The Role of Forensic Accounting and Non-Financial Measurement for the Financial Audit

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ABSTRACT

Due to a lack of competency, including knowledge and experience, non-financial measurement skills are now required by auditors in order to prove fraud. As a result, this research aims to identify the gap between the practice requirements and the output of the audit training centre and the role of the forensic accounting curriculum in filling that gap. This research examines the best strategies for establishing competent and reliable auditing practice results. The non-participatory observation data mining method is used in this study. The study discovered that the auditing education and training centre had not taught and did not have a fraud prevention and detection curriculum based on non-financial measurement. As a result, this study recommends that Training Centre develop the audit curriculum in accordance with The International Education Standard. Furthermore, this study suggests that auditing education and training centres involve forensic accounting practitioners in team-teaching, particularly investigative audit topics.

Keyword: Education, Core Competencies, Skill, Objectivity, Forensic Accounting, Financial Criminology, Non-Financial Measurement.
1. INTRODUCTION
Auditor knowledge and experience are essential factors in audit quality. According to Knechel (2016), auditor independence and objectivity and expertise (knowledge and experience) influence audit quality. Meanwhile, audit standards assess the quality of audit work, so auditors who follow an audit standard will produce higher-quality audit reports (Mahsun et al., 2020). Standardised auditing practices, in other words, can improve control over governance and risk management processes (Narayanaswamy et al., 2019; Steinbart et al., 2018). On the other hand, financial reporting must meet market demands for real-time reporting by utilising various constantly evolving technologies (Kueppers & Sullivan, 2010). As a result, auditors require effective and efficient audit procedures to provide assurance on financial statement presentation (Kueppers & Sullivan, 2010). Combining financial and non-financial measurements will make the audit procedure more effective (Ames et al., 2012; PCAOB, 2004). Today, financial measurement is a common method for detecting red flags. In the meantime, non-financial measurement collects evidence that forensic accountants can use to investigate suspected fraud cases. Non-financial measurements are typically taken in qualitative measurements using the interview method.

The learning outcomes of education and training centres (Pusdiklat) in the accounting field are frequently criticised for failing to meet the demand for labour market competencies (Adler et al., 2000; Suryawathy & Putra, 2014). However, various auditing education and training centres have not included sufficient material in their curricula for practise needs, primarily related to non-financial methods of measurement. In this case, the Students’ Learning Outcomes may fall short of meeting the stakeholders’ expectations for investigative audit services. The scope of standard accounting competencies for accounting graduates to meet future accounting profession expectations is still being debated. In preparing professional expectations for future accountants, Blix et al. (2021) emphasise the importance of including data analysis skills and understanding the logic behind data analysis. Some researchers advocate for including forensic accounting skills (Mahsun et al., 2021; Prabowo, 2021). Another argument might be that forensic accounting should only be taught within the scope of the primary accounting curriculum because the field of forensic accounting is considered too broad and more comprehensive than basic accounting for a single major.

This study aims to identify the gap between current auditing practice competency requirements and the audit education and training centre graduates’ competency. Furthermore, this research aims to determine the role of the forensic accounting curriculum in filling this void. The study’s data collection method is a non-participatory observation, which aims to learn more about the case being studied without actively involving the object of study. Based on previous research, this study also investigates the best possible strategies for developing competent and ready-to-work Learning Outcomes.

This study helps Audit Education and Training Centers and Universities develop their curricula, learning methods and assess the gaps between the curriculum and the needs of current auditing practises. Furthermore, this study suggests that auditing education and training centres involve forensic accounting practitioners in team-teaching, particularly in investigative audit topics. Furthermore, this study benefits Audit Education and Training Centers and Universities by providing material for consideration when developing strategic plans and learning programmes. Finally, by providing various competency recommendations that match current auditing practises’ competency needs, this study can help prospective auditors consider alternative audit training curricula.
Because auditors frequently encounter problems with supporting evidence of Audit Reports, the current labour market necessitates that young auditors master evidence collection in Investigative Audits. This study advocates for a qualitative evidence-gathering approach or non-financial measurement methods in investigative audits. The current financial measurement approach, known as Computer Based Audit, cannot be used to detect specific fraud cases. Instead, computer-based auditing (CbA) looks for evidence of fraud in financial statements. As a result, auditors frequently suspect fraud based on complaints or public reports, even when the computer system has not raised any red flags.

