Internal Control System And Detection Of Occupational Frauds With The Moderating Role Of Audit Committee

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Abstract

This study aims to investigate the effect of the Internal Control Systems (ICS) components on the detection of occupational fraud and the moderating role of the audit committee in the relationship between ICS components and occupational fraud. The data are collected from 413 persons working in the accounts, finance, and audit function of the companies listed in Pakistan. The collected data are analyzed through regression analysis. The present study predicts the framework for detecting occupational fraud using control activities, control environment, risk assessment, information and communication, and monitoring. The audit committee's role significantly and positively moderates the association among the latent constructs. The study outlines the implications and policy guidelines for the managers, policymakers, regulatory authorities, audit firms, and investors to understand the role of the significance of ICS and its components in the detection of occupational frauds and making this role more effective and efficient.

Keywords – Occupational Frauds, Corporate Governance, Internal Control Systems, Audit Committee.

1. Introduction

There is a dramatic increase in the illegal conduct of business and fraud in almost all organizations worldwide (Repousis, Lois, & Veli, 2019; ACFE, 2022). For corporate scandals and fraud, there is no differentiation between developed countries, developing countries, or underdeveloped countries since it prevails everywhere (Narayanan, 2020). Due to fraud and corruption, organizations suffer an approximate loss of 5% of their total revenue (ACFE, 2022). There is also a high cost of investigation and trial of fraudsters and, ultimately, loss of goodwill of related organizations (Kummer, Singh, & Best, 2015). For every type of organization, whether public or private, small, medium, and large size organizations, manufacturing or services organizations, and financial or non-financial organizations, no one is free from fraud (ACFE, 2022). After the famous giant corporate scandal cases like Enron, Satyam, Parmalat, and other giant companies, fraud has become a severe problem for organizations (Mishra, Azam, & June 2021).

Due to fraud, institutions face harmful effects on competitiveness and reputation in the market and among the general public (Zhou & Makridis, 2019). Fraud causes many problems to the organization, such as wastage of financial and other resources and poor performance, and sometimes it threatens the organization as going concern (Omoolorun & Abilogun, 2017). Frauds

occur in every type and size of the organization, and their level may vary from organization to organization (Sow, Basiruddin, Mohammad, & Rasid, 2018).

Occupational fraud is considered internal or employee's fraud (Kalovya, 2020). It is a deceitful act towards the organization by managers and employees for personal benefits at the cost of the organization (Goldstein, 2015). Employees of the organization commit this type of fraud at the company's cost for their benefit (Kalovya, 2020). Almost every type of organization experiences occupational fraud (Khan, Rafay, & Shakeel, 2020). Irrespective of continuous efforts to control it, occupational fraud has become a significant risk and a reason for increased losses for business entities and government institutions (Sow, Basiruddin, Mohammad, & Rasid, 2018; Kalovya, 2020).

The Association of Certified Fraud Examiners (ACFE) is the largest organization in the world, providing research, training, and resources in occupational fraud (Clark, 2013). ACFE elaborated occupational fraud as the usage of position in the organization by its employees to gain personal benefits through deliberately misusing resources or assets of the organization (ACFE, 2022). The term "occupational fraud" is defined and used by the ACFE and is accepted by most researchers (Johansson & Carey, 2016). Organizations of all sizes are affected by the fraud committed by their employees (Sebhatu et al., 2020). Occupational fraud is a type of fraud in which management and employees of the organization are involved, and they collude within the organization or with outside third parties to take different undue financial and non-financial benefits (Mukah, 2020).

The level of occupational fraud is increasing in organizations, and they are hiring professionals to reduce the risk and incidences of occupational fraud (Abdullahi & Mansor, 2015). As per a recent study of 2,110 cases from 133 countries by ACFE, the total loss due to occupational fraud was 3.6 billion USD, with the per case average loss being $1,783,000 (ACFE, 2022). As per the study, 37% of involved employees are from a low level, 39% are managers, and 23% are executives of the victim organizations (ACFE, 2022).

