Self-efficacy, professional ethics, and internal audit quality

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ABSTRACT

This study aims to investigate the effects of self-efficacy and professional ethics on internal audit quality and the role of professional ethics in moderating the relationship between self-efficacy and internal audit quality. We use the purposive sampling method to generate the sample from the internal auditors of Bogor City, resulting in 38 final samples. The findings demonstrate that both self-efficacy and professional ethics significantly affect internal audit quality, and professional ethics fully moderate the relationship between self-efficacy and internal audit quality. Thus, our results imply that the Indonesian governments (both at central and local levels) need to enhance their internal auditors' self-efficacy and professional ethics to improve internal audit quality in the public sector.

INTRODUCTION

Regulation of the Minister of Administrative and Bureaucratic Reform Number 5 of 2008 concerning Audit Standards of Government Internal Supervision Apparatus explicitly mentions that "government internal supervision is a crucial governmental
management function to achieve good governance.” Internal supervision facilitates government agencies to carry out their activities effectively and efficiently according to previously set plans and policies. Despite the legal emphasis on the importance of internal supervision in government agencies, many Indonesian government agencies still exhibit weaknesses in their activities. For example, the Indonesian Supreme Audit Agency (BPK–Badan Pemeriksa Keuangan) found 13,969 internal control weaknesses and non-compliance cases with statutory provisions with a total value of Rp 58.96 trillion. Further, BPK issued 193,600 recommendations worth Rp 73.27 trillion for various government agencies in the 2009-2013 period, ranging from central and local government agencies, state-owned enterprises (SOEs), governments’ contractors, and other institutions with government interests. These facts raise questions about the effectiveness of the government’s internal auditors that assume internal supervisory functions to ensure the implementation of good and effective governance in government agencies.

The importance of internal audit quality is well-accepted in developed countries where governments’ chief audit executives’ activities (CAEs) comply with International Standards for the Professional Practice of Internal Auditing (ISPPIA) to facilitate internal audit function (IAF) in a variety of ways. In this respect, their mandate is to instill a sense of professionalism among internal auditors and to establish organizational structures that enable them to operate freely in promoting effective internal control and transparency. However, developing countries arguably exhibit different attitudes towards CAEs’ required actions to safeguard IAF’s independence, increasing obstacles to effective internal audit functions (Alzeban, 2015). As whistleblowers, the government’s internal auditors (in Indonesia: inspectorates) must be able to disclose all their findings, including corruption; fraud; tax, legal, standard operating procedures (SOP), and ethical violations, without fear of losing their jobs that will affect their auditing and reporting quality. A likely factor affecting internal auditors’ failure to detect fraud is their low professional skepticism.

Professional skepticism is affected by various factors, including self-efficacy. Self-efficacy refers to individuals’ confidence in their abilities to perform certain behaviors. Self-efficacy is influenced by their specific capabilities, other personal factors, and environmental factors (barriers and facilitators) (LaMorte, 2019). Hence, organization members obtain their knowledge and behavior mostly from their environments by continuously developing thought processes to respond to information received. Self-efficacy affects professional skepticism because of the attitude that always questions the truth and validity of the evidence that has been collected, with a professional attitude, the government’s internal supervisory apparatus (APIP) can improve the quality of internal audits.

Besides self-efficacy, internal audit processes are affected by other internal and external factors. Although prior studies have investigated the determinants of audit quality, only a few analyze the role of auditors’ culture. Meanwhile, auditors’ culture
is crucial in enhancing stakeholder values by encouraging organizations to manage risk proactively and promptly correct internal control failures and increase internal auditor confidence. Internal auditors must be confident that certain aspects of their culture in audit assignments can improve the quality of internal audits. Auditors’ culture must be a part of every audit assignment and provide continuous auditees to monitor and encourage internal auditors. Internal auditors must have confidence that aspects of auditor culture in internal audit assignments can improve the quality of internal audits.

