

Digital Learning Tools and their Role in Certification Preparedness Among Marketing Students

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Abstract

This study examined the role of digital learning tools in the certification preparedness of BSBA Marketing students at Eulogio “Amang” Rodriguez Institute of Science and Technology (EARIST)–Manila Campus. It aimed to determine the extent of students’ utilization of digital learning tools, assess their perceived learning effectiveness and certification preparedness, examine the relationship between digital learning tool utilization and certification preparedness, and propose an intervention plan to strengthen the integration of digital tools in marketing education. The study was anchored on the Input-Process-Output framework, where online and internet-based resources, student responses, and identified problems served as inputs; questionnaire formulation, validation, data gathering, statistical treatment, and interpretation served as processes; and the proposed intervention plan served as the output. A descriptive survey research design and cross-sectional survey method were used. The respondents were 124 fourth-year BSBA Marketing students selected through purposive sampling. A validated survey questionnaire was used to gather data, and the responses were analyzed using percentage, weighted mean, Likert scale interpretation, ranking, and t-test. The findings showed that the utilization of digital learning tools was Evident, with a grand mean of 4.08. The highest-rated area was integration with academic or training programs, followed by assessment and feedback mechanisms, accessibility and ease of use, interactivity and engagement features, and quality and relevance of learning content. Learning effectiveness was also rated Evident, with a grand mean of 4.04, particularly in knowledge acquisition and retention, problem-solving and analytical skills, application of marketing concepts, collaboration and peer learning, and motivation and study habits. Certification preparedness was likewise Evident, with a grand mean of 4.11, with strongest results in readiness for professional and industry expectations and technical skills and digital literacy. The study further found a significant relationship between digital learning tool utilization and certification preparedness at the 0.05 level of significance. The proposed intervention plan was rated Highly Acceptable, with an overall weighted mean of 4.31. The study concluded that digital learning tools support students’ certification preparedness by improving skill development, knowledge retention, digital literacy, confidence, and industry-relevant competencies, although challenges such as poor internet connectivity, limited device access, technical issues, and reduced engagement may affect their effectiveness. The study recommended stronger integration of certification-focused digital activities, online review sessions, digital simulations, interactive teaching strategies, improved technological infrastructure, technical support, and further research on related variables. The study aligns with SDG 4 – Quality Education, SDG 8 – Decent Work and Economic Growth, and SDG 9 – Industry, Innovation and Infrastructure. Its sustainability impact is mainly educational, institutional, technological, and socio-economic because it supports improved learning systems, workforce readiness, digital competency, and institutional capacity for certification preparation.

Keywords: Certification Preparedness, Digital Learning Tools, Digital Literacy, Learning Effectiveness, Marketing Education, Marketing Students, Online Assessment, Professional Readiness, Technology Integration

1. Introduction

Technology has become a major component of education, particularly for marketing students preparing for professional or competency-based certifications. Digital learning tools such as online platforms, mobile applications, learning management systems, videos, quizzes, and review materials provide flexible and interactive ways for students to develop knowledge, skills, confidence, and digital competence. These tools allow students to study anytime and anywhere, review difficult topics, receive feedback, and become familiar with certification-related content and assessment formats. The increasing use of digital platforms in education reflects a global shift from traditional learning to technology-supported learning. Certification training has become more integrated with digital education systems in different contexts, while Filipino marketing students also rely on tools such as Google Classroom, Moodle, Canvas, online reviewers, and mobile learning apps. However, unequal access to devices, unstable internet connection, limited content quality, lack of focus, and technical disruptions may affect how fully students benefit from these tools.

The literature emphasizes that digital learning tools improve knowledge preparedness by giving students access to updated, certification-relevant content. As noted by Nguyen (2020), platforms such as Coursera, Google Classroom, and LinkedIn Learning provide materials, assessments, quizzes, and interactive modules that support mastery of marketing concepts. According to Johnson et al. (2021), digital learning tools include online platforms, applications, and resources that enhance student engagement and improve learning outcomes. Digital tools also support practical and analytical skill development. Research by Santos and Rivera (2021) highlights that simulation software, online marketing analytics tools, and virtual business case studies help bridge theory and practice. A study by Li and Brown (2022) found that interactive platforms and gamified quizzes can reduce test anxiety and strengthen confidence through supportive learning environments, immediate feedback, mock exams, and practice tests. The consistent integration of online quizzes, learning management system (LMS) modules, and interactive review materials into coursework has also been associated with improved assessment readiness among graduate business students.

