Bridging the Theory-Practice Gap in Business Education: A Pathway to Sustainable Development

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ABSTRACT

This study examines bridging the theory-practice gap in business education to promote sustainable development. Employing a descriptive survey design, data were gathered from 210 business educators across Nigerian universities using a validated questionnaire (Cronbach's alpha = 0.88). Data were analyzed using mean, standard deviation, and independent t-tests. The findings reveal that theory-practice integration is hindered by outdated curricula, weak industry linkages, and inadequate infrastructure. Conversely, experiential learning and industry-institution collaboration significantly enhance students' practical competence, job readiness, and alignment with Sustainable Development Goals (SDGs). Neither gender nor institutional ownership significantly influenced educators' perceptions. To support sustainable development, educational institutions must fortify industry partnerships, embed experiential learning into curricula, and provide ongoing professional development for educators.

ABSTRAK

Penelitian ini mengkaji upaya menjembatani kesenjangan teori dan praktik dalam pendidikan bisnis untuk mendukung pembangunan berkelanjutan. Menggunakan desain survei deskriptif, data dikumpulkan dari 210 pendidik bisnis di universitas-universitas Nigeria melalui kuesioner terstruktur yang telah divalidasi (Cronbach's alpha = 0,88). Data dianalisis menggunakan mean, standar deviasi, dan uji-t independen. Hasil penelitian menunjukkan bahwa integrasi teori dan praktik terkendala oleh kurikulum yang usang, lemahnya kemitraan industri, serta keterbatasan infrastruktur. Kendati demikian, pembelajaran berbasis pengalaman dan kolaborasi industri-institusi terbukti secara signifikan meningkatkan kompetensi praktis mahasiswa, kesiapan kerja, serta keselarasan dengan Tujuan Pembangunan Berkelanjutan (SDGs). Variabel gender maupun status kepemilikan institusi tidak berpengaruh secara signifikan terhadap persepsi responden. Institusi pendidikan perlu memperkuat kemitraan industri dan mengintegrasikan pembelajaran praktis guna mendorong pembangunan berkelanjutan.

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KEYWORDS

Business education, Sustainable development, Theory-practice integration

Received: 09/09/2026
Revised: 23/10/2026
Accepted: 27/10/2026
Online: 31/10/2026
Published: 31/10/2026

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10.21009./joc.13.01

INTRODUCTION

Business education has become one of the most strategic disciplines for developing the human capital required to drive economic growth, innovation, entrepreneurship, and sustainable development in the twenty-first century. As economies become increasingly knowledge-driven and digitally connected, higher education Institutions are supposed to develop graduates who possess not only sound theoretical knowledge but also practical competencies, critical thinking, entrepreneurial capacity, digital literacy, problem-solving skills, and creativity that enable them to function effectively in a competitive working environment. Consequently, business education has evolved beyond its traditional emphasis on office administration and commercial subjects to encompass entrepreneurship, financial technology (FinTech), business analytics, digital business, artificial intelligence (AI), innovation management and sustainable development (Owhoeke & Nwokocha 2021). This transformation reflects the growing demand for graduates who can adapt to rapidly changing technologies, global competition, and emerging labour market expectations. The competencies needed in modern workplaces have completely changed as a result of the growing popularity of Industry 4.0 and the change to Industry 5.0. Industry 5.0 emphasizes the integration of cutting-edge technology with human ingenuity, moral judgment, sustainability, and social welfare. As a result, businesses are looking for graduates who have excellent disciplinary knowledge along with technological proficiency, digital intelligence, adaptability, emotional intelligence, collaborative problem-solving, and innovative abilities. (Raheem & Naveed, 2025). In order to prepare graduates for more complicated and technologically advanced corporate environments, higher education institutions around the world have been forced to restructure their curricula. According to Omodan (2024), higher education institutions worldwide have been obliged to reorganize their courses to prepare graduates for increasingly complex and technologically advanced business environments.

