accomplishing the company's set targets and mission, thus value for money (VFM). The principle way to deal with VFM is the company's control over the utilization of assets keeping in mind the end goal to accomplish its set destinations. Thus, it can be prescribed that heads of divisions

make sound game plans for arranging, assessing, approving and controlling operations keeping in mind the end goal to accomplish positive budgetary execution. Monetary execution and VFM are utilized to survey regardless of whether a firm has gotten the most extreme advantage from the merchandise and ventures it gains as well as gives, inside the assets accessible to it. VFM consequently guarantees that there is no overabundance cash that is paid far beyond what is proportionate to the products and ventures' quality. VFM in this way puts a worry over economy (cost minimization), productivity (yield amplification) and viability (full achievement of the proposed comes about).

The best approach to enhancing financial performance is by lessening the level of abnormality and extortion through changes in the association's frameworks of inner monetary control. Shareholders should be guaranteed that their assets are being utilized proficiently and adequately as a part of giving the correct administration at any rate cost. Financial performance examination needs to focus on aggregate dangers and is identified with ideas of productivity and adequacy (COSO, 1992).

1.4 Indicators of financial performance

This stems from factors such as difficulties in collecting specific performance data especially in small companies. This is further compounded by the fact that there are credibility concerns notably in cases where different accounting methods are used by firms. Whittington & Kurt (2001) however outlined that the commonly used performance measures are profit growth and revenue on capital employed. John & Morris (2011) provided performance measures based on traditional aspects of financial performance such as total returns, sales growth, profit growth, net margin and return on equity. Financial performance measures also include the value of long term investments made, financial strength and utilization of corporate assets. The most widely used financial performance indicators are return on sales (ROS), return on equity (ROE) and return on assets (ROA). Each measure is calculated by individual net income, total assets and total net sales respectively.

1.5 The linkage between internal control and financial performance

Internal control systems were constructed to mean "a process affected by the entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in respect of reliability of financial reporting, effectiveness and efficiency of operations, and compliance with applicable laws and regulations." (Ray & Kurt, 2001). While money related execution is considered as far as measures prefer productivity utilizing supreme and basic indicators though financial accountability and liquidity can be utilized in most cases. (ACCA-Managerial Finance Paper 8; 1998; Pandey, 1996).

RESEARCH METHODOLOGY

2.1 Introduction

This chapter deals with the methodological steps that were undertaken to establish points of arguments which are also known as findings. As a result, deals with the estimation procedure, population and sampling techniques and analysis of the research instrument, validity and reliability tests. These are herein discussed as follows;

2.2 Estimation procedure

The study will employ a multiple regression approach to analyse the effects of internal control on financial performance. Fox (1997) posits that a multiple regression model is essential as it allows one to determine the magnitude of impact of one variable on another. This is of paramount importance as it will be used to determine the magnitude of impact of internal control on financial performance. Regression models are based on the idea that changes in independent variables can help explain a change in the other variable known as an independent variable (Gujarat, 2009). Such an explanatory change is often denoted by R-square and in this study the obtained R-square will help explain the extent to which control environment, internal audit and control activities help explain changes that are occurring in financial performance of manufacturing firms in Kurdistan Regional Government of Northern Iraq. The regression model can be expressed as follows;

FP = F (control environment, internal audit, controlactivities) (1)

Figuratively;

FP = F(CE, IA, CA)..... (2)

In regression terms;

FP = $\beta_0 + \beta_1CE + \beta_2IA + \beta_3CA + \epsilon$(3)

In which the error term is denoted by ϵ and the parameters by $\beta_0, \beta_1, \beta_2$ and β_3 which reveal the magnitude of impact. They are alternatively known as estimators and can also exhibit the nature of association between the variables.

2.3 Definition and justification of variables

Table 2.1 provides details about the model variables that will be integrated into the regression model.

