

# Corruption as distinct crime: the need to reconceptualise internal control on controlling bureaucratic occupational fraud

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## Abstract

**Purpose** – The purpose of this study is to provide theoretical guidance that enables local governments to deal with occupational fraud.

**Design/methodology/approach** – The quantitative approach is used to examine the efficacy of the Committee of Sponsoring Organisations of the Treadway Commission (COSO) internal control framework in tackling occupational fraud in local government. To achieve the goals, the authors performed a survey of the Indonesian auditor institutions.

**Findings** – It is not appropriate to argue that all types of local government fraud can be deterred by a single internal control. The study suggests that COSO internal controls are not effective for dealing with corruption cases. However, the authors do find the efficacy of those controls are obvious for controlling asset misappropriation and financial statement fraud. This result indicates that if the COSO internal control framework is only designed for routine financial control and asset protection, it significantly and negatively influences its efficacy to deal with occupational fraud. This study has both theoretical and managerial implications, discussed separately.

**Originality/value** – In the field of prevention, the authors cannot make generalised theories and approaches for dealing with occupational fraud. Whilst previous authors have offered fraud deterrents in terms of internal controls, they have failed to realise the need to understand their effectiveness for particular forms of fraud. This paper sheds light on the effectiveness of internal controls in achieving their goals. This has both practical applications and stimulates theoretical insights.

**Keywords** Local government, Internal control, COSO, Occupational fraud, Fraud deterrent

**Paper type** Research paper

## Introduction

Occupational fraud committed by respectable high social status individuals has attracted many academic authors (Engdahl and Larsson, 2016; Goossen *et al.*, 2016; Locker and Godfrey, 2006) and professionals (ACFE, 2018b; PwC, 2018). Quantitative and qualitative studies of how white collar criminality are perpetrated and how the organization, as well as regulatory agencies, seek to control such offenses are the most illuminating part of the fraud literature. One of the notions that receive considerable attention is about the preventive strategies in dealing with white-collar criminality. For example, whilst many scholars believe that their proposed frameworks (which are associated with internal control, ethical



culture and management review) can deter any types of illegality, they, however, have limited effectiveness in practice (Wurthmann, 2020; Bierstaker *et al.*, 2006; Adams *et al.*, 2006). As explained by prior studies (Maulidi, 2020; Ormerod *et al.*, 2012; Dai *et al.*, 2017), organisations need to further understand the context to control the risk of fraud.

Experimental research has helped to identify the situational correlates of fraud behaviours, but lacks a theoretical framework for organising the phenomenon of organisational fraud operated by organisational leaders (Power, 2013). In addition, extensive studies have shown that people engaging in misconduct is not because of the existence of opportunities of doing so (Gneezy, 2005; Ariely *et al.*, 2019; Knechel and Mintchik, 2021; for a review about the concept of fraud tolerance). Taken together, those studies support the view that the increase in the rate of organisational illegalities is not *merely* a function of the increased opportunities for doing such acts as well. Of course, it becomes a serious challenge for organisations and regulatory agencies. As Maulidi (2020) have been explained, organisation and regulatory agencies are required to understand fraud prevention beyond the structural factors that motivate offenders to commit illegal acts.

In the wake of high-profile corporate scandals, some people argue that effective internal control is becoming strategically important in many organisations because it is evidenced to be a cost-efficient way to manage the fraud risks in everyday operations (Shonhadji and Maulidi, 2020; Skousen *et al.*, 2009). Shonhadji and Maulidi (2020) mention, the most applied internal control in both private and public organisations is the internal control framework prescribed by the Committee of Sponsoring Organisations of the Treadway Commission (COSO). The COSO's internal control framework, which is composed of integrated five components, is viewed as the gold standard of internal control for many organisations (Cendrowski *et al.*, 2007). Flaherty and Maki (2004), as executives on the Treadway Commission (COSO), promulgate that the COSO integrated framework is intended to deal with financial reporting fraud and potential events that may establish malicious risks, fraud and, as well as external fraud.

Recent empirical research studies show the efficacy of organisational internal control on preventing opportunities to engage in fraud acts. For example, Al-Dhamari *et al.* (2018), who examine the role of the internal audit function (IAF) in Malaysia acknowledge that the IAF plays a vital role in controlling moral hazard and unethical behaviours. The study also shows when internal corporate governance mechanisms are relatively weak, and the enforcement of the legal system is low, financial reporting quality then would deteriorate. Brokenshire *et al.* (2011), synthesise a wide range of fraudulent activities encompassing financial crimes that occurred in the UK's local governments. They note that due to sophisticated *modus operandi* and lack of effective internal control, government bodies experience difficulties in dealing with tangible or intangible conducts associated with wrongdoings or frauds. Several contemporary studies (Laxman *et al.*, 2014; Rezaee, 2005) and existing literatures (Cendrowski *et al.*, 2007; Hopwood *et al.*, 2009; Taylor, 2011) point out that COSO internal control system comprising five components has a significant influence on the process of discovering the presence of a potential source of fraud concealment. However, those academics references do not elucidate which fraudulent activities can be prevented by internal controls. As mentioned by the Chartered Institute of Management Accountants/CIMA (2008), types of fraud within the organisation have different characteristics and different opportunities.