The gap in this study is that self-efficacy and main business activities do not affect internal audit quality (Skaržauskiene et al., 2013). Paranoan et al. (2018) argue that self-efficacy hurts internal audit quality. For example, Arthur Andersen has changed their culture from professionalism to a culture of greed that affects the individual auditors’ culture. Djaddang et al. (2018) find that self-efficacy significantly affects internal audit quality. This study also finds that individualism culture is a mediator variable for the relationship between the Supreme Audit Agency and the Directorate General of Taxes. Many internal and external factors affect internal audit quality. This study predicts that self-efficacy affects internal audit quality. Our review of relevant literature also predicts that self-efficacy negatively affects internal audit quality (Wu, 2019). Hence, it is crucial to operationalize internal audit quality and its determinants with more indicators (Bouteina, 2021). Besides, this study is important because numerous corruption cases committed by many regional public officials highlight the critical role of internal audit quality in stakeholders’ decision-making processes. Understanding the determinants of internal audit quality arguably helps auditors increase their capabilities in mitigating fraud.

The first objective of this study is to examine the effect of self-efficacy on audit internal quality. Next, we investigate the impact of professional ethics on internal audit quality. Lastly, this study analyzes the role of internal auditors’ professional ethics on the relationship between self-efficacy and internal audit quality in reducing fraud. We contribute to the relevant literature by proposing the professional ethics variable to moderate the relationship between self-efficacy and internal audit quality.

LITERATURE REVIEW AND FORMULATION OF HYPOTHESES

This study uses social cognitive theory (SCT) related to internal audit quality. Social cognitive theory (SCT) seeks to explain how individuals regulate their behaviors through control and reinforcement to achieve goal-directed, durable behaviors. The results of Balkat & Khaleel's (2021) study revealed the presence of 3 major non-conformities and 22 minor non-conformities and the diagnosis of weaknesses, which are considered as inputs to opportunities for improvement, the most important of which is the training of cadres working on the occupational health and safety management system. Decades of research have demonstrated that self-efficacy
beliefs have positively affected numerous life domains and may be a crucial mechanism of change in psychological treatments of mental illness. This article provides an overview of self-efficacy theory, empirical research examining the benefits of self-efficacy beliefs, and promising areas for future self-efficacy research (Gallagher, 2012).

Self-Efficacy

According to Wilde & Hsu (2019), individuals with low general self-efficacy find vicarious experience significantly less beneficial for their self-efficacy in completing a given task. They are also more likely to make negative self-comparisons to vicarious experience information, limiting the information’s ability to increase their self-efficacy. In contrast, participants with high general self-efficacy find much vicarious experience information to be beneficial to their self-efficacy to complete the assigned tasks, as they are more likely to disregard any negative information. This study highlights the importance of further investigation into how vicarious experience information can be designed and presented to benefit the task-specific self-efficacy of all individuals, regardless of their general self-efficacy beliefs at the time.

Although considerable evidence supports the direct effects of self-efficacy beliefs on academic achievement, very few studies have explored the motivational mechanism that mediates the self-efficacy–achievement relationship. They must understand how and why self-efficacy affects students’ academic achievement. Based on a socio-cognitive perspective of motivation, this study examines the relationships among academic self-efficacy, students’ expectancy-value beliefs, teaching process satisfaction, and academic achievement (Doménech-Betoret et al., 2017).

Internal audit quality

According to Bouteina (2021), internal audit quality is the joint probability that a given auditor will simultaneously discover a deficiency in the client's accounting system and report that deficiency. Thus, auditors have the technical competence to detect any material errors during the audit process and the independence to ensure that material errors and omissions are corrected or disclosed in the auditor’s report. However, it would appear that the quality of internal auditing is enhanced when internal auditors are competent and independent. The internal auditor function also can provide useful findings and recommendations that would help. Gassama & Sudaryati (2022) reveal that high-quality internal audits enhance financial reporting quality by ensuring compliance with standards. Accordingly, several internal audit study studies were performed until recently when the Institute of Internal Auditors (IIA) caused a paradigm shift in the value of the internal audit role by defining the audit efficiency and achievement of organizational objectives.

Internal audit functions must be a fully autonomous, operational-free feature. Freedom is assured by providing a completely independent team of workers and the department reporting directly to either the board of directors or the head of the
company. It is necessary to keep the audit department autonomous for an impartial firm evaluation. Therefore, freedom and objectivity are keys to this feature. The concept behind internal audit is not just to catch fraud or malpractice but to be more proactive, i.e., by minimizing the possibilities of malpractice, to add value and effectiveness inside the company. Internal audit functions were performed by specialized internal audit teams very well versed with organizational policies and procedures (Zou, 2019).

