

ACCOUNTING SOFTWARE EXPOSURE AND ITS INFLUENCE ON THE PRACTICAL SKILLS OF BSAIS STUDENTS

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Abstract

This study investigated the exposure of Bachelor of Science in Accounting Information System (BSAIS) students at Laguna University to accounting software and its influence on their practical skills. The rationale stems from the increasing integration of accounting software such as QuickBooks, SAP, Xero, Sage, and Wave in modern financial practices, which require students to develop practical competencies to meet industry demands. A quantitative descriptive-correlational research design was employed to assess students' knowledge and experience with these software tools and to examine the relationship between software exposure and practical skills, including software navigation, financial reporting, data management, budgeting, and internal control. Third- and fourth-year students were selected through simple random sampling, and data were analyzed to determine both descriptive and correlational outcomes.

The study confirmed a significant positive relationship between software exposure and practical skill development, highlighting that both theoretical understanding and hands-on experience are essential for enhancing students' readiness for professional accounting tasks. Based on these findings, the study recommends that students actively pursue independent practice and online tutorials, educators integrate accounting software into the curriculum with hands-on exercises, and future researchers explore broader educational settings and software types. These strategies aim to bridge the gap between theory and practice, equipping BSAIS students with the practical skills required to succeed in the evolving accounting profession.

Keywords: Accounting Software, Practical Skills, Exposure, Skills Development, Software Competency, Technology Integration

1. Introduction

The integration of accounting software has become an essential aspect of financial practices worldwide. Advancement in technology fundamentally shifted accounting practices from manual processes to highly automated systems. This transformation necessitates a corresponding shift in the skills and knowledge required for accounting professionals. Software like QuickBooks, SAP FICO, XERO, Sage, and Wave has become essential for businesses worldwide, it streamline tasks such as bookkeeping, payroll, and financial reporting. Thottoli (2020) emphasizes how accounting software provides timely, accurate, and reliable information, underscoring its importance in modern business practices. Moreover, as businesses increasingly rely on accounting software, both current accounting professionals and accounting students are expected to be proficient in terms of using accounting software and they must develop practical skills to meet the industry expectations. Thus, exposure to accounting software is particularly important for accounting students as it equips them with the practical skills necessary to succeed in the modern financial environment. By gaining hands-on experience with widely-used accounting software students are able to bridge the gap between theoretical knowledge and real-world application. A study by Abou-El-Sood (2024) suggests that integrating accounting software into accounting education can positively impact students' learning experiences, engagement, and practical skills, preparing them to meet the evolving demands of the accounting profession.

Practical skills are essential for accounting students as these determine their readiness to face the demands of real-world professional practice. While traditional classroom methods provide a solid foundation in theories and principles, the use of accounting software bridges the gap between conceptual understanding and workplace application. Exposure to such tools enables students to develop competencies in tasks such as journal entries, financial reporting, and data management, thereby increasing their confidence and employability after graduation. According to Rahman et al. (2021), students who actively engage in practical, hands-on activities demonstrate higher levels of academic performance in both theoretical and applied assessments. Exposure to accounting software is vital, as it provides similar opportunities to apply theoretical knowledge in real-world tasks such as journal entries, financial reporting, and data management, thereby enhancing their readiness, confidence, and employability after graduation.

In the Philippines, the Commission on Higher Education (CHED) has emphasized the integration of technology and information systems into accounting education to ensure graduates are prepared for the demands of the modern workplace. Local firms, from small and medium-sized enterprises (SMEs) to large corporations, increasingly adopt accounting software to improve efficiency and competitiveness. However, the extent of exposure to such tools among students varies across institutions, depending on available resources, faculty training, and curriculum design. For BSAIS students, whose academic program is specifically intended to merge accounting with information systems, it is important to evaluate how accounting software exposure influences their practical skills and readiness to meet the needs of the Philippine business environment. A study by Barnes et al. (2020) emphasizes the importance of accounting software literacy for accounting students in the Philippines, suggesting that the accounting software is crucial for skills development. The research found that students who were exposed to accounting software gained significant knowledge and competence, which they believed would better prepare them for the corporate world.

This study aimed to investigate the accounting software exposure among BSAIS students and assess its influence on their practical skills. By assessing students' knowledge of key software platforms and analyzing how exposure influences their practical skills like software navigation, financial reporting, and data management, the research seeks to identify gaps in learning and skill development. Ultimately, the study aimed to provide valuable insights that can inform the creation of action plans or strategies to enhance exposure to accounting software, better equipping students with practical skills and preparing them for the evolving demands of the accounting profession.

2. Literature Review

The integration of accounting software in modern financial practices has become essential for efficiency and accuracy in professional accounting tasks. The exposure to accounting software among Bachelor of Science in Accounting Information System (BSAIS) students could facilitate their ability to apply theoretical and practical knowledge in real-world scenarios, which may develop their practical skills. A study conducted by Alhassan and Adam (2020) examined students who were exposed to accounting software in their educational journey, particularly in the development of analytical and problem-solving skills. It indicates the interactive nature of accounting software also allows students to experiment with various financial models and scenarios, enhancing their ability to approach problems from multiple schemes and devise effective solutions. A major change in the accounting landscape, particularly with the growing preference for cloud-based accounting software mainly affects the capabilities of the student's development (Akbar, 2021). Romney & Steinbart (2021) back it up in adoption of accounting software has emerged as a crucial strategy for bridging the gap between theoretical knowledge and practical application in accounting education, integrating software tools into the learning environment, students are not only exposed to automated processes and real-time data analysis but are also able to cultivate competencies that mirror actual workplace scenarios.

Adebayo et al., (2022) stated that many institutions struggle to incorporate these modern tools without diminishing the focus on fundamental accounting principles. This dilemma arises from the rapid evolution of the accounting profession, where technological advancements necessitate that students become proficient in various software applications to remain competitive in the job market. Deloitte (2022) recommends a blended learning approach that effectively combines manual accounting exercises with digital simulations, creating a more balanced educational experience. This process allows students to engage deeply with the fundamental aspects of accounting through traditional practices, such as preparing journal entries, conducting reconciliations, and analyzing financial statements, which are essential for developing critical thinking and analytical skills.