Therefore, the position of the current study is to contribute to those unexplored research areas. We examine the efficacy of the COSO framework which is claimed as a deterrent to fraudulent activities (Corruption [CORPT], Asset misappropriation [AM], Financial statement fraud [FSF]) in any type of organisations (Flaherty and Maki, 2004). To our

knowledge, this study is the first empirical study offering theoretical guidance helping public bodies to understand leading practice in dealing with fraud CORPT, AM and FSF. Then, this study gives us new directions about how to treat internal control systems as fraud deterrence and provides some practices that public bodies should have in place. Importantly this study answers a call for research on providing the theoretical frameworks that can help organisations to reduce types of fraud (Peltier-Rivest and Lanoue, 2015; Davis and Pesch, 2013) and kinds of situations that make fraud more or less likely to occur (Akkeren and Buckby, 2017). We assume this study opens critical discussion within the occupational fraud prevention processes.

### Concept of system theory

It has been noticeable that the notion of system theory is conceptualised as the organisational approach that maintains a cohesive conglomeration of interrelated and interdependent specific functions and responsibilities. It refers to a part of organisation systems that provides organisations a variety of important viewpoints, for example, about misalignment happening due to incorrect assertions and decisions (Hall *et al.*, 2020; Hartnell *et al.*, 2019; Turel *et al.*, 2017). The major systems of organisation and management may include but are not limited to, information system, planning system, appraisal systems and development systems (Mullins, 2007). All these systems work together to form a strong set of methods and procedures that develop simultaneous fit amongst organisational functions of management and enable organisations to adapt to changing environments (Andersen, 2015; Anderson, 1999; Huber, 1982; Otley and Berry, 1980). Mele *et al.* (2010) note that, from a systemic perspective, the system theory has long been the guiding concept in maintaining the equilibrium or homeostasis, particularly in preserving the functioning of organisational controls. It is also argued that the essential premise of the systems approach is to assure the degree of compliance in the organisational form of structures, routines and systems prescribed by organisational social norms.

A study completed by Feldman and Pentland (2003) argues that system theory as a complex arrangement of elements is useful in explaining the problems associated with the organisational structures, culture and interdependence of organisational and human functions. It brings “coherent understanding” to explain and predict social phenomena happening in the organisation. Feldman and Pentland (2003) offer conceptual work for the traditional understanding of organisational routines. They conclude adequate knowledge about the dynamics of organisational routines is crucial in terms of treating organisational issues. Particularly it is really helpful when the organisation needs information on short-term effectiveness and long-term impact to deciding possible strategies for dealing with the myriad problems (Salvato and Rerup, 2018; Dittrich and Seidl, 2018).

Feldman and Pentland (2003) also note that a central feature to generate expected outcomes is the interrelationships of organisational elements or activities. It means every organisational function must be related, as each function is geared towards the creation and completion of organisation objectives. To do so, managers have a responsibility to oversee employee behaviour to ensure that the organisation is always progressing in a linear manner (Busco and Scapens, 2011; Goh and Pentland, 2019; Turner and Rindova, 2018; Bredillet *et al.*, 2018). From this perspective, it might be rational if the influence of contextual factors within an organisation brings about institutional change. These results support Castro and Ansari (2017) studying institutional change and corrupt behaviour in Brazil. They find that a natural outcome of thinking about programmes and controls, including the identification of fraud risks and implementation of anti-fraud measures is captured in and influenced by the structure of how an organisation is set up.

Schneider and Somers (2006) capture general systems theory and its properties. They argue aspects of the organisational system become complex when the dynamic systems are not adaptive. Schneider and Somers (2006) also note that although a synergism towards goals or purposes was well regulated by the principles of self-maintenance, it does not mean organisation can be free from external interventions. Ongoing change processes from external pressures at some point remain to exist on a higher-order to influence the existing organisational systems (Brodmann *et al.*, 2019; Blau, 2017; Jia, 2018). For instance, it occurs, if the organisation systems are not adaptable to dynamics environments or a broader external ecosystem (Brown *et al.*, 2020; Bermis and McDonald, 2018; Bundy *et al.*, 2018). In effect, not all characteristics of networked or embedded systems will be well function. So in this respect organisations should be able to respond quickly to internal and external changes.

### Challenges in governmental organisation

#### *Occupational fraud*

Maulidi (2020) argues that the ideal preventive measure should not only be focussed on how it prevents fraud but also the temptations from external parties. Fraudulent behaviour is so dynamic or even unpredictable. Fraud attempts in public sectors have shown a drastic increase in recent years, making fraud prevention and detection more important than ever. According to the 2018 Association of Certified Fraud Examiners (ACFE) study, occupational frauds in local government are considered as complex as in private sectors, ranging from small, one-off occurrences, through to serious organised crime. ACFE defines occupational fraud as “the use of one’s occupation for personal enrichment through the deliberate misuse or misapplication of the using organisation’s resources or assets”. Such a type of criminal behaviour, involving embezzlement, employee fraud or internal fraud, is perpetrated by one or more persons (Albrecht *et al.*, 2015; Albrecht *et al.*, 2008). If we look at a study completed by Holtfreter (2005), occupational fraud has little attention from prior studies. We think the ACFE study is good guidance in mapping prevention mechanisms because it is based on the latest fraud trends. ACFE divides occupational fraud into three categories such as CORPT, AM and FSF and every category has a sub-type to account for the variety of misconduct.

