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Integrating Technology into Accounting Education: A Grounded Theory Study on the Use of Accounting Software in Practicum Classes

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Abstract

This study aims to explore how technology, particularly accounting software, is integrated into accounting education through practicum- based learning. Using a grounded theory approach, the research
investigates students' and instructors' perceptions, experiences, and challenges in utilizing computerized accounting systems during practical sessions. Data were collected through in-depth interviews, observations, and document analysis involving accounting students and educators from selected higher education institutions. The findings reveal key themes related to digital readiness, pedagogical adaptation, software usability, and professional skill development. A theoretical model is proposed to illustrate the process of technology integration in accounting education, highlighting both facilitating factors and obstacles. This study contributes to a deeper understanding of how accounting education can align with the demands of digital transformation in the financial industry.

Keywords: *Technology Integration, Practicum- Based Learning, Accounting Software, Digital Transformation, Computerized Accounting*

INTRODUCTION

The rapid advancement of digital technologies has significantly transformed the landscape of accounting education. In today's dynamic and technology-driven work environment, accounting graduates are expected not only to possess theoretical knowledge but also to demonstrate practical proficiency in using accounting software (Dzuranin et al., 2022). As a result, higher education institutions are under increasing pressure to integrate accounting technologies—such as MYOB, QuickBooks, SAP, and Accurate—into their curricula, particularly through practicum-based learning activities (Grabinski et al., 2020).

Recent studies have emphasized that students comprehend accounting concepts more effectively through experiential and technology-supported learning approaches (Bahtiar, 2023). The use of accounting software in practicum classes not only enhances technical skills but also cultivates critical thinking and real-world problem-solving abilities (Owoc et al., 2021). Consequently, technology integration into accounting education is no longer a supplementary feature but has become a critical component of pedagogical reform.

Despite its potential benefits, the implementation of technology in accounting practicum classes continues to face several challenges. These include inadequate training for instructors, limited access to technological infrastructure, outdated curriculum design, and resistance to pedagogical innovation (Salim et al., 2023). These barriers often hinder the effective adoption and utilization of accounting software in classroom settings, reducing its potential to improve learning outcomes.

Moreover, the success of technology adoption in education depends not only on software availability but also on the pedagogical strategies used to implement it. Qualitative insights into how students and educators perceive, interact with, and adapt to accounting technology remain limited. While numerous quantitative studies have evaluated the impact of accounting software on student performance, few have examined the deeper experiential and contextual factors that shape successful integration.

To address this gap, the current study adopts a grounded theory approach to explore how accounting software is used and experienced in practicum settings. Grounded theory enables the development of a theoretical model based on rich qualitative data, rather than relying on predetermined hypotheses (Charmaz, 2014). By focusing on the lived experiences of both students and educators, this research aims to construct a conceptual framework that captures the critical factors influencing the integration of accounting software in classroom practices, the challenges encountered, and the conditions under which such integration is most effective.

This study contributes to the growing discourse on digital transformation in accounting education and provides practical insights for curriculum designers, educators, and policy makers. By understanding how learners engage with accounting technology in real-world educational contexts, this research supports the development of more responsive and future-ready accounting programs.

METHOD

Research Design

This study employs a qualitative research design utilizing the Grounded Theory (GT) methodology, specifically following the Straussian approach as delineated by Strauss and Corbin (2008). GT is particularly suitable for exploring complex social processes and developing theories grounded in

empirical data, especially in areas where existing theories are insufficient to explain emerging phenomena (Cullen & Brennan, 2021). In the context of accounting education, GT facilitates the exploration of how technology integration influences teaching and learning dynamics within practicum classes.

Participants and Sampling

The study adopts theoretical sampling, a hallmark of GT methodology, where data collection is guided by concepts that emerge during the research process (Corbin & Strauss, 2015). Initial participants include accounting educators and students from higher education institutions in Indonesia who have experience with accounting software in practicum settings. As data analysis progresses, additional participants are selected to elaborate on emerging categories and ensure theoretical saturation.

Data Collection Methods

Data are collected through semi-structured interviews and classroom observations. Semi-structured interviews allow for in-depth exploration of participants' experiences and perceptions regarding the use of accounting software in practicum classes. Classroom observations provide contextual understanding of how technology is integrated into teaching practices. This combination of methods enhances the richness and validity of the data (Sosa-Díaz & Valverde- Berrocoso, 2022).