Table 2.1: Definition of variables

Variables	Description	Measurement
Performance	It is an ability to operate profitably ,efficiently ,survive, increase and to environmental threats and opportunities	This can be measured by using Return on Assets(ROA) ROA= Net Income/Assets
Control environment	It can be defined as the ethical values and integrity. The commitment to human resource practices, organization structure. And competence	It will be measured by the ethical values, level of integrity, competence of personnel functioned with administering and monitoring the controls.
Control activities	This is a kind of policies, procedures and mechanisms that can be put in place for management functions which properly carried out.	This can be measured by the procedures and mechanisms and number of effective policies that can be put in place to ensure the functions of management are properly obtained and performed
Internal audit	Refers to internal audit activities undertaken to measure the financial performance of the firm	It is measured using the extent to which the audit reports help management to manage the firm and disclose misconducts such as fraud as well, as areas which need management attention.

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One of the most useful element deduced about internal control is that it can be sued as a risk assessment tool (Njeri, 2014). This is because it makes it feasible to identify possible risks and management can assess them and possible devise strategies to hedge against them. The ability to hedge against such risks and the one that can be said to result in an improvement in performance. However, when hedging, it can also hinder the firm from making profits from possible risks. The study by Njeri (2014) also established that internal control is mainly used to monitor not only financial aspects of the firm but also non-financial aspects which may also impose risks on the firm. In doing so, activities can be controlled and monitored to ensure that they conform to the desired plans and any deviations can be rectified. Improvements in performance emanates from the ability to monitor these activities especially output, revenue and other performance indicators. Njeri (2014) further outlines that internal controls play an important role of obtaining, processing and communicating the collected information to the necessary partiers who in this case are management of the firm. Such information is advocated that it be processed timely and accurately so that management can correctly act on it. Failure or inability to access that information on time or processing incorrect information can have negative effects on the financial performance of the firm.

- **H₀**: Internal audit control has no significant impact on financial performance.
- **H₁**: Internal audit control has a significant impact on financial performance.

The effective usage of internal control to influence financial performance revolves on the conduciveness of the environment. This implies that a conducive environment can facilitate an atmosphere when internal control can yield astonishing results (Mugo, 2013). However, Njeri (2014) also argues that this only works when the required resources are available to deploy internal control; strategies into motion. Which entails that an internal control environment depends on the availability of resources if it is to offer a sound change on financial performance. Thus, the following hypothesis can be established

- **H₀**: The control environment has no significant impact on financial performance.
- **H₁**: The control environment has a significant impact on financial performance.

It can be noted that the potency of internal control to effect significant changes on financial performance will hinge on the degree of effectiveness of control activities undertaken by the firm. Under normal circumstances, internal control has a positive effect on financial performance (Njeri, 2014). However, there are circumstances that can undermine the effectiveness of internal control's ability to positively catapult financial performance. Which implies that control activities can also pose negative of no effect on financial performance. This study therefore seeks to verify the validity of this notion and hence the following hypothesis can be formulated and tested;

H₀: The control activities has no significant impact on financial performance.

H₁: The control activities has a significant impact on financial performance.

ANALYSIS AND PRESENTATION OF RESULTS

3.1 Introduction

The study sought to examine the effects of internal control financial performance of manufacturing firms in Kurdistan Regional Government of North Iraq. Having obtained the data, estimations of a regression model was based on the obtained data. This was accomplished through the use of SPSS and thus this chapter deals with the analysis and presentation of the obtained findings.

3.2 Response rate

A total of 150 questionnaires were distributed to fifty (50) manufacturing companies in Kurdistan Region of Iraq. Out of this 150 questionnaires, 142 questionnaires were retrieved and this represented a response rate of 88.75% and such a rate is relatively high for accurate deductions to be made about the study population. Hence, obtained results can be used to effect policies that can be utilized to devise solutions to enhance the effectiveness of internal controls in manufacturing firms in Kurdistan Regional Government of North Iraq. This respondent profile was composed of the following respondents;