Stainbank et al. (2023) stated the importance of integrating technology into accounting education, particularly using accounting software. It explained that by focusing on students' perceptions, the capabilities of the students in terms of digital software tools can be enhanced and simultaneously developed which can help to real- world usability. In addition, a study by Okafor and Ebosa (2023) cited a case study in selected Universities in Nigeria to evaluate how capable and knowledgeable graduating students are on behalf of the usage of accounting software. This outcome suggests that exposure to accounting software in academic programs remains uneven and, in some cases, insufficient to fully prepare students for industry demands. Specifically, the characterization of the link between awareness to accounting software intervention and proficiency in accounting software, Castro et al. (2024) agree with Stainbank (2023) it creates a critical need for educational institutions to adapt their curricula to better preparation for accounting graduates for the evolving demands of the profession. It compliments that the implementation of well-designed programs aimed at strengthening technological awareness and competencies is essential for preparing future accountants to succeed in a rapidly evolving digital landscape. By equipping students with the necessary digital skills, stakeholders not only ensure their readiness to meet industry demands but also contribute to the continuous advancement and sustainability of the accounting profession in an increasingly technology-driven environment.

Accounting software plays a crucial role in modern accounting education by providing students with practical experience that enhances their technical and analytical skills. As businesses continue to transition to digital financial management, the demand for graduates proficient in accounting software has increased. A study by Hussein (2023) highlighted that integrating accounting software and digital

learning tools, such as simulations and online platforms, into accounting curricula enhances students' engagement, retention, and problem-solving skills. According to Merdekawati, Nasrun, and Ferawati (2024), universities that incorporate hands-on software training improve students' accessibility, efficiency, and engagement, ultimately producing more industry-ready graduates. Moreover, research by Pargmann et al. (2023) suggested that students with prior exposure to accounting software demonstrate higher competency in financial reporting, taxation, and auditing tasks, reinforcing the need for digital tools in accounting education.

While accounting software has become an essential tool in modern accounting education, many BSAIS students have yet to gain sufficient hands-on experience with these technologies. Research shows that practical engagement with accounting software improves student involvement, problem-solving skills, and competence in critical financial tasks. Despite this, a gap still exists between academic learning and industry expectations. To bridge this gap, integrating more digital tools into the curriculum is necessary to equip students with the practical skills needed for professional success.

A study by Jackson et al. (2022) on new technologies in accounting highlights their important role in shaping the skills of recent graduates and early-career professionals. It shows how universities, employers, and professional associations each play different roles in preparing accountants for new technological demands. The findings revealed a difference in opinions between early-career accountants and managers or recruiters. Early-career accountants felt confident in the training provided by their organizations, while managers and recruiters believed universities did a better job of equipping graduates with technology-related skills. This view matches our study, as both emphasize the key role of academic institutions in building students' tech skills. While the previous research looks at the broader cooperation between various groups in skill development, this study focuses more on how direct experience with accounting software at university helps BSAIS students improve their practical skills, providing clear evidence of how education prepares students for technology-driven careers.

In response to the growing pressure on higher education institutions to better prepare students for the workforce, particularly in fields like accounting, there is an increasing focus on whether accounting curricula align with labor market demands (Jackson et al, 2022). One critical aspect of career preparedness is ensuring students are equipped with the practical skills needed for the profession, with a particular emphasis on the use of accounting software, a key tool in modern accounting practices. This connects to the research titled "Accounting Software Exposure Among BSAIS Students and Its Influence on Their Practical Skills," as both approaches recognize that a rounded preparation for the profession of accounting goes well beyond the theoretical content of the curriculum, requiring some practical work. While the cited paper takes a broader perspective by examining work-integrated learning and preparedness for the career, this current research is concerned with the exposure to accounting software and its impact on the practical skills of BSAIS students. This study enhances the discussion on WIL by illustrating the ways in which students' exposure to accounting software empowers their application of accounting skills as reality, reinforcing the idea that incorporating technology into the accounting curriculum is one effective way to integrate academic preparation with professional expectations.

Boit, A. K., Ong'eta, J. O., & Biru, S. (2021) highlights the important role of accounting software in keeping up with technology and helping businesses make accurate and timely decisions in a competitive market. The study points out three main ideas: how accounting practices have evolved with information technology, proof that accounting software boosts business performance, and the need for universities to regularly update their curricula so students gain practical skills that meet professional standards. This ties directly to our study, since both highlight the importance of teaching students how to use accounting software during their studies. While the previous research offers a general guide for adding accounting software to courses, the current study focuses specifically on how using this software affects students' hands-on skills, providing real evidence of how well the curriculum prepares graduates for careers in accounting.

Damayanti et al (2024) analyses how Nigerian professional accountants use emerging technologies such as Social, Mobile, and Cloud (SoMoClo) to improve their practices, with an emphasis on the elements that influence adoption, such as training and perception. The study emphasizes how important it is for accountants to remain flexible to disruptive technological innovations, stating that their capacity to unlearn, relearn, and adjust to new technologies is critical for being competitive. The study introduces a new framework—willingness, readiness, and ableness (WRA)—to measure the adoption of these technologies and demonstrates that, while many accountants report proficient use of SoMoClo tools, training and perception play an important role in their ability to fully integrate them. This research is strongly related to our study, since both highlight the significance of exposure to modern accounting tools. Just as Nigerian accountants must adopt new technologies to remain relevant, our research focuses on how BSAIS students require more exposure to accounting software to improve their practical skills. Both studies highlight the importance of providing students and professionals with the necessary tools and experiences to ensure they are prepared for the changing demands of the accounting business.

The study conducted by Ihsan et al. (2023) demonstrates that hands-on experience with accounting software significantly enhances users' skills and preparedness for real-world accounting tasks. This finding is closely related to our study because it shows the

importance of software exposure in building practical accounting skills. The research reveals that the software's perceived benefits significantly impact users' willingness to adopt and effectively use it. This finding is closely related to our study because it shows how important accounting software is for building users' skills. While the previous study looks at how the perceived usefulness of the software affects adoption, our study goes further by exploring how regular use of accounting software helps BSAIS students improve their practical skills. In both cases, the software serves not just as theoretical knowledge but as a useful tool to prepare students for real-world accounting challenges.

