

# The Role of Control Environment (CE) in the Public Sector in Preventing Fraud: A Literature Study

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## ARTICLE INFO

**JEL Classification:**  
E01, H75, H83

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**Received:** 25-07-2023  
**Revised:** 31-10-2023  
**Accepted:** 02-12-2023  
**Published:** 04-12-2023

**Keywords:**  
Control Environment,  
Corruption,  
Fraud,  
Internal Control,  
Public Sector

**Sitasi:**  
Harahap, L., & Isgiyarta, J. (2023). The Role of Control Environment (CE) in the Public Sector in Preventing Fraud: A Literature Study. *Jurnal Riset Akuntansi & Perpajakan (JRAP)*, 10(2), 264-279.  
<https://doi.org/10.35838/jrap.2023.01.02.22>



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## ABSTRACT

This paper aims to conduct a literature study on the role of the CE in preventing fraud. Undoubtedly, weak internal controls (IC) and CE are the factors that cause various cases of fraud to occur, such as corruption, collusion, bribery, and various unethical behaviors. The COSO IC Framework and previous studies explicitly state that the CE is the primary basis for building a strong IC system, and the leader or supervisor is a central figure in realizing the formation of a strong CE. However, from several previous studies, not much has examined the role of the CE on the effectiveness of ICs in preventing fraud. The method used is to enter keywords in the search engine, consisting of "corruption, fraud, CE, corruption in the public sector, unethical behavior, public sector". Databases like Scopus, Emerald, Google Scholars, Scihub, and Proquest are utilized as search tools to discover pertinent research in this specific field. The results show that several previous studies using quantitative and qualitative methods to examine the effectiveness of CE and the role of leaders in creating a strong CE to prevent and reduce fraud. The study contributes general knowledge and practical insights of the role of CE and the role of a leader to enforce CE.

## ABSTRAK

Fraud yang terjadi di sector public dan privat dapat disebabkan oleh kelemahan pengendalian internal. Bentuk fraud dapat berbagai macam misalnya korupsi, kolusi, penyuapan dan perilaku yang bertentangan dengan etika. Kerangka COSO secara tegas menekankan peran lingkungan pengendalian sebagai fundamental atau dasar membangun system pengendalian internal yang efektif. Figur utama yang memiliki peran penting dalam mewujudkan lingkungan pengendalian adalah pimpinan atau atasan. Namun dalam praktik dan penelitian, figur dan peran atasan belum banyak dilakukan, sehingga penelitian ini mencoba untuk melakukan telaah pustaka di bidang pengendalian internal, dan berfokus pada lingkungan pengendalian. Hasil review penelitian terdahulu baik dengan pendekatan kuantitatif dan kualitatif menegaskan peran lingkungan pengendalian dalam mencegah terjadinya fraud dan bentuk kecurangan lainnya. Selain itu, pimpinan atau atasan merupakan figur dan berperan penting membangun lingkungan pengendalian yang kuat dan membentuk budaya organisasi.

## 1. INTRODUCTION

Fraud can happen anywhere and by anyone and is caused by various factors. One of the factors that cause fraud to occur is weak ICs, both in the private and public sectors. IC is an integral part of the modern government system and an important tool for detecting and fighting corruption (Khersiat, 2020). The effectiveness of IC and corporate

goals will only be achieved with the support of a strong CE and good governance (Ilyas et al., 2021). An effective IC system illustrates that all the structures that make up the system work well, especially the role of the CE. As the primary structure, the CE has a very strategic function. Human resources are integral to this process as it pertains to fostering integrity and ethical principles,

dedicating oneself to expertise, and shaping the principles of management. Fraud occurs because the leadership cannot create a strong CE to prevent fraud. Most of the fraud occurrences in the world are carried out by top management, such as Enron, Worldcom, Garuda Indonesia, and others. This is a picture where top management cannot establish a corporate culture in which all individuals have a sense of ownership and accountability for "doing what is morally right". The leader (top) and the Board of Directors are responsible for defining the company's values, principles and ethics and ensuring they are reflected in the company's strategy, operating model, risk assessment, and compliance framework, as well as corporate governance (Medcraft, 2016).

Leaders play an important role in setting the organizational culture (sound of tone), exerting influence and supervision over the culture, and guaranteeing the appropriate governance structure and IC implementation. All levels of management and their individuals are responsible for realizing the corporate culture. Corporate culture is derived and communicated from the leadership level and can be understood by all employees (Medcraft, 2016). It says that "Tone at the top (ToT)" ensures the corporate values are transmitted and comprehended across the organization and is a crucial element in defining the role it assumes by IC and the behavior expected in the organization (Budirahardjo & Baskara, 2019; COSO, 2013). Through ToT, the leader can be likened as a waterfall where the water will fall from top to bottom. This phrase means how a leader becomes an example and role model; his subordinates imitate the ad. The CE is the anchor of the ethical atmosphere due to it sets ToT.

