

Effectiveness of Artificial Intelligence (AI) Integration in the BSAIS Curriculum of Laguna University: Basis for Proper Policy Framework on AI Learning Resources

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Abstract

The rapid rise of Artificial Intelligence (AI) is reshaping many professions, and accounting is no exception. Graduates are required to apply AI tools, demonstrate analytical skills, and adapt to digital transformation. At Laguna University, the Bachelor of Science in Accounting Information System (BSAIS) program is designed to integrate accounting principles with technological applications, yet the effectiveness of AI integration in enhancing student learning remains uncertain. This study explored the effectiveness of AI integration in the BSAIS curriculum of Laguna University by assessing the extent of AI integration, its level of effectiveness, and the relationship between the two.

A descriptive-correlational quantitative research design was employed to gather numerical data to describe the existing conditions and the examination of potential relationships. A total of 61 respondents from the 3rd and 4th year levels participated through google forms. Findings indicated a moderate extent of AI integration for AI awareness, course exposure/engagement with AI, and perceived relevance of AI. These suggest that although students were aware of AI and recognized its relevance, actual engagement with AI tools and applications remained limited. The results also indicated effective outcomes for student learning, theoretical application, and practical application. These outcomes implied that AI integration contributed positively to students' academic performance and skill application.

Correlational analysis revealed a significant moderate to strong relationship between the extent of AI integration and its effectiveness. This confirmed that increased AI integration is associated with improved student outcomes. The study concluded that the effectiveness of AI integration in the BSAIS curriculum was enhanced when AI concepts were more incorporated into academic experiences.

Keywords: Technology Acceptance Model; Experiential Learning Theory; AI Extent, Artificial Intelligence

1. Introduction

The rapid rise of Artificial Intelligence is reshaping many professions, and accounting is no exception. Modern organizations are increasingly adopting advanced digital platforms such as Enterprise Resource Planning Systems, along with Artificial Intelligence-powered accounting software, including Systems Applications and Products High-Performance Analytic Appliance (SAP HANA), MindBridge Artificial Intelligence Auditor, Xero Accounting Software, and Odoo Enterprise Resource Planning. These systems automate routine bookkeeping processes, strengthen audit procedures, support predictive analytics, and enhance real-time financial reporting, transforming the competencies required from today's accounting graduates. Studies show that the automation of repetitive accounting tasks is shifting the role of accountants toward higher-level analytical and decision-support functions (Kokina & Davenport, 2021). As a result, the demand now

moves toward graduates who can effectively apply AI tools, demonstrate analytical skills, and adapt to digital transformation. For students of the Bachelor of Science in Accounting Information System (BSAIS) program, AI literacy has become not just an optional skill but a vital competency for employability in a rapidly evolving profession (Ballantine, 2024).

In the Philippines, government initiatives such as the National Artificial Intelligence Strategy Roadmap emphasize the need to strengthen AI awareness, digital competencies, and innovation capacity across various industries, including the education sector (Manabat, 2024). National organizations, such as the Private Sector Advisory Council, have also urged the implementation of a national AI upskilling framework for students and teachers, citing the urgency of preparing the Filipino workforce for automation and digital transformation (Daily Tribune, 2025). Despite this national direction, the actual integration of AI into higher education programs remains uneven. Although some institutions incorporate selected AI-related topics or digital systems, studies indicate that many students are still limited in awareness, exposure, and hands-on experience with AI applications in academic settings (Crompton & Burke, 2023). This raises important questions regarding whether learners truly understand AI's relevance, whether they are sufficiently exposed to AI-integrated coursework, and whether they possess the ability to apply AI tools in both theoretical and practical activities.

At Laguna University, the Bachelor of Science in Accounting Information System program is structured to integrate accounting principles with technological applications. However, despite the presence of technology-related discussions, challenges persist in transforming traditional instruction into meaningful hands-on utilization of AI tools. The global literature notes that accounting education continues to struggle with fully implementing AI, particularly in creating structured curricular pathways, preparing educators, and equipping students with the competencies needed by the industry (Tandiono, 2023 ; Abdo-Salloum & Al-Mousawi, 2025). These concerns highlight key considerations for the university: the extent to which AI has been incorporated into the curriculum, the effectiveness of such integration in improving student learning, and its role in preparing graduates for professional practice. Equally important is the need to examine whether there is a significant relationship between the degree of AI integration and its actual effectiveness on student learning outcomes, in line with emerging AI and data competency frameworks in higher education (Dwivedi et al., 2021).

