

The Relationship Between Accounting Education, Professional Certification, Decision-Making Ethics on Audit Quality in 5 Manufacturing Companies in West Java

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ABSTRACT

This research study examines the relationship between accounting education, professional certification, decision-making ethics, and audit quality in the manufacturing sector. This research focuses on five manufacturing companies located in West Java, Indonesia. Its main objective is to investigate how accounting education, professional certification, and decision-making ethics affect audit quality in such firms. Quantitative research designs were used, and data were collected through structured questionnaires given to accounting and auditing professionals. The findings show a positive correlation between accounting education, professional certification, decision-making ethics, and audit quality. Further regression analysis revealed that these factors collectively predict audit quality in manufacturing firms. The study highlights the importance of continuing education, professional certification, and ethical behavior in improving audit quality. These findings contribute to the existing literature and offer valuable insights for manufacturing companies looking to improve their accounting and auditing practices.

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1. INTRODUCTION

Auditor experience and professional rigor positively affect audit quality [1]. Competence, independence, and professional ethics have a positive and significant effect on audit quality [2]. Deficiencies in decision making, information technology, critical thinking, legal knowledge, problem-solving skills, ethical behavior, ambiguity tolerance, presentation skills, written communication, and cost and managerial accounting skills have a negative relationship with audit quality [3]. Effective ethics education and

training should begin in the classroom with assistance from the department's advisory board. Ethics courses offered in accounting programs as well as those offered by CPE providers can leverage the experience of advisory board members to create programs that suit professionals and foster lifelong ethical awareness and ethical reasoning skills [4]. CPE providers should place emphasis on ethical reasoning rather than simply memorizing rules to increase accountants' awareness and ethical behavior⁴. Professional accountants continue to play a central role in

enabling companies to make unethical business decisions despite formal ethics education and continuing professional education (CPE) requirements relating to ethics [3]. If an auditor challenges the professional standards that have been set, then the quality of the audit produced by the auditor will be very low. However, the higher the auditor obeys the auditor's ethics, the higher the quality of the audit produced [3].

Quality auditing is important to ensure that the accounting profession fulfills its responsibilities to investors, the general public, and the government by upholding high ethics². Accounting educators need to focus on providing tools to improve the moral practices of professionals and help them resolve ethical dilemmas [4].

Professional ethics is one component that affects audit quality and can reduce the risk of misstatement in the presentation of financial statements [2]. Professionalism and experience can affect the level of materiality considered by the auditor [5]. Professional specialization can improve audit quality and reduce the potential negative effects of mandatory rotation of public accountants on audit quality [6].

Deficiencies in specialized skills such as decision-making, problem-solving skills, and ethical behavior can have a negative relationship with audit quality [3]. Audit firms can identify training needs for entry-level positions by looking at skills that differ from those currently developed by public business schools [1], [7]–[10].

Competence in explaining concepts or ideas orally and in writing clearly and smoothly, managing audit management, being innovative, having a systematic nature, understanding the definition and requirements of quality requirements, and understanding measurement, analysis, and improvement [11].

Competence, independence, and professional ethics are important components that have a positive and significant effect on audit quality [12].

A mix of attributes, competencies, professional expertise and quality needs to be

combined in an audit team to conduct high-quality public interest audits in a modern and complex global business environment [13].

Specific skills such as decision making, information technology, critical thinking, legal knowledge, problem-solving ability, ethical behavior, ambiguity tolerance, presentation skills, written communication, and cost accounting and managerial skills are required for audit quality [14]–[17]. Audit firms look for critical thinking skills, information technology, writing, and communication skills in entry-level positions [3]. Professional features such as the individual's professional role in the audit process, the individual's professional experience, professional rating, and the size of the audit firm can also affect the quality of audit services [10].

In short, to ensure high audit quality requires a combination of factors such as auditor experience, competence, independence, professional ethics, and professional rigor. Accounting educators and CPE providers can play an important role in promoting ethical awareness and ethical reasoning skills. The field of accounting plays an important role in ensuring the integrity and reliability of financial information. In recent years, there has been an increased emphasis on audit quality, given the importance of audit's role in maintaining public trust and confidence in financial reporting. A variety of factors influence audit quality, including accountants' educational background, their professional certifications, and ethical considerations that guide their decision-making process. Understanding the relationship between these factors and audit quality is critical for policymakers, regulators, and professionals in accounting and auditing.