The emergence of unethical or fraudulent behavior can be caused because leaders cannot be role models for someone with high integrity and ethical values that are anti-corruption, collusion, and other forms of fraud. Many cases have occurred in Indonesia. For example, corruption or bribery

is carried out or involves elements of the leadership of the institution or work unit. The red-handed operation carried out by the KPK arrested many regional heads, DPR members, ministers, and government officials. The examples of several cases above show that the tone above needs to be implemented properly by officials, especially in the public sector related to supporting efforts to eradicate corruption in Indonesia (Budirahardjo & Baskara, 2019). The head of an institution or work unit should manage the organizational culture (tone), influence and oversee the culture, and ensure the proper governance framework and IC implementation. Top management must carefully consider every act, action, and behavior. Leaders of companies, government entities, non-profit organizations, or religious communities must consider that their actions will affect the entire community and the world in the future. In addition, risks will arise when leaders underestimate or ignore the negative effects of unethical practices by company leaders, both on companies and society.

However, unfortunately, in practice and the scope of research, IC is not implemented seriously and gets less attention from management and researchers (Changchit et al., 2001). Therefore, research in the field of IC is still very much needed, especially to confirm the role of the IC system in achieving company goals and protecting against errors, carelessness, and even acts of corruption (Badara & Saidin, 2013; Jokipii, 2010). The subject of IC and organizational culture has received significant attention within the field of economics over the past few decades. However, this concept has yet to be fully clarified and is a concept that is still being debated (Domnisoru et al., 2017).

The role of the CE in preventing and mitigating the fraud is enormous and is an important topic for further in-depth study. Several previous studies confirmed this role, but with technological developments, business practices, and other environmental factors, this topic needs further development to obtain new findings or complement the

changes. This research explores the CE's role in preventing corruption and other unethical behavior. Moreover, what factors can encourage the formation of a strong CE, and what elements or components of the CE influence it? So, the research questions are as follows: (1) Does the CE play a role in preventing corruption and other forms of fraud or unethical behavior? (2) What kind of CE should top management create to prevent corruption, fraud, or unethical behavior?.

## **2. LITERATURE REVIEW**

### **2.1. Internal Control**

The shareholders' welfare will greatly depend on the effectiveness and efficiency of the daily activities or operations and the support of ICs. The more effective and efficient it will prevent the company from waste, bankruptcy, and theft and will protect the company's assets from unwanted adverse effects. IC is very important for companies to guarantee the reliability and accuracy of financial reporting and is a fundamental driver of earnings quality (Schneider & Church, 2008; Tampubolon, 2019).

IC is a system shaped by executives, managers, and various assets, to instill assurance that the operations of an organization align with the attainment of corporate objectives. An IC system (SPI) is composed of a variety of procedures, and mechanisms, processes, which are used to control the company's operations. There are 3 (three) main objectives of SPI, namely asset security and operational effectiveness and efficiency, reliability of financial reporting, and compliance with rules and regulations (COSO, 2013). SPI is built from five elements, namely CE, risk assessment, control procedures, monitoring or monitoring, as well as information and communication in which each of its components is an integrated part to fence off all company activities and people who carry out company activities by procedures, mechanisms, provisions, laws, and their roles and functions.

The responsibility for developing and overseeing an effective IC system is part of

the management function (Changchit et al., 2001). This system plays a vital role in securing the realization of corporate objectives. The discipline of IC implementation is inseparable from the role of the board of directors, top management, audit committee, or oversight body, who lead by example in developing values, business philosophy, and operating style, especially in building the basic foundation of IC, namely the CE (Krishnan, 2005). What top management does and says is a message to everyone in the company. The upper management comprises individuals who apply their expertise, viewpoints, and global perspectives, which play a role in decision-making and the overall course of the organization (Opstrup & Villadsen, 2015). So, Nakashima & Ziebart, 2016 said that tone at the top is significantly related to operating effectiveness, operating efficiency, enforcement of legal compliance, and safeguarding assets.

### **2.2. Control Environment**

The CE consists of a framework of criteria, procedures, and systems that serve as the foundation for the implementation of IC across the entire organization (COSO, 2013; Iswahyudi & Darminto, 2019). The CE is seen as a fundamental element and forms the framework for the IC system, and is the basis for the other components. The CE involves human elements related to the development of integrity and ethical values, commitment to competency, and management philosophy and plays a very important role in achieving company goals (Ilyas et al., 2021).

The CE, which is largely established by the organization's management, and involves a human element to develop integrity and ethical values as the parameters BoD to carry out its controlling responsibilities; organizational structure to assign authority and responsibility; recruit competent individuals; and rigor in performance measures, compensation, to encourage performance accountability (COSO, 2013; Ilyas et al., 2021). The chief executive officer

(CEO) and senior management hold the responsibility for establishing the corporate culture, often referred to as the ToT, which encompasses the ethical framework. Ethical values and integrity are not confined to mere statements within the code of ethics; they are also demonstrated through the ethical behavior and actions set by top management as examples. The CE of an organization is prominently shaped and established by the board of directors and the audit committee.