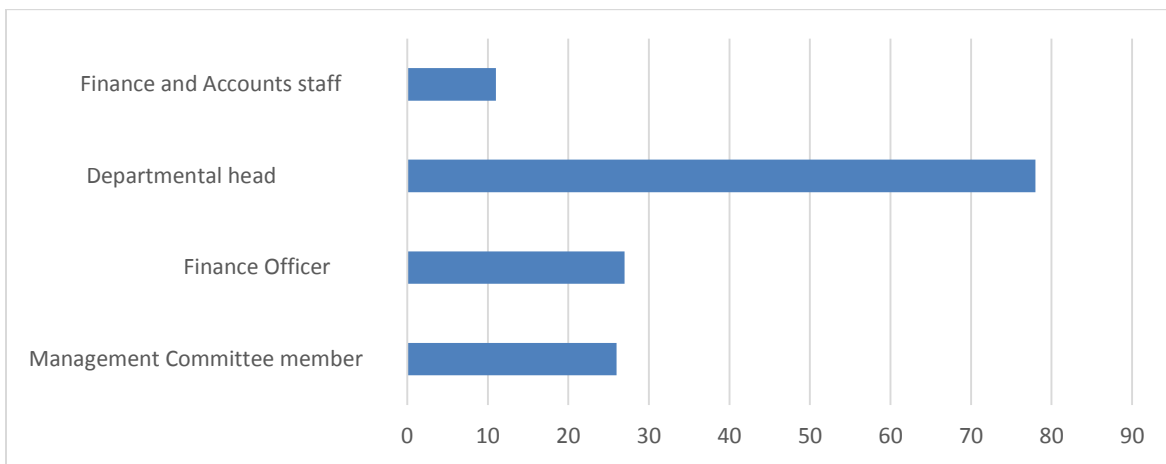


Figure 3.1: Respondent's profile (Source: Computed by Author from obtained responses)

From figure 3.1, it can be noted that the 142 respondents comprised of 26 management committee members, 27 finance officers, 78 departmental heads and 11 finance and accounts staff.

3.3 Period of tenure of the respondents

The study also sought to examine to examine the period at which the respondents have been serving at their respective institutions. This is essential because the level of experience is tantamount to a better ability to devise and institute internal control strategies. Table 3.1 provides a description of the period of tenure of the respondents.

Table 3.1: Period of tenure of the respondents

	Frequency	Percentage	Cumulative percentage
5-10 years	7	4.9	4.9
11-15 years	39	27.5	32.4
16-20 years	63	44.4	76.8
Above 20 years	33	23.2	100
Total	142	100	

Based on results exhibited in table 3.1, it can be noted that 4.9% of the 142 respondents have served in the respective institutions for at least 5 to 10 years and were the least experienced respondents. This was followed by those with 11-15 years and 16-20 years with frequencies of 93 and 63 respectively. Those with more than 20 years of experience were 33. It can thus be deduced that the number of experienced staff is relatively high and hence we can expect the quality of internal controls instituted by these respondents to be of high quality.

3.4 Size of the institution

Based on the established insights from empirical literature, it was discovered that medium to large firms are characterised by effective and high quality internal control frameworks. This study went on to establish the size of the institutions under which the respondents are working. The results are presented in figure 3.2 below.

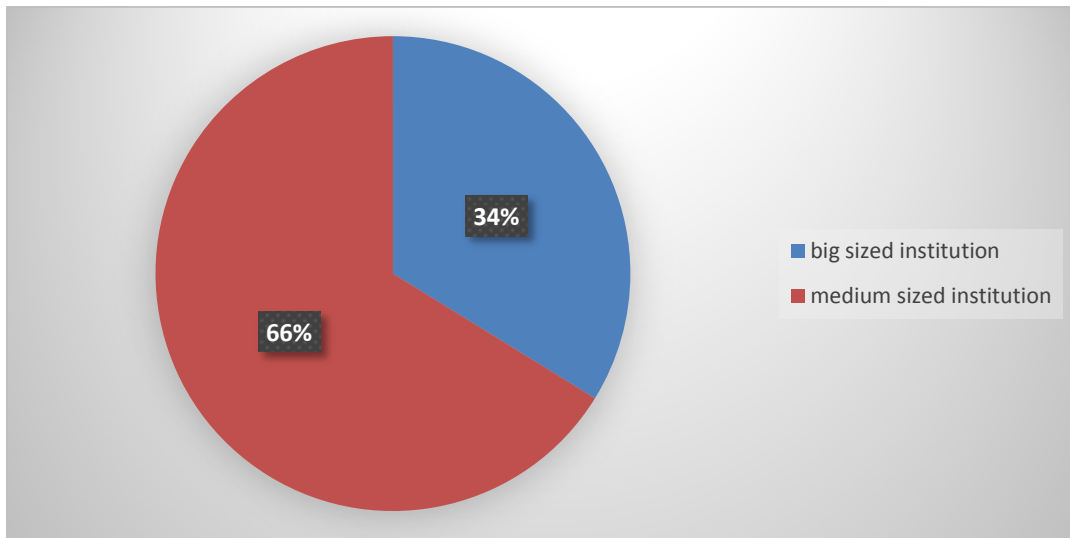


Figure 3.2:Size of the institution (Source: Computed by Author)