**Professional Ethics**

According to Ghasemzadeh & Esmaeili (2018), professional ethics have both organizational and meta-organizational effects. Organizational success arguably depends on professional ethics. Organizations with managers and employees who adhere more to professional ethics likely have lower conflicts and are more able to achieve their goals. Because political behavior can affect many individuals’ job return and job quit, employees who perceive the organizational environment as political identify it as stressful, disappointing, and disproportional to their psychological features. Most employees believe that lower intervening policies will increase their psychological features and that their professional ethics will be more considered. Consequently, they are less likely to quit their jobs. Thus, organizations should develop policies that mitigate job quit possibilities and enhance professional ethics.

**The effect of self-efficacy on internal audit quality**

“Self-efficacy is the perceptions an individual has about his or her capabilities to perform at an expected level, achieve goals, and complete moderately challenging tasks” (Erickson & Noonan, 2021), and beliefs in one’s capabilities to mobilize the motivation, cognitive resources, and courses of action needed to meet given situational demands (Wood et al., 2000). Research on self-efficacy and different dimensions of job performance and the extent of the association has not been investigated comprehensively in the context of the Sri Lankan banking sector (Kappagoda, 2018). Self-efficacy concerns whether a person believes he can use his skills in specific circumstances (Snyder & Cantor, 1998; Stajkovic & Luthans, 1998). Self-efficacy has been regarded as a version of self-esteem (Lunenburg, 2011). Self-efficacy and subsequent task performance improve after receiving higher, more detailed levels of performance feedback (Beattie et al., 2016).

The basic principle of self-efficacy is assessment, which is generally measured by three basic scales: scale, strength, and general. Bandura (1997) contends that performance and motivation are partly determined by the degree to which people believe. Cybinski & Windsor (2005) observe that the relationship between self-efficacy and auditors’ performance may offer a different insight into the internal auditor and audit quality domain. Shih et al. (2009) conclude no significant relationship between auditors’ self-efficacy and performance. Previous studies demonstrate that high self-efficacy improves performance in many work settings,
including education, training, sports, and management (Shea & Howell, 2000).

Individuals’ beliefs that they can execute certain tasks contribute to better performance. Highly self-efficacious individuals tend to perform better on various tasks (Bandura, 1997; Stajkovic & Luthans, 1998). In contrast, individuals with lower self-efficacy tend to avoid tasks and situations that they believe exceed their capabilities. In this respect, highly motivated auditors only demonstrate better audit judgment performance when the audit tasks are simple. Consequently, we propose the following hypothesis:

**H1**: Self-efficacy affects internal audit quality.

### The effect of professional ethics on internal audit quality

Social cognitive theory is used as a theoretical framework because internal auditors must have confidence in audit assignments to increase internal audit quality (Djaddang et al., 2018). Professional ethics consists of four items: confidentiality and impartiality, professional competence, accountability, and individual values. Meanwhile, organizational commitment consists of three items: emotional, continuing, and fundamental. Professional ethics positively affect internal audit quality because they increase internal auditors’ professionalism (Rustiarini et al., 2021). Consequently, we propose the following hypothesis:

**H2**: Professional ethics affects internal audit quality.

### Professional ethics moderates the effect of self-efficacy on internal audit quality

Audit quality in Indonesian local governments is considered relatively low, as indicated by numerous Indonesian Supreme Audit Agency findings when reviewing local governments’ financial statements. Meanwhile, a study documents that self-efficacy and professional development greatly affect internal audit quality, and lower self-efficacy reduces internal auditors’ confidence in their work results. Nevertheless, internal auditors expect more training, discussion with colleagues, and knowledge sharing (Erlina & Muda, 2018).

A profession must have high moral commitments to specific rules that develop the profession, and it is commonly labeled as a code of conduct. In the internal auditing context, internal auditors’ behaviors and culture significantly affect the application of professional ethics of auditors (Nurwulan & Fasha, 2018). However, clients’ pressures likely lead internal auditors to be in dilemmatic positions in their assignments. On the one hand, internal auditors need to meet clients’ requests, but on the other hand, these actions can violate the professional standards set out in the code of ethics. In this respect, professional ethics will guide internal auditors to carry out assignments objectively and independently. Thus, professional ethics likely strengthens the
influence of internal auditors’ culture on internal audit quality (Ratna & Anisykurlillah, 2020). Consequently, the following is our fourth hypothesis:

**H3:** Professional ethics moderate the effect of self-efficacy on internal audit quality.

**RESEARCH METHOD**

This study collects the primary data by distributing questionnaires to 50 inspectorate internal auditors in Bogor City, Indonesia, resulting in 38 returned questionnaires. The first independent variable is self-efficacy, measured by five dimensions: loyalty to profession, social obligations, independence, confidence, and relationship. The instrument is adapted from Bandura (1986). Our dependent variable is internal audit quality, measured by six indicators: accuracy, skepticism, recommendation, audit benefits, and audit follow-up. The respondents are asked to answer the questions using a 1-5 Likert scale.