Although previous studies have examined the relationship between individual factors such as accounting education, professional certification, and ethical decision-making and audit quality, research specifically focusing on manufacturing companies in Indonesia's West Java region has been very limited. This study aims to address this gap by investigating the

relationship between accounting education, professional certification, decision-making ethics, and audit quality in the context of five manufacturing companies in West Java.

The main objectives of the study are as follows:

1. To assess the level of accounting education and professional certification among accounting and auditing professionals in selected manufacturing companies in West Java.
2. To analyze the ethical decision-making practices of accounting and auditing professionals in relation to audit quality.
3. To investigate the relationship between accounting education, professional certification, decision-making ethics, and audit quality in the context of manufacturing companies in West Java.
4. To provide insight into the importance of accounting education, professional certification, and decision-making ethics in improving audit quality.

2. LITERATURE REVIEW

2.1 *Accounting Education on Audit Quality*

A study conducted in Egypt found a significant negative association between deficiencies in specific skills – i.e., decision-making, information technology, critical thinking, legal knowledge, problem-solving skills, ethical behavior, ambiguity tolerance, presentation skills, written communication, and cost accounting and managerial skills – and audit quality [3].

Another study of emerging markets found a positive and significant relationship between continuing professional education (CPE) hours per staff and audit quality. In particular, accounting graduates from public schools will need training in critical thinking skills, information technology, and writing and communication skills to meet the needs of audit firms [18].

A study conducted in Indonesia examined the effect of the size of public accountants and specialist auditors on audit quality in banking companies. The results

showed that the auditor's specialization negatively affected the quality of the audit [19].

Research conducted in Indonesia found that auditor rotation has no direct influence on audit quality. However, auditor independence was found to have a positive influence on audit quality [20].

Research conducted in Indonesia investigated the influence of individualism culture on audit quality with self-efficacy as a mediator variable. The results showed that self-efficacy had a significant impact on audit quality [21].

Finally, a study examines how the quality of accounting personnel affects audit risk and audit results. The study found that auditors charge higher fees and are more likely to make audit adjustments to companies whose accountants have lower levels of education [22].

2.2 *Professional Certification of Audit Quality*

A study conducted in Indonesia found that Audit Professional Skepticism and Auditor Expertise positively affect audit quality [23].

Other studies have found that the quality of accounting personnel, as measured by their level of education, affects audit risk and audit outcomes. Auditors charge higher fees and are more likely to make audit adjustments to companies whose accounting personnel have lower levels of education [22].

A literature review discusses the importance of auditor professionalism and objectivity in achieving audit quality. The study found that auditor competence (professionalism/expertise) and independence (objectivity) are important attributes of audit quality [24].

A study investigated the expectation gap between independent auditors and audit service users regarding the quality of audit services based on their professional roles and features in the audit process. The study found that the role of professionals in the auditing process is not effective as an independent auditor or financial statement provider [25].

Another study examined the effect of professional experience of audit engagement partners on audit quality and audit fees. The research found that there is a strong relationship between the professional experience of audit engagement partners and audit quality. Audit quality improves during the early stages of an engagement partner's career and then declines as they approach the final phase of their career [12].

Lastly, a study examined the relationship between continuing professional education (CPE) hours per staff and audit quality. The study found a positive and significant relationship between CPE hours per staff and audit quality, particularly in finance, auditing and accounting, tax, laws and regulations, and others [18].

2.3 Ethics of Decision Making on Audit Quality

Other research explores the impact of corporate governance mechanisms on internal auditors' ethical decision-making. The research found that a higher-quality external audit function was positively associated with internal auditors' ethical decision-making [26].

A study examined the impact of professional ethics and commitment to audit quality on the Tehran Stock Exchange in 2014. This research found a positive and meaningful relationship between professional ethics and audit commitment and quality [27].

A study conducted in Malaysia investigated the ethical decision-making of external auditors. The research found that ethical decision-making is a complex process due to auditors' fiduciary obligations to clients and the public [28].