Marketing education is also being reshaped by industry expectations. Laverie et al. (2020) highlighted that technological change has transformed marketing jobs and created pressure for marketing educators to prepare students for the modern marketplace. Cowley et al. (2021) cited that technology and media have created new skill requirements, making third-party industry certifications from platforms such as Google, HubSpot, and Hootsuite increasingly relevant. Digital learning environments that incorporate e-learning platforms, mobile applications, and interactive simulations provide students with opportunities for continuous practice, skill reinforcement, and more effective preparation for certification examinations. Thelma et al. (2024) emphasized that digital literacy is now essential for employability and participation in technology-driven industries. Marketing itself remains important to individuals, organizations, and the economy. Madu and Ahmed (2024) explained that marketing performs bread-winning, gap-bridging, and economic-developmental functions, with these roles also described as the bread-winning role, the gap-bridging role, and the economic-developmental role. In this context, digital learning management tools help prepare marketing students for the modern business environment.

In the Philippine context, digital learning tools have become significant in improving education, engagement, and certification readiness. The use of platforms such as Google Classroom, YouTube tutorials, and online practice tests has been associated with improved retention of marketing concepts and greater confidence in taking assessments among business and marketing students. K. S. Vergara et al. (2023) found that student engagement significantly correlates with learner-defined success in online learning, supporting the use of LMS platforms, digital assessments, and interactive learning software. R. G. Vergara (2023) documented that online platforms helped marketing students develop self-directed learning and reflective thinking during fully online instruction. Sarona et al. (2023) showed that despite unstable internet, system lags, and limited device availability, students adapted to e-learning environments and became more proactive and resourceful. Macugay et al. (2025) stated that selected Philippine universities showed growing awareness and use of MOOCs, which provide flexible, self-paced, and industry-aligned learning pathways.

At the global level, Cowley et al. (2021) found that third-party industry certifications are increasingly integrated into marketing and media courses and are viewed as useful for job readiness and career prospects. Laverie et al. (2020) reported that students using third-party certifications perceived them as helpful in developing skills, confidence, and job readiness. Kim et al. (2019) showed that online certification programs received generally positive feedback, although effectiveness varied depending on student learning styles. Langan et al. (2019) found that higher education institutions are increasingly embedding digital marketing concepts, tools, and industry-recognized certifications into marketing programs. Simulation applications, online quizzes, and adaptive review systems also contribute to certification readiness by providing students with practice environments that closely resemble the format and structure of actual certification examinations.

The study is anchored on an Input-Process-Output framework. The input consists of online and internet-based references, BSBA Marketing student respondents, survey results, and identified problems related to digital learning tools and certification preparedness. The process includes the formulation, validation, and implementation of survey questionnaires; assessment of accessibility, interactivity, content quality, engagement, integration, and learning effectiveness; statistical treatment; and analysis and interpretation of data. The output is a proposed intervention plan designed to enhance certification preparedness through improved use of digital learning tools. This framework connects the study variables by showing how digital learning tool utilization may influence learning effectiveness and certification preparedness. The literature further supports this framework by emphasizing that digital platforms, MOOCs, LMSs, real-time feedback, and interactive certification materials improve knowledge acquisition, psychological readiness, and self-directed learning (R. G. Vergara, 2023).

The reviewed literature shows strong support for the use of digital learning tools in improving learning outcomes, digital literacy, certification readiness, and industry preparedness. International studies confirm that third-party certifications help bridge the academic-industry gap and strengthen confidence and job readiness (Laverie et al., 2020; Cowley et al., 2021). Local studies also show that digital assessments and structured reviewers improve test-taking confidence and assessment readiness among Filipino students. However, the manuscript identifies a need to examine these relationships specifically

among BSBA Marketing students in the local institutional context. Existing studies discuss digital learning, certification programs, student engagement, employability, and industry readiness, but there remains a need to assess how accessibility, ease of use, interactivity, content quality, assessment mechanisms, feedback, academic integration, and learning effectiveness relate to certification preparedness. The study therefore addresses this gap by determining the role of digital learning tools in certification preparedness and by proposing strategies to improve their integration in marketing education.