Examples of occupational fraud include corruption, conflict of interest, cash theft, false invoicing for fake payments, overstatement of fictitious assets and revenues, unrecorded sales, understatement of liabilities and expenses, non-recording of transactions, bribery, incorrect expenses, recording of fictitious transactions, fictitious invoices submitted for goods or services, credit to unauthorized customers, inadequate financial disclosures, bogus financial statements (ACFE, 2022).

Many factors contribute to occupational fraud, like weak corporate governance, inefficient internal control system, irregularities, greed, and the absence of strong ethical values. The ACFE identified 12 mediums to detect fraud in organizations (ACFE, 2022).

The Internal Control System (ICS) is a set of procedures and policies developed in the organization. The underpinning objective of the ICS is to issue assurance on the organizational objectives' accomplishment. The top management and board of directors are responsible for implementing ICS effectively (Aksoy & Aksoy, 2020; ACFE, 2022). Weakness in the ICS is considered the primary reason for the fraudulent activities in the organization (ACFE, 2022). COSO identified five interrelated components of ICS instance, information and communication, monitoring, risk assessment, control activities, and environment (Price, Harvey, Maclean, & Campbell, 2018).

Poor and inadequate ICS allows employees to use it for fraudulent activities and other unethical and unfair practices in organizations (Baldock, 2016). The adequacy and effectiveness of the ICS should

be periodically reviewed and upgraded to ensure that there should be no weaknesses in the ICS that can result in the commitment of fraudulent activities (Zheng, Yuan, Wu, Li, & Lu, 2019). A practical ICS can strengthen the organizations' processes and values and strengthen oversight and supervision, hence decreasing, preventing, and detecting misconduct and unethical practices such as misappropriation of assets and other types of fraud (Zakaria, Nawawi, & Salin, 2016).

ICS is considered the most effective line of defense in an organization against occupational fraud (Donelson, Ege, & McInnis, 2016). As per ACFE, in 35% of the cases, fraud occurred due to a lack of ICS, and 14% occurred because of an override of control (ACFE, 2022). The ultimate benefit of an effective and adequate ICS is that it reduces the chances of occurrence occupational fraud by the employees of the organizations (Fish, Self, Sargsyan, & McCullough, 2021). Many other studies suggest that an effective internal control system can prevent and detect a significant portion of occupational fraud in organizations (Dimitrijevic, Milovanovic, & Stancic, 2015).

2. Significance and Contribution of Study

This study aims to add value, particularly in how occupational fraud in organizations can be detected through the effectiveness of ICS. The value will be added explicitly by making relevant recommendations and conclusions to mitigate the potential and actual harm caused by occupational fraud to the organizations of developing countries like Pakistan.

3. Review of Literature and Development of Hypothesis

ICS is considered one of the practical tools for detecting occupational fraud in the organization (Junaidi & Ubaidillah, 2018; Fernandhytia & Muslichah, 2020). There should be no weakness in the ICS of the organization because it can lead

to the occurrence of occupational fraud (Zakaria, Nawawi, & Salin, 2016; Suh, Nicolaides, & Trafford, 2019). Practical ICS ensures that organizations can achieve their objectives, and their financial statements should be free from material misstatements due to fraud and error and the company's assets are protected (Koomson, Owusu, Bekoe, & Oquaye, 2020). In public and government departments, ICS is also considered an effective tool to prevent and detect fraud, and weak ICS is the primary cause of fraud (Junaidi & Ubaidillah, 2018; Rizvi, 2021). All five components of the ICS also significantly affect the detection of fraud in the organizations (Wanjala & Riitho, 2020).

3.1 Control Environment

Control environment (CE) means the tone of the organization's top management regarding the importance of implementing an internal control system (ACFE, 2022). It includes competence, ethical values, and integrity of the management, which provides direction to the organizations (Donelson, Ege, & McInnis, 2016). This tone significantly influences ethical practices in organizations (Patelli & Pedrini, 2013). CE is the foundation or pillar of an efficient and effective ICS (Ogwiji & Lasisi, 2022). The role of CE is to provide support for implementing ICS to reduce occupational fraud in organizations (Henry, 2018). Based on these studies, the following hypothesis is proposed:

H1. CE is significantly linked with the detection of occupational fraud.