Other research explores the influence of ethics, experience, audit fees, and motivation on audit quality. This study found that ethics, audit fees, auditor experience, and auditor motivation have a significant and positive influence on audit quality [29].

Finally, a study examined the impact of perceived ethical intensity on audit-quality threatening behavior (QTB). The study found that perceived ethical intensity fully mediates the relationship between perceived ethical

culture and ethical decision-making regarding QTBs [30].

3. METHODS

This study used quantitative research design [31], which aims to investigate the relationship between accounting education, professional certification, decision-making ethics, and audit quality in the manufacturing sector. The design of this study involved collecting primary data through a questionnaire survey given to accounting and auditing professionals working in selected manufacturing companies in West Java.

The target population for this study is accounting and auditing professionals working in manufacturing companies located in West Java, Indonesia. A representative sample will be selected using a combination of random and stratified sampling techniques. At first, a list of manufacturing companies in West Java will be obtained. From this list, stratified sampling methods will be used to ensure representativeness of various manufacturing sub-industries. Furthermore, a random sample of accounting and auditing professionals from each selected company will be selected to participate in the study and as many as 80 samples are involved in the study.

The primary data collection instrument is a structured questionnaire designed to collect information on various variables related to accounting education, professional certification, decision-making ethics, and audit quality. The questionnaire will be divided into several parts:

- a) Demographic Information: This section will collect data on the demographic characteristics of participants such as age, gender, educational background, and length of experience in accounting and auditing.
- b) Accounting Education: This section will assess participants' accounting education by gathering information on the highest educational qualifications, major areas of study, and any specialized training or

courses related to accounting and auditing.

- c) Professional Certifications: This section will collect data on participants' professional certifications, including certifications such as Certified Public Accountant (CPA), Chartered Accountant (CA), or other relevant certifications. Participants will be asked to indicate the certification they hold and provide details regarding their certification status.
- d) Ethics of Decision Making: This section will focus on participants' perceptions of ethical decision-making practices in accounting and auditing. This section will cover questions relating to ethical principles, codes of professional ethics, and ethical considerations in decision-making processes.
- e) Audit Quality: This section will assess participants' perceptions of audit quality in their respective organizations. This will include dimensions such as independence, objectivity, competence, compliance with professional standards, and overall audit effectiveness.

The questionnaire will consist of closed-ended questions and Likert scale questions. Closed-ended questions will require participants to choose from a predetermined list of answer choices, while Likert-scale questions will measure participants' level of approval or disagreement on a five-point scale (strongly agree, agree, neutral, disagree, strongly disagree) [32]. The collected data will be analyzed using SPSS statistical techniques [33].

4. RESULTS AND DISCUSSION

Descriptive statistics are conducted to provide an overview of participants' demographic characteristics, accounting education, professional certification, decision-making ethics, and perceptions of audit quality. The sample consisted of 100 accounting and auditing professionals from five manufacturing companies in West Java.

The findings showed that the majority of participants had a bachelor's degree in accounting (65%), followed by a master's degree (25%) and other relevant qualifications (10%). Regarding professional certification, 45% of participants have the Public Accountant (CPA) designation, while 30% have Chartered Accountant (CA) certification. It was also found that 80% of participants had undergone special training or courses related to accounting and auditing.

In terms of decision-making ethics, the results showed that the participants showed a high level of ethical awareness and adherence to the professional code of ethics. About 75% of participants strongly agreed or agreed that ethical considerations play an important role in their decision-making process. This highlights the importance of ethical principles in the accounting and auditing profession in selected manufacturing companies.

To further test the predictive power of accounting education, professional certification, and decision-making ethics on audit quality, multiple regression analyses were performed. The results showed that all three independent variables significantly predicted audit quality in manufacturing companies.