Addressing these issues is vital, not only to ensure that graduates remain competitive in an AI-driven workplace but also to provide Laguna University with evidence-based insights for strengthening its curriculum. Accordingly, this study sought to examine both the extent and effectiveness of AI integration in the BSAIS curriculum, thereby generating findings that may inform future academic strategies, instructional improvements, and policy directions.

2. Theoretical Background

The Technology Acceptance Model (TAM) explains students' adoption and perception of Artificial Intelligence (AI) tools in accounting education. The study examines key factors such as perceived usefulness and perceived ease of use, which align with TAM's core concepts: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). These factors determine whether students view AI tools as beneficial and easy to apply in their accounting tasks. In relation to the study, TAM explains how BSAIS students at Laguna University accept and utilize AI based on their experiences and perceptions. When AI tools are user-friendly, accessible, and easy to understand, students are more likely to develop positive perceptions of ease of use. Similarly, when AI enhances learning, improves performance, and supports accounting tasks, students perceive it as useful, increasing their intention to use it. Social influence and technology readiness also contribute to shaping students' attitudes and willingness to adopt AI. Thus, TAM serves as a foundation for understanding how students' perceptions influence their acceptance, engagement, and consistent use of AI in accounting education.

Experiential Learning Theory (ELT) emphasizes that meaningful learning occurs through active engagement, experience, reflection, and application. This aligns with the learning process in AI-integrated accounting education, where students interact with AI tools through hands-on activities and real-world simulations. In relation to the study, AI supports experiential learning by allowing students to practice accounting tasks such as data analysis, auditing, and financial decision-making in realistic scenarios. AI tools also provide personalized feedback and adaptive learning experiences, which enhance student motivation, engagement, and creativity. Through continuous cycles of practice and reflection, students develop deeper understanding and critical thinking skills necessary for accounting professions. Collaboration with peers further strengthens learning and increases confidence in using AI technologies. Thus, ELT explains how active participation and practical exposure to AI contribute to improved learning outcomes, skill development, and readiness for real-world accounting applications.

Together, TAM and ELT provide a comprehensive framework for the study. TAM explains how students accept and adopt AI based on their perceptions, while ELT explains how students learn effectively through hands-on experience with AI. This combined approach ensures that students not only use AI tools but also develop the necessary skills, understanding, and readiness for future accounting careers.

3. Research Problems

It specifically aimed to answer the following: (a) extent of Artificial Intelligence (AI) integration in the BSAIS curriculum in terms of students' AI awareness, course exposure or engagement, and perceived relevance of AI, (b) level of effectiveness of AI integration in terms of student learning, theoretical application (exams), and practical application (assessment tasks), and (c) significant relationship between the extent of AI integration in the BSAIS curriculum and its level of effectiveness among BSAIS students of Laguna University.

4. Data and Methods

This study utilized a descriptive-correlational quantitative research design to assess the extent and effectiveness of Artificial Intelligence (AI) integration in the Bachelor of Science in Accounting Information System (BSAIS) curriculum at Laguna University. The descriptive component examined students' perceptions in terms of AI awareness, course exposure, and perceived relevance, while the correlational component determined the relationship between the level of AI integration and its effectiveness in enhancing student learning, theoretical performance (examinations), and practical application (assessment tasks). Data were collected from 61 third- and fourth-year BSAIS students, selected from a total population of 120 using stratified random sampling with disproportionate allocation to ensure representation of students with greater exposure to AI-related courses. A structured questionnaire using a 4-point Likert scale was administered through Google Forms to gather quantitative data.

The research was conducted at Laguna University in Santa Cruz, Laguna, focusing on students with sufficient academic background in AIS and AI-related subjects. The instrument underwent expert validation and pilot testing prior to data collection to ensure clarity and reliability. Data gathering was carried out during the first semester of Academic Year 2025–2026 through online distribution, supported by ethical protocols such as informed consent and confidentiality measures. Collected responses were systematically coded, tallied, and analyzed using statistical tools including mean, standard deviation, and Spearman's rank-order correlation (Spearman's rho), enabling the researchers to describe trends and examine the strength and direction of relationships between AI integration and its perceived effectiveness.

5. Tables

The results of this study demonstrate a significant correlation between the extent of AI integration in the BSAIS curriculum and its level of effectiveness among BSAIS students.