3.2 Risk Assessment

In this component, managers identify, assess, and manage the risks in the organizations (Agang & Njoka, 2020). In risk assessment (RA), management increases their understanding regarding the weaknesses in ICS and the existence of fraud opportunities. Organizations should always do RA because of fraud threats

changes regularly. While assessing fraud risks in organizations' managers should focus on the opportunities that exist in the organizations for committing occupational fraud (Murphy & Free, 2016). Prior literature affirms the presence of a positive and significant association between risk assessment and detection of fraud (Mock, Srivastava, & Wright, 2017). A solid and effective RA process is vital in reducing the possibilities of fraud and other irregularities (Brasel, Hatfield, Nickell, & Parsons, 2019). Based on these studies, the following hypothesis is proposed:

H2. RA is significantly associated with the detection of occupational fraud.

3.3 Control Activities

The procedures and policies designed by the organization to ensure the execution and compliance of the top management directives are known as Control activities (CA). These policies and procedures include authorizations of transactions, approvals, reconciliations, verifications, performance assessments, the segregation of duties, and the security and safety of assets (Murphy & Free, 2016). These control activities prevent fraud or theft that could eventually lead to losses (COSO, 2013). There must be a well-defined CA at all stages of and for all activities in the organization to reduce fraud risks (Murphy & Free, 2016). Effective CA always reduces fraudulent activities in organizations (Badara & Saidin, 2013). Based on these studies, the following hypothesis is proposed:

H3. CA significantly predicts the detection of occupational fraud.

3.4 Information and Communication

Information and communication (IC) are the process of transforming data into useful information for decision-making at the organizational level. Because of effective communication of needed information, employees can perform their duties effectively (Umar, Erlina, & Fauziah, 2019). Organizations with poor IC system have weak ICS. Management should have an open and frequent communication system with the employees to strengthen ICS (Rae, Sands, & Subramaniam, 2017). Based on these studies, the following hypothesis is proposed:

H4. IC significantly facilitates the detection of occupational fraud.

3.5 Monitoring

In monitoring (MN), management evaluates the quality and effective implementation of the ICS throughout the organization (Thuan, Thuy, Quyen, Truc, & Hien, 2020). ICS should be evaluated and monitored frequently to ensure that all elements of ICS are working effectively (Murphy & Free, 2016). To reduce fraud in organizations, ICS should be regularly reviewed and updated according to new challenges. Based on these studies, the following hypothesis is proposed:

H5. MN significantly facilitates the detection of occupational fraud.

3.6 Audit Committee as Moderator

An audit committee (AC) has emerged and is considered a crucial element of corporate governance codes. The AC oversees the procedures and process of reporting financial information to stakeholders (Kusnadi, Leong, Suwardy, & Wang, 2015; Endrawes, Feng, Lu, & Shan, 2020). The AC reviews the activities of the business to find inefficiencies, investigate theft or fraud, make sure that relevant laws and regulations properly comply and identify and manage different business risks and achieve the goals of the organization (Adegboye et al., 2020; Sharhan & Bora, 2020; Endrawes et al., 2020).

Many studies found that an effective and efficient AC can enhance the accuracy and quality of the accounting and financial information, and manager's accountability and improve the financial reporting quality and ICS. In the modern corporate world, AC is performing a vital role in the effective implementation of codes of corporate governance and risk management system in the organization (Martinov-Bennie, Soh, & Tweedie, 2015; Larasati, Ratri, Nasih, & Harymawan, 2019).

An effective AC plays a supervisory role in providing transparent financial reports to the board of directors (Habib & Bhuiyan, 2015; Ahmed & Anifowose, 2016). Only an effective AC can perform its supervisory and oversight role (Zgarni, Hlioui, & Zehri, 2016). Ineffective AC can result in corporate failures; an influential audit committee can prevent these failures (Kartal, İbiş, & Çatıkkaş, 2018)

It is also an AC function to ensure that the management properly develops a practical ICS and its compliance throughout the organization (Norziaton & Hafizah, 2019; Adegboye, Ojeka, Alabi, Alo, & Aina, 2020). Prior literature also affirms that AC evaluates the efficiency, performance, weakness, and implications for ICS. The AC facilitates the organization and top management team in managing the external and internal audit, setting ICS, and reporting (Handayani & Ibrani, 2020). The AC ensures that management properly develops and implements ICS to mitigate agency conflicts (Sharhan & Bora, 2020).