The effectiveness of any educational program is often evaluated by how well graduates apply what they have learned in the classroom to real-world professional settings. In order for students to acquire professional competence before graduation, business education must thoughtfully integrate core academic ideas with practical work experiences. This suggests that theory-practice integration is a learner-centered approach to education that uses case studies, consulting projects, cooperative education, industrial attachment, internships, business simulations, entrepreneurship projects, workplace mentoring, and collaborative industry research to combine conceptual knowledge with practical application. According to Kolapo et al. (2026), this kind of integration gives students the skills they need to analyze complex business problems, make wise judgments, adjust to changes in the workplace, and successfully contribute to organizational productivity. The greatest way to develop these skills is through experiential learning, which lets students apply their scholarly knowledge in real-world commercial settings while boosting their confidence, practical skills, and preparation for the workforce.

One of the best instructional techniques for enhancing theory-practice integration in higher education is experiential learning. Experiential learning, which has its roots in Kolb's Experiential Learning Theory, emphasizes that knowledge is produced by transforming experience through active experimentation, abstract conceptualization, reflective observation, and real experience (Rathore & Mahesh, 2025). Rather than relying exclusively on classroom instruction, experiential learning actively engages students in authentic tasks that enable them to apply theoretical concepts to practical business situations. Ramli et al. (2026) also revealed that experiential learning significantly enhances graduate employability, entrepreneurial competence, communication skills, teamwork, leadership, innovation, and workplace readiness. Which contribute to Sustainable Development by encouraging learners to address practical economic, environmental, and social challenges through innovative and collaborative problem-solving .

The increasing significance of industry-institution partnership in enhancing educational quality and graduation outcomes is closely connected to experiential learning. In order to ensure that academic programs continue to be relevant to the demands of the labor market while simultaneously offering students significant experience to the workplace, collaboration between universities and business has become a crucial tool. Curriculum development, industrial attachment, internship placement, guest lectures, cooperative research, technology transfer, entrepreneurial incubation, and professional mentorship are all supported by these collaborations.

Through these collaborative efforts, universities gain access to current industry practices, while employers promote the development of graduates with capabilities in line with modern workplace expectations (Abraham & Franklin, 2026). Strong university-industry collaboration is therefore an effective strategy for closing the persistent gap between academic learning and professional practice. Effective integration of theory and practice is still a major difficulty in many developing nations, including Nigeria, despite these global advancements. Business education in

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many Nigerian universities continues to be dominated by lecture-oriented instruction with extremely few opportunities for industrial exposure, technology-enhanced instruction, business incubation, and workplace learning, contrary to the introduction of several curriculum reforms to improve competency-based education. The successful implementation of practical learning experiences is still hampered by a lack of funding, outmoded classrooms, inadequate digital infrastructure, weak university-industry collaborations, packed classrooms, and few opportunities for industrial attachment (Egunjobi & Ademishola, 2024). These difficulties make it harder for graduates to develop the practical skills needed for work, entrepreneurship, and lifelong learning.

In the opinion of AbdulRafiu et al. (2025), implications of insufficient theory-practice integration are becoming more noticeable in the workplace. Employers often identify shortcomings in practical competence, communication skills, innovation, teamwork, digital literacy, and workplace preparation, notwithstanding the fact that many graduates of business education show good academic achievement. As a result, a lot of companies spend a lot of money retraining recent graduates before they can function well in work settings (Traoret et al., 2026). This persistent mismatch between university training and job market expectations leads to graduate unemployment, underemployment, reduced organizational productivity, and slower national economic development. Effective theory-practice integration has grown in significance for attaining sustainable development, going beyond employability. Graduates with entrepreneurial skills, creative thinking, moral leadership, environmental responsibility, and the capacity to generate sustainable corporate solutions that can tackle difficult social issues are needed for the advancement of sustainability. The United Nations' Sustainable Development Goals (SDGs), namely SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation, and Infrastructure), and SDG 17 (Partnerships for the Goals), affirm this relationship and emphasize competency-based education, lifelong learning, innovation, and strong partnerships between educational institutions and industry as essential drivers of inclusive and sustainable development (Adeshina & Obokoh, 2026). This indicates that improving theory-practice integration in business education has emerged as a national development priority as well as an educational requirement.