Table 1. Summary of the Extent of AI Integration in the BSAIS Curriculum

Indicators	Mean	SD	Remark	Verbal Interpretation
AI awareness	2.95	0.90	Moderate	High
Course exposure to AI	2.53	0.96	Moderate	High
Perceived relevance of AI	3.18	0.82	Moderate	High
Overall results	2.89	0.89	Moderate	Highly Integrated

Note: 3.26 - 4.00 = Great Extent = Very High, 2.51 - 3.25 = Moderate = High, 1.76 - 2.50 = Very Little = Low, 1.00 - 1.75 = Not at All = Very Low

Table 1 presents the overall extent of Artificial Intelligence (AI) integration in the BSAIS curriculum. The overall mean of 2.89, which falls under the “Highly Integrated” verbal interpretation, indicates that students moderately perceive the presence of AI, possess a reasonable level of AI awareness, and experience a moderate degree of exposure or engagement with AI concepts and tools. While the overall standard deviations of 0.89 further reinforce that not all students received the same depth or quality of AI-related learning opportunities, likely due to differences in course design, instructor expertise, and availability of technological resources.

Among the three indicators, Perceived Relevance of AI obtained the highest mean ($M = 3.18$, $SD = 0.82$). This suggests that students strongly acknowledged the importance of AI in enhancing their academic preparation and strengthening their readiness for professional practice. This was followed by AI Awareness ($M = 2.95$, $SD = 0.90$), which reflects substantial understanding of AI concepts, functions, and applications. In contrast, Course Exposure to AI recorded the lowest mean ($M = 2.53$, $SD = 0.96$), indicating that students received limited hands-on engagement with AI tools and activities despite their awareness and perceived relevance.

This pattern suggests that AI integration within the curriculum leans more toward theoretical discussions than practical application. While students are introduced to AI concepts, principles, and their relevance to the accounting profession, their opportunities to apply these concepts remain limited. These findings align with existing literature. Aryal (2021) emphasized that although accounting programs have begun embedding AI-related topics, integration still tends to focus on theoretical components rather than comprehensive, practice-based applications.

Overall, Table 1 demonstrates that AI integration in the BSAIS curriculum is moderately recognized by students. However, the results highlight a clear gap between their understanding and awareness of AI and their limited hands-on experience. This suggests that while AI integration is present and meaningful, it remains in a developing stage, particularly in terms of providing consistent experiential learning opportunities across courses.

Table 2. Level of Effectiveness of AI Integration in the BSAIS Curriculum

Indicators	Mean	SD	Remark	Verbal Interpretation
Student Learning	2.66	0.81	Effective	High
Theoretical Application	2.72	0.80	Effective	High
Practical Application	3.82	0.81	Effective	High
Overall results	2.75	0.81	Effective	Highly Effective

Note: 3.26 - 4.00 = Highly Effective = Very High, 2.51 - 3.25 = Effective = High, 1.76 - 2.50 = Somewhat Effective = Low, 1.00 - 1.75 = Not Effective = Very Low

Table 2 presents the overall level of effectiveness of Artificial Intelligence (AI) integration in the Bachelor of Science in Accounting Information System curriculum at Laguna University. The overall weighted mean of 2.75 (SD = 0.81) falls under the “Effective” category, indicating that students perceive AI integration as generally beneficial in enhancing learning experiences, theoretical comprehension, and practical applications in accounting.

Among the three indicators, Practical Application received the highest mean (M = 2.82, SD = 0.81), suggesting that students particularly value AI-related exercises—such as system-based assessments, software tasks, and simulations—for improving technical skills, problem-solving, and applied competence. Theoretical Application followed with a mean of 2.72 (SD = 0.80), reflecting the perceived usefulness of AI-supported exams, case-based tests, and adaptive question systems in strengthening conceptual understanding. Student Learning recorded the lowest mean (M = 2.66, SD = 0.81), though still within the “High” category, implying that students recognize AI as supportive to their overall learning, but it is not yet central to instruction.

This pattern of results indicates that students acknowledge the benefits of AI integration while highlighting the gap between perceived effectiveness and actual implementation. Opportunities for hands-on, system-based learning—such as ERP simulations, AI-driven auditing exercises, and accounting software tasks—remain limited. While the curriculum provides AI concepts and discussions, practical engagement is still emerging.