All organisations or countries are subject to fraud risks. Frauds are not only happening in developing countries but also in developed countries (ACFE, 2018a). It is also shown in the latest document from the UK cabinet office that fraud is the most experienced crime in the UK, costing the UK Government many billions of pounds every year. In 2016–2017 government departments reported an increase in the levels of both detected fraud and error. Total detected fraud and error increased by £86m or 82% to £191m for the year, with a total of 11,530 allegations reported, representing a 32% increase in 2015–2016 (Cabinet office, 2018). In a separate report, the 2020 *Report to the Nations: Government Edition* provides an analysis of 364 cases of occupational fraud in governmental organisations. According to the report, the total level of fraud losses amounted to US\$815,000, with corruption cases as the most common occupational fraud schemes in government agencies. A survey conducted by ACFE (2018a) shows that the commission of fraud in general is always attributed to internal perpetrators. However, it is interesting to note that in the UK this trend was reversed with 52% of respondents reporting that economic crime was perpetrated by external fraudsters (PwC, 2011).

#### *Is corruption distinct from other types of occupational fraud?*

Characteristics of corruption is different from other types of occupational fraud. Although there is no universally agreed definition on corruption, it has been described in generic terms

as the use of public office for private gain or the abuse of entrusted power for private gain (Bardhan, 1997). In actual practice, almost interchangeably people use the word “corrupt” and “illicit/fraud” in describing a transaction. In fact, not all financial crime can be labelled as corruption. Illegal acts such as fraud, embezzlement, money laundering, drug trades and black market operations is not subclass of corruption (Jain, 2001), but corruption facilitates them. We could say corruption is a bridge for the likelihood of other organised crime.

One of the main aspects in corruption is enormous sums of money, which are in play (Hope, 2018; Cornell and Sundell, 2020; Tang *et al.*, 2018). In many cases, political corruption and bureaucratic corruption are related. It is because bribery and lobbying are often conjoined under politician intervention (Campos and Giovannoni, 2007). Once the contact between a lobbyist and a politician is established, it serves as an enduring connection for both (Goldberg, 2018). Then, when bribe-based corruption becomes endemic, whole governments have become structured around the objective of maximising private. A study on corrupt culture illustrates how corrupt people breach the law. Liu (2016) found in his study that there are two ways that make individuals or organisations participating in corruption, such as similar corruption attitudes (voluntary) and pressure of group norms. It is also emphasised in the work of Linstead *et al.* (2014) that the spread of corruption within and amongst organisations emerges from the embeddedness and structure of social networks in organisations, as well as the transmission of information through these networks.

Some corruption cases in government institutions have been discussed, for example, from Nigeria (Oluwaniyi, 2011; Ogundiya, 2009). In general, they acknowledge that corruption in Nigeria could be modified through law enforcement, however, the existence of enforcement tends to be ineffective. Corrupt people who have strong power often exert more pressure on the judiciary. The most frequent reasons to corrupt magistrates are to avoid pre-trial detention, to delay court action or bother the trial results. The same thing is also found by Ejiogu *et al.* (2019) that corrupt people in Nigeria tend to have easier access to social networks that facilitate corruption. As a result, preventing corruption in Nigeria become an insurmountable challenge. What happens in Nigeria can be noted that corrupt networks are both horizontally and vertically well integrated. The word horizontal refers to the interactions amongst public officials within the organisation, whose purpose is to seek personal gain (bribes). Then, the word vertical is attributed to the interactions amongst third parties, government officers and intermediaries, whose purpose is to violate a recognised rule and manage protection from repercussions.

Therefore, even though CORPT, AM and FSF are alternative means to obtain private gains, whether are tangible or intangible, pecuniary or non-pecuniary and short- or long-term gains, corruption-based the above discussion are considered as endemic sociological occurrences. In addition, such occurrences are mainly rooted in the moral domain and value system of a leader involving distinct patterns of groups’ interactions with the state bureaucracy and political actors. In effect, its scope and consequences may go far beyond than other types of occupational fraud produced.

To be sure, professional regular studies (ACFE, 2020; PricewaterhouseCoopers [PwC], 2020) mentioned that secret cooperation for an illegal or dishonest purpose, which is often operationalised by bribery remains a big challenge for both private and public sectors. Perhaps, the sole perpetrator who are accused with FSF and AM are found to take advantage of a lack of controls, whilst schemes involving collusion are supported by the poor tone at the top and an ability to override controls (ACFE, 2020). In a separate report (KPMG, 2020) also highlighted fraud schemes concealed through collusion amongst management, employees or third parties as a major challenge. Thus, shared responsibility

and empowerment within the organisation can bring many benefits to enhance transparency (Ejiogu *et al.*, 2019). However, without clear understanding and responsibility for managing malicious risks, it might also contribute to shape political criminal activities within and outside organisation or lead to growing corruption risks.

### **Committee of sponsoring organisations of the treadway commission's internal control**

American Institute of Certificated Public Accountants (AICPA) defines an internal control system as the ways and plans aimed at reviewing and safeguarding an organisation's assets, including checking the reliability and accuracy of data and increasing the effectiveness of operational activities (AICPA, 2014). Importantly the efficacy of internal control is to deal with politics or agency problems in an organisation (Booth and Schulz, 2004; Setia-Atmaja *et al.*, 2011). Because of many unexpected changes in business and operating environments this definition then was broadened by the Committee of Sponsoring Organisations of the Treadway Commission/COSO (2019) [1] defines internal control as "a process, effected by an entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting and compliance". This definition can be understood as a means of improving the organisational system. It is to ensure that organisational information is accurate, financial reporting are reliable and the plan's operations are conducted in accordance with the provisions of applicable regulations and even laws (Chan *et al.*, 2020).