A relatively small number of studies have examined how industry-institution collaboration and experiential learning work together to bridge the theory-practice gap in business education courses offered within Nigerian higher education institutions, contrary to the fact that experiential learning, graduate employability, entrepreneurship education, work-integrated learning, and university-industry collaboration have all been studied independently in the literature. This constitutes a substantial knowledge gap because graduates with the skills necessary to meet the demands of the modern labor market and make a meaningful contribution to sustainable national development should be produced through the successful integration of academic instruction with real-world experience. With the ultimate goal of offering evidence-based suggestions for enhancing curriculum implementation, graduate employability, and sustainable development, this study investigated the degree to which experiential learning and industry-institution collaboration improve theory-practice integration in Business Education programs in Nigerian universities.

Statement of the Problem

Developing graduates with the entrepreneurial skills, practical competences, knowledge, and professional attitudes required for the workforce and sustainable national growth is the main objective of business education. Integrating theoretical training with real-world learning experiences is crucial to achieving this goal. Many business education graduates from Nigerian institutions still lack the practical skills that businesses require, amid ongoing curriculum revisions and the increasing acceptance of competency-based education. Programs continue to be primarily theory-driven, with little industry collaboration and little student involvement in industrial attachments, internships, business simulations, and entrepreneurial incubation. As a result, graduates depart with strong theoretical knowledge but insufficient skills for employment, starting their own business, and performing well at work.

As noted by Adebola and Hoffman (2026), as digital technologies, artificial intelligence, automation, big data, and Industry 5.0 transform the global corporate environment, this gap has grown more and more critical. Many graduates are unable to satisfy the demands of employers, which include practical problem-solving skills, digital competences, innovative abilities, teamwork, adaptability, and entrepreneurial mindsets. Rising graduate unemployment, underemployment, decreased productivity, mismatched skills, and higher retraining expenses are the outcomes. Outdated curricula, insufficient university-industry collaboration, inadequate funding and facilities

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for instruction, limited opportunities for industrial connection, and a shortage of professional development for business educators all contribute to the problem. Some consequences go beyond work. Underprepared graduates subsequently impede Nigeria's progress toward SDGs 8 (Decent Work and Economic Growth), 9 (Industry, Innovation and Infrastructure), 17 (Partnerships for the Goals), and 4 (Quality Education). A workforce that can promote creativity, entrepreneurship, and moral corporate conduct is essential to sustainable growth. Although employability, entrepreneurship education, experiential learning, and university-industry collaboration have all been examined in the past, the majority of these studies have been conducted independently.

Few studies provide insight into how industry-institution partnership and experiential learning promote theory-practice integration in Nigerian business education, or whether attitudes differ by gender and institutional ownership. Without such evidence, the cycle of unemployed graduates and stalled national growth will continue, and policy attempts and curriculum reform run the risk of remaining speculative. This study examines the extent to which industry-institution collaboration and experiential learning enhance theory-practice integration in business education programs in Nigerian universities, to improve graduate employability and position business education as a strategic driver of sustainable national development. The main purpose of this study was to examine the role of bridging the theory–practice gap in Business Education in promoting sustainable development. Specifically, the study sought to:

1. examine the the extent to which experiential learning enhances theory–practice integration and develops practical, employability, and workplace-readiness competencies in Business Education programmes in Nigerian universities.
2. ascertain the extent to which industry–institution collaboration enhances theory–practice integration through employability, internships, innovation, curriculum relevance, and practical learning

Research Questions

1. How extent does experiential learning enhance theory–practice integration and develop practical, employability, and workplace-readiness competencies among Business Education students in Nigerian universities?
2. To what extent does industry–institution collaboration enhance theory–practice integration through employability, internship opportunities, innovation, curriculum relevance, and practical learning in Business Education programmes in Nigerian universities