2. LITERATURE REVIEW AND HYPOTHESIS

Graduate Skill Gap and Audit Practice Requirements
Accounting education researchers have recently emphasised the importance of developing an accounting curriculum and developing students’ competence (M. Bhasin, 2016; Kramer et al., 2017; Weil et al., 2004). Currently, the accounting labour market in Indonesia requires graduates to be fluent in English, audit, and tax, as well as can create a simple accounting system and communicate financial ratios and position to managers (Suryawathy & Putra, 2014). However, essential accounting competencies are insufficient for auditors to deal with various practical challenges, so auditors now need forensic accounting competencies (Mahsun et al., 2021). Because of various financial statement publication scandals, various accounting profession leaders began to call on scholars to provide forensic accounting education over a decade ago (Melancon, 2002). This statement demonstrates that every company requires auditors with forensic accounting competency to analyse problems, problem-solve, gather and evaluate evidence, and provide opinions for more than a decade. Auditors are currently in need of litigation support for claims based on published opinions.

In various countries such as the United Kingdom (Herbert et al., 2020), New Zealand (Jackson et al., 2013), and the United States, there is a gap between training institution expectations and labour market expectations in terms of intellectual, technical, and work readiness of graduates (Webb & Chaffer, 2016). (Bolt-Lee & Foster, 2003). Ideally, an accounting firm would prefer candidates with more accounting expertise, particularly technical and forensic accounting (Nsengiyumva & Bokka, 2020). Auditors require forensic accounting expertise because the audit scope includes financial statements, assets, and transactions with specific values that necessitate communication and legal skills (Wankel, 2009).

Gap in Audit Expectations
The gap arises due to differences in beliefs and expectations between the auditor and stakeholders regarding the auditor’s assumption of duties and responsibilities in relation to the opinion on the financial statements he examines (Monroe & Woodliff, 1993). The public expects every auditor to detect fraud in any situation. On the other hand, auditors believe that they are only responsible for determining the fairness of a financial statement. This expectation gap will undoubtedly be exacerbated if the auditor lacks expertise in forensic accounting.

Curriculum in Forensic Accounting Makes a Difference
Forensic accounting is defined as “the application of financial and investigative skills and mental abilities to solve financial problems with fraud indications in the context of regulations and the gathering of specific evidence” (Bhasin, 2016). Due to the rise in fraud, embezzlement, and other financial crimes in today’s society, professional accountants and auditors must receive forensic accounting skills training to detect and identify these
Forensic accounting education is multidisciplinary training that focuses on developing technical and soft skills. Forensic accounting can cover various disciplines depending on the auditee type and the need to gather audit evidence. Auditing, accounting, statistics (Tiwari & Debnath, 2017), information systems, law, communication, and investigative skills are all part of forensic accounting (Van Akkeren et al., 2013). As a result, the demand for candidates with forensic accounting skills is growing (Kramer et al., 2017; Ramadhan, 2021). Academics in Indonesia agree that teaching forensic accounting skills to accounting students is critical to supplement the needs of future audit investigations (Prabowo, 2021). Other empirical evidence suggests that candidates who have completed forensic accounting courses are more likely to be hired than candidates who have not completed forensic accounting courses (Mounce & Frazier, 2002). Indeed, forensic accounting skills can help professionals pursue careers as consultants, managers, and auditors, according to (Kramer et al., 2017).

Auditors typically require non-financial measurement competencies from the various skill sets in the forensic accounting curriculum, as data and evidence in investigative audits are collected using qualitative approaches. Non-financial measurement/non-technical skills are commonly found in communication and interpersonal skills (Suryawathy & Putra, 2014; Weil et al., 2004), which are extremely useful and advantageous in collecting and evaluating fraud evidence. Weil et al. (2004) divided the primary attributes of persons in auditing, reporting, reconstruction and bankruptcy, accounting management, and taxation into three skill sets: communication skills, problem-solving skills, and presentation skills. Communication skills are related to asking probing questions in interviews in order to identify problems. Problem-solving is the process of making decisions based on all available information, both complete and incomplete. Finally, presentation skills are associated with expressing ideas, making judgments, and presenting problems and solutions to managers and stakeholders from various points of view. In general, auditors must be able to analyse data (McMullen & Sanchez, 2010), simplify complex problems, solve problems (M. Bhasin, 2016), and present opinions that can be legally accounted for (Kramer et al., 2017).