Management's dedication to enhancing the company's capabilities, competencies, and knowledge is another way the CE becomes evident. How a leader applies management philosophy and operating style. Does a leader always set an example by acting ethically and by the company code of ethics or professional code of ethics? Does a leader always remind his subordinates to place IC as the main activity in carrying out the company's operational activities? Does a leader always treat his employees or subordinates fairly and with respect? The CE is very dependent on the behavior and attitude of the leadership or the tone at the top. A leader is the key to the successful implementation of effective and efficient IC.

The CE must start from the top leadership (such as the BoD (board of directors) and top-level management) by developing internal communications to sound the crucial of IC, including provisions for standards of conduct that are expected. Management is also responsible for always emphasizing and strengthening the implementation of IC at various levels of the company by creating an effective CE. A well-structured CE fosters a framework that bolsters risk evaluation, the execution of control measures, the utilization of information and communication systems, and the enforcement of monitoring procedures.

### 2.3. Fraud and Fraud Theory

Fraud is translated as an action that leads to a criminal act in the form of fraud or abuse of power to enrich oneself or the group (Amyulianthy et al., 2023). Fraud is also

defined as the use of one's position or position to enrich one's self through deliberate misuse or deviation of company resources or assets. Other sources also say fraud is an intentional act or planned disappearance to deceive other people so that it causes harm to the victim and benefits those who do it. Judging from the methods used to commit fraud, generally in unexpected ways, full of stratagems, cunning, hidden, and full of dishonesty that causes other people to be deceived. Several definitions given by experts can be concluded that fraud contains the following elements:

1. Dishonest and deviant acts.
2. Generally carried out by people who are domiciled or have positions.
3. Done intentionally or planned.
4. Based on intrigue, trickery, cunning, omission, concealment, misrepresentation, and other ways that are not true.
5. Cause harm to another person or organization.
6. The offender benefits.

Based on the Fraud tree, fraud is divided into three branches, namely corruption, asset misappropriation, and fraudulent financial statements. Corruption is defined as an act of enriching oneself or another person for a corporation that can harm corporate finances or the country's economy. Meanwhile, ACFE mentions corruption has 4 types, namely conflicts of interest, bribes, illegal gratuities, and economic extortion. Assets misappropriation is the act of taking assets illegally (illegally or against the law) by someone who has the authority to manage or supervise these assets, which is then called embezzlement. Fraud of financial statements aims to maintain company performance in the eyes of investors or users of financial statements as well as other interested parties, carried out by reporting assets and income that are higher than they should be or by reporting liabilities and costs that are lower than they should be (Tuanakotta, 2010). This type of fraud is usually in the form of misstatements, either overstatements or understatements.

The highest cases of fraud that occurred in Indonesia (65%) were in the form of bribery, also in the education sector (Harahap & Isgiyarta, 2023; Osipian, 2007). Fraud in the acquisition of goods and services is the second most prevalent issue that has occurred. It is not surprising that the number of corruption and other forms of fraud that have occurred in Indonesia cannot be reduced, perhaps because the inhibiting factors cannot be corrected, namely the quality and education system. The sources of corruption and other perpetrators of corruption and fraudulent behavior often occur in the educational environment and tertiary institutions.

Corruption and unethical behavior within the business realm can undoubtedly be attributed to a variety of underlying factors or motivations. Several fraud theories were then developed, which were used to determine the factors in detecting fraud from various perspectives. One of the developing fraud theories is the fraud triangle theory initiated by Cressey (1953). Cressey said there are three elements of fraud, namely Pressure, Opportunity (opportunity), and Rationalization (rationalization or justification). The next theory is the Fraud Diamond theory presented by Wolfe and Hermanson (2004). Wolfe and Hermanson add an element of self-ability (capability) as an additional element that influences someone to commit fraud. Horwarth, 2012 found the Pentagon theory, making the fifth element that causes someone to commit fraud, namely arrogance or arrogance or an attitude of superiority and greed from someone who believes that internal control is a trivial matter and does not need to be applied personally. Next is the GONE fraud theory, which was coined by Jack Bologna. Bologna sees from an internal perspective that comes from individual perpetrators of fraud and generic/general related to organizations as victims of fraudulent

behavior (Isgiyarta et al., 2018). Bologna expands the pressure motive in the fraud triangle theory into greed and financial needs, as well as adding the elements of opportunity and exposure.