The study aligns most directly with SDG 4 – Quality Education because it focuses on improving students' access to effective digital learning tools, strengthening learning effectiveness, and enhancing certification preparedness. By examining accessibility, content quality, engagement, assessment, feedback, and academic integration, the research contributes to more inclusive and relevant learning experiences. The study also supports SDG 8 – Decent Work and Economic Growth because marketing certifications and digital competencies can improve students' readiness for professional and industry expectations. The emphasis on employability, job readiness, digital marketing skills, and certification-related preparation is consistent with workforce development goals discussed by Thelma et al. (2024), Cowley et al. (2021), and Laverie et al. (2020).

The study connects with SDG 9 – Industry, Innovation and Infrastructure because it examines the role of technological platforms, learning management systems, MOOCs, simulations, adaptive review systems, and online assessments in modernizing marketing education. It also relates to SDG 10 – Reduced Inequalities because the manuscript identifies unequal access to devices, internet connectivity, and quality digital content as barriers that may limit students' ability to benefit from digital learning tools. The study may also relate to SDG 17 – Partnerships for the Goals because industry certifications and digital platforms involve connections among schools, faculty, learners, technology providers, and industry partners. Cowley et al. (2021) emphasized the role of educators and industry partners in improving certification implementation and adoption.

The study contributes to educational sustainability by supporting the improvement of marketing instruction through accessible, interactive, and certification-aligned digital learning tools. It helps identify which tools strengthen knowledge retention, application of marketing concepts, analytical skills, motivation, study habits, collaboration, and certification confidence. It also contributes to technological and digital sustainability by examining how students use digital platforms and how schools can improve the integration of technology into academic and training programs. The study supports the development of digital literacy, which is necessary for students to participate in modern learning and work environments (Thelma et al., 2024).

The study contributes to socio-economic sustainability because certification preparedness can improve employability, job readiness, and competitiveness in marketing careers. Since marketing supports organizational revenue generation, customer value creation, and economic activity, improving students' readiness for marketing practice has broader economic relevance, as reflected in Madu and Ahmed (2024). Finally, the study supports institutional sustainability by providing school administrators and faculty with evidence for improving digital resources, strengthening certification-focused instruction, and designing better training strategies. Because digital tools do not work equally for all learners (Kim et al., 2019), institutions must consider learner diversity, access barriers, platform quality, and pedagogical integration when developing sustainable digital learning systems.

2. Material and methods

2.1 Research Design

The study used a descriptive survey research design to gather quantifiable data and describe existing conditions without manipulating variables. This design was appropriate because the study sought to determine how digital learning tools are used and how these tools relate to certification preparedness among marketing students. It also adopted a cross-sectional survey method to examine the types of digital learning tools used, the level of student engagement with these tools, and the students' perceived readiness for certification examinations. Descriptive research focuses on systematically describing the characteristics of a population or phenomenon by addressing questions related to what, where, when, and how, rather than explaining the reasons behind observed outcomes. In this study, the descriptive approach was used to examine students' experiences, usage patterns, and perceptions regarding the effectiveness of digital learning tools in supporting certification preparedness.

2.2 Locale of the Study

The study was conducted at Eulogio “Amang” Rodriguez Institute of Science and Technology (EARIST) – Manila Campus. The locale was selected because the institution offers the Bachelor of Science in Business Administration major in Marketing Management program, and its marketing students are directly exposed to digital learning tools used in their academic courses and certification-related preparation. The study covered the period from October 2025 to June 2026.

2.3 Respondents of the Study

The respondents were BSBA Marketing Management students of EARIST–Manila Campus. In the methodology section, the population was identified as fourth-year Bachelor of Science in Marketing Management students because they were directly exposed to digital learning tools in marketing courses and were considered relevant to the study on digital learning tools and certification preparedness. The sample included 124 fourth-year BSBA Marketing students, composed of 30 students from Section A, 32 from Section B, 32 from Section C, and 30 from Section D. Most respondents were aged 21–23 years old, with 122 students or 98.39% of the total sample, while 2 respondents or 1.61% were aged 24–26. In terms of sex, 73 respondents or 58.87% were female, while 51 respondents or 41.13% were male.

2.4 Sample and Sampling Procedure

The study used purposive sampling. The respondents were selected because they possessed characteristics needed for the study, particularly their exposure to digital learning tools in marketing education and their relevance to certification preparedness. Purposive sampling refers to a group of non-probability sampling techniques in which units are selected because they have characteristics needed in the sample; in other words, units are selected “on purpose” in purposive sampling. The final sample consisted of 124 fourth-year BSBA Marketing students from EARIST–Manila Campus, grouped according to their sections to ensure representation of the fourth-year marketing student population.