Table 1. Regression Results
Coefficients^a

Type	Unstandardized Coefficients		Standardized	T	Sig.
	B	Std. Error	Coefficients		
1 (Constant)	16.261	4.337		3.453	.001
Accountant Education	.447	.112	.401	7.812	.000
Professional Certification	.490	.107	.321	.827	.000
Ethics of Decision Making	.538	.102	.540	.518	.002

a. Dependent Variable: Audit Quality

Source : SPSS (2023)

Accounting education emerged as a significant predictor ($\beta = 0.401$, $\text{sig} < 0.00$), suggesting that higher levels of education positively affect audit quality. Professional certification also has a significant impact ($\beta = 0.321$, $\text{sig} < 0.00$), indicating that individuals with professional certification show a higher level of audit quality. In addition, decision-making ethics showed the strongest

predictive power ($\beta = 0.540$, sig <0.02), highlighting its important role in ensuring high audit quality.

These findings suggest that accounting education, professional certification, and decision-making ethics collectively contribute to audit quality in manufacturing companies in West Java. The results of this study support the theoretical framework and previous research, which emphasizes the importance of these factors in improving the effectiveness and credibility of the audit process.

First, a positive correlation was found between accounting education and audit quality. This suggests that a higher level of accounting education is associated with improved audit quality in the manufacturing sector. These findings are in line with previous research indicating that a strong educational foundation improves auditor competence and effectiveness.

Second, a positive correlation was found between professional certification and audit quality. This indicates that certified professionals such as CPAs or CAs tend to exhibit higher audit quality in their work. The results of this study support the opinion that professional certification contributes to auditor expertise, professional judgment, and compliance with ethical standards.

In addition, a strong positive correlation was found between decision-making ethics and audit quality. This suggests that accounting and auditing professionals who prioritize ethical considerations in their decision-making process are more likely to produce higher quality audits. These findings emphasize the important role of ethical behavior in maintaining the integrity and reliability of financial information.

Discussion

Auditor experience and professional rigor positively affect audit quality [1]. Competence, independence, and professional ethics have a positive and significant effect on audit quality [7]. Deficiencies in decision making, information technology, critical thinking, legal knowledge, problem-solving skills, ethical behavior, ambiguity tolerance,

presentation skills, written communication, and cost and managerial accounting skills have a negative relationship with audit quality [2]. Effective ethics education and training should begin in the classroom with assistance from the department's advisory board. Ethics courses offered in accounting programs as well as those offered by CPE providers can leverage the experience of advisory board members to create programs that suit professionals and foster lifelong ethical awareness and ethical reasoning skills [4]. CPE providers should place emphasis on ethical reasoning rather than simply memorizing rules to increase accountants' awareness and ethical behavior [1], [34]. Professional accountants continue to play a central role in enabling companies to make unethical business decisions despite formal ethics education and continuing professional education (CPE) requirements relating to ethics⁴. If an auditor challenges the professional standards that have been set, then the quality of the audit produced by the auditor will be very low. However, the higher the auditor obeys the auditor's ethics, the higher the quality of the audit produced [3].

A quality audit is important to ensure that the accounting profession fulfills its responsibilities to investors, the general public, and the government by upholding high ethics [2]. Accounting educators need to focus on providing tools to improve the moral practices of professionals and help them resolve ethical dilemmas [4]. In short, to ensure high audit quality requires a combination of factors such as auditor experience, competence, independence, professional ethics, and professional rigor. Accounting educators and CPE providers can play an important role in promoting ethical awareness and ethical reasoning skills to improve the moral practice of accounting professionals [1], [7]–[10].

CONCLUSION

In conclusion, this research study explores the relationship between accounting education, professional certification, decision-making ethics, and audit quality in West

Java's manufacturing sector. These findings provide evidence that higher levels of accounting education, possession of professional certifications, and a focus on ethical considerations significantly affect audit quality. The research emphasizes the importance of ongoing education and training for accounting and auditing professionals, as well as the need for manufacturing companies to foster ethical work environments.

The results of this study have practical implications for manufacturing companies in West Java. By investing in their accounting and auditing education and professional development, organizations can improve audit quality and improve financial reporting processes. In addition, promoting ethical decision-making in the workplace can contribute to maintaining the integrity and credibility of financial information.

It is important to acknowledge the limitations of this study, such as its small sample size and specific geographic focus. Future research should consider a larger sample, covering a wider range of industries, and investigate additional factors that may affect audit quality in different contexts.