3. Methodology

This study utilized a quantitative descriptive–correlational research design to examine the extent of exposure of Bachelor of Science in Accounting Information System (BSAIS) students to accounting software and its influence on their practical accounting skills.

The descriptive approach assessed students' knowledge and experience with accounting software such as QuickBooks, SAP, Xero, Sage, and Wave, as well as their self-reported proficiency in software navigation, budgeting and financial reporting, auditing and internal control, bookkeeping, and data management. The correlational approach determined the relationship between software exposure and practical skills.

The study was conducted at Laguna University in Barangay Bubukal, Sta. Cruz, Laguna. The respondents consisted of third- and fourth-year BSAIS students enrolled during the academic year 2025–2026. Using simple random sampling, a total of 120 students were selected from a population of 171, with sample size determined through Slovin's Formula at a 5% margin of error and proportionally allocated by year level.

Data were gathered using a structured survey questionnaire composed of quantitative closed-ended questions, measuring students' knowledge of accounting software and the influence of software exposure on their practical skills

$$n = N / (1 + N * (e)^2)$$

Where:

n = sample size

$$n = 171 / [(1 + 171 (0.05)^2)]$$

N = population size

$$= 171 / 1.4275$$

e = margin of error (commonly 0.05 or 5%)

$$n = 120$$

4. Results and Discussion

Table 1. Extent of BSAIS Students' Knowledge in QuickBooks

Indicators	Mean	SD	Verbal Interpretation
1. I have been introduced to QuickBooks through academic lessons, seminars, or training.	2.53	0.88	Moderate exposure
2. I am familiar with the basic functions and features of QuickBooks.	2.39	0.88	Limited exposure
3. I have used QuickBooks in a hands-on activity, simulation, or practical exercise at least once.	2.14	0.88	Limited exposure
4. I understand the process of generating and customizing reports in QuickBooks.	2.25	0.89	Limited exposure
Overall	2.33	0.88	Limited Exposure

Table 1 indicates that BSAIS students have generally limited knowledge of QuickBooks, as reflected by an overall mean of 2.33 and a standard deviation of 0.88, suggesting moderate but slightly varied responses. While students show some awareness of the software through lessons, seminars, or training (highest mean of 2.53), their actual hands-on experience remains low (lowest mean of 2.14), indicating that most rely on indirect exposure rather than practical use, largely due to the lack of software integration in the curriculum.

The results suggest that students' knowledge of QuickBooks is largely introductory and not based on practice. Although students are exposed to the software through academic discussions and training related activities, this exposure remains surface level. The low mean scores for hands on usage and report indicates that students have limited opportunities to apply QuickBooks in real life or simulated accounting tasks. This shows a gap between awareness of the software and the ability to use it effectively, which may affect students' readiness for practical accounting work. Mor

Table 2. Extent of BSAIS Students' Knowledge in SAP

Indicators	Mean	SD	Verbal Interpretation
1. I have been introduced to SAP through academic lessons, seminars, or training.	2.38	0.82	Limited exposure
2. I am familiar with the basic functions and features of SAP.	2.24	0.79	Limited exposure
3. I have used SAP in a hands-on activity, simulation, or practical exercise at least once.	2.07	0.73	Limited exposure
4. I understand the steps involved in processing financial transactions using SAP	2.18	0.76	Limited exposure
Overall	2.22	0.76	Limited Exposure

Table 2 shows that BSAIS students have limited knowledge of SAP, with an overall mean of 2.22 and a standard deviation of 0.76, indicating generally consistent but moderately varied responses. While some students have slight exposure through lessons, seminars, or training (highest mean of 2.38), their hands-on experience remains minimal (lowest mean of 2.07), highlighting a lack of practical application and overall limited familiarity with the software.

The results indicate that students' software exposure is mostly theoretical, not practical. Students are being told about SAP through lectures, seminars, and demos but the students rarely use the system themselves. The highest mean score which is 2.38, is still within the "limited" range, which means awareness exists but depth does not. Hands-on use with a score of 0.73 is weakest which means students lack the applied skills needed to navigate real SAP tasks. Moderate SDs across items mean responses cluster around these low scores rather than being all over the place and most students share this limited pattern. In short, the curriculum gives introductions but doesn't provide practice. That gap explains the low readiness for industry standard tasks.

Table3. Extent of BSAIS Students' Knowledge in Xero

Indicators	Mean	SD	Verbal Interpretation
1. I have been introduced to Xero through academic lessons, seminars, or training.	2.14	0.83	Limited exposure
2. I am familiar with the basic functions and features of Xero.	2.08	0.79	Limited exposure
3. I have used Xero in a hands-on activity, simulation, or practical exercise at least once.	1.98	0.76	Limited exposure
4. I understand how to access and interpret basic reports using Xero.	2.00	0.71	Limited exposure
Overall	2.05	0.77	Limited Exposure

Table 3 indicates that BSAIS students have limited knowledge of Xero, as shown by an overall mean of 2.05 and a standard deviation of 0.77, reflecting moderately consistent responses. While students have some initial awareness through lessons, seminars, or training (highest mean of 2.14), their hands-on experience is very minimal (lowest mean of 1.98), suggesting that most have not practically used the software and mainly rely on indirect exposure.

The results indicate that students' knowledge of Xero is limited to awareness rather than application. While students are introduced to the software through lessons or training sessions, this exposure does not extend to actual system use. The lowest mean score for hands-on experience suggests that students rarely perform practical tasks using Xero, such as recording transactions or generating reports. The moderate variability in responses shows that this lack of practical exposure is consistent among students rather than being an isolated issue. Hence, the data suggest that exposure to Xero remains introductory and theoretical, with limited opportunities for skill development through real or simulated activities.