We measure professional ethics as follows. As professionals, local government internal auditors have an important role to play. Therefore, internal auditors are accountable to all users of their professional services; their responsibilities are not limited to meeting a single client's or employer's needs. Internal auditors must adhere to internal audit standards prioritizing local governments’ interests. They must also behave consistently with professional reputations and avoid actions that could jeopardize their professional reputation. However, local government internal auditors do not have to comply with the APIP standards, regulatory bodies, relevant laws and regulations, and local governments. Nevertheless, they must provide professional services to the best of their abilities. Data analysis was based on variance or the component approach of moderated regression analysis (MRA).

**RESEARCH RESULTS**

**Descriptive Statistics**

Table 1 presents the descriptive statistics that describe each variable from 38 respondents. All research variables have relatively high mean values, implying that our respondents exhibit higher self-efficacy and professional ethics and perform relatively high-quality internal audit functions.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Efficacy</td>
<td>38</td>
<td>4.00</td>
<td>6.67</td>
<td>5.342</td>
<td>0.677</td>
</tr>
<tr>
<td>Internal Audit_Q</td>
<td>38</td>
<td>4.00</td>
<td>5.00</td>
<td>4.303</td>
<td>0.391</td>
</tr>
<tr>
<td>P_Ethics</td>
<td>38</td>
<td>2.80</td>
<td>5.00</td>
<td>3.968</td>
<td>0.515</td>
</tr>
<tr>
<td>S_Efficacy*P_Ethics</td>
<td>38</td>
<td>14.22</td>
<td>28.01</td>
<td>21.230</td>
<td>3.924</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>38</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data, processed (2020)
Data Reliability Test

Table 2 exhibits the result of data reliability testing of variables. The result shows that all variables have a Cronbach’s alpha of one (higher than 0.60), suggesting that these variables are reliable. Other analyses (untabulated) also reveal that our data are also valid and that the independent variables are not strongly correlated.

Table 2

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Coefficient of Determination and Reliability Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R-squared</td>
</tr>
<tr>
<td></td>
<td>Adjusted R-squared</td>
</tr>
<tr>
<td>Cronbach’s alpha</td>
<td>1.000</td>
</tr>
<tr>
<td>Internal_Audit_Q</td>
<td>1.000</td>
</tr>
<tr>
<td>PE*SE</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Source: Primary data, processed (2022)

The Classical Assumption Test

We use the Kolmogorov – Smirnov analysis to test whether our data is normally distributed. The following table informs that our data is normally distributed, as indicated by the significance value of 0.119 (>0.05).

Table 3

<table>
<thead>
<tr>
<th>Data Normality Test</th>
<th>Unstandardized Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>38</td>
</tr>
<tr>
<td>Normal Parameters</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>0.000</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>0.342</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td></td>
</tr>
<tr>
<td>Absolute</td>
<td>0.128</td>
</tr>
<tr>
<td>Positive</td>
<td>0.128</td>
</tr>
<tr>
<td>Negative</td>
<td>-0.103</td>
</tr>
<tr>
<td>Test Statistic</td>
<td></td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>0.119^</td>
</tr>
</tbody>
</table>

Source: Primary data, processed (2022)

Meanwhile, Table 4 below suggests that our data is free from serious multicollinearity. In particular, the table demonstrates that all VIF (tolerance) values are lower (greater) than ten (0.1). Lastly, the scatterplot residual analysis (not presented) also suggests that the data is free from heteroscedasticity.