### 3. METHODS

This research undertook a literature review to explore and consolidate the available body of knowledge on CE, with a specific focus on their application in the public sector. A literature review is a research method employed by scholars that entails the gathering of relevant books and magazines about research issues and goals (Daniel & Warsiah, 2009). In addition, literature studies involve the search for research data or information by reviewing scholarly journals, reference texts, and library publications (Ruslan, 2008). The method used is to enter keywords in the search engine, consisting of "corruption, fraud, CE, corruption in the public sector, unethical behavior, public sector". Databases like Scopus, Emerald, Google Scholars, Scihub, and Proquest are utilized as search tools to discover pertinent research in this specific field.

From the process of searching with search engines and filtering the articles collected to match the research objectives, the number of articles that matched was 24. The articles that were selected and by the research objectives were then classified according to year, study focuses, research location/place, and research method (Table 1). The highest number of articles published in 2020 and 2016 were 4 each. Not every year, articles on the topic of internal control are published, such as in 2018, 2017, 2014, and several other years. This shows that the study of the CE has not been carried out by previous researchers. Most research methods are quantitative, with 15 articles, and 9 articles using a qualitative approach.

Table 1. Research Topics and Issues

No	Research variable
1	Auditor characteristics and attributes
2	Internal audit characteristics and attributes
3	Financial performance, earnings quality
4	Internal Control: components/elements, structure, quality of human resources, quality
5	Private sector and SMEs
6	Public organizations, public organizations
7	IT Governance (COBIT)
8	Customized risk
9	Fraudulent behaviour: Counterproductive Workplace Behavior

Source: Proceed by Researcher (2023)

There are approximately 9 issues discussed that are related to and influence the CE, as shown in Table 1. Based on Table 2, the research location countries are not only

Indonesia, but some countries throughout the world, such as the USA, Africa, Europe, Malaysia, Vietnam, and others.

Table 2. Research Location Countries

No	Country
1	Kenya
2	Vietnamese
3	Malaysia
4	Indonesia
5	United States of America
6	Italy
7	Amman
8	Korea
9	China
10	South Africa
11	Türkiye

Source: Proceed by Researcher (2023)

## 4. RESULTS AND DISCUSSION

### 4.1. The Role of the Internal Control System and the Internal Control Environment

IC aims to realize the effectiveness and efficiency of the company's operational activities, compliance with laws and regulations, as well as quality and reliable financial reports (COSO, 2013). The purpose of IC is intended so that the company can prevent the risk of errors, fraud, and other forms of unethical behavior. IC functions to assure shareholders that the financial reports prepared have high-quality and reliable information as a source of decision-making. According to the Association of Certified Fraud Examiners (ACFE), the Committee of Sponsoring Organization of The Treadway Commission (COSO), and the International Accounting Standard (IAS), the CE is an important and fundamental component of the

company's IC system and reaches all levels. management, all employees without exception, and serves to form an organizational culture that focuses on the importance of control in the organization. According to Vu et al., 2020, each of these components affects the overall effectiveness of the IC system.

The CE plays a role in carrying out harmonization in realizing effectiveness and efficiency through establishing strategies, policies, standards, and business procedures. Several papers say that effective IC and LP can prevent fraud, misstatement (Firat, 2008), corruption (Ziegenfuss, 2001), collusion, bribery, misappropriation (Ahmad & Mariati, 2008), or money laundering in white-collar crimes (Isgiyarta et al., 2018), as found in a study conducted by Adeyemi O. O et al., 2012; Akindele, 2005; Baltaci & Yilmaz, 2006.

Not only in the private sector, the role of IC and LP, but also in the public sector (Waweru, 2021; Ziegenfuss, 2001). The quality of IC and the CE has implications for the quality of corporate financial reporting (Lee, 2019). World recognition and based on previous literature stating the importance of building an effective IC environment in the public sector and government, but in reality, some countries still have weak IC systems, such as Argentina, Bosnia, China, Columbia, India-Karnataka part, India and Philippines, Indonesia, Nigeria (Adeyemi O. O et al., 2012; Akindele, 2005; Baltaci & Yilmaz, 2006).

It is undeniable that weak or ineffective ICs can cause various kinds of problems, such as fraud, corruption, collusion, and several other problems (Adeleke et al., 2019; Afriyie et al., 2019; Higgins, 2012; Johnston & Spencer, 2011; Le et al., 2021; Nawawi, 2017; Rae & Subramaniam, 2010). IC is still needed by large and small companies (MSMEs) in both developed and developing countries (see JP Bruwer et al., 2018). IC is very much needed in the private sector and the public sector (Waweru, 2021; Ziegenfuss, 2001), but in practice it is often found that IC is not carried out seriously and even receives less attention from management so management is unable to detect and prevent fraud and all forms of fraud. fraud and other unethical behavior.

Various consequences of weak ICs, namely inhibiting the responsibilities of management, officers, and employees and opening up opportunities for temptation to engage in inappropriate accounting activities and practices, can lead to individuals being accused or blaming each other (Duncan et al., 1999).