Different aspects of the AC, such as its independence, size, resources, frequency of meetings, experience, and financial literacy of AC members, are found to enhance the performance of AC (Buallay & Al-Ajmi, 2019; Chaudhry, Roomi, & Aftab, 2020). Based on the above discussion, the following hypothesis was proposed:

H6. AC significantly moderates the association between control environment and fraud detection.

H7. AC significantly moderates the relationship between risk assessment and fraud detection.

H8. AC significantly moderates the relationship between control activities and fraud detection.

H9. AC significantly moderates the association between information and communication and fraud detection.

H10. AC significantly moderates the relationship between monitoring and fraud detection.

Equation is:

$$O\mathit{FD}= \beta_0+ \beta_1CE+ \beta_2RA+ \beta_3CA+ \beta_4IC + \beta_5MN+ \beta_6 (CE*AC) + \beta_7 (RA*AC) + \beta_8 (CA*AC) + \beta_9(IC*AC) + \beta_{10}(MN*AC) +\varepsilon$$

4. Objective of Study

- To investigate the effect of an effective Control Environment on detecting occupational fraud.

- To investigate the effect of an effective Risk Assessment on detecting occupational fraud.

- To investigate the effect of an effective Control Activities on detecting occupational fraud.

- To investigate the effect of an effective Information and Communication on the detection of occupational fraud.

- To investigate the effect of an effective Monitoring on the detection of occupational fraud.

- To evaluate the moderating relationship of AC between the control environment and the detection of occupational frauds.

- To investigate the moderating role of AC between the risk assessment and detection of occupational frauds.

- To explore the moderation effect AC between the control activities and detection of occupational frauds.

- To evaluate the moderating role of AC between the information and communication and detection of occupational frauds.

- To evaluate the moderating role of the monitoring and detection of occupational frauds.

5. Methodology

5.1 Sampling and Data Collection

In the present study required data were collected in one time frame through structured questionnaires. The present study adapted the survey questionnaire from existing literature (Junaidi & Ubaidillah, 2018). Researchers suggested using or adapting the surveys already used by other researchers when you want to assess a previously studied variable (Nelson, 2016). The statements in my questionnaire were taken from different relevant studies on the detection of fraud and the effectiveness of the internal control system (Drogalas, Karagiorgos, Mitskinis, & Antonakis, 2019). Here is the conceptual model of the study:

The conceptual model:
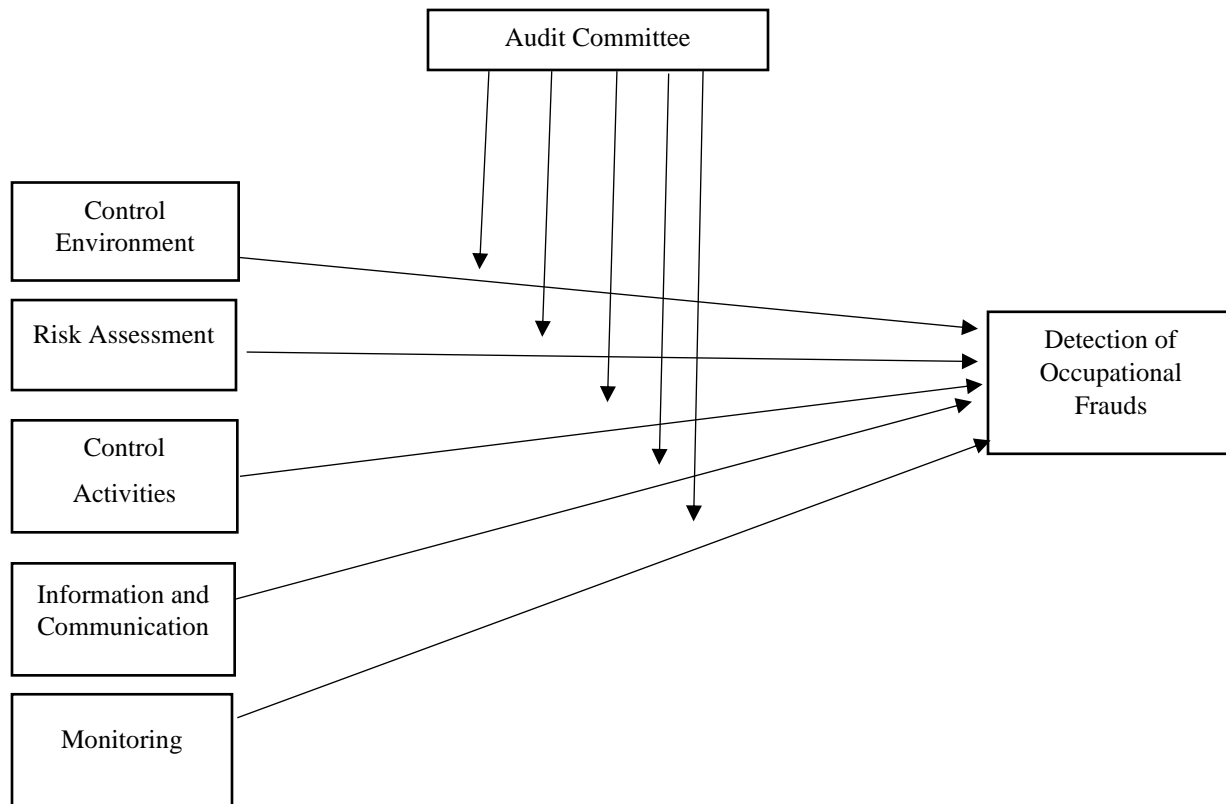
Population of the study is the persons working in internal audit, accounts, and finance functions of the listed companies in Pakistan, both financial and non-financial. Data were collected from 424 respondents, 11 questionnaires were rejected, and data from 413 questionnaires were used in the analysis. Table 1 presents information on demographic statistics.