Research Hypotheses

H_{01}: Based on gender, experiential learning does not significantly enhance theory–practice integration and the development of practical, employability, and workplace-readiness competencies in Business Education programmes in Nigerian universities

H_{02}: In business education programmes based on ownership, Industry–institution collaboration does not significantly enhance theory–practice integration, employability, internship opportunities, innovation, curriculum relevance, and practical learning in Business Education programmes in Nigerian universities

Literature Review

Concept of Business Education

The comprehensive field of business education equips students with the skills, knowledge, aptitudes, and mindsets required to thrive in the contemporary corporate environment. Developments in technological advances, globalization, artificial intelligence (AI), and Industry 5.0 have expanded its scope, even if its original focus was on preparing students for positions in clerical, accounting, secretarial, and administrative professions. According to Musa et al. (2025), modern business education nowadays strongly emphasizes entrepreneurship, digital literacy, financial intelligence, innovation, sustainability, critical thinking, and lifelong learning in order to adequately prepare graduates for both paid labor and self-employment. Business education promotes the development of human capital by cultivating the technical and transferable skills required for productivity, organizational efficacy, and national economic success. Beyond academic knowledge, it prepares students with the digital competencies, problem-solving, communication, teamwork, ethical decision-making, and flexibility that businesses are

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increasingly demanding. Based on Odigili and Omoroije (2025), these attributes are essential for improving graduate employability and occupational success.

Through competency-driven instruction and hands-on learning experiences, business education in higher education is intended to bridge the gap between classroom expertise and workplace reality. In order to improve students' practical competency and employability, universities are including internships, industrial attachment, business simulations, project-based learning, entrepreneurial education, and work-integrated learning into their courses. Additionally, UNESCO promotes competency-based and learner-centered programs that equip graduates for sustainable development and gainful employment. In Nigeria, entrepreneurship, economic diversification, and graduate unemployment are all greatly aided by business education. Graduates from the program are expected to have both entrepreneurial skills and occupational competence. However, research indicates that to increase graduates' employability, more workplace requirements must be incorporated into curriculum implementation (Shokunbi et al., 2025).

The objective of business education in higher education is to bridge the knowledge gap between the classroom and the workplace through competency-driven instruction and practical learning experiences. Universities are integrating internships, industrial attachment, business simulations, project-based learning, entrepreneurial education, and work-integrated learning into their educational programs to enhance students' practical competency and employability. UNESCO also supports learner-centered and competency-based programs that prepare graduates for gainful employment and sustainable development. Business education plays an important role in entrepreneurship, economic diversification, and graduate unemployment in Nigeria. It is required of program graduates to possess both vocational competence and entrepreneurship skills. However, research shows that integrating more workplace needs into curricula is essential in order to boost graduates' employability (Shokunbi et al., 2025).

Theory–Practice Integration in Business Education

Theory-practice integration, which connects classroom training with real-world job experiences, is a cornerstone of business education. Students' critical thinking, problem-solving, professional competence, and job readiness are all improved by applying theoretical knowledge to actual business situations. This approach recognizes that effective learning requires both theory and practice. The rapid advancement of digital technology, artificial intelligence, globalization, and Industry 5.0 has increased demand for graduates with digital, entrepreneurial, and practical abilities. Therefore, university classroom education will be supplemented with experiential learning through internships, industrial attachment, business simulations, case-based learning, entrepreneurship initiatives, and industry engagement. These strategies strengthen students' professional abilities and increase their ability to adapt to changing industry demands. Theory-practice integration also improves graduate employability by exposing students to real-world work environments where they may refine their leadership, teamwork, communication, ethical behavior, and decision-making skills. However, its implementation is still hampered in many developing countries by outdated curricula, inadequate facilities, weak university-industry collaborations, limited opportunities for industrial interaction, and a lack of funding.