The effectiveness of the IC system is needed in the public sector; as a public service provider; to create various improvements and improve the quality of services provided by the public sector or government (Unegbu & Kida, 2011). An effective IC system will have an influence or impact on achieving company goals and protection against mistakes, carelessness, and

even acts of corruption (Badara & Saidin, 2013; Jokipii, 2010). For example, IC over financial reporting is designed to be able to assess the fairness and reliability of financial statements and the process of preparing financial reports, especially for external purposes. Furthermore, the disciplined application of control procedures and mechanisms guarantees that records reflect appropriate transactions and can also detect unauthorized transactions.

Even today, with the development of information technology, transaction input processes, transaction processing, data storage, data processing, and other processes make the company's financial reporting IC system more effective and accurate (Altschuller et al., 2016). The Control Objectives for Information and Related Technology (COBIT) framework help modify information technology governance to facilitate the realization of strong ICs and close alignment between information technology and an organization's business strategy. COBIT integrates, aligns, and links the company's business processes with the CE and also helps overcome some of the limitations of the COSO framework (Garzon, 2017). Added to Altschuller et al., 2016, companies that invest in information technology innovation report fewer weaknesses in their ICs.

Company scandals that often occur encourage various parties to reform corporate governance (Schwartz et al., 2005). The board of directors plays a major role in corporate governance practices; this is what drives reforms to the leadership role in upholding and governance. Unfortunately, the reforms are more targeted toward legal provisions, not the ethical obligations of the leadership. Legal reform without attention to the ethical obligations of leaders is likely to be ineffective. Leaders have responsibility for the ethics and compliance program. The tone set above through example and action is the core of all ethics in the corporate environment (Schwartz et al., 2005). The main framework components of the proposed code of ethics

for leaders are (1) honesty; (2) integrity; (3) loyalty, (4) responsibility, (5) fairness, and (6) citizenship (Schwartz et al., 2005).

Governance includes board and leadership accountability to shareholders. IC conveys to shareholders that the director bears responsibility for the organization's internal financial control system. This system offers a reasonable level of assurance but does not guarantee absolute protection against significant errors or losses. It outlines the primary procedures established by management and is designed to deliver efficient internal financial control. Moreover, leaders, be they directors or board committees, have assessed the effectiveness of this financial control system (Dănescu et al., 2012).

Ray, 1986 identified three approaches to organizational control: bureaucratic (based on compensatory controls), humanistic (based on social group relations), and cultural control (based on the manipulation of organizational culture aimed at gaining attachment to the organization and its goals).

The risk environment, organizational culture, characteristics, and complexity of the company have a direct influence on carrying out adequate IC activities in response to afferent risks (Dănescu et al., 2012, Pfister, 2009). While it is widely recognized that such risks can never be eliminated, it is generally believed that a control system will act as a fraud deterrent and safeguard against incompetence. Pfister, 2009 shows that the cultural approach can be influenced by top management and is not a contextual variable. The relationship between control and organizational culture has been studied extensively (Andersen & Lueg, 2016).

The background of the development of literature on organizational culture and IC is the history of Japanese companies that have had spectacular performances. Organizational culture contributes to organizational performance (Deal & Kennedy, 1982; Lu & Wenchang, 2015; Ouchi, 1981). In contrast to the culture in Japan, there are concerns over the (Chinese)

cultural aspects impeding the IC system (Buckley et al., 2006). The Chinese culture of *guanxi* and *mianzi* can be fertile ground for corruption and fraud, especially when combined with paternalism and state collectivism (Buckley et al., 2006).

Effective implementation of IC is a management responsibility, in addition to being responsible for ensuring the achievement of predetermined organizational goals (Changchit et al., 2001, Kopic, 2013) and playing a role in ensuring organizational success (Jokipii, 2010). Kopic (2013) adds that IC is a system that helps provide reasonable assurance of organizational goals. To promote good governance and to furnish management with updates on an entity's progress in accomplishing its objectives (Changchit et al., 2001; Jokipii, 2010), both public and government sector organizations must enhance the efficiency of their IC system, internal audit function, and organizational commitment (Suyono & Hariyanto, 2012).

Previous studies confirm that IC cannot be separated from the role of leaders in building an IC environment as an organizational culture to bring all individuals within the organization to attain organizational objectives. So that the accountability of a leader who is committed to advancing the company is highlighted. The role of the CE as a crucial and effective mechanism and sharp tool to shape the behavior of people in an organization realizes the importance of preventing errors, irregularities, collusion, and even corruption. Thus, the IC system can guarantee the reliability and accuracy of financial reporting.

#### **4.2. The Role of the Control Environment Against Corruption Prevention**

The role of the Board of Directors (BoD), top management, or regulatory agencies is to enforce the discipline of implementing ICs. They serve as exemplars in shaping values, corporate principles, and operational approaches. The actions and words of senior management convey a message to all



members of the organization. What senior management is doing and saying is a message to everyone in the company. Directors also play an important role in overseeing the ethical performance of the organization and must be able to prevent fraudulent actions that are detrimental to the company. The Enron case, Worldcom, is an example of a fraud case because weak ICs and negligence by leaders shaped the organizational culture and CE. (Schwartz et al., 2005) describe board members as having "slanted" or sleepy eyes so they do not see or detect cheating ahead of time.