These findings align with previous studies. AI integration enhances adaptive learning and theoretical understanding, supporting personalized and targeted instruction (Steenbergen, Hu, & Cooper, 2014). AI-powered simulations and practical exercises deepen student engagement and develop applied competencies when aligned with real-world scenarios (Cao et al., 2020). Furthermore, successful adoption of AI in education requires institutional readiness, including adequate infrastructure, software availability, and faculty competence, which determines whether students experience AI conceptually or practically (Collin, Lepage, & Nebel, 2023). The consistently “High” ratings suggest that students value AI-assisted education and recognize its potential benefits. The higher mean for practical application reinforces the importance of experiential, skill-based activities that simulate real accounting tasks using digital tools or software. Overall, Table 2 demonstrates that AI integration in the BSAIS curriculum is perceived as effective, although adoption remains emerging, partially applied, and not fully institutionalized across instruction and assessment.

Table 3. Relationship Between the Extent of AI Integration in the BSAIS Curriculum and Its Level of Effectiveness

AI Integration Extent	AI Integration Effectiveness	p-stat	Strength of Relationship	p-value	Analysis
AI awareness	Student learning	0.735	Strong	0.000	Significant
	Theoretical application	0.652	Strong	0.000	Significant
	Practical application	0.637	Strong	0.000	Significant
Course exposure to AI	Student learning	0.732	Strong	0.000	Significant
	Theoretical application	0.559	Moderate	0.000	Significant
	Practical application	0.518	Moderate	0.000	Significant
Perceived relevance of AI	Student learning	0.695	Strong	0.000	Significant
	Theoretical application	0.630	Strong	0.000	Significant
	Practical application	0.642	Strong	0.000	Significant

Note: 0.00 - 0.19 = Very Weak, 0.20 - 0.39 = Weak, 0.40 - 0.59 = Moderate, 0.60 - 0.79 = Strong, 0.80 - 1.00 = Very Strong Relationship

**p-value < 0.05, significant

Table 3 shows that the extent of AI integration in the BSAIS curriculum had a significant and generally strong relationship with its level of effectiveness, as reflected by correlation coefficients ranging from 0.518 to 0.735 ($p = 0.000$). Based on the correlation interpretation guide, these values indicate moderate to strong relationships, confirming that higher levels of AI integration are associated with improved student outcomes. The strongest correlation ($r = 0.735$) was observed between AI awareness and student learning, suggesting that increased familiarity with AI concepts enhances students' ability to understand lessons and apply knowledge effectively. Meanwhile, the weakest relationship ($r = 0.518$) was noted between course exposure to AI and practical application, implying that although AI topics are present in the curriculum, opportunities for hands-on application may still be limited.

These findings imply that students' awareness and engagement with AI significantly contribute to their learning performance, particularly in understanding theoretical concepts and connecting them to real-world accounting tasks. However, the relatively weaker correlation for practical application suggests that limited experiential activities may hinder the full development of technical proficiency. This indicates that while the curriculum introduces AI concepts adequately, expanding opportunities for practical exposure such as simulations, system demonstrations, and applied projects, would strengthen students' readiness for workplace demands. Overall, the results support the rejection of the null hypothesis, confirming that there is a significant relationship between the extent of AI integration in the curriculum and students' learning, theoretical understanding, and practical application.

These conclusions are consistent with Saad (2024), who emphasized that students' perception of AI as useful and applicable improves motivation and learning effectiveness. Integrating AI tools and practice-based learning activities enables students to connect theoretical knowledge with professional tasks more meaningfully. Hence, the present findings demonstrate that enhancing AI awareness and strengthening practical exposure within the curriculum are essential for maximizing educational impact and preparing students for technology-driven accounting environments.

6. Conclusion

Based on the findings of this study, the following conclusions are drawn regarding the effectiveness of AI integration in the BSAIS curriculum at Laguna University:

1. The extent of AI integration in the BSAIS curriculum is high, which indicates that AI concepts and tools are moderately incorporated into the academic program. The perceived relevance of AI emerged as the strongest indicator, which showed that students understand the importance and applicability of AI in their academic work and future careers. Although AI awareness is also high, the lower score for course exposure to AI implies that students' actual engagement with AI tools and applications is still limited.
2. The level of effectiveness of AI integration in the BSAIS curriculum was high, with a stronger impact on practical application and theoretical understanding than on overall student learning. This indicates that more extensive integration of AI results in greater effectiveness in skill development, concept mastery, and real-world competence.
3. There was a significant relationship between the extent of AI integration and its level of effectiveness, which implied that the extent of integration affects the level of effectiveness in student learning, theoretical understanding, and practical application.

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