Based on figure 3.2, deductions can be made that more workers regard the institution to be large in terms of its size with a percentage of 66% whilst those that consider it to be medium are low with a magnitude of 34%. Overall, the institutions can be said to be large and hence we can expect the quality and extent to which internal controls are being undertaken is very high and of high quality.

3.5 Reliability test

Reliability tests were conducted using Cronbach’s alpha and the results are presented in table 3.2. The overall reliability of the model is 0.910 which represents an internal consistency of 91% and hence can be said to be highly reliable. All the independent variables have an internal consistency which is above 85% with the highest of 90.2% being recorded under CE. We can thus conclude that all the model variables are highly reliable.

Table 3.2: Reliability test

Variable	Alpha
FP	0.867
CE	0.902
IA	0.883

CA	0.880
Overall Alpha for the 4 variables	0.910

3.6 Correlation coefficient

A correlation relation matrix was utilized to determine the correlations between the independent variables and this was made possible through the use of Kendall Tau. The results are shown in table 3.3.

Table 3.3 exhibits that all the correlations are positive and significant at 1%. This can be said that internal control elements are positively correlated with each other. This implies that they reinforce efforts of each element to either improve the effectiveness of one variable or of the entire system. The correlation between IA and CE is 0.512, CA and CE is 0.569 and that of CA and IA is 0.579. All the variables are positively correlated with financial performance with coefficients of 0.529, 0.689 and 0.636 for CE, IA and CA respectively which implies that their improvement will have a positive effect on financial performance.

Table 3.3: Correlation coefficients

		CE	IA	CA	FP
CE	Cor.	1			
	Sig.				
IA	Corr.	0.512**	1		
	Sig.	0.000			
CA	Cor.	0.569**	0.579**	1	
	Sig.	000	0.000		
FP	Cor.	0.529**	0.689**	0.636**	1
	Sig.	000	0.000	0.000.	

* Significant at 1% significance level

3.7 Descriptive statistics

Descriptive statistics in the form of mean, standard deviation were computed to determine the effectiveness of the model variables and the extent to which they vary. This results are presented in table 3.4 below.

Table 3.4: Descriptive statistics

Variable	Mean	Std. Dev
FP	3.653	0.483
CE	3.703	0.410
IA	3.623	0.546
CA	3.704	0.404

Of the three internal control variables, the internal control variable CA had a high mean of 3.704 which implies that it is more effective in terms improving control efforts. This is followed by CE and IA with a mean of 3.703 and 3.623 respectively while that of FP is 3.653. Alternatively, it can be said that the respondents contend to a great extent that internal audit control elements have a significant influence of improving the effectiveness of internal control. High variation effects are associated with the variable IA which has a high standard deviation of 0.546. This implies that it has a greater tendency to change when strategies targeting it are implemented. Hence, it can effect more changes on financial performance as compared to CE and CA. CA had a lowest standard deviation of 0.404 which means that it had the lowest responsive effect on FP. CE had a respective standard deviations of 0.410.

3.8 Analysis of variance

Analysis of variance was conducted so as to determine if the variance and mean of the variables is constant. A constant variance and mean imply that the model variables will offer reliable estimates especially in regression analysis as they satisfy the requirement that the mean and variance be constant (regression analysis assumption). ANOVA results are presented in table 3.5 below.

Table 3.5: ANOVA

	Sum of squares	df	Mean square	F	Sig
Regression	24.068	3	8.023	125.121	0.000*
Residual	8.848	138	0.064		
Total	32.916	141			

ANOVA is based on the null hypothesis that the variance and mean of the variables are not equal and thus violating the model assumptions. From the above analysis, the null hypothesis is rejected at 5% since the p-value is less than 0.05. Hence, we can conclude that the variance and mean are constant hence the model variables will offer reliable estimates.