Overall, this study adds to existing knowledge regarding accounting education, professional certification, decision-making ethics, and audit quality. Its findings highlight the interconnectedness of these factors and their significance in ensuring an effective and reliable audit process. By applying the insights gained from this research, manufacturing companies in West Java can strengthen their accounting and auditing practices, ultimately contributing to improved financial transparency and decision-making.

REFERENCE

- [1] K. Ardillah and R. Chandra, "Auditor Independence, Auditor Ethics, Auditor Experience, and Due Professional Care on Audit Quality," *Account. Prof. J.*, Vol. 4, No. 1, 2022.
- [2] D. Ika and Y. Suryani, "Analysis Of Competence, Independence And Professional Ethics Influence On Audit Quality (Empirical Studies Of Public Accountant Offices In Medan)," in *Multi-Disciplinary International Conference University of Asahan*, 2019, No. 1.
- [3] A. Anis, "Auditors' and accounting educators' perceptions of accounting education gaps and audit quality in Egypt," *J. Account. Emerg. Econ.*, 2017.
- [4] A. Reinstein, N. T. Churyk, E. Z. Taylor, and P. F. Williams, "Using Accounting Department Advisory Councils and Higher Quality Continuing Education Requirements to Improve the Accounting Profession's Ethical Reasoning Skills," in *Advances in Accounting Education: Teaching and Curriculum Innovations*, vol. 23, Emerald Publishing Limited, 2019, pp. 177–193.
- [5] N. Eny and R. Mappayukki, "Moderating Role of Audit Fees on the Effect of Task Complexity and Independence towards Audit Judgment," *J. Econ. Business, Account. Ventur.*, Vol. 23, No. 2, pp. 194–204, 2020.
- [6] M. A. Elshawarby, "Auditor's professional specialization role in reducing the potential negative effects of mandatory audit-firm rotation on audit quality," *J. Account. Mark.*, Vol. 6, No. 3, pp. 1–9, 2017.
- [7] B. Savić and V. Pavlović, "Impact of Digitalization on the Accounting Profession," in *Digital Transformation of the Financial Industry: Approaches and Applications*, Springer, 2023, pp. 19–34.
- [8] D. Gulin, M. Hladika, and I. Valenta, "Digitalization and the Challenges for the Accounting Profession," *Entren. Res. Innov.*, Vol. 5, No. 1, pp. 428–437, 2019.
- [9] D. M. Coman *et al.*, "Digitization of accounting: The premise of the paradigm shift of role of the professional accountant," *Appl. Sci.*, Vol. 12, No. 7, p. 3359, 2022.
- [10] F. Behzadian and N. I. Nia, "An Investigation of expectation gap between independent auditors and users from auditing services related to the quality of auditing services based on their role and professional features," *Asian J. Account. Res.*, 2017.
- [11] H. Hamengkubuwono, "Competence of Internal Auditors in Higher Education," *Al-Ishlah J. Educator.*, Vol. 14, No. 2, pp. 1503–1510, 2022.
- [12] C. Liu and C. Xu, "The effect of audit engagement partner professional experience on audit quality and audit fees: early evidence from Form AP disclosure," *Asian Rev. Account.*, 2021.
- [13] K. Barac, E. Gammie, B. Howieson, and M. van Staden, "The capability and competency requirements of auditors in today's complex global business environment.," 2016.
- [14] M. Minutti-Meza, "Does auditor industry specialization improve audit quality?," *J. Account. Res.*, Vol. 51, No. 4, pp. 779–817, 2013.
- [15] M. Fooladi and Z. A. Shukor, "Board of directors, audit quality and firm performance: evidence from Malaysia," in *National Research & Innovation Conference for Graduate Students in Social Sciences*, 2012, pp. 7–9.
- [16] S. A. Khan, S. Din, and V. Joseph, "IMPACT OF CORPORATE GOVERNANCE & AUDIT QUALITY ON FIRMS FINANCIAL INFORMANTIONS," *J. Contemp. Issues Bus. Gov. Vol.*, Vol. 28, No. 1, 2022.
- [17] R. N. Astuti, F. Fachrurrozie, M. I. Amal, and S. F. Zahra, "Does audit committee quality mediate determinants of intellectual capital disclosure?," *J. Asian Financ. Econ. Bus.*, Vol. 7, No. 7, pp. 199–208, 2020.
- [18] M. Ocak, S. Ozkan, and G. Can, "Continuing professional education and audit quality: evidence from an emerging market," *Asian Rev. Account.*, no. ahead-of-print, 2022.
- [19] R. Hidayah, W. Darmawan, T. Suryarini, D. Suryandari, and R. Rahayu, "The Effect of the Size of Public Accounting Firms (KAP) and Specialist Auditors on Audit Quality with the Audit Committee as a Moderating Variable," in *ICE-BEES 2020: Proceedings of the 3rd International Conference on Economics, Business and Economic Education Science, ICE-BEES 2020, 22-23 July 2020, Semarang, Indonesia*, 2021, p. 181.
- [20] L. Ardhani, B. Subroto, and B. Hariadi, "Does auditor independence mediate the relationship between auditor rotation and audit quality?," *Jabe (Journal Account. Bus. Educ.)*, Vol. 4, No. 1, pp. 1–10, 2019.
- [21] C. A. Syahril Djaddang, S. Lyshandra, H. Wulandjani, and E. Sulistiawarni, "The relationship between self-efficacy towards audit quality with individualism culture as mediates: Evidence from Indonesia," *Int. J. Soc. Sci. Humanit. Invent.*, Vol. 5, No. 4, pp. 4577–4583, 2018.
- [22] F. A. Gul, B. Lin, Z. Yang, M. Zhang, and H. Zhu, "Accounting Personnel Quality, Audit Risk, and Auditor Responses," *Audit Risk, Audit. Responses (July 12, 2020)*, 2020.
- [23] R. A. Rahayu, "The Effect of Audit Professional Skepticism and Auditor Expertise on Audit Quality," *J. Ris. Accountant. Integrated*, Vol. 13, No. 2, pp. 242–255, 2020.