Within accounting and auditing literature, such a definition is not only related to the prevention of accounting mistakes but also is concerned with a contemporary assertiveness in terms of identifying the deficiencies of control management and process (KPMG, 2013). In relation to fraud precautions, the revised COSO framework is believed as an effective approach to strengthen the role of fraud risk management (Committee of Sponsoring Organisations of the Treadway Commission/COSO, 2016). Such a framework assumed can be applied regardless of types of the organization as follows: public companies, not-for-profit entities and governmental entities. Martin *et al.* (2014) mention that the COSO 2013 framework has an in-depth discussion of fraud acts. Moreover, it is significant in its inclusion of consideration of operating risks and omissions that can be subject matters in the external auditor's integrated audit (Shapiro, 2014).

The key feature of the COSO framework is the five interconnected components (control environment, risk assessment, control activities, information and communication and monitoring) which are broken down into 17 guiding principles and points of focus. The COSO envisions those individual components as being tightly integrated in a non-linear fashion. Each component has a relationship with and can influence the functioning of every other component, operating in an almost organic way (Graham, 2015). The implementation of the COSO principles is believed to help organisations that fraud will be prevented or detected in a timely manner (COSO, 2016). It is also considered as an effective management guide to identify the factors that cause fraudulent reporting and to make recommendations to reduce its occurrence (Switzer, 2007).

### **Related studies on the committee of sponsoring organisations of the treadway commission's internal control**

Prior studies on fraud prevention orientated themselves to the issues under administrative tasks. For example, Hermanson *et al.* (2012) conducted a survey addressed to 500 Chief Audit Executives and other internal auditors. It was aimed to examine the efficacy of organisations' COSO internal controls over financial reporting. The study suggests that the



components of internal controls are related to the quality of financial reporting. They emphasise, the quality of financial information is consistently related to the perceived strength of controls in the control environment, risk assessment and monitoring components. Then, they also urge internal and external auditors to sharpen their focusses on management override of controls, for example, by keeping an appropriate level of scepticism. Within [Zakaria et al.'s \(2016\)](#) study, the role of COSO's internal control has positive relationships with decreasing and prohibiting corporate fraud. Strictly speaking, these findings might be only effective on situational crime where the opportunity is the main cause of it. This means reductions of fraud are only achieved in areas that are close to crime-prevention interventions.

Organisations we think need to be more adaptive. It is because at some situations people are usually aware of consciously choosing to commit offences ([Hayward, 2007](#)). Blocking fraud opportunities through situational alterations will inevitably lead perpetrators to seek out other opportunities ([Clarke, 2012](#)). Guided by such situations, managements need to think strategically about a robust framework to effectively identify, assess and manage fraud risks, which arise from the complexity of organisational activities ([Fleak et al., 2010](#)). In addition, [Fleak et al. \(2010\)](#) mention that the COSO framework would be best-practices guidance for organisations to deal with some aspects of organisational activities which are related to the task uncertainty. Although these studies give us a collective picture of the extent to which the COSO framework effects were observed as fraud initiatives, the findings should not be taken as an exact quantification of effects on all types of fraud. The findings tend to be generic. In large part, fraud is not uniform.

In terms of accountability, it is identified that the philosophy of "Tone from the Top" as described in the COSO framework is perceived to have a significant impact internally and externally ([Rodgers et al., 2015](#); [Zakaria et al., 2016](#)). [Martin et al. \(2014\)](#) argue that an executive's behaviour is not only to maximise shareholder value but also is critical to set the right ethical culture within the organisation. How executives behave will be emulated by everyone around them ([Brown and Mitchell, 2010](#)). [Brown and Mitchell \(2010\)](#) does point out that a company with a poor tone results in employees that are more likely to display unethical behaviour and engage in fraudulent activity.

In a sequence study, [Liu \(2016\)](#) finds that firms with high corruption culture are more likely to engage in earnings management, accounting fraud, option backdating and opportunistic insider trading. In the context of an ethics and compliance programme, [Jokipii \(2010\)](#) argues that the tone at the top is critical to set an organisation's guiding values and ethical climate. [Jokipii \(2010\)](#) studies internal control and its effectiveness. As we can see in his work, the theoretical model for discussing internal control is based on the COSO new framework. According to [Jokipii \(2010\)](#), establishing the right tone is essential to the efficiency and effectiveness of activities, reliability and timeliness of financial and management information and compliance with applicable laws and regulations. So, it is possible to argue that executives' behaviours may have a direct influence on individual behaviour, and will be a role model because they indirectly teach (ethical) conduct to employees through their own behaviour.

## Research design

### *Research context*

This study is intended to re-examine the efficacy of internal control in deterring fraud behaviours (CORPT, AM and FSF). As previously discussed, prior studies tend to generalise fraud behaviour. They might forget to note that fraud prevention in some organisations is operationalised and influenced by political interests. We approach fraud prevention by

focussing closely on the specific characteristics of fraud problems, which are inherently related to three types of occupational fraud. Figure 1 shows theoretical relationships examined in the study. The relationships between the five internal control components and the three types of occupational fraud are the focus of this research. By differentiating the types of fraud may have some impact on the design of internal control.

### *Data collection*

This study used questionnaires for collecting data. As we know, a questionnaire is a method of data collection, which is completed by the respondent in written format. We follow the Cameron and Price (2009) suggestion stating that a researcher or team of researchers to reach a large number of people is encouraged to distribute questionnaires. Importantly it used questionnaires is to assess and explain the relationships between the proposed variables, in specific cause-and-effect interactions. Before opting for a questionnaire, we consulted with the related literature and prior studies. Then, to ensure whether our sample is representative of a population, we considered sampling frame and recruitment procedures. For example, we firstly categorised the profile of our target population in terms of its key characteristics, for example, their routine activities and expertise. After categorising the population, we narrowed down the selection of people.