The forensic accounting services department is present in all financial firms, most of which are medium-sized. Furthermore, some may be in charge of insurance claim service and fraud detection (M. L. Bhasin, 2015). Because of the fraud risks that the auditee could not face, the provision of forensic accounting services began to emerge. Poor governance can lead to decreased performance, financial statement manipulation, and decreased stakeholder confidence and trust levels for a company. As a result, forensic accountants play an important role in every business, particularly in reducing fraud.

**Theory of Stakeholders**

A stakeholder is any group or individual who can influence or is influenced by an organisation's goals being met (Freeman, 2015). A stakeholder is any individual or group interested in an organisation or events within an organisation, either directly or indirectly (Wiribisono, 2007). Creditors, investors, the government, the Audit Standards Board, and the general public are all interested in auditing. In terms of audit service user satisfaction, stakeholders are more satisfied with audit opinions from forensic accountants because they can provide legal considerations and financial accounting considerations (Mahsun et al., 2021). To complete an investigative audit, auditors must be proficient in forensic accounting (Mahsun et al., 2021; Yudhiyati, 2020). Based on the level of satisfaction among stakeholders and the current demand for accounting professionals in forensic accounting,
forensic accounting competence can help bridge the expectation gap between various stakeholders, such as the Audit Standards Board and the Auditor. The audit standards board has established a standard for implementing Fraud Risk Assessment (FRA), but not all auditors recognise FRA as audit procedures required by SAS 99 and ISA 240.

**Criminology of Finance**
Financial crime is defined as any illegal activity carried out by a person or organisation without the use of direct violence in order to obtain financial gain through deception, embezzlement, or concealment (Pickett & Pickett, 2002). Financial criminology investigates financial crimes from an accounting, legal, and behavioural standpoint. The definitive explanation of the categories used in the white-collar crime domain underpins the criminological analysis of financial crime (Ruggiero, 2015).

Auditors should understand financial criminology as a profession that stakeholders expect to uncover a variety of irregularities. Furthermore, in investigative assignments, auditors must investigate the occurrence of fraud and calculate losses due to fraud. As a result, financial criminology knowledge is relevant to the auditor profession, mainly when performing investigative audit assignments.

**3. METHODS**
This study employs the non-participatory observation data collection technique. Non-participatory observation, as defined by Lavia et al. (2018), is a scientific investigation or experiment in which research participants are unaware of the observation and do not actively participate. The interview technique was used in this study, along with direct non-structural questions. The data collected include accounting and auditing teachers’ educational backgrounds, accounting and auditing education curriculum, students’ learning experiences in audit education and training centres, employee self-development needs in specific accounting and auditing competencies, and various literature that may be a solution to the gap between auditor competency needs and learning outcomes from audit education and training centres.

**4. RESULTS AND DISCUSSION**
The results based on research objectives are set out in subsections 4.1 - 4.4.

ROI: To identify the gap between current auditing practice competency requirements and the competency of audit education and training centre graduates.

RO2: To determine the role of the forensic accounting curriculum in filling this void.

RO3: To examine the best strategies for establishing competent and reliable auditing practice results.

**Experiential Learning**
The learning experience provided to students in this research is intended to help them develop technical skills such as audit planning, audit techniques and procedures, substantive and control testing techniques, and financial statement preparation techniques. Participants in this study are generally required to practise Computer-Based Audit (CbA). In other words, participants in this study were not taught about qualitative evidence collection (non-financial measurement) methods such as in-depth interviews in detecting red flags. Furthermore, participants with teacher characteristics in this study did not prioritise teaching forensic accounting in financial audits. The majority of participants in this study with student and teacher attributes stated that the learning method used was the lecture method. The majority of student activity is listening to the teacher and working on the financial measurement procedures. Table 1 presents the demographics and profile of respondents.
Only computer-based auditing was taught at the audit training institutions in this study. This means that no one teaches all students to collect qualitative data or evidence. Students are only taught to investigate quantitative data through analytical procedures, control testing, and substantive testing. Analytical procedures compare data over time and/or with a certain level of expectation. Control testing is a method of determining the effectiveness of an internal control system. Substantive testing evaluates the fairness of account presentation in financial statements. Demand for investigative audit services is increasing these days. Many audit service users prefer investigative audits performed by auditors with forensic accounting expertise, focusing on accounting, law, and behaviour. Behavioural science is beneficial
for auditors in detecting potential fraud or diagnosing improper behaviour as a result of a legal deviation. Legal knowledge is advantageous for auditors in order to support investigations into deviations from applicable regulations.