In order to close the gap between theory and practice, Nthako and Khumalo (2025) advocated increased industry collaboration and genuine workplace participation. Beyond improving employability, theory-practice integration supports sustainable development by equipping graduates with skills for entrepreneurship, innovation, and ethical business practices that align with the Sustainable Development Goals (SDGs 4, 8, 9, and 17) of the United Nations. Few empirical studies have looked at theory-practice integration in Business Education programs at Nigerian universities, despite the topic being widely discussed in higher education. This is especially true when it comes to the combined roles of experiential learning and industry-institution collaboration. In order to close this gap, this study looks at how these tactics improve sustainable development and theory-practice integration.

Experiential Learning as a Tool for Theory–Practice Integration

A learner-centered approach, experiential learning fosters the acquisition of knowledge through experience, introspection, and real-world application. It is a useful tactic for enhancing theory–practice integration in business education since it enables students to transfer what they have learnt in the classroom to practical situations. scenarios. It is based on Kolb's Experiential Learning Theory. Industrial attachment, internships, business simulations, entrepreneurship projects, case studies, mentoring, and field trips are some of the ways that

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experiential learning is accomplished in business education. By exposing students to real-world working settings, these activities foster the development of their problem-solving, communication, cooperation, leadership, and decision-making abilities. According to Owhoeke and Nwokocha (2021), students' practical competence, employability, and workplace preparation can all be greatly enhanced through experiential learning. Additionally, it fosters creativity and entrepreneurship by empowering students to recognize business possibilities and acquire useful entrepreneurial skills. Despite these perks, Quiros et al. (2025) found that inadequate finance, few industrial connections, a lack of internship opportunities, and inadequate educational facilities hinder experiential learning in many developing nations. These difficulties aggravate the discrepancy between graduates' skills and what employers demand.

Nigerian universities provide a variety of business education programs, notably SIWES, entrepreneurial education, industry attachment, and teaching practice; however, each university implements these programs differently. Strengthening experiential learning through improved university-industry collaboration, enough finance, and competency-based instruction would assist Sustainable Development Goals 4, 8, and 9 and increase graduate employability. This implies that experiential learning is a helpful paradigm for improving theory-practice integration and graduation preparedness. However, there hasn't been a comprehensive empirical investigation of its combined effect with industry-institution collaboration on theory-practice integration in business education programs in Nigerian universities. The current investigation is based on this gap.

Industry–Institution Collaboration

Industry-institution collaboration is an essential approach for enhancing the quality and relevance of higher education by synchronizing teaching, research, and skill development with the demands of the labor market (OECD, 2023). Business education integrates partnerships between academic institutions and business in many ways, including curriculum development, internships, industrial attachment, joint research, entrepreneurship, mentoring, and technology transfer. These partnerships bridge the knowledge gap between classroom instruction and industrial practice while exposing students to modern industry norms and employer expectations (Piyasena et al., 2026). Industry engagement increases curriculum relevance by ensuring that academic programs reflect technological innovation, digital transformation, and shifting employment requirements (UNESCO, 2024). Furthermore, it promotes experiential learning through the provision of industrial attachment and internship opportunities designed to help students acquire employment prospects, workplace competence, and practical skills (Adeshina & Obokoh, 2026). Beyond classroom instruction, university-industry collaborations foster inventiveness, entrepreneurship, and cooperative research, enabling students to apply their theoretical knowledge to a real-world business environment.

Despite these perks, inadequate financial management, lax institutional guidelines, minimal industry participation, and a limited number of internship opportunities continue to hinder successful business-institution partnerships in Nigeria. These difficulties diminish graduates' readiness for the workforce and add to the ongoing disconnect between the demands of the labor market and university education. By enhancing employment, innovation, stakeholder coalitions, and educational quality, industry-institution collaboration also accomplishes Sustainable Development Goals 4, 8, 9, and 17 (United Nations, 2023). There is no empirical data on how industry-institution collaboration explicitly improves theory-practice integration in business education programs in Nigerian institutions, despite the fact that previous research has looked at university-industry partnerships and graduate employment. This gap is the driving force behind the current scholarly investigation.