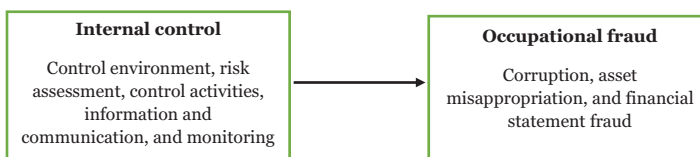
### *Respondents*

The technique for selecting samples, this study used purposive sampling. This study has been conducted in the national auditor institutions such as, Indonesian Supreme Audit Institution [nationally abbreviated as Badan Pemeriksa Keuangan (BPK)] and State Development Audit Agency [nationally abbreviated as Badan Pengawasan Keuangan dan Pembangunan (BPKP)]. The primary justification for this decision is due to their roles as mandated by Constitution of the Republic of Indonesia.

The BPK's main role, based on Indonesia Acts, number 15 written in 2006, is to supervise and audit the central and local government finance. In addition, in this respect, they behave as national external auditors. Otherwise, the role of BPKP, as regulated by Presidential Decree, number 192/2014, is to perform audit, review, evaluation and monitoring of the financial planning and assets utilisation which are belonged to central and local governments. Additionally, those are concerned with performance measurement, not just in financial terms but also in operational terms. Importantly, the BPKP is closely connected to the formulation and deployment of strategy and internal control system.

### *Procedure*

Participants were asked to read the scenario cases for the three fraud categories (CORPT, AM and FSF). They were then asked to indicate their reactions and assumptions whether the updated COSO Framework can prevent the three fraud categories. The time taken to answer the questions was approximately 15–20 min. They were also informed that if at any stage, they no longer wanted to be part of the study, they could withdraw from the study.



**Figure 1.**  
Research framework



We used closed ended questions in which respondents were asked to choose from a distinct set of pre-defined responses.

The layout of the questionnaire took individuals through the topics. Initially, asking respondents believed fraud exist within an organisation. Then, we questioned why they thought people are attracted to commit frauds. To explore the issue of prevention we started with a wide-ranging concept, which generated further themes. Then, each of these themes formed a branch that led to detailed sub-branches. Many of the themes led to issues not usually found within the current literature and we hoped would bring further insight into fraud control.

Our study was not simply repeating the previous studies which have taken before. We allowed ourselves to do an analysis which would be able to identify if the logic from prior studies was in substances confirmed or refuted. We, in the direction of confirmation of the theory, used an established technique but we allowed for the possibility that the previous model was sound. To ensure that our project kept going in the right direction, we were tightly focussed on what we want to explore. It is very important to be realistic that our literature search served a reference point which sometimes makes us rethink the basis of our research method.

### *Measurement*

Components of internal control were measured by standardised measures adapted from [Shonhadji and Maulidi \(2020\)](#). They tested the 2013 COSO original framework whether such a framework is an effective prevention of fraud in local government. The aim of this full adaption is to provide empirical evidence whether the COSO original framework can be considered as fraud deterrence for three types of occupational fraud. It is very important to re-examine it because [Shonhadji and Maulidi \(2020\)](#) treated fraud as general a term for covering all the characteristics of fraud schemes. For items to measure components of internal control, respondents were asked to rate the questions regarding five integrated components of internal control, namely, control environment, risk assessment, control activities, information and communication and monitoring activities.

For occupational fraud, as previously mentioned, this study refers to [ACFE \(2018a\)](#) fraud categories. Corruption was measured by four indicators, such as conflict of interest, bribery, illegal gratuities, economic extortion. AM was measured by five indicators, such as theft of cash on hand, theft of cash receipts, fraudulent disbursements, misuse of inventory and larceny. FSF was measured by two indicators such as net worth/net income overstatements and net worth/net income understatements. Participants responded the questions based on a six-point scale from 1 (uncertain) to 6 (absolutely certain).

## **Results**

### *Demographic profile of respondents*

Demographic characteristics of our respondents are presented in [Table 1](#). About 53% of the respondents were male and 47% were female. It is also as reported by [Table 1](#) that the sample is quite heterogeneous in terms of ages. As this study is only focussed on management levels in national auditor agencies, most of respondents were above 30 years old and only 2% were under 30 years old. Then, the data for number of employees' position tabulated in [Table 1](#) gave a satisfactory result. The highest are from top-level management (53%) followed by lower-level management (24%) and 23% for middle-level management. With regard to work experience in a management position, 43% of the respondents have experience around 3 to 4 years, 27% have experience around 2 to 3 years, 12% have experience around 4 to 5 years and under 10% of the respondents have experience under two years. So, we think the demographic profile of respondents might be represented within the sample.