2.5 Research Instrument

A survey questionnaire was used as the main instrument for data collection. The questionnaire was organized into four parts. The first part gathered the respondents’ profile, including age, gender, and educational background. The second part assessed the extent of utilization of digital learning tools in terms of accessibility, interactivity, content quality, assessment, and integration with academic programs. The third part measured the learning effectiveness of digital learning tools, particularly their contribution to students’ understanding, skills development, and overall learning outcomes. The fourth part determined respondents’ level of agreement on strategies for improving the use of digital learning tools in marketing education to enhance certification readiness. The questionnaire was developed based on the study objectives and related literature. To ensure validity, the instrument was reviewed by the research professor, faculty members, and marketing professionals for content relevance, clarity, and alignment with the variables on utilization, learning effectiveness, and improvement strategies. After revisions were incorporated, the questionnaire underwent trial testing with three marketing students to assess clarity, accuracy, and suitability. Feedback from the trial test was used to revise, remove, or replace unclear or irrelevant items. The final instrument was examined by faculty and the adviser, who were considered experts and authorities in research.

2.6 Data Gathering Procedure

The researchers followed a systematic data gathering procedure using the survey questionnaire as the primary instrument. Since the study relied on survey responses, the data collected were based on the personal opinions and perceptions of the respondents. The questionnaire was prepared according to the study’s objectives and review of related literature to ensure clarity and relevance. Open-ended questions were also included to allow marketing students to respond freely and provide specific information. The researchers prepared questions aligned with the objectives of the study. The questionnaires were distributed either in printed form through face-to-face administration or through a method convenient to both the researchers and respondents. Before distribution, the researchers explained the purpose of the study and assured the respondents that their answers would remain confidential and would be used only for academic purposes. After collection, the responses were checked for accuracy, then tabulated, coded, and prepared for analysis using selected online word processors such as Google Docs and Microsoft Word.

2.7 Data Analysis Techniques

The data were analyzed using percentage, weighted mean, Likert scale interpretation, ranking, and t-test. Percentage was used to describe the proportional distribution of respondents and responses by dividing the frequency by the total population and multiplying the result by 100. Weighted mean was used to determine the average assessment of respondents by assigning weights to responses and computing the overall mean. The Likert scale was used to interpret respondents’ assessments using verbal descriptions such as Highly Evident, Evident, Moderately Evident, and Very Least Evident. Ranking was used to determine the relative importance or position of specific indicators based on the computed results. A t-test was also used to determine whether there was a significant difference between two groups of respondents based on selected variables. The Independent Samples t-test compared the mean scores of two groups to identify whether observed differences were statistically significant.

3. Results and Discussion

3.1 Utilization of Digital Learning Tools

3.1.1 Accessibility and Ease of Use

The respondents assessed the accessibility and ease of use of digital learning tools as Evident, with an overall weighted mean of 4.08. The highest-rated indicator was the ability to access digital learning tools using available devices, with a weighted mean of 4.18. Clear platform instructions followed with 4.12, while user-friendliness and ease of navigation received 4.07. The lowest-rated indicators were accessibility anytime and anywhere and the rare interruption of learning by technical issues, both with 4.02. This result indicates that students generally have access to devices and can navigate digital platforms, but occasional connectivity and technical problems remain barriers. This supports Nguyen (2020), who noted that platforms such as Coursera, Google Classroom, and LinkedIn Learning provide access to certification-relevant content, and Johnson et al. (2021), who emphasized that digital learning tools enhance access, engagement, and learning outcomes.

3.1.2 Interactivity and Engagement Features

The respondents rated interactivity and engagement features as Evident, with an overall weighted mean of 4.06. Active participation in online discussions and activities ranked highest with 4.09, followed by platform engagement while studying at 4.08. Interactive activities such as quizzes, simulations, and videos received 4.06. Active learning support received 4.04, while gamified features ranked lowest with 4.02. The findings show that digital tools encourage participation and engagement, although gamification appears less influential than discussions, activities, and interactive learning tasks. This is consistent with Johnson et al. (2021), who described digital tools as resources that improve engagement, and Li and Brown (2022), who found that interactive platforms and gamified quizzes can support learning and reduce test anxiety.