**Graduate Competency Expectations in the Labour Market**

Due to the prevalence of fraud in the business and public sectors, auditors must develop forensic accounting skills. In addition to these essentials, the auditor must analyse the qualitative non-financial measurement data collected. Financial measurement or computer-based auditing (CbA) is less reliable in investigative auditing. The growing demand for investigative audit services requires auditors to analyse illegal acts, calculate fraud losses, and analyse company resilience to fraud. This phenomenon demonstrates that today’s labour market competency requirements for graduates and competency development for auditors and undergraduates in forensic accounting are increasing. Forensic accountants in the United States can begin their careers with the Federal Bureau of Investigation (FBI). Currently, police in Indonesia frequently rely on forensic accounting experts to assist them in uncovering financial crimes and calculating fraud losses. Audit and forensic accounting experts are frequently called to assist the judicial process as expert witnesses in several trials at the Corruption Court. Unfortunately, because this study did not include participants from the police and prosecutor’s offices, it cannot reveal their specific needs regarding forensic accounting competency and their job requirements and recruitment.

**Auditor Competency Requirements**

Auditors today require forensic accounting expertise in order to collect qualitative evidence and prepare accurate and reliable audit reports. The non-financial measurement approach plays an essential role in developing audit conclusions. The more evidence and witnesses auditors have, the more confident they are in the Audit Report. Furthermore, because most of a company’s transactions are conducted online, today’s auditors must be IT-savvy in big data and data security.

**Non-Financial Metrics**

Non-financial measurements were not considered by audit participants in this study as part of audit procedures and data analysis. On the other hand, auditors frequently encounter issues with audit evidence, which underpins the construction of audit reports. They must maintain professional scepticism in responding to indications of outrageous behaviour and including them in an objective and independent audit report in accordance with auditing standards and professional ethics codes. The auditor must be able to convert audit evidence into legal evidence that may be required in the litigation process during the investigative audit assignment.

Non-financial measurement is based on non-financial qualitative data, so data collection methods such as in-depth interviews and observation are required. When fraud indicators are discovered, auditors who only look at non-financial data will miss important clues. Non-financial data can be as crucial as financial statements, but auditors frequently overlook qualitative data. Auditors in this study have access to non-financial information but do not always pay attention. Non-financial information includes family background, employee number and workload, organisational culture, customer accounts, overtime hours, family relationships, social information, and public complaints.

In this study, the audit report users expect the auditor to uncover the fraud. On the other hand, common auditors believe that the audit of financial statements is limited to assessing the fairness of financial statement presentation and compliance with generally accepted accounting principles or financial accounting standards. In this case, an auditor with forensic accounting expertise...
bridges the gap between the audit report user and the auditor because forensic accountants’ professional judgement includes additional factors such as legal, psychology, information technology systems, and other relevant non-financial measurement variables.

DISCUSSION
Auditors are currently required to learn a variety of disciplines, particularly forensic accounting, due to its broad scope and the diversity and growth of financial crimes committed by auditees. Clients now require auditors with forensic accounting expertise, particularly for investigative assignments. Only a few Audit Education and Training Centers and Universities have responded to this occurrence. Even the quality of accounting and audit training institutions has come under fire for failing to provide the necessary professional skills (Murphy & O’Connell, 2017; Suryawathy & Putra, 2014). According to Wells et al. (2009), orientation to client needs is an effective strategy for achieving company goals. This argument demonstrates the importance of including forensic accounting in audit curriculum development to meet labour market demands for auditor competence. Auditors and audit learning instructors must also be proficient in forensic accounting and non-financial measurement. Students nowadays rely on audit instructors to provide them with new information about practical accounting issues (Suryawathy & Putra, 2014). As a result, this study recommends that all parties associated with Audit Education and Training Centers include elements of forensic accounting in the development of audit curriculum to prepare learning outcomes that give credence to the labour market.