Table 1: Demographics

N= 413	Frequency	Percentage
Gender:		
Male	355	86%
Female	58	14%
Field:		
Accounting	206	50%
Audit	112	27%
Finance	95	23%
Experience:		
Less than 5 years	17	4%
5 -10	54	13%
11- 15	161	39%
16 - 20	132	32%

More than 20 years	49	12%
Sector:		
Financial	153	37%
Manufacturing	235	57%
Others	45	11%
Age of firm:(In years)		
Less than 5 years	0	0%
5 -10	4	1%
11- 15	25	6%
16 - 20	186	45%
More than 20 years	198	48%

5.2 Data Analysis Techniques

Data were analyzed using regression analysis and SPSS software was used to calculate the analysis results. We added process macro in SPSS and calculated the moderation effect of the audit committee's effectiveness by using this macro.

5.3 Reliability and Validity

Reliability and validity assessment is vital as it ensures the quality of instruments used to collect the data (Kimberlin & Winterstein, 2008). The assessment of the reliability and validity of the survey questionnaire is considered crucial to prevent misleading results and implications (Tehseen, Ramayah, & Sajilan, 2017).

Cronbach alpha measures the internal consistency of all the scale items, by testing how well each item is consistent with other items, without being changed with time (Taherdoost, 2016). We calculated the Cronbach's alpha to assess the reliability of the instrument and least accepted value of Cronbach's alpha for reliability is greater than 0.70 (Nunnally, 1978, 1994).

The present study evaluates the reliability and validity of the survey questionnaire using loading, Cronbach alpha, CR, and AVE. Table 2 reports the results of reliability and validity.

Table 2: Reliability and Validity

Constructs	Items	Loadings	Cronbach's Alpha	CR	AVE
Detection of Occupational Fraud	DOF1	0.582			
	DOF2	0.525			
	DOF3	0.631			
	DOF4	0.551			
	DOF5	0.619	0.824	0.862	0.563
	DOF6	0.584			
	DOF7	0.606			
	DOF8	0.583			
	DOF9	0.629			
Control Environment	CE1	0.779	0.726	0.801	0.573