3.1.3 Quality and Relevance of Learning Content

The quality and relevance of learning content were rated as Evident, with an overall weighted mean of 4.05. The strongest indicator was the alignment of materials with certification exam topics, with a weighted mean of 4.11. Real marketing examples followed with 4.10, while content relevance to marketing concepts received 4.05. Updated and accurate lessons received 4.02, and support for understanding complex topics ranked lowest with 3.99. The result suggests that digital learning materials are generally aligned with marketing and certification needs, but some students still experience difficulty understanding complex topics. This supports Nguyen (2020), who emphasized that digital platforms provide updated certification-related content. The findings also indicate that the use of online learning platforms enhances students' understanding of marketing concepts and increases their confidence in preparing for certification examinations through accessible and well-organized learning resources.

3.1.4 Assessment and Feedback Mechanisms

Assessment and feedback mechanisms were rated as Evident, with an overall weighted mean of 4.10. Performance tracking ranked highest with 4.21 and was interpreted as Highly Evident. Practice quizzes and mock exams, feedback for identifying weak areas, and assessments that measure understanding all received 4.08. Immediate feedback ranked lowest with 4.05. The result indicates that students value digital tools that monitor progress, provide practice tests, and help identify areas for improvement. However, the lower rating for immediate feedback suggests inconsistency across platforms. This finding aligns with Li and Brown (2022), who emphasized the role of feedback, mock exams, and practice tests in strengthening test preparedness. The findings also suggest that the integration of online quizzes, learning management system (LMS) modules, and interactive review materials contributes to better assessment readiness by providing students with structured opportunities to review content and monitor their learning progress.

3.1.5 Integration with Academic or Training Programs

The integration of digital learning tools with academic or training programs was rated as Evident, with an overall weighted mean of 4.12. Learning activities aligned with industry standards and digital tools complementing classroom instruction both ranked highest with 4.16. Integration into marketing subjects followed with 4.14, while instructor encouragement received 4.12. Certification preparation supported in coursework ranked lowest with 4.02. The findings show that digital tools are already incorporated into marketing subjects and classroom activities, but certification-focused coursework still requires stronger implementation. This supports Laverie et al. (2020), who emphasized the value of integrating certifications into marketing education, and Cowley et al. (2021), who found that third-party industry certifications are increasingly used in marketing and media education to support career readiness.

3.2 Learning Effectiveness of Digital Learning Tools

3.2.1 Knowledge Acquisition and Retention

Knowledge acquisition and retention were rated as Evident, with an overall weighted mean of 4.12. Digital learning improving overall academic performance ranked highest with 4.23 and was interpreted as Highly Evident. Recall of key concepts during assessments followed with 4.22 and was also Highly Evident. Retention of information learned from digital

platforms received 4.14, while long-term memory support received 4.03. Improvement in understanding marketing concepts ranked lowest with 3.98. The result indicates that digital learning tools strongly support academic performance, concept recall, and retention, although deeper understanding of marketing concepts may still need additional instructional support. The findings indicate that regular engagement with e-learning platforms, mobile applications, and interactive digital activities enhances students' opportunities for practice and reinforcement, contributing to improved retention and performance in certification-related assessments. The findings also suggest that consistent use of digital learning resources strengthens knowledge retention and recall, enabling students to perform better during assessments while reinforcing previously learned concepts.

3.2.2 Application of Marketing Concepts

The application of marketing concepts was rated as Evident, with an overall weighted mean of 3.97. Using digital tools to solve marketing problems ranked highest with 4.10, followed by relating digital lessons to real-world scenarios with 4.05. Digital simulations improving application skills received 3.99, while effective case study analysis received 3.93. Applying marketing theories in practical activities ranked lowest with 3.79. The findings show that digital tools help students connect marketing lessons to practical situations, but theory-to-practice transfer remains the weakest area. This supports Santos and Rivera (2021), who stated that simulation software, online marketing analytics tools, and virtual business case studies bridge theory and practice. The findings also suggest that simulation-based activities, online quizzes, and adaptive review systems enhance certification readiness by allowing students to practice tasks that closely reflect actual certification assessments.