Curriculum for Audit and Forensic Accounting
Several strategies that may be able to assist audit education and training centres and universities in developing audit curricula in order to prepare the learning outcomes can be summarised based on the study’s findings and various related literature: 1) using and adapting the International Education Standard (IES) as a benchmark for accounting and auditing curriculum preparation; and 2) involving audit practitioners as a teaching team who introduce auditing practises (Bridgstock, 2009; Jackson & Chapman, 2012). (Mahsun et al., 2021). 3) Involve law and behaviour professionals in the investigative audit teaching team; 4) Use learning methods that make it easier for students to acquire technical and soft skills, such as case simulation and role play.

With the rapid competition of training institutions and the labour market and changes in regulations and technology, training institutions should guide their students based on practical needs (Adler et al., 2000; Mah’d & Mardini, 2020). The balance between the current curriculum and the need for labour market competency attributes must be improved regularly (Bautista-Mesa et al., 2018; Boyce et al., 2019; Mourshed et al., 2013). IES is currently an alternative accounting education standard that can address the quality challenges of training institutions (Mah’d & Mardini, 2020; Sugahara & Wilson, 2013). According to the International Education Standard (IES), aspiring accountants should have diverse complex skills. Technical abilities alone may not be sufficient to assist auditors in dealing with business challenges (Dolce et al., 2020; Moore & Morton, 2017). Technical skills, individual skills, interpersonal skills, communication skills, and management skills are all necessary for prospective accountants and auditors to develop (IAESB, 2017). As a result, implementing IES is also not easy for Training Centers (Karreman et al., 2007).

Auditors typically work to uncover financial inaccuracies. On the other hand, a forensic accountant works to identify deviations from the applicable law (Rezaee et al., 2016). Accounting manipulation, loss assessment, corruption, employee negligence and management are all discovered by forensic accountants,
Auditors must be proficient in auditing, accounting, information technology systems, law, and behaviour. As a result, this study recommends that auditors acquire more comprehensive skills to meet today’s business challenges.

Methods/Approach to Learning
The most common learning method participants use in this study is lecture and working on financial measurement procedures. The best accounting learning approach, on the other hand, is still being debated. Several scholars have proposed case study learning (Agrawal et al., 2021; Baldauf et al., 2020; Hassall et al., 1998; Plant et al., 2019; Weil et al., 2004), experimental learning (Butler et al., 2019), phenomenological learning (Healy & McCutcheon, 2010; Weil et al., 2004), seminars, and guest lectures (Suryawathy & Putra, 2014). Case studies assist students in evaluating a problem from various perspectives and considering alternative solutions to a case (Weil et al., 2004). Students benefit from the case studies learning approach in terms of increasing their ability to question underlying assumptions and listen to arguments (Hassall et al., 1998), developing critical thinking (Beattie et al., 2012; Mihret et al., 2017; Weil et al., 2004), preparing for dealing with real-life practical problems and developing scepticism towards material misstatements, data analysis, risk measurement, developing problem-solving skills; sharpen (Weil et al., 2004; Wines et al., 1994).

5. CONCLUSION
This study’s Audit Educations and Training Centres do not yet focus on forensic accounting and non-financial measurement learning to prepare labour market demands on financial criminology learning outcomes. The Audit Education and Training Center focuses on audit technical skills such as computer-based auditing (CbA) as a professional development entity. On the other hand, the public anticipates that the audit results will reveal the accuracy and validity of fraud-related losses. The International Education Standard (IES) can be adopted and adapted by audit education and training centres and accounting colleges to benchmark accounting and auditing curriculum development materials. Audit practitioners, forensic accounting practitioners, and professionals in law and behaviour should all be involved in the audit learning process, according to the Training Centre supervisor (psychology). Audit and accounting instructors must also use a case study approach to learning, phenomenology, experimental, seminar, and guest lecture.

REFERENCE