	CE2	0.714			
	CE3	0.776			
Risk Assessment	RA1	0.756	0.715	0.796	0.566
	RA2	0.817			
	RA3	0.678			
Control Activities	CA1	0.685	0.728	0.780	0.547
	CA2	0.645			
	CA3	0.710			
	CA4	0.702			
Information & communication	IC1	0.740	0.779	0.780	0.542
	IC2	0.708			
	IC3	0.760			
Monitoring	MA1	0.644	0.742	0.789	0.583
	MA2	0.721			
	MA3	0.718			
	MA4	0.695			
Audit Committee	AC1	0.553	0.783	0.836	0.519
	AC2	0.624			
	AC3	0.643			
	AC4	0.511			
	AC5	0.567			
	AC6	0.556			
	AC7	0.566			
	AC8	0.682			
	AC9	0.553			

Values of Cronbach's Alpha of all the variables are shown in table 2, and these values of alpha are greater than 0.7 for all variables, which are considered good (Nunnally, An overview of psychological measurement, 1978; Ursachi, Horodnic, & Zait, 2015). Before assessing the measurement model, we calculated the loadings of all the items of variables, as shown in table 2. The cut-off value of CR is 0.70, and the AVE value is 0.50; we can retain all the items in the model with a factor loading value of more than 0.5 (Hair et al., 2014,1998; Siponen et al., 2014). Therefore, we included all of our items in the measurement model.

The current study evaluates the convergent validity using AVE. Its values are shown in table 2, and these are more than 0.50, which is acceptable (Hair, Gabriel, & Patel, 2014). Composite reliability should also be measured. Their values are shown in Table 2 values should be between 0.07 and 0.90 (Hair, Gabriel, & Patel, 2014). We can see that values are in the acceptable range.

After confirming convergent reliability, we measure discriminant validity (Hair et al., 2014). For this purpose, we used the Fornell-Larcker criterion method to calculate the square root of each AVE value. The square root of each construct should be greater than its maximum

correlation with other constructs (Hair et al., 2014). As shown in Table 4, the square root values of each construct are greater than its correlation values with other constructs. Hence discriminant validity is confirmed.

Table 3: Collinearity Statistics

Construct	VIF
Control Environment	2.130
Risk Assessment	1.445
Control Activities	1.496
Information and Communication	2.051
Monitoring	1.908

VIF values of all independent variables are calculated to check the multicollinearity issue in the variables. As per the results, these values are less than 10, which depicts no issue of multicollinearity in independent variables (Sarstedt, Hair, Cheah, Becker, & Ringle, 2019).

Table 4: Descriptive and Discriminant Validity (Fornell-Larcker Criterion)

Variables	Mean	Standard Dev.	DOF	CE	RA	CA	IC	MN	AC
DOF	3.983	0.406	**0.750**						
CE	4.178	0.469	0.563**	**0.757**					
RA	4.340	0.475	0.488**	.477**	**0.752**				
CA	4.271	0.424	0.514**	.479**	.365**	**0.740**			
IC	4.191	0.482	0.606**	.614**	.507**	.526**	**0.736**		
MN	4.209	0.393	0.574**	.643**	.406**	.455**	.575**	**0.764**	
AC	4.327	0.347	0.648**	0.517**	0.434**	0.475**	0.575**	0.516**	**0.720**

Table 5: Hypothesis Testing

Hypothesis	Variables (Relationships)	Beta	t-value	p-value	Decision
H1	CE ⟶ DOF	0.112	2.356	0.019	Supported
H2	RA ⟶ DOF	0.096	2.474	0.014	Supported
H3	CA ⟶ DOF	0.141	3.187	0.002	Supported
H4	IC ⟶ DOF	0.230	5.051	0.000	Supported
H5	MN ⟶ DOF	0.166	3.085	0.002	Supported

R Square: 0.424

We used the regression analysis technique for this purpose. In Table 5 results of the analysis are produced. As we can see, the R square of the model is 0.424, which means our model explains 42.4% of the variation in the independent variable. The hypothesis proposed a positive effect of the ICS components on the detection of occupational fraud. The regression analysis results supported all hypotheses, confirming the earlier studies on the internal control system and

fraud detection (Nani et al., 2018). As shown in the table – all of our hypotheses are supported. All independent variables, control environment (β= 0.412, p < 0.05), risk assessment (β= 0.351, p < 0.05), control activities (β= 0.387, p < 0.05), information and communication (β= 0.842, p < 0.05) and monitoring (β= 0.456, p < 0.05) positively affect the detection of fraud in the organizations.