				Corruption as a distinct crime
Measure	Items	Frequency	(%)	
Gender	Male	87	53	
	Female	77	47	
	N	164	100	
Age	Below 25	–	–	
	25–30	3	2	
	30–35	32	20	
	35–40	46	28	
	40–45	56	34	
	+45	27	16	
	N	164	100	
Position	Low-level auditor	40	24	
	Mid-level auditor	37	23	
	Top-level auditor	87	53	
	N	164	100	
Work experience (in a management position as national auditor)	Less than 1 year	11	7	
	1–2	10	6	
	2–3	45	27	
	3–4	71	43	
	4–5	20	12	
	+5	7	4	
	N	164	100	

689

**Table 1.**  
Demographic  
information of  
respondents

### Results of measurement model testing

Table 2 presents statistical analyses related to mean, SD, Cronbach alpha and correlation amongst constructs. If we see them at a glance, as predicated, all internal control components had positive and significant relationships to the three fraud categories. Although there were positive correlation at some independent variables, between INFCOM and COENV ( $r = 0.17$ ,  $p < 0.05$ ), INFCOM and COACT ( $r = 0.17$ ,  $p < 0.05$ ), MONI and RISASS ( $r = 0.19$ ,  $p < 0.05$ ), the multi-collinearity does not appear to be an issue in this data because those had weak associations. Then, most of the respondents assumed that category attributes related to each control were mature as an occupational fraud risk management. It is evidenced by mean values for each control, COENV (MEAN = 4.83, SD = 0.64), RISASS

Construct	Mean	SD	1	2	3	4	5	6	7	8
1. CORPT	4.67	0.51	0.88							
2. AM	4.23	0.51	0.36**	0.93						
3. FSF	4.43	0.62	0.32**	0.21	0.87					
4. COENV	4.83	0.64	0.27*	0.24*	0.34**	0.89				
5. RISASS	4.65	0.74	0.27*	0.31**	0.30**	0.20	0.87			
6. COACT	4.47	0.67	0.25*	0.28*	0.25*	0.15	0.11	0.94		
7. INFCOM	4.26	0.64	0.23*	0.35**	0.27*	0.17*	0.20	0.25*	0.79	
8. MONI	4.64	0.73	0.35**	0.23*	0.25**	0.20	0.19*	0.20	0.13	0.93

**Notes:** Occupational fraud was broken down into three categories, such as CORPT = Corruption; AM = Asset misappropriation; FSF = Financial statement fraud. Then, internal control consists: COENV = Control environment; RISASS = Risk assessment; COACT = Control activities; INFCOM = Information and communication; MONI = monitoring; \* $p < 0.05$ ; \*\* $p < 0.01$ ; and amounts in parentheses on the diagonal represent Cronbach alpha coefficients

**Table 2.**  
Mean, SD, Cronbach  
alpha and Pearson  
correlation matrix

(MEAN = 4.65, SD = 0.74), COACT (MEAN = 4.47, SD = 0.67), INFCOM (Mean = 4.26, SD = 0.64), MONI (Mean = 4.64, SD = 0.73). According to the mean values, the control environment is acknowledged as the possible preventive controls. In relation to a measure of internal consistency, all constructs had a coefficient of reliability, ranging from 0.79 to 0.93, suggesting that the items have relatively high internal consistency.

Table 3 report scores for average variance extracted (AVE) and composite reliability (CR) for each variable examined in this study. The AVE for each variable is above 0.5, which indicates that the latent factors can explain at least 50% of the measured variance (Fornell and Larcker, 1981). All the CRs are higher than 0.9, which is greater than the critical value of 0.7. These results confirmed validity and reliability of the measurement model are met.

Results of hypotheses testing

To examine the extent to which the internal control was able to prevent occupational fraud, the data were submitted to regression analyses in which the three occupational fraud (CORPT, AM, FSF) served as dependent variables. Those three occupational frauds (CORPT, AM, FSF) were entered in separated ways. It is aimed to see a statistical measure of how close the data for the components of internal control are to the fitted regression line. The analysis results are shown in Table 4.

It can be seen that the components of internal control (Model 1) performed quite well, explaining 64% of the variance for the dependent variable (corruption cases). Much of the predictive accuracy was due to the attributes of the *control environment, information and communication and monitoring* have positive and significant effects to prevent corruption cases, COENV ( $b = 0.52$ ,  $SE = 0.11$ ,  $p < 0.05$ ), INFCOM ( $b = 0.28$ ,  $SE = 0.07$ ,  $p < 0.05$ ), MONI

Table 3.  
AVE and CR

Variables	AVE	CR
CORPT	0.87	0.91
AM	0.83	0.94
FSF	0.88	0.95
Control environment	0.97	0.96
Risk assessment	0.76	0.95
Control activities	0.87	0.92
Information and communication	0.83	0.95
Monitoring	0.87	0.97

Table 4.  
Regression analyses  
for the three  
occupational fraud

Independent variable	CORPT (Model 1)			AM (Model 2)			FSF (Model 3)		
	SE	B	R <sup>2</sup>	SE	b	R <sup>2</sup>	SE	b	R <sup>2</sup>
COENV	0.11	0.52*	0.64	0.10	0.40*	0.85	0.08	0.58*	0.89
RISASS	0.11	0.26		0.10	0.34*		0.08	0.42*	
COACT	0.10	0.42		0.09	25*		0.10	0.41*	
INFCOM	0.07	0.28*		0.06	0.44*		0.12	0.45*	
MONI	0.11	0.45*		0.10	0.40*		0.10	0.43*	

Notes: SE = std. error; b = Standardised regression coefficient; R<sup>2</sup> = Multiple correlation. \*Significant regression coefficient (p < 0.05) (two-tailed)

( $b = 0.45$ ,  $SE = 0.11$ ,  $p < 0.05$ ). This is relatively high-effect size showing that the constructs hypothesised in the model are good predictors, explaining that corruption cases can be prevented by those three components. However, we could not find a significant interaction effect between the attributes of risk assessment and control activities as prevention measures and corruption cases,  $b$  for RISASS = 0.26, with  $SE = 11$ ;  $b$  for COACT = 0.42, with  $SE = 10$ .