Table 4. Extent of BSAIS Students' Knowledge in Sage

Indicators	Mean	SD	Verbal Interpretation
1. I have been introduced to Sage through academic lessons, seminars, or training.	2.17	0.82	Limited exposure
2. I am familiar with the basic functions and features of Sage.	2.08	0.78	Limited exposure
3. I have used Sage in a hands-on activity, simulation, or practical exercise at least once.	2.01	0.76	Limited exposure
4. I understand the use of Sage for recording journal entries and tracking account balances.	2.05	0.73	Limited exposure
Overall	2.08	0.78	Limited Exposure

Table 4 shows that BSAIS students have limited knowledge and exposure to Sage, with an overall mean of 2.08 indicating low familiarity. While students have some initial awareness through lessons, seminars, or training (highest mean of 2.17), their hands-on experience remains minimal (lowest mean of 2.01). The standard deviation values ranging from 0.73 to 0.82 reflect moderate variability, suggesting that students' responses are generally consistent but still show some differences.

The findings suggest that BSAIS students' exposure to Sage is primarily theoretical rather than experiential. Although some students have encountered Sage in academic discussions or training sessions, this exposure has not translated into familiarity with its basic functions or practical applications such as recording journal entries and tracking account balances. The consistently low mean scores across all indicators reveal a gap between introductory knowledge and applied use of the software. The moderate variability further suggests that this limitation is shared by most students, pointing to insufficient opportunities for hands-on practice within the academic program.

Table 5. Extent of BSAIS Students' Knowledge in Wave

Indicators	Mean	SD	Verbal Interpretation
1. I have been introduced to Wave through academic lessons, seminars, or training.	2.08	0.83	Limited exposure
2. I am familiar with the basic functions and features of Wave.	2.10	0.83	Limited exposure
3. I have used Wave in a hands-on activity, simulation, or practical exercise at least once.	2.05	0.81	Limited exposure
4. I understand how the Wave helps organize and categorize income and expenses.	2.06	0.81	Limited exposure
Overall	2.07	0.82	Limited Exposure

Table 5 shows that BSAIS students have limited knowledge and exposure to Wave, with an overall mean of 2.07 indicating minimal familiarity. While some students have basic awareness of its functions (highest mean of 2.10), their hands-on experience remains very limited (lowest mean of 2.05). The standard deviation values ranging from 0.81 to 0.83 indicate moderate variability, suggesting that students' responses are generally consistent with slight differences.

The findings suggest that BSAIS students' exposure to Wave is largely introductory and theoretical rather than practical. While some students may have encountered Wave through lessons, seminars, or self-exploration, this exposure has not sufficiently developed their understanding of how the software functions in real accounting tasks. The low mean scores across all indicators reveal a gap between awareness and actual application, particularly in hands-on usage and practical exercises. The moderate variability further indicates that this limitation is commonly experienced among the respondents.

Table 6. Influence of Accounting Software Exposure on BSAIS Students' Practical Skills in Software Navigation

Indicators	Mean	SD	Verbal Interpretation
1. I can use different features of accounting software to complete tasks.	2.40	0.79	Disagree
2. I can follow step-by-step instructions when using accounting software to finish activities.	2.41	0.87	Disagree
3. I can follow step-by-step instructions when using accounting software to finish activities.	2.30	0.86	Disagree
4. I can spot simple mistakes when entering data or information in accounting software.	2.30	0.79	Disagree
Overall	2.35	0.83	Disagree

Table 6 indicates that accounting software exposure has a limited influence on BSAIS students' practical skills in software navigation, with an overall mean of 2.35 showing that students generally lack confidence in this area. While they can somewhat follow step-by-step instructions (highest mean of 2.41), they struggle with independent tasks and error detection (lowest mean of 2.30). The standard deviation values ranging from 0.79 to 0.87 indicate moderate variability, suggesting that students' responses are fairly consistent with some differences.

The findings suggest that while students may manage accounting software tasks when instructions are provided, they struggle when required to operate the software independently. The consistently low mean scores across all indicators indicate insufficient mastery of basic navigation skills, such as identifying software features, completing tasks without guidance, and detecting input errors. The moderate variability in responses suggests differing levels of exposure and experience, but overall points to limited practical proficiency among most students.

Table 7. Influence of Accounting Software Exposure on BSAIS Students' Practical Skills in Budgeting and Financial Reporting

Indicators	Mean	SD	Verbal Interpretation
1. I can spot simple mistakes when entering data or information in accounting software.	2.17	0.79	Disagree
2. I can maintain budgets with attention to detail.	2.23	0.84	Disagree
3. I can interpret financial data related to budgets	2.20	0.83	Disagree
4. I can prepare financial reports clearly and accurately	2.21	0.86	Disagree
Overall	2.20	0.83	Disagree

Table 7 indicates that accounting software exposure has a limited influence on BSAIS students' practical skills in budgeting and financial reporting, as shown by an overall mean of 2.20 and a standard deviation of 0.83, reflecting low confidence and competence. While students show slightly better familiarity with maintaining budgets (highest mean of 2.23), they struggle more with detecting

errors in data entry (lowest mean of 2.17). Overall, the results highlight limited proficiency in these essential skills, with responses showing moderate consistency.

The results suggest that exposure to accounting software has not yet translated into strong practical skills in budgeting and financial reporting among BSAIS students. While students may have basic awareness of budgeting procedures, their difficulty in identifying errors and performing tasks accurately points to insufficient hands-on experience. The moderate variation in responses further implies that students' exposure to accounting software is uneven, with some gaining more experience than others. Without consistent and structured engagement in software-based budgeting and reporting activities, students may develop familiarity with concepts but struggle to apply them effectively in practical settings

Table 8. Influence of Accounting Software Exposure on BSAIS Students' Practical Skills in Auditing

Indicators	Mean	SD	Verbal Interpretation
1. I can conduct audit procedures to verify the accuracy of financial records.	2.12	0.79	Disagree
2. I can identify internal weaknesses in accounting processes.	2.12	0.83	Disagree
3. I can apply appropriate audit techniques on financial transactions.	2.12	0.78	Disagree
4. I can communicate audit findings effectively.	2.13	0.78	Disagree
Overall	2.12	0.79	Disagree

Table 8 indicates that accounting software exposure has a limited influence on BSAIS students' practical skills in auditing and internal control, as shown by an overall mean of 2.12 and a standard deviation of 0.79, reflecting low confidence in their auditing competencies. While students show slightly better ability in communicating audit findings (highest mean of 2.13), they struggle with conducting audit procedures, identifying internal weaknesses, and applying audit techniques (lowest mean of 2.12). The results also show moderate variability, suggesting generally consistent responses with minor differences.