3.9 Model summary

The model summary results show that the obtained R-square is 0.731 which means that 73.1% changes in financial performance is explained by internal audit, control activities and control environment.

Table 3.6: Model summary

Model	R	R-square	Adjusted R-square	Std. Error of the estimate
1	0.855*	0.731	0.725	0.25322

3.10 Regression analysis

Regression analysis was conducted so as to determine the relationship and well as the magnitude at which internal control influences financial performance. The results are presented in table 3.7 below.

Table 3.7: Regression analysis

	Coefficients	Std. Error	Sig
Constant	0.182	0.210	0.389

CE	0.106	0.080	0.191
IA	0.471	0.088	0.000*
CA	0.370	0.059	0.000*

* Significant at 1%, Dependent variable FP

The results exhibit that there is a positive association between CE and FP of 0.106 which implies that actions to improve the control environment by 1% will result in a change in financial performance by 10.6%. This concurs with the results established by COSO (1992) which showed that improvements in the control environment are positively related with changes in financial performance. These therefore suggest that the nature of activities that are undertaken are effective in improving financial performance.

The results also show that there is a positive relationship between risk analysis and financial performance. This is evidenced by a positive coefficient of 0.471 which translates to an increase in financial performance by 47.1% following an improvement in risk management ability of the firm. This is supported by the results established by Aikins (2011) which outlined the existence of a unilateral relationship between IA and FP. Possible reasons suggest that risks are properly identified and information is conveyed to management about their assessment and management. This effectively puts the firm in a better position to manage and deal with risks.

It can further be noted that there is a unilateral relationship between CA and FP of 0.370 which means that improvements in control activities by 1% will result in a change in financial performance by 37%. This is reinforced by ideas given by Millichamp (1999) which contend that an either an increase or improvement in control activities will result in an improvement in financial performance. This is because issues such as challenges are dealt with while opportunities are greatly prepared for.

With the above in mind, the model estimation that can be used for forecasting purposes can therefore be expressed as follows;

$$FP = 0.182 + 0.106CE + 0.471IA + 0.370CA$$

3.11 Hypothesis testing

Hypothesis testing was undertaken using regression results. The null hypothesis were that internal control variables have no significant effect on financial performance. This is outlined in table 3.8 below.

Table 3.8: Hypothesis results

Null hypothesis	P-value	Decision
CE has no significant impact on FP	0.191	Accept
IA has no significant impact on FP	0.000	Reject
CA has no significant impact on FP	0.000	Reject

From table 3.8, the null hypothesis that CE has no significant impact on FP is accepted at 5% while the hypotheses that IA and CA have no significant impact on FP are rejected at 5%.

Conclusions

The study has addressed the impact of internal control on financial performance of manufacturing firms in KRG. From the analysis that has been made, conclusions can therefore be made that control environment has an insignificant positive effect on financial performance of firms while internal auditing and control activities have significant positive effects on financial performance of firms.

It can likewise be presumed that the control environment under which internal control is practiced is highly pivotal to the success of the firm and lack of a conducive control environment hampers the potency of internal control. The internal audit aspect of internal control is also a major force to reckon with when initiating changes in financial performance of the firm and firms need to engage in effective and continuous internal audit. This will also need that internal control activities are intensively deployed in magnitude and extent.

Conclusions can also be made that the financial crisis in Iraq is greatly undermining efforts to attain satisfactory levels of financial performance. Though internal controls are effective, the crisis is making it difficult for a sound performance to be achieved.

Lack of internal auditing by the Kurdistan government is also creating an atmosphere in which firms in KRG are engaging in certain activities which is in contrary to the requirements of made by the government. Such activities include acts of misconducts in which a lot of corrupt activities are being witnessed in almost all the sectors especially the banking sector.

In overall, internal control can be said to be an effective tool of attaining high performance and seeks to ensure that the firm attains its objectives. Unlike other strategies, internal control seeks to ensure that there is strict compliance to stipulated guidelines, measures and targets and rectifying any deviance. It can thus be concluded that it is an important tool in modern business management.

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