3.2.3 Problem-Solving and Analytical Skills

Problem-solving and analytical skills were rated as Evident, with an overall weighted mean of 4.06. Confidence in solving marketing challenges and online exercises strengthening analytical abilities both ranked highest with 4.10. Improvement in critical thinking received 4.06, while decision-making enhancement received 4.05. Ability to analyze marketing data ranked lowest with 3.99. The result suggests that digital learning tools help develop confidence, analytical competence, critical thinking, and decision-making, although marketing data analysis still requires additional practice. This supports Santos and Rivera (2021), who emphasized that digital simulations and analytics tools develop practical and analytical skills, and Thelma et al. (2024), who identified digital literacy, critical thinking, and problem-solving as necessary competencies for the modern workforce.

3.2.4 Motivation and Study Habits

Motivation and study habits were rated as Evident, with an overall weighted mean of 3.94. Frequent review of lessons through digital tools ranked highest with 4.01. Better time management using digital platforms and self-directed study both received 3.95. Motivation to study regularly received 3.90, while discipline in completing online tasks ranked lowest with 3.89. The findings indicate that digital tools support review habits, independent study, and time management, but maintaining consistent discipline remains a weaker area. This connects with R. G. Vergara (2023), who emphasized that online platforms support self-directed learning and reflective thinking, and Kim et al. (2019), who noted that the effectiveness of online certification programs may vary based on learner characteristics.

3.2.5 Collaboration and Peer Learning

Collaboration and peer learning were rated as Evident, with an overall weighted mean of 3.96. Group activities enhancing the learning experience ranked highest with 4.20 and was interpreted as Highly Evident. Online communication tools strengthening teamwork followed with 4.07, while digital platforms supporting group discussions received 4.04. Peer feedback improving understanding received 3.94, and effective online collaboration with classmates ranked lowest with 3.56. The results show that collaborative activities and communication tools support learning, but actual peer collaboration is less developed. This supports Johnson et al. (2021), who noted that digital learning environments include collaborative tools, and K. S. Vergara et al. (2023), who found that student engagement is significantly related to learning success in online learning.

3.3 Certification Preparedness

3.3.1 Familiarity with Certification Exam Content and Format

Familiarity with certification exam content and format was rated as Evident, with an overall weighted mean of 4.04. Exposure to exam-type questions ranked highest with 4.13. Practice tests reflecting actual certification exams and understanding exam format both received 4.06. Preparedness for certification test coverage received 4.04, while familiarity with certification exam topics ranked lowest with 3.91. The result indicates that digital tools expose students to exam-type questions and formats, but topic familiarity remains the weakest part of certification preparedness. The findings suggest that the use of e-learning platforms and interactive digital resources enhances students' familiarity with certification examinations by providing structured practice, repeated exposure to exam-type questions, and opportunities to develop confidence in navigating the test format. The findings also indicate that interactive digital resources help students become

more familiar with the structure, timing, and question formats commonly encountered in certification examinations, thereby enhancing their overall exam readiness.

3.3.2 Time Management and Study Discipline

Time management and study discipline were rated as Evident, with an overall weighted mean of 4.07. Digital tools helping students organize study schedules and maintain consistent review habits both ranked highest with 4.18. Balancing coursework and certification preparation received 4.06, while completing certification-related tasks on time received 3.98. Allocating time specifically for certification review ranked lowest with 3.95. The findings show that digital tools support organization and regular review, but students still need stronger dedicated certification review time. The results indicate that students who effectively utilize digital tools for planning, scheduling, and monitoring their study activities are better able to manage their time and maintain consistent preparation for certification assessments.

3.3.3 Confidence and Self-Efficacy in Taking Certification Exams

Confidence and self-efficacy were rated as Evident, with an overall weighted mean of 4.10. Trust in preparation level ranked highest with 4.20 and was interpreted as Highly Evident. Reduced anxiety due to practice tools followed with 4.15. Digital tools increasing exam confidence received 4.09, belief in passing certification exams received 4.07, and confidence in taking certification exams ranked lowest with 4.01. The result indicates that digital learning tools help students trust their preparation and reduce exam anxiety, although general exam confidence remains comparatively lower. This supports Li and Brown (2022), who found that interactive tools and gamified quizzes reduce test anxiety, and Laverie et al. (2020), who reported that third-party certifications helped students build confidence and job readiness.