The development of fraud and other unethical behavior in the public sector is because the parties and authorities are more focused on reforms to strengthen and expand regulation, law, and accountability (known as hard control), while behavioral and organizational factors are ignored (soft control), such as tone. at the top, a code of ethics, especially for company leaders (Schwartz et al., 2005). The control mechanism used is harder to control in nature, such as procedures, provisions, authorities and responsibilities, and so on, thus forgetting other forms of control, especially soft control. The process of forming and developing organizational culture is more of a soft control nature and flows from top to bottom (from superiors to subordinates). Leaders, through actions, attitudes, actions, and other symbolic forms, are expected to infect and transmit organizational culture to the channels below them, namely employees. Tone at the top through various actions, attitudes, actions, and others plays an important role in shaping employee behavior in achieving company goals (Badara & Saidin, 2013; Jokipii, 2010; Medcraft, 2016; Stollberger et al., 2020).

Hard control will be more effective with the support of soft control, such as corporate culture, ethics, and values embedded in all employees and management. The CE that is formed from the culture and ethical values adopted is a soft control and plays a very important role in preventing various kinds of

unethical behavior and fraud. The CE has a major role in strengthening the company's IC system and also in the public and government sectors (Mendes de Oliveira et al., 2022; Rae & Subramaniam, 2010). Strengthened by research conducted by Bruwer, 2016; Chang et al., 2020; FIRAT, 2008; Tsay & Turpen, 2011; Ziegenfuss, 2001, the importance of strengthening the CE within the company to minimize the potential for fraud or weaknesses in the effectiveness of ICs (Amudo & Inanga, 2009; Ayagre et al., 2014).

A strong and effective CE (Kgomo & Plant, 2015) can set up standards, processes, and structures that lead individuals at various organizational tiers in executing their respective roles and making decisions to achieve corporate goals. The influence of the CE on the creation of an effective and strong IC system is enormous. Leader behavior, decision-making, leadership style, direction, and form of management are factors that influence the creation of an IC environment. The leader is an example and a reflection of the corporate culture that his subordinates will follow.

The CE is the initial assessment that will be carried out by the auditor to determine the quality of the client's financial reporting and IC system (Cohen & Hanno, 2000). Management philosophy and governance structure are two critical components of the CE that exert a significant influence on the preliminary evaluation and planning phases. These elements have demonstrated their effectiveness in the creation of risk assessment working documents and models, as highlighted in Haskins' research from 1987 (Haskins, 1987). Problems that arise due to a weak CE are generally related to financial problems (Kreutzfeldt & Wallace, 1990), fraud (Bell & Joseph, 2000), and problems to quality of accrual (JT Doyle et al., 2007). Another impact is the possibility of material errors and fraud, as well as the quality of the company's financial reporting (Beasley, 1996; Bernardi, 1994; Haskins, 1987). Major cases that occurred in the world and involved large

companies and their executives such as Enron, WorldCom, were caused by an ineffective CE (Luc et al., 2014).

The CE has a major role in strengthening the company's IC system, including in the government sector (Mendes de Oliveira et al., 2022; Rae & Subramaniam, 2010). This is reinforced by the results of research by Baek et al., 2016 and Vu et al., 2020), which state that all elements of IC, including the CE, have a role in creating effective IC, in line with the can that. from Bruwer, 2016; Chang et al. 2020; FIRAT, 2008; Tsay & Turpen, 2011; Ziegenfuss, 2001, show the importance of strengthening the company's CE to minimize the potential for fraud or weaknesses or other forms of unethical behavior.

Effective ICs can prevent fraud, such as misstatement (Firat, 2008), corruption (Ziegenfuss, 2001), collusion, bribery, misappropriation (Ahmad & Mariati, 2008), or money laundering caused by white-collar crime (Isgiyarta et al., 2018), and has implications for the quality of corporate financial reporting (Lee, 2019). Revenue reported in the financial statements of companies with an effective CE is considered more informative and reliable in the valuation process, thus leading to an increase in the value relevance of earnings (Lee, 2019).

Comprehending the CE is a fundamental step in the auditor's evaluation of a company's IC quality and execution, with ramifications for audit appraisals (Cohen & Hanno, 2000; Haskins, 1987; Lamboglia & Mancini, 2021) Bernardi, 1994; Christopher, 2003; Cohen & Hanno, 2000; Kizirian & Mayhew, 2005; Regan N. Schmidt, 2014), this is by the emphasis of the International Auditing Standards (ISA). This understanding will affect the nature, timing, extent, quality of procedures, and completion of the quality of procedures performed by the auditor. Furthermore, the constituents of communication, integrity, ethical values, dedication to proficiency, and the practices and policies of human resources exert a substantial impact on it (Abu Naser et al., 2018). In addition, the COSO framework is

used by internal auditors to evaluate an organization's IC system (Wilson, Wells, Little, & Ross, 2014). (Kasztelnik, 2021).