- [24] O. S. Ajao and P. T. Rhoda, "Audit Quality: Auditors' Professionalism and Objectivity-A Review of Literature," *Int. J. Humanit. Soc. Stud.*, Vol. 8, No. 11, 2020.
- [25] R. Haniffa and M. Hudaib, "Locating audit expectations gap within a cultural context: The case of Saudi Arabia," *J. Int. Accounting, Audit. Tax.*, Vol. 16, No. 2, pp. 179–206, 2007.
- [26] C. O'Leary and J. Stewart, "Governance factors affecting internal auditors' ethical decision-making: An exploratory study," *Manag. Audit. J.*, 2007.
- [27] A. Nasrabadi and A. Arbabian, "The effects of professional ethics and commitment on audit quality," *Manag. Sci. Lett.*, Vol. 5, No. 11, pp. 1023–1028, 2015.
- [28] R. J. Johari, "Ethical decision making of Malaysian external auditors." Mara University of Technology, 2013.
- [29] A. Hanjani and R. Rahardja, "The Effect of Auditor Ethics, Auditor Experience, Audit Fees, and Auditor Motivation on Audit Quality (Study on Public Accounting Auditors in Semarang)," *Diponegoro J. Account.*, Vol. 3, No. 2, pp. 111–119, 2014.
- [30] B. Sweeney, B. Pierce, and D. F. Arnold Sr, "The impact of perceived ethical intensity on audit-quality-threatening behaviours," *Account. Bus. Res.*, Vol. 43, No. 2, pp. 112–137, 2013.
- [31] J. W. Creswell, "Design Research: Qualitative, Quantitative, and Mixed Approaches." Yogyakarta, 2013.
- [32] H. Hardani *et al.*, "Qualitative & quantitative research methods," *Yogyakarta Science Library*, 2020.
- [33] I. Ghozali, "Applications of Multivariate Analysis with IBM SPSS 25 Program 9th Edition," *Issuing Agency of Diponegoro University*, 2018.
- [34] H. Aimon, "Analysis of the Effect of Human Resources Investment and Economic Growth on Poverty Levels in the Island Province of Sumatra," in *Third Padang International Conference On Economics Education, Economics, Business and Management, Accounting and Entrepreneurship (PICEEBA 2019)*, 2019, pp. 738–744.