Table 6: Moderation of Effective Audit Committee

Hypothesis	Variables (Relationships)	Beta	t-value	p-value	R Square change	Decision
H6	CE.AC ➞ DOF	0.0254	1.7990	0.0728	0.0054	Not Supported
H7	RA.AC ➞ DOF	0.0747	5.8801	0.0000	0.0621	Supported
H8	CA.AC ➞ DOF	0.0296	3.2712	0.0012	0.0187	Supported
H9	IC.AC ➞ DOF	0.1321	8.0858	0.0000	0.0873	Supported
H10	MN.AC ➞ DOF	0.1303	7.5830	0.0000	0.0826	Supported

In this study, we also investigated the moderating effect of independent AC on the relationship between dependent and independent variables. Moderation analysis was carried out to see if the audit committee moderated the relationship between the components of the ICS and the detection of occupational fraud. We used model 1 of PROCESS macro through SPSS (Bolin, 2014). Table 6 exhibits moderation analysis.

The findings show that AC moderates the relationship between RA, CA, IC, and MN and the detection of occupational fraud yet fails to moderate the association between CE and the detection of occupational fraud. Therefore hypotheses 7, 8, 9, and 10 are accepted, and hypothesis 6 is rejected.

6. Discussion and Recommendations

In this study, we found all of our hypotheses accepted except one. ICS components CE, RA, CA, IC, and MN significantly affect the detection of occupational fraud in organizations. Organizations that make the internal control system stronger and more effective will be more able to detect occupational fraud and other unethical practices. The findings of the present study support the existing literature, which claims that ICS components significantly predict the detection of occupational fraud (Ocansey & Ganu, 2017; Wanjala & Riitho, 2020)

The audit committee's responsibility is to oversee the functions and performance of the internal control system. An effective AC will perform its function in an efficient manner which will help ICS to achieve its objectives. As per the results of our study, AC moderates the effect of the components of the ICS in achieving its objectives and performance (Handayani & Ibrani, 2020).

These results suggested that we can prevent and detect the fraudulent activities committed by the employees of the organization by making ICS components more efficient and AC can also play its role in making performance of these ICS components better.

7. Conclusion

The underlying objective of the current study was to evaluate the role of ICS components in detecting occupational fraud. There is significant research in the field on the effect of ICS on the detection of occupational frauds, however, the

use of effectiveness AC as moderating variable was unexplored. In this research, we tried to cover this gap in Pakistan.

The hypothesis proposed a positive relationship between these components and the detection of occupational fraud. As per the analysis results, all these components have a significant and positive association with detecting occupational fraud. We also explored the moderating role of the effectiveness of AC on the relationship between the detection of fraud and ICS components, except for the risk control environment. The findings affirm that the audit committee moderates the association between ICS components and the detection of occupational fraud. The study findings will benefit the management of the organization that is victim of occupational fraud and how an effective ICS helps the management detect occupational fraud. The present study attempts to document the empirical evidence on the association between ICS components and fraud detection with the AC's moderating role.

8. Managerial Implications

The occurrence of occupational fraud has become a serious problem in organizations. Its control is a challenge for the top management (Kartal, İbiş, & Çatıkkaş, 2018). Our study's results reveal that all internal control components play an effective role in detecting occupational fraud. By making these elements stronger and more effective, managers can detect fraud in their organizations which leads to controlling the financial and reputational loss of the organizations. Results also showed the effective moderating role of the audit committee. The audit committee can perform its role if it is more independent and frequently meet to discuss critical matters by including more persons having expertise in accounting and financial knowledge.

9. Limitations to the Study and Future Research

This study has many limitations, which open research avenues for the future. We took only components of ICS as independent variables. There are many other tools to detect occupational fraud, like internal audit whistleblowing, external audit, and forensic audit. Studies can perform in these areas as well. We used AC as a moderator; in other studies moderator effect of other governance variables like CEO duality, board mix internal audit, and external audit. It can be used. Research can also be done on the different types of fraud, like asset misappropriation, financial reporting fraud, and corruption. Separate studies can be done on different sectors or sizes of companies like small and medium-sized companies or large size companies, financial sector, and manufacturing companies.

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