Two crucial facets of the CE, specifically management philosophy and governance structure, have significantly influenced preliminary assessment and planning processes. They have also demonstrated their utility in crafting risk assessment working documents and models. Consistent with the AICPA statement, the size, and complexity of the client's business are the variables most frequently associated with the attributes of the CE (Tracy & Azumi, 1976) and audit risk (Anderson et al., 1970).

Physical assets, EDP controls, internal auditors, HR training, client accuracy in detecting and correcting errors, following up on previous audit recommendations, and informal organizational structures, management structures, budget communication mechanisms, codes of conduct, client training, are factors influencing control internal and CE.

In the public and government sectors, an effective IC system and CE play an important role in the effectiveness of internal audit, especially in local governments (Badara & Saidin, 2013). Ziegenfuss, 2001 adds that there is a negative relationship between the CE in government and the incidence of fraud, reinforced by the recommendations of the Treadway Commission 1987, COSO 1992, and AICPA 1997, which emphasize the importance of the CE in preventing fraud. Therefore, according to Feng et al., 2009, the IC system in the public sector or government must work effectively to assist the internal audit function to achieve organizational goals. Effective IC system support has a significant impact on the accuracy of management guidelines in carrying out organizational operations (Feng et al., 2009).

Creating a strong and positive CE can significantly influence the early detection and prevention of fraud within an organization. Management's responsibility is to ensure that an effective IC system is implemented to

ensure the achievement of organizational objectives.

The main role of the CE is harmonization in realizing the effectiveness of the company or organization through the establishment of business strategies, policies, standards, and procedures. This can be done considering that the CE is the basis as well as the highest level of the IC system and reaches all levels of management, and employees without exception, and forms an organizational culture that focuses on the importance of control in the organization. The CE, together with other IC elements, aims to strengthen and fortify the company from things that harm the company's operational activities. (Vu et al., 2020).

#### **4.3. Components of Control Environment to Support Effectiveness of Internal Control**

The CE is the responsibility of the leadership and other managerial positions to create an atmosphere that supports the realization of reliable financial reporting, effectiveness and efficiency of the company's operational activities, safeguarding company assets, and compliance with all applicable provisions, rules, and laws. According to COSO (2013), top management, and the CEO in particular, is responsible for the organizational culture and ethical framework, often referred to as the tone at the top (COSO, 2013). Creating a strong and positive CE can significantly influence the early detection and prevention of fraud in an organization. Management must establish an effective IC system to guarantee the realization of the organization's goals. A controlled environment formed from a tone at the top will make the IC system effective and have an important role in the achievement of company goals (Badara & Saidin, 2013; Jokipii, 2010).

Management holds the responsibility not only for the creation of an IC system but also for its oversight (Changchit et al., 2001). The quality of earnings is significantly influenced by the effectiveness of the IC system and the CE (Lee, 2019; Schneider & Church, 2008),

financial report quality, audit quality, and others. The failure of the leadership/board of directors to comply with supervisory responsibilities opens opportunities for subordinates to commit fraud. Lack of supervision and control, even simple things, such as reviewing expenses, comparing budgeted amounts to actual amounts, and controlling company credit card access, are believed to prevent or detect unauthorized spending and can save a company large sums of money (Noland & Metrejean, 2013). IC is sometimes considered a small job, so it is often ignored by the leadership.

The main role of the CE is harmonization in realizing the effectiveness of a company or organization through the establishment of strategies, policies, standards, and business procedures. This can be done considering that the CE is the basis as well as the highest level of the IC system and reaches all levels of management, employees without exception, and forms an organizational culture that focuses on the importance of control in the organization. The CE, together with other IC elements, aims to strengthen and fortify the company from things that have a bad influence on the company's operational activities. (Vu et al., 2020).

Personnel integrity, ethical values, competence, authority, and responsibility are expected to increase the effectiveness of IC to provide reliable financial reporting. To build effective, accountable, and equitable institutions, integrity, ethical values, and instilling supervisory functions at every level of the organization are needed (Mendes de Oliveira et al., 2022).

The occurrence of fraud and other forms of fraud is mainly caused by a lack of commitment to integrity and values, as well as a lack of monitoring of ICs (Mendes de Oliveira et al., 2022). Therefore, to prevent the occurrence of fraud and other fraud, strict supervision is needed to adhere to compliance with procedures to avoid mistakes and fraud. Enforcement of an effective CE makes employees aware of their respective responsibilities and duties and

motivates them to commit to the assignments given. Equally important, the role of the leadership, through commitment and tone at the top, has the strength as a solid foundation to be emulated by all employees in managing the organization and being an example in carrying out the company's operational activities (Mendes de Oliveira et al., 2022).