Table 4

<table>
<thead>
<tr>
<th>Multicollinearity Test</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>B</td>
<td>Std. Error</td>
<td>t</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>2.364</td>
<td>0.611</td>
<td>3.867</td>
</tr>
<tr>
<td>S_Efficacy</td>
<td>0.236</td>
<td>0.086</td>
<td>0.409</td>
</tr>
<tr>
<td>P_Ethics</td>
<td>0.171</td>
<td>0.113</td>
<td>0.225</td>
</tr>
</tbody>
</table>

Source: Primary data, processed (2022)
Hypothesis testing with Moderated Regression analysis (MRA)

We use the Moderated Regression Analysis (MRA) in our primary analysis. The ANOVA table (untabulated) indicates that our independent variables jointly affect the dependent variable. Table 5 below presents the result summary of the hypothesis testing:

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Coefficient</th>
<th>P value (α = 5%)</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Self-efficacy affects internal audit quality</td>
<td>-2.209</td>
<td>0.024</td>
<td>Supported</td>
</tr>
<tr>
<td>H2: Professional ethics affects internal audit quality</td>
<td>-2.991</td>
<td>0.018</td>
<td>Supported</td>
</tr>
<tr>
<td>H3: Professional ethics moderates the effect of self-efficacy on internal audit quality</td>
<td>0.620</td>
<td>0.013</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Source: Primary data, processed (2022)

ANALYSIS AND DISCUSSION

The effects of self-efficacy on internal audit quality

Our results empirically support the first hypothesis, implying that self-efficacy negatively affects internal audit quality. Self-efficacy manifests in dedication, social obligation, independence, and relationships with fellow professionals. Internal auditors’ self-efficacy improves internal audit quality by helping them better understand auditees’ information systems, make better audit reports, make better decisions, and become more committed to completing internal audit assignments on time. Meanwhile, internal audit processes are based on good governance standards (transparency, accountability, responsibility, independence, and fairness) to produce internal audit processes that meet stakeholders’ expectations.

Our results are consistent with the social cognitive theory. This theory argues that individuals believe in their ability to utilize their skills (Snyder & Cantor, 1998), and self-efficacy refers to self-actualization and a version of self-esteem (Lunenburg, 2011).

The effect of professional ethics on internal audit quality

The findings empirically support the second hypothesis, suggesting that professional ethics negatively affect internal audit quality. Professional ethics consists of four items: confidentiality and impartiality, professional competence, accountability, and individual values. Organizational commitment consists of three items: emotional, continuous, and fundamental.

The result differs from Nasrabadi & Arbabian (2015) who document that professional ethics positively affects internal audit quality. However, they also find that individual values, a professional ethics component, negatively affect internal audit quality. Individual values likely dominate our respondents’ professional ethics. Changes in perception and understanding are not always a change in observable
behavior. A change in professional ethics is a learning process that changes the perception and understanding of the ethical audit process, improving the quality of the internal audit.

**Professional ethics moderates the effect of self-efficacy on internal audit quality**

The result empirically supports the hypothesis predicting that professional ethics moderates the effect of self-efficacy on internal audit quality. Our findings are thus in line with (Prasanti et al., 2019) who demonstrate the moderating effect of professional ethics on the relationship between other various auditors’ characteristics on audit quality. We also indicate that professional ethics fully moderate the relationship, implying that no other variables moderate the relationship.

Internal auditors’ professional ethics are reflected in their audit process and affect internal audit quality directly and indirectly. The indirect impact of professional ethics on internal audit quality is manifested by strengthening the impact of self-efficacy on internal audit quality. For example, higher professional ethics motivate self-efficacious internal auditors to perform better internal audit quality because they seek to demonstrate to others that they are highly ethical and professional.

**CONCLUSIONS AND IMPLICATION**

Self-efficacy negatively affects internal audit quality, implying that more self-efficacious internal auditors perform worse internal audit assignments. Our results align with the self-efficacy theory, arguing that self-efficacious individuals believe they can achieve their goals using their skills in certain circumstances. Further, the results are consistent with the social cognitive learning theory, which is more concerned with the learning process than learning results. In a similar vein, professional ethics also significantly affect internal audit quality, thus highlighting the importance of instilling professional ethics into internal auditors.

Our findings also reveal that internal auditors’ professional ethics moderate the effect of self-efficacy on internal audit quality. Hence, higher professional ethics motivate self-efficacious internal auditors to improve their internal audit quality because they seek to demonstrate their higher ethics and professionalism by performing higher internal audit quality. Thus, our study advises the Indonesian (central and regional) government to enhance their internal auditors’ self-efficacy and professional ethics to improve internal audit quality in government environments.

Our small sample size limits the generalizability of the findings. Consequently, we advise future studies to expand the analysis by using respondents from various cities and government institutions to obtain more representative findings.
REFERENCES