Data Analysis Procedures

The data analysis in this study employed the Straussian Grounded Theory approach, which involves a systematic and iterative process of coding to build a theory grounded in empirical data. The analysis began with open coding, where raw data were broken down into discrete units to identify initial concepts. These concepts were examined for patterns, similarities, and differences across the data set. As the coding progressed, axial coding was applied to organize these concepts into categories and subcategories. This phase focused on exploring the relationships between categories to understand the conditions, contexts, and interactions that shaped participants' experiences with accounting software in practicum settings.

The final stage of analysis, selective coding, involved identifying a central or core category that integrated all other categories and explained the main phenomenon under investigation. The researcher then refined and validated the emerging theory by systematically relating it to other categories and ensuring consistency throughout the data. To enhance the rigor of the process, constant comparative methods were utilized continuously throughout the analysis. This involved comparing new data with existing categories to refine and elaborate the theoretical constructs as they emerged. Such an approach ensured that the resulting theory was both grounded in participants' lived experiences and theoretically robust (Khajavi & Rezaei, 2019; Cullen & Brennan, 2021).

Trustworthiness and Rigor

To ensure the credibility and trustworthiness of the study, several strategies are implemented:

Triangulation: Combining interviews and observations to corroborate findings.

Member Checking: Participants review and validate the findings to ensure accuracy.

Audit Trail: Maintaining detailed documentation of the research process for transparency.

Reflexivity: The researcher engages in continuous self-reflection to acknowledge and mitigate potential biases (Sosa-Díaz & Valverde-Berrocoso, 2022).

RESULTS AND DISCUSSION (Capital, 12 pts, bold)

The grounded theory analysis of interviews and classroom observations revealed three core themes that elucidate the integration of accounting software in practicum classes: (1) Enhanced Learning Outcomes through Practical Application, (2) Challenges in Technology Adoption, and (3) The Role of Institutional Support and Training.

Enhanced Learning Outcomes through Practical Application

Participants consistently reported that the use of accounting software in practicum classes significantly improved students' understanding of accounting concepts. The hands-on experience allowed students to apply theoretical knowledge in simulated real-world scenarios, fostering deeper comprehension and retention. This finding aligns with previous research indicating that practical application of digital tools enhances learning outcomes in accounting education (Oben et al., 2022).

Moreover, students expressed increased engagement and motivation when interacting with accounting software. The interactive nature of these tools provided immediate feedback, enabling students to identify and correct errors promptly, thereby reinforcing learning. Such engagement is crucial for developing critical thinking and problem-solving skills, which are essential competencies in the accounting profession (Ong & Djajadikerta, 2019).

Challenges in Technology Adoption

Despite the benefits, several challenges hinder the effective integration of accounting software in practicum classes. Educators highlighted a lack of adequate training and familiarity with the software, leading to underutilization of its features. This issue is compounded by limited access to technological resources and infrastructure, particularly in institutions with constrained budgets. These findings are consistent with studies that identify insufficient training and resource limitations as significant barriers to technology adoption in education (Man & Zainuddin, 2024).

Additionally, some educators expressed resistance to changing traditional teaching methods, citing concerns over the time required to learn new technologies and adapt curricula accordingly. This resistance underscores the need for comprehensive professional development programs that address both technical skills and pedagogical strategies for integrating technology into teaching practices (Cullen & Brennan, 2021).

The Role of Institutional Support and Training

Institutional support emerged as a critical factor in the successful integration of accounting software. Participants emphasized the importance of administrative backing, including the provision of necessary resources, ongoing training, and encouragement for faculty to innovate in their teaching approaches. Institutions that foster a culture of continuous learning and provide structured support systems enable educators to effectively incorporate technology into their instruction (Sosa- Díaz & Valverde-Berrocoso, 2022).

Furthermore, collaboration among faculty members was identified as beneficial for sharing best practices and troubleshooting common issues related to software implementation. Such collaborative efforts contribute to building a community of practice that supports sustained integration of technology in accounting education (Owoc et al., 2021).

CONCLUSION

This study sheds light on the multifaceted process of integrating accounting software into practicum-based learning within higher education. By applying grounded theory methodology, the research identified key themes that influence the success and challenges of this integration—namely enhanced learning outcomes through practical application, technological and pedagogical barriers, and the critical role of institutional support. The findings underscore that while the use of accounting software substantially enriches students' learning experiences and fosters real-world competencies, its effectiveness hinges on adequate training, infrastructure, and a culture of pedagogical innovation.

Moreover, this research emphasizes the importance of aligning curriculum design with technological advancements and industry demands to produce future- ready graduates. The proposed theoretical model serves as a practical guide for educators and institutions to navigate the complexities of digital transformation in accounting education. Ultimately, this study advocates for a more strategic and holistic approach to technology adoption in the classroom—one that balances tools, teaching practices, and institutional commitment to foster sustainable educational improvement.

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