Unlike the results of Model 1, the results shown in Model 2 reveal an overall  $R^2$  of 0.85, showing that there are substantial improvements in the use of internal control components as prevention for AM cases. Such variance changes, in comparison to Model 1, much affected by a significant and positive regression coefficient for the relationships between the components of internal control (as preventive measures) and AM cases. We found  $b$  for COENV = 0.40,  $SE = 0.10$ ,  $p < 0.05$ ;  $b$  for RISASS = 0.34,  $SE = 0.10$ ,  $p < 0.05$ ;  $b$  for COACT = 0.25,  $SE = 0.09$ ,  $p < 0.05$ ;  $b$  for INFCOM = 0.44,  $SE = 0.06$ ,  $p < 0.05$ ;  $b$  for MONI = 0.40,  $SE = 0.10$ ,  $p < 0.05$ . These results support the hypotheses, expecting that AM cases can be prevented by the components of internal control.

Some further improvements in the use of internal controls were suggested in Model 3. The proportion of variance accounted for 89%, representing that the constructs hypothesised in the model are able to prove the good strength of the relationships between the components of internal control (as preventive measures) and FSF cases. Based on the analysis, the  $b$  coefficients for internal control components (COENV,  $b = 0.58$ ,  $SE = 0.08$ ; RISASS,  $b = 0.42$ ,  $SE = 0.08$ ; COACT,  $b = 0.41$ ,  $SE = 0.10$ ; INFCOM,  $b = 0.45$ ,  $SE = 0.12$ ; MONI,  $b = 0.43$ ,  $SE = 0.10$ ) were significant at conventional levels ( $p < 0.05$ ).

According to the results of Models 1–3, the components of internal control proved clearly their superiority to prevent technical or administrative fraud schemes, as expressed in AM cases (Model 2) and FSF cases (Model 3). Moreover, they were less likely to be able to prevent corruption cases, which were strongly affected by obstacles or sophisticated *modus operandi* in corruption cases (Model 1).

## Discussion and implications

This study produces interesting results. Our results represent new significant challenges for the advocates of internal control as a fraud deterrent. By simple analysis, it is expected to think an alternative form of fraud risk prevention to support the existing internal control. We examine the efficacy of internal control for preventing the three kinds of occupational fraud. We take this theme as a research agenda because the design of internal control and fraud incidents are clearly and holistically linked and have interconnectedness. Our results are to provide empirical evidence that aids both organisational and fraud theory readers and researchers in assessing the level of complexity of an internal control framework as a fraud deterrent.

The study suggests that not all types of fraud happening in the organisation can be prevented by internal controls. We see the efficacy of internal controls is being questioned if it is confronted by corruption cases. We agree with [ACFE \(2018a\)](#) that an event or situation that invokes a conspiracy by powerful groups becomes a serious matter for the organisation. We identify such a kind of crime is the most challenging task to be prevented and detected. In contrast, the types of fraud relating to the technical or administrative tasks (AM and FSF) are highly prevented by organisational internal control. So, through this study, we require organisations to design tailored measures beyond a structured programme contained in the COSO guidance, if they want to respond appropriately to fraud risks. In other words, a structured COSO preventive programme standing alone may not be sufficient to detect

fraud if corrupt behaviour is present. These results have both theoretical and managerial implications, as discussed separately.

#### *Theoretical implications*

This study sees structured internal controls relatively inflexible, and therefore, may not be sufficient to detect well-planned and co-ordinated fraud behaviours. It means the complexities of organised frauds call adaptation for internal controls. A similar trend is becoming apparent in the research on internal controls completed by [Martin \*et al.\* \(2014\)](#). It is argued that a system of checks and balances is proving to be manifestly inadequate in preventing fraud involving third parties. Certainly, identifying potential fraud indicators depends on the flexibility of the fraud prevention strategies. So, it would be better if internal control concepts were not only integrated with information technology advancements ([Janvrin \*et al.\*, 2012](#)). Nevertheless, managements must be aware of events, which may cause a misfit on the implementation of internal control. The root causes of a misfit here are managerially associated with (malevolent) intervention affecting on the implementation of fraud risk management. We find, a framework for internal control proposed by COSO has been constantly lacking to respond to the pressures coming from an external organisation, in which in this paper is conceptualised as corrupt interventions.

The current study supports the research on perpetrators' decision-making suggesting that few perpetrators consider the absence of internal controls when deciding to commit an offence ([Borisov \*et al.\*, 2016](#); [Allen, 2002](#); [Thede and Gustafson, 2017](#)). This result indicates that we need some extension and integration for internal control, to fully and efficiently highlight how fraud acts are triggered by environmental conditions. It seems relevant to note that the COSO internal control should not be considered as a distinct concept. Additionally, our findings support the research reported by [Jeppesen \(2019\)](#) that the COSO framework is empirically and conceptually focussed only on the management of types of risk associating with strategic risk, operational risk, compliance risk and reporting risk. Therefore, the use of it on corruption case needs to be re-evaluated.

Through this study, we suggest organisational managers must work as smart as fraudsters in creating conspiratorial networks, using shared intelligence and pooled experience. The idea is that each related party uses its own powers to act in a co-ordinated way, rather than each looking after itself separately. They work together based on protocols of fraud prevention and detection, which have been formulated. Then, they share their own experience to the related parties. The role of groups with expertise in the skills of espionage and covert, investigation operations become significant. Once managements understand their role as the first line of defence against fraud, it is then important for them to have an accurate understanding of the role outside professionals and consultants. It is primarily intended to enable organisational controls to work in a dynamic environment.