The significant role of the CE in preventing fraud is supported by findings (Lamboglia & Mancini, 2021) that in the audit process, understanding the CE is part of the auditor's assessment of IC and has an impact on audit assessments (Bernardi, 1994; Christopher, 2003; Cohen & Hanno, 2000; Kizirian & Mayhew, 2005; Regan N. Schmidt, 2014). The quality and implementation of the CE can affect the nature, timing, extent, and quality of procedures performed by the auditor. Communication, upholding ethical values, and management integrity are relevant elements and key determinants of client risk structure (Feng et al., 2015; Kizirian & Mayhew, 2005; Philip R. Beaulieu, 2001; Regan N. Schmidt, 2014), provide a basis for IC and build an effective CE (Lamboglia & Mancini, 2021). The organizational structure and processes, policies, and standards used by companies to implement IC are part of the CE, referred to as "tone from above" (Feng et al., 2015). The primary factor influencing the client's risk profile, serving as the foundation for IC, and is often deemed to be the tone (Ge & Mcvay, 2005). Auditors evaluate this aspect closely because it significantly affects the client's financial reporting procedures and the auditor's reliance on IC. This phase of the audit process is known for its complexity, occurring concurrently with other critical audit tasks and bearing great relevance (Chow et al., 1987; Haskins, 1987).

ISA, IFAC, SAS, AICPA audit standards, COSO IC framework, and multiple studies (Kizirian & Mayhew, 2005; Pickerd et al., 2015) emphasize the significance of the CE as the central component to be taken into account by auditors when performing audit procedures, while still acknowledging the importance of other elements within the IC

system. The importance of auditors evaluating and assessing the quality of "tone at the top" and other factors that affect environmental quality (Regan N. Schmidt, 2014). Weaknesses in the CE can generally lead to problems involving poor financial conditions, fraud, and accrual quality (J. Doyle et al., 2007; Kizirian & Mayhew, 2005; Kreutzfeldt & Wallace, 1990).

#### **4.4. Antecedents and Consequences of Internal Control**

The quality of earnings relies heavily on the effectiveness of the IC system and the control environment (Lee, 2019; Schneider & Church, 2008), besides financial report quality, audit quality, and others. Failure of leaders/directors to fulfill supervisory responsibilities opens opportunities for subordinates to commit fraud. Lack of supervision and control, even simple things, such as reviewing expenses, comparing budgeted amounts to actual amounts, and controlling company credit card access, is believed to prevent or detect unauthorized spending and can save a company large amounts of money (Noland & Metrejean, 2013). IC is sometimes considered a small job, so it is often ignored by the leadership.

The occurrence of fraud and other forms of fraud is mainly caused by a lack of commitment to integrity and values, as well as a lack of monitoring of ICs (Mendes de Oliveira et al., 2022). Weaknesses in the CE can generally lead to problems involving poor financial conditions, fraud, and accrual quality (J. Doyle et al., 2007; Kizirian & Mayhew, 2005; Kreutzfeldt & Wallace, 1990).

Several studies have found cases of fraud and financial reporting driven by self-interest and unethical motives of their leaders (Patelli & Pedrini, 2015). This proves the upper echelon theory (Hambrick & Mason, 1984) and leadership ethics literature (Schaubroeck et al., 2012) that ethical concern instilled by leaders and leadership traits can shape an environment with integrity and ethical practice. Leadership has a strong impact on unethical financial reporting. There is a

significant relationship between the perceived tone above and earnings quality. (Dechow et al., 2011) proves that aggressive financial reporting can lead to accounting fraud. Coupled with the relationship between leadership traits and aggressive financial reporting (Patelli & Pedrini, 2015).

## 5. CONCLUSION

IC, especially the CE, still needs to be studied more and more deeply, bearing in mind that previous studies have been very limited, especially in the public and government sectors. IC and CE are disciplinary tools and mechanisms for all existing devices within a company or organization, both private and public, to discipline and provide awareness of the importance of complying with procedures, mechanisms, provisions, rules, as well as organizational culture and values corporate values and ethics. The role of the leadership (directors, managers, and supervisors), as well as the audit committee to educate all employees to implement IC by providing examples and role models (tone at the top). The IC environment and other components that make up an effective IC system can prevent things like poor financial conditions, fraud, accrual quality, accounting fraud, and other non-ethical behaviors. Corruption and fraudulent and unethical acts stem from the inability of the leadership to create a strong IC environment because they have not been able to become a role model for all employees. In several examples of cases in the world, corruption and other frauds occur because the perpetrators are company leaders or public officials who should be role models and disciplinary supervisors of IC implementation. To strengthen the CE, the following elements need to be considered and become critical points for the leadership, such as personnel integrity, ethical values, competence, and authority and responsibility.

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