These results suggest that limited exposure to accounting software corresponds to low confidence in practical auditing and internal control skills. Although students may have slightly better perceived ability in communicating audit findings, technical competencies such as verifying financial records, assessing internal weaknesses, and applying audit procedures remain underdeveloped. The consistency in mean values implies that most students share similar levels of practical skill, with only slight variation. The moderate variability reflects that while some students may have gained exposure through coursework or simulations, hands-on experience with accounting software remains insufficient to significantly enhance their auditing capabilities.

Table 9. Influence of Accounting Software Exposure on BSAIS Students' Practical Skills in Bookkeeping

Indicators	Mean	SD	Verbal Interpretation
1. I can record financial transactions accurately.	2.43	0.76	Disagree
2. I can perform posting of entries as a routine bookkeeping task.	2.43	0.74	Disagree
3. I can monitor expense accounts accurately.	2.41	0.77	Disagree
4. I can maintain organized financial records that comply with accounting principles.	2.38	0.78	Disagree
Overall	2.41	0.76	Disagree

Table 9 indicates that accounting software exposure has a limited influence on BSAIS students' practical skills in bookkeeping, with an overall mean of 2.41 and a standard deviation of 0.76, reflecting low confidence in performing bookkeeping tasks. While students show

slightly better ability in recording financial transactions and posting entries (highest mean of 2.43), they are less confident in maintaining organized financial records in line with accounting principles (lowest mean of 2.38). The results also show moderate consistency in responses, with only slight variations among students.

These results suggest that BSAIS students have limited confidence and practical ability in bookkeeping. While they show slightly higher perceived competency in recording transactions and posting entries, their overall skill levels remain low, particularly in maintaining organized records that comply with accounting standards. The moderate variability in responses reflects that, although students' abilities are generally similar, some students may have slightly better exposure or experience in certain tasks. This indicates that limited exposure to accounting software and practical exercises restricts the development of full bookkeeping proficiency

Table 10. Influence of Accounting Software Exposure on BSAIS Students' Practical Skills in Data Management

Indicators	Mean	SD	Verbal Interpretation
1. I can manage large volumes of financial data accurately.	2.35	0.68	Disagree
2. I can correct data inconsistencies or errors.	2.41	0.74	Disagree
3. I can prepare data analysis or reporting purposes.	2.41	0.73	Disagree
4. I can use data management skills to help make business decisions.	2.43	0.73	Disagree
Overall	2.40	0.72	Disagree

Table 10 indicates that accounting software exposure has a limited influence on BSAIS students' practical data management skills, as shown by an overall mean of 2.40 and a standard deviation of 0.72, reflecting low confidence and proficiency. While students show slightly better ability in applying data management skills to business decisions (highest mean of 2.43), they struggle more with accurately managing large volumes of financial data (lowest mean of 2.35). The results also show moderate consistency in responses, with only slight variations among students.

The results suggest that despite exposure to accounting software, students are not yet fully confident or competent in managing and using data effectively. Many struggle not only with organizing and handling large sets of financial data but also with applying data management skills to support decision-making. The relatively consistent responses suggest that this challenge is common among most students rather than limited to a few individuals. Overall, accounting software exposure alone may not be sufficient to develop strong practical data management skills without more hands-on training and real-world applications.

Table 11. Relationship Between the Extent of Knowledge of QuickBooks and the Practical Skills of BSAIS Students

Accounting Software	Practical skills	P-stats	Strength of Relationship	P-Value	Analysis
Quickbooks	Software Navigation	-0.070	Very Weak	0.488	Not Significant
	Budgeting and Financial Reporting	-0.059	Very Weak	0.563	Not Significant
	Auditing and Internal Control	-0.191	Weak	0.059	Not Significant
	Bookkeeping	-0.117	Very Weak	0.250	Not Significant
	Data Management	-0.125	Very Weak	0.218	Not Significant

Table 11 presents the relationship between the extent of knowledge of QuickBooks and the practical skills of BSAIS students. The results revealed very weak to weak negative relationships across all practical skill areas—software navigation, budgeting and financial reporting, auditing and internal control, bookkeeping, and data management—with p-stat values ranging from -0.059 to -0.191 . All corresponding p-values exceeded 0.05, indicating that none of these relationships were statistically significant.

The findings suggest that students' familiarity with QuickBooks does not meaningfully contribute to their practical accounting skills. The very weak correlations showed that increases in QuickBooks knowledge do not correspond to competency improvements on navigating accounting software, preparing financial reports, assessing internal controls, completing bookkeeping tasks, or managing financial data. The lack of significant relationships implies that exposure to QuickBooks alone may not be sufficient to enhance students' practical abilities.

Table 12. Relationship Between the Extent of Knowledge of SAP and the Practical Skills of BSAIS Students

Accounting Software	Practical skills	P-stats	Strength of Relationship	P-Value	Analysis
SAP	Software Navigation	0.264	Weak	0.004	Significant
	Budgeting and Financial Reporting	0.209	Weak	0.022	Significant
	Auditing and Internal Control	0.237	Weak	0.009	Significant
	Bookkeeping	0.225	Weak	0.013	Significant
	Data Management	0.221	Weak	0.015	Significant

Table 12 presents the relationship between the extent of knowledge to SAP and the practical skills of BSAIS students. The analysis showed weak positive relationships across all practical skills areas—software navigation, budgeting and financial reporting, auditing and internal control, bookkeeping, and data management—with p-stat values ranging from 0.209 to 0.264. Despite the weak strength of these relationships, all were statistically significant, as indicated by p-values below 0.05.