According to fraud deterrence theorists, as coined by [Cendrowski \*et al.\* \(2007\)](#) and [Rezaee and Riley \(2010\)](#), the incidence of corrupt behaviours will be greater when organisation activities are under ambiguous managerial situations. [Rae and Subramaniam \(2008\)](#) argue, in designing effective management control systems, the attentions that need to be paid are an array of management control features and open communication between employers and employees regarding employee performance evaluation and outcome. It is because such features will lead to the development of more effective management control strategies for the detection and prevention of fraud (p. 120). In addition, the usage of control mechanisms, for example, "regular staff rotation" and "fraud awareness trainings" might be possible solutions to control human and financial resources within organisation. Importantly they

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are assumed concrete measures and tools to reduce fraud and promote a highly ethical environment (Halbouni *et al.*, 2016; Krummeck, 2000).

This study also advances and challenges the study carried out by Smith *et al.* (2000). They find internal control defined as a system can help auditors in providing a substantial degree of assurance in the business objective. Their analysis is lied on the measures that include technical controls, administrative controls and operational controls. We acknowledge if such controls are safeguarding the payment process at every point of the transactions. In addition, they can be applied at multiple levels in an organisation, for example, to control management forecast errors (Feng *et al.*, 2009). However, our study supports the work of Free and Murphy (2015) suggesting that it is impossible to prevent collaborative fraud if the controls are designed on the basis of fraud perpetrated by an actor acting by himself. The basic arguments of this perspective would be that co-offending cannot be minimised or prevented by procedural and administrative controls. We find such an aggregate control system of the organisation is more impactful on preventing frauds, associating with administrative and operational tasks such as AM and FSF. In the bureaucratic organisations, prevention focussing on crime opportunities in the course of day-to-day administrative activities is required to re-design by taking into account the social dimension of crime settings.

Whether or not a crime based on a cost–benefit analysis, Knechel and Mintchik (2021) note that fraudsters are constantly enhancing their schemes that make the existing mitigation (internal control system) is unlikely to detect their malevolent acts. As indicated by Bishop *et al.* (2017) technical fraud prevention can be extremely hard to detect and prove secret cooperation or deceitful agreement amongst fraud offenders. A conspiracy of actions between two or more persons for the fraudulent or deceitful purpose brings actual challenges and adverse impact on the applicable anti-fraud measures, laws and regulations (Kulik *et al.*, 2008; Nielsen, 2003; Ashforth *et al.*, 2008). As such, for designing mitigation we have to think other aspects that can support the implementation of internal control, for example, a whistle-blowing system.

### *Managerial implications*

This study offers empirical evidence regarding what is a kind of fraud scheme that can be prevented by internal control. Organisations can take our results as one of consideration when designing methods and tools to identify and prevent fraud. As we can see in our study the three fraud categories require a different approach to manage them. This means the organisation is required to develop proactive countermeasures, particularly for corruption schemes. We identified that the mitigation strategy for corrupt behaviours is different from tools and techniques used to prevent fraudulent financial reporting and AM.

The challenge organisations face is that there is no single “key” to stopping all kinds of fraud. Organisations need to develop a strategy that enables the deployment of appropriate measures to manage this increasing risk (PricewaterhouseCoopers [PwC], 2009). This study acknowledges the efficacy of internal control as a method of fraud prevention, especially for misstatements from input errors on a transaction. In other words, we see internal control guidance described by COSO as a primarily substantive approach to assessing the risk of routine processing errors in an accounting system. So, here we argue there is a need for the internal control system to improve the transparency and accountability of supervision and to encourage good practice. The principle of supervision is to form the moral atmosphere of the work environment and the level of ethics practiced within an organisation. Supervision can vary in terms of what it covers. It may incorporate elements of direction, guidance, observation of ideas and co-ordination of activities. Appraisal in the workplace, particularly



in how well an organisation manages its unique set of risks, can provide further useful information about fraud or other serious irregularities with a potentially negative impact for the organisation.

### Conclusion

This study acknowledges that the system of internal controls if properly implemented as an integral part of managing an organisation, becomes effective tool for maintaining fraud risks. However, organisations are well protected from fraud acts if they fully understand the risks they face, where they are most vulnerable and how to respond to fraud. To develop more comprehensive fraud control, organisation needs to see the holistic view of fraud risks. A holistic approach to financial crime management should not be separate from management processes. As the practical guide, it emphasises on illustrating how the elements of fraud risk identification, assessment and response are applied and undertaken in a systematic and integrated fashion across the organisation. This approach helps to integrate anti-fraud initiatives into risk management programmes and provides a means of archiving lessons learned for future identification or mitigation activities. It is important to have timely and continuous data collection for analysis of trends over time. The applications of these measures are relied on the internal control environment of an organisation. It sets the tone of an entity that addresses the actual risks faced by the organisation.

### Note

1. According to COSO's official website ([www.coso.org/Pages/aboutus.aspx](http://www.coso.org/Pages/aboutus.aspx)), COSO is a voluntary private sector which is dedicated to improving organisational performance and governance through effective internal control, enterprise risk management and fraud deterrence. Its initial internal control framework was published in 1992. However, due to the complexity of business environment, rules, regulations and standard, COSO released an updated version of its internal control – integrated framework on 14 May 2013 (McNally, 2013). According to KPMG (2013), this new framework takes into account changes in the business environment and operations over the past 20 years.

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