3.3.4 Technical Skills and Digital Literacy

Technical skills and digital literacy were rated as Evident, with an overall weighted mean of 4.16. Ability to navigate certification-related software ranked highest with 4.23 and was interpreted as Highly Evident. Digital skills meeting industry expectations followed with 4.22 and was also Highly Evident. Understanding digital marketing tools required in exams received 4.15, troubleshooting minor technical issues received 4.10, and proficiency in using digital platforms ranked lowest with 4.09. The findings show that students demonstrate strong digital competence, particularly in navigating certification-related software and meeting industry expectations. This aligns with Thelma et al. (2024), who emphasized that digital literacy is essential for employability, and Madu and Ahmed (2024), who stated that awareness and effective use of digital learning management tools support marketing education outcomes.

3.3.5 Readiness for Professional and Industry Expectations

Readiness for professional and industry expectations was rated as Evident, with an overall weighted mean of 4.17. Confidence in applying digital marketing skills professionally ranked highest with 4.23 and was interpreted as Highly Evident. Belief that certification enhances career readiness followed with 4.20 and was also Highly Evident. Readiness for professional certification requirements received 4.16, understanding real-world marketing practices received 4.15, and digital tools preparing students for industry standards ranked lowest with 4.11. The result indicates that students perceive digital learning tools as useful in developing professional confidence, career readiness, and industry-related competencies. This supports Cowley et al. (2021), who found that industry certifications contribute to job readiness and career prospects, and Laverie et al. (2020), who emphasized that certification integration helps prepare students for digitally driven marketing careers.

3.4 Relationship Between Digital Learning Tools and Certification Preparedness

The manuscript reported that the computed t-values were lower than the critical values at the 0.05 level of significance and concluded that there is a significant relationship between the utilization of digital learning tools and certification preparedness among marketing students. Based on this result, the null hypothesis was rejected. This finding indicates that students' use of digital learning tools is meaningfully connected to their certification preparedness. The result is consistent with the manuscript's synthesis that digital platforms support knowledge acquisition, psychological readiness, real-time feedback, and self-directed learning (R. G. Vergara, 2023). It also supports the view that certifications and digital tools bridge the academic-industry gap and improve confidence and job readiness (Laverie et al., 2020; Cowley et al., 2021).

3.5 Acceptability of the Proposed Intervention Plan

The proposed intervention plan was rated Highly Acceptable, with an overall weighted mean of 4.31. The highest-rated indicator was that the plan would benefit the institution, with a weighted mean of 4.37. Clarity to all concerned and flexibility under different conditions both received 4.31. Institutional adoptability received 4.30, while workability and operability received 4.27. The result suggests that the proposed intervention plan is viewed as practical, beneficial, adaptable, and implementable. This finding supports the need to strengthen certification-focused learning activities, online review sessions, digital simulations, infrastructure, and faculty-supported digital instruction. It also aligns with Langan et al. (2019), who emphasized the increasing integration of digital marketing tools and certifications in higher education, and Kim et al. (2019), who noted that digital learning effectiveness depends on how tools fit learner needs and preferences.

4. Conclusion & Recommendations

Digital learning tools significantly support the certification preparedness of fourth-year BSBA Marketing Management students by strengthening skill development, knowledge acquisition, retention, problem-solving, independent learning, digital literacy, confidence, and industry-relevant competencies. The findings also indicate a significant relationship between the utilization of digital learning tools and students' certification preparedness, while recognizing that poor internet connectivity, limited device access, technical issues, and reduced engagement may hinder the full effectiveness of digital learning tools in certification preparation.

EARIST may strengthen the integration of digital learning tools in the BSBA Marketing Management program by incorporating certification-focused learning activities, online review sessions, and digital simulations aligned with industry standards. Faculty members may maximize digital platforms through virtual discussions, case studies, collaborative projects, and online assessments, while the administration may improve internet connectivity, computer facilities, accessible digital resources, and technical support. Marketing students are encouraged to actively use digital learning tools and participate in online certification review programs, webinars, and digital training opportunities. Future researchers may conduct similar studies in other programs or institutions and explore variables such as learning motivation, academic performance, technology competency, and certification outcomes. Since the proposed intervention plan was found highly acceptable, EARIST may consider its implementation, regular evaluation, and continuous monitoring to ensure alignment with students' needs and industry standards.

Compliance with ethical standards

The authors declare no conflict of interest. This study complied with recognized ethical standards for human-participant research by ensuring voluntary participation with informed consent, the right to withdraw without penalty, and strict confidentiality through anonymous, secure, and aggregated data handling. Given the focus on psychological well-being, procedures were non-invasive, and safeguards were observed to minimize discomfort, with guidance to appropriate support services when needed, and required institutional permissions were secured for instrument use and access to academic records.

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