These findings suggest that students who possess greater familiarity with SAP tend to show slightly higher levels of competence in various accounting-related practical skills. This implies that even limited exposure to SAP contributes positively to students' abilities in navigating software systems, preparing financial reports, understanding internal control processes, performing bookkeeping tasks, and managing financial data.

Table 13. Relationship Between the Extent of Knowledge of Xero and the Practical Skills of BSAIS Students

Accounting Software	Practical skills	P-stats	Strength of Relationship	P-Value	Analysis
Xero	Software Navigation	0.264	Weak	0.005	Significant
	Budgeting and Financial Reporting	0.209	Weak	0.005	Significant
	Auditing and Internal Control	0.237	Weak	0.016	Significant
	Bookkeeping	0.225	Very Weak	0.017	Significant
	Data Management	0.221	Very Weak	0.038	Significant

Table 13 shows the relationship between the extent of knowledge of Xero and the practical skills of BSAIS students. The findings indicate weak positive relationships between Xero knowledge and software navigation, budgeting and financial reporting, reporting, and auditing and internal control, with p-stat values of 0.264, 0.209, 0.237, and 0.225, respectively. These relationships were statistically significant, suggesting that higher familiarity with Xero is associated with slightly better performance in these skill areas. Bookkeeping also exhibited a very weak yet significant relationship with a p-stat = 0.221. However, the relationship between Xero knowledge and data management could not be determined due to the absence of reported values.

The results suggest that exposure to Xero contributes positively to students' practical accounting skills, particularly in tasks that require system navigation, financial reporting, and internal control processes. Although the relationships are weak, their statistical significance indicates that Xero knowledge plays a supportive role in skill development. The weak effect sizes may be attributed to limited hands-on exposure, insufficient practice time, or the focus on theoretical instruction rather than applied software use. Without consistent and structured engagement with Xero, students may develop familiarity with the software but not achieve a high level of practical proficiency.

Table 14. Relationship Between the Extent of Knowledge of Sage and the Practical Skills of BSAIS Students

Accounting Software	Practical skills	P-stats	Strength of Relationship	P-Value	Analysis
Sage	Software Navigation	0.207	Weak	0.023	Significant
	Budgeting and Financial Reporting	0.222	Weak	0.015	Significant
	Auditing and Internal Control	0.214	Weak	0.019	Significant
	Bookkeeping	0.181	Very Weak	0.048	Significant
	Data Management	0.077	Very Weak	0.406	Not Significant

Table 14 shows the relationship between students' level of knowledge of Sage and their practical accounting skills. The results indicate weak but positive relationships between familiarity with Sage and several competencies, including software navigation, budgeting and financial reporting, and auditing and internal control. Although the strength of these relationships is limited, their statistical significance suggests that students who have greater exposure to Sage tend to perform slightly better in these essential accounting tasks. Bookkeeping also demonstrated a very weak yet statistically significant relationship, implying that basic bookkeeping skills may benefit from Sage familiarity. In contrast, data management did not show a significant relationship, indicating that Sage knowledge alone may not be sufficient to enhance students' data handling capabilities.

These findings suggest that integrating Sage into the accounting curriculum can contribute positively to the development of practical accounting skills, particularly in areas that require system use, financial processing, and internal control functions. However, the generally weak relationships indicate that the influence of Sage knowledge on overall skill development remains limited. This may be due to restricted hands-on exposure, short practice duration, or the use of Sage primarily for demonstration rather than extensive application. As a result, students may acquire conceptual familiarity with Sage without achieving strong proficiency in more advanced or technical tasks, such as data management. Furthermore, the results imply that while Sage serves as a useful introductory tool for understanding computerized accounting systems, its current level of integration may not be sufficient to significantly enhance higher-level competencies. The limited strength of the relationships observed suggests that familiarity with the software alone does not necessarily translate into improved performance across all accounting skill areas. This indicates a gap between basic system exposure and the development of comprehensive technical expertise, reinforcing the need to examine how accounting software is utilized in the learning process.

Table 15. Relationship Between the Extent of Knowledge of Wave and the Practical Skills of BSAIS Students

Accounting Software	Practical skills	P-stats	Strength of Relationship	P-Value	Analysis
Wave	Software Navigation	0.153	Very Weak	0.096	Not Significant
	Budgeting and Financial Reporting	0.143	Very Weak	0.120	Not Significant
	Auditing and Internal Control	0.124	Very Weak	0.176	Not Significant
	Bookkeeping	0.081	Very Weak	0.378	Not Significant
	Data Management	0.030	Very Weak	0.744	Not Significant

Table 15 illustrates the relationship between students' level of knowledge of Wave and their practical accounting skills. The findings reveal very weak positive relationships between familiarity with Wave and various skill areas, including software navigation, budgeting and financial reporting, auditing and internal control, bookkeeping, and data management. However, none of these relationships were statistically significant, indicating that Wave knowledge did not have a measurable effect on students' practical performance in these areas.

These results suggest that students' familiarity with Wave contributes minimally to the development of their practical accounting skills. Although slight positive trends were observed, the very weak and non-significant relationships imply that exposure to Wave does not substantially enhance competencies related to system use, financial reporting, internal control evaluation, bookkeeping, or data management. This may be due to limited integration of Wave into classroom instruction, insufficient hands-on practice, or the software being used only occasionally rather than as a core instructional tool. As a result, students may have only a basic awareness of Wave without developing meaningful operational proficiency.

Summary, Conclusions and Recommendations

The following are the relevant findings of the study "Accounting Software Exposure and Its Influence on The Practical Skills of BSAIS Students"

1. Students showed limited exposure to all the accounting software listed, with an overall mean of 2.15 (Limited Exposure). This indicates a need for more structured, hands-on learning to ensure BSAIS students can effectively use accounting software in real-world tasks.
2. Respondents generally disagreed that software exposure strengthened their practical skills, with an overall mean of 2.30 (SD = 0.79). All skill areas—software navigation, budgeting and financial reporting, auditing and internal control, bookkeeping, and data management—were rated in the disagree range, showing insufficient competence.
3. Correlation analysis revealed mixed results: QuickBooks and Wave showed no significant relationship with practical skills ($p > 0.05$), while SAP, Xero, and Sage exhibited weak but significant positive correlations ($p < 0.05$), suggesting that familiarity with these platforms slightly improves practical skills.

The study established groundwork for better integration of software-based learning to ensure graduates are equipped with the technical knowledge and confidence needed for professional accounting tasks. Key conclusions include:

1. BSAIS students have limited knowledge of QuickBooks, SAP, Xero, Sage, and Wave, with most showing only introductory understanding.
2. Current software exposure has not substantially strengthened practical accounting skills due to limited hands-on experience.

3. Weak but significant positive relationships exist between SAP, Xero, and Sage knowledge and practical skills, while QuickBooks and Wave showed non-significant effects.
4. Enhancing software exposure requires a structured action plan with practical training, lab exercises, industry-partnered sessions, certification programs, and inclusion of multiple software platforms to better prepare students for professional accounting practice.

Based on the findings and conclusions presented, the following recommendations are hereby proposed:

1. It is recommended that Laguna University enhance the accounting software knowledge of BSAIS students by conducting regular seminars and workshops, increasing access through laboratory practice sessions, and encouraging the use of credible online tutorials and training modules to improve their familiarity, confidence, and overall understanding of software functions and applications.
2. It is recommended to strengthen BSAIS students' practical skills by integrating hands-on accounting software activities into subjects, introducing progressively challenging tasks across year levels, and using real-world case studies to help students apply their knowledge, understand industry standards, and develop workplace-ready competencies.
3. Future researchers are encouraged to broaden their studies by including a wider range of respondents, exploring additional factors such as teaching strategies and student attitudes, and utilizing mixed or qualitative research methods to obtain more comprehensive findings and deeper insights into accounting software proficiency and skill development.

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References

- Abdo, M., Feghali, K. and Zgheib, M.A. (2022). The role of emotional intelligence and personality on the overall internal control effectiveness: applied on internal audit team member's behavior in Lebanese companies, Asian Journal of Accounting Research, Vol. 7 No. 2, pp. 195 207. <https://doi.org/10.1108/AJAR-04-2021-0048>
- Abou-El-Sood, H. (2024). Integrating QuickBooks in financial accounting classrooms: Evidence from the UAE. *Accounting Education*. <https://doi.org/10.1080/09639284.2024.2323038>

- Adebayo, T., Altunatas, M., Goyibnazarov, S., et al. (2022) Dynamic effect of disintegrated energy consumption and economic complexity on environmental degradation in top economic complexity economies
<https://www.sciencedirect.com/science/article/pii/S2352484722018856>
- Adela, V., Agyei, S. K., Frimpong, S., Awisome, D. B., Bossman, A., Abosompim, R. O., ... & Ahmed, A. M. A. (2024). Bookkeeping practices and SME performance: The intervening role of owners' accounting skills. *Heliyon*, 10(1).
[https://www.cell.com/heliyon/fulltext/S2405-8440\(23\)11119-4?uuiid=uiid%3Adb99232d-2d95-437d-89ae-8974522494ae](https://www.cell.com/heliyon/fulltext/S2405-8440(23)11119-4?uuiid=uiid%3Adb99232d-2d95-437d-89ae-8974522494ae)
- Adham, I.O., Aldhassan, M. (2020) The effects of digital inclusion and ICT access on the quality of life: A global perspective
<https://ideas.repec.org/a/eee/teins/v64y2021ics0160791x20313142.html>
- Akbar, M., (2021) The Effects of Learning with Cloud Accounting On Graduate Employability Skills
<https://www.ubss.edu.au/articles/2021/november/the-effects-of-learning-with-cloud-accounting-on-graduate-employability-skills/>
- Alipar, C. A., Briones, K. J. C., Del Mundo, J. A., Pabillano, P. D., Pontiga, K. B., Romulo, H. J. C., Tobias, C. B., Tolentino, R. M. U., & Won, M. A. P. (2023). Perception regarding the impact of accounting software utilization to competency skills of the 4th year BSAIS students of Laguna University. *Journal of Research in Business and Management*, 12(5), 142–149.
<https://www.questjournals.org/jrbm/papers/vol12-issue5/1205142149.pdf>
- Al-Mamary, Y. H., & Al Hemyari, H. A. (2020). Knowledge and use of accounting software: Evidence from Oman. *Journal of Industry-University Collaboration*, 2(3), 115–126.
<https://www.emerald.com/insight/content/doi/10.1108/jiuc-04-2020-0005/full/html>
- Amin, M. (2023). The use of SAP in education: A review of current practices and future directions. ResearchGate.
https://www.researchgate.net/publication/387132094_The_Use_of_SAP_in_Education_A_Review_of_Current_Practices_and_Future_Directions
- Boit, A. K; Ong'eta, J. O & Biru, S. (2021). The Effect of Accounting Software (Sunplus) on Quality of Financial Reporting of the Seventh day Adventist Organizations and Institutions within West Kenya Union Conference. *Journal of African Interdisciplinary Studies*, 5(9), 57 – 83.
<https://kenyasocialscienceforum.wordpress.com/wp-content/uploads/2021/09/pdf-boit-the-effect-of-accounting-software-sunplus-on-quality-of-financial-reporting-1.pdf>
- Castro, J., Ramos E.J., Sanchez, R., Pare j., Simone, R., Tanglao, V., Jimenez, R. (2024). Awareness of Accounting Graduates on Accounting Information System and Other Software: A Basis for Learning Intervention Program.
https://www.researchgate.net/publication/381927207_Awareness_of_Accounting_Graduates_on_Accounting_Information_System_and_Other_Software_A_Basis_for_Learning_Intervention_Program
- Chimgee, D., Naranchimeg, L., Enerel, A., Bolor, A., Erdenebileg, S., & Bilguun, A. (2020). Integrating SAP in business school: Outcomes of SAP hands-on exercises in business information systems course. ResearchGate.
https://www.researchgate.net/publication/341147538_Integrating_SAP_in_Business_School_Outcomes_of_SAP_Hands-on_Exercises_in_Business_Information_Systems_Course
- Cummings, J., & Janicki, T. N. (2020). What skills do students need? A multi-year study of IT/IS knowledge and skills in demand by employers. *Journal of Information Systems Education*, 31(3), 208-217. <https://aisel.aisnet.org/jise/vol31/iss3/5/>
- Cunha, R. M. M. G. (2022). Intelligent architecture to support second-generation general accounting. NOVA Information Management School, Instituto Superior de Estatística e Gestão de Informação, Universidade Nova de Lisboa.
<https://run.unl.pt/bitstream/10362/150041/1/TEGI1455.pdf>
- Damayanti, M., Putra, P., Khoiriyah, U., & Widyowati, D. D. (2024). Digital Financial Bookkeeping Training for MSME Entrepreneurs. *Entrepreneurship and Community Development*, 2(1), 31-40.
<https://sanscientific.com/journal/index.php/ecd/article/view/229>
- Dambo, B. I., & Innocent, C. S. (2024). Accounting Software Packages and Work Performance of Accounting Officers in Public and Private Organizations in Port Harcourt Metropolis. *Journal of Accounting and Financial Management*, 10(3), 65-77.
<https://www.iiardjournals.org/get/JAFM/VOL.%2010%20NO.%203%202024/Accounting%20Software%20Packages%2065-77.pdf>
- Firmansyah, R., Sari, M. N. M., & Ikhsan, R. B. (2023). The effect of learning accounting software on students' ability to prepare financial reports. *Primonomics: Jurnal Ekonomi & Bisnis*, 21(3), 45–56.
<https://jurnal.ubd.ac.id/index.php/PE/article/view/3219>

- Galang, A., et al. (2023). The relationship between the usage of Xero accounting software and the intellectual capital of the selected companies in Pampanga*. ResearchGate. [<https://www.researchgate.net/publication/373862437>]
- González-Pérez, L. I., & Ramírez-Montoya, M. S. (2022). Components of Education 4.0 in 21st century skills frameworks: systematic review. *Sustainability*, 14(3), 1493. <https://www.mdpi.com/2071-1050/14/3/1493>
- Habashi, J. (2021). Developing education for students in business schools through the implementation of teaching computerized accounting software in business courses at universities. *International Journal of Accounting Research*, 9(2), 1-6. Retrieved from https://scholar.google.com.ph/scholar?start=10&q=quickbooks+education+&hl=en&as_sdt=0.5&as_vis=1#d=gs_qabs&t=1743228693017&u=%23p%3Dn0rgGPYf3PMJ
- Ihsan, H., Surya, F., Afni, Z., Meuthia, R. F., & Siregar, A. (2023). Practical Bookkeeping Techniques Using Malindo EZ Accounting for Karnival Niaga Project at Kolej Komuniti Selayang. *International Journal of Scientific and Management Research*, 6(12), 99-107. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4679873
- Jim, E. U., Chinwe, O. N., & Olali, C. F. (2024). Utilization of Accounting Software Packages and Employability of Accounting Education Graduates. *ESCAE Journal of Management and Security Studies*, 4(2). https://www.academia.edu/download/116832174/Papers_210_220.pdf
- Jackson, D., Michelson, G., & Munir, R. (2022). Developing accountants for the future: new technology, skills, and the role of stakeholders. *Accounting Education*, 32(2), 150–177. <https://doi.org/10.1080/09639284.2022.2057195>
- Jackson, D., & Meek, S. (2020). Embedding work-integrated learning into accounting education: the state of play and pathways to future implementation. *Accounting Education*, 30(1), 63–85. <https://doi.org/10.1080/09639284.2020.1794917>
- Kurnia, D., & Hapsari, D. P. (2025). Enhancing Pedagogical Competencies of Accounting Educators in Higher Education for the Digitalization Era. *International Journal of Management Research and Economics*, 3(2). Retrieved from <https://jurnal.itbsemarang.ac.id/index.php/Ijmre/article/download/3138/3482>
- Madolidi Handoyo, B. R., & Bayunitri, B. I. (2021). The influence of internal audit and internal control toward fraud prevention. *International Journal of Financial, Accounting, and Management*, 3(1), 45–64. <https://doi.org/10.35912/ijfam.v3i1.181>
- Mahmud, S., & Jany, R. (2024). Cloud Accounting and Its Impact on the Present Accounting Profession in Bangladesh. *RPSU Research Journal*, 2(1). Retrieved from <https://doi.org/10.5281/zenodo.14263181>
- Oyinloye, O. T., Asonibare, E. M., & Oluwalola, K. (2021). Office skills required by office technology and management students for effective performance in modern office. *Nigerian Journal of Business Education*, 8(1), 86-93. <https://d1wqtxts1xzle7.cloudfront.net/110762730/479-libre.pdf>
- Putra, I., Sulistiyo, U., Diah, E., Rahayu, S., & Hidayat, S. (2022). The Influence of Internal Audit, Risk Management, Whistleblowing System and Big Data Analytics on the Financial Crime Behavior Prevention. *Cogent Economics & Finance*, 10(1). <https://doi.org/10.1080/23322039.2022.2148363>
- Soellner, S. (2021). Digital elements for SAP ERP education and training: Results from a systematic literature review. *International Journal of Engineering Pedagogy*, 11*(4) <https://search.ebscohost.com/>
- Stoyanovich, J., Howe, B., & Jagadish, H. V. (2020). Responsible data management. *Proceedings of the VLDB Endowment*, 13(12). <https://par.nsf.gov/biblio/10184625>
- Tran Huong Giang. (2024). Use of technology and digital tools in accounting education. *European Journal of Contemporary Education and E-Learning*. Retrieved from <https://ejceel.com/index.php/journal/article/download/109/85>
- Xie, Z., Chiu, D.K.W. & Ho, K.K.W. The Role of Social Media as Aids for Accounting Education and Knowledge Sharing: Learning Effectiveness and Knowledge Management Perspectives in Mainland China. *J Knowl Econ* 15, 2628–2655 (2024). <https://doi.org/10.1007/s13132-023-01262-4>