Sustainable Development and Business Education

Business education is crucial to the advancement of sustainable development, considering that it equips students with the entrepreneurial mindsets, expertise, skills, and mindsets required for innovation, successful employment, and moral business practices. As globalization, digital transformation, artificial intelligence, and Industry 5.0 transform the workplace, business education is increasingly focusing on digital literacy, creativity, adaptability, ethical leadership, and lifelong learning to prepare graduates for sustainable economic growth (UNESCO, 2024). One important method that business education promotes sustainable development is through integrating theory and practice through experiential learning and industry-institution collaboration.

Students' employability, innovative thinking, and workplace competency are improved through hands-on learning experiences including internships, industrial attachment, entrepreneurship projects, and group research.

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Furthermore, connections between business and higher education enhance workforce development, entrepreneurship, technology transfer, and curricular relevance, all of which support sustainable economic growth (Kolajo et al., 2026). By encouraging quality education, employability, innovation, and stakeholder collaboration, business education also directly contributes to the fulfillment of SDGs 4 (Quality Education), 8 (Decent Work and Economic Growth), 9 (Industry, Innovation and Infrastructure), and 17 (Partnerships for the Goals) (United Nations, 2023). However, outmoded curricula, insufficient finance, a lack of opportunities for hands-on learning, and weak university-industry relationships hinder its efficacy in Nigeria, leading to ongoing graduate skills mismatch and unemployment (UNESCO, 2024). All things considered, business education is still a crucial instrument for sustainable growth. However, little empirical research has looked at how industry-institution cooperation and experiential learning work together to improve theory-practice integration in business education programs in Nigerian universities. By presenting data on their contribution to sustainable development, this study fills this vacuum.

METHODS

In order to gather input from business educators and lecturers regarding how business education programs integrate theory and practice at Nigerian universities, the study employed a descriptive survey research technique. The strategy was considered appropriate since it facilitates data collection from a particular group without altering the study variables. The study's population consisted of 210 business education professors and instructors from certain Nigerian universities that provided business education programs. Since the population size was appropriate, the researchers employed a census technique by including each respondent in the study. Consequently, no sampling technique was applied. Data were collected using the Theory–Practice Integration in Business Education Questionnaire (TPIBEQ), a standardized questionnaire. The instrument was split into two parts. Section A asked respondents about their demographics, whereas Section B had standardized measures assessing experiential learning, industry-institution collaboration, and the challenges influencing theory-practice integration. The questionnaire was formatted using a four-point Likert scale, with VHE 4.0–3.5, HE 3.49–2.5, LE 2.49–1.5, and VLE 1.49–1.0. To ensure the validity of the instrument, its face and content were verified by three experts in the Department of Business Education and Test and Measurement Evaluation. Before the instrument's final administration, their recommendations and remarks were taken into account. A pilot study was used to evaluate the questionnaire's dependability. Cronbach's Alpha reliability analysis, which produced a value of 0.88, indicated that the instrument had a good degree of internal consistency and was appropriate for the study. After acquiring the required consent from the participating colleges, the researchers personally administered the questionnaire with the help of experienced research assistants. The goal of the study was sufficiently explained to the respondents, and they were guaranteed the privacy of the data they submitted. Every questionnaire that was sent was successfully recovered and determined to be appropriate for the study. Both descriptive and inferential statistics were used to analyze the data. Standard deviation. Deviation was used to address the study's problems, and the Independent Samples t-test was used to assess the null hypotheses at the 0.05 level of significance. A criterion mean of 2.50 was used to determine whether each questionnaire item was accepted or rejected.

RESULTS AND DISCUSSIONS

RESULTS

Research Question One

To what extent does experiential learning enhance theory–practice integration and develop practical, employability, and workplace-readiness competencies in Business Education programmes in Nigerian universities

Table 1: Mean Responses on the extent to which experiential learning improves theory-practice integration and develops practical, employability and workplace-readiness competencies in business education programmes in Nigerian universities

S/N	Questionnaire items	X	SD	Remarks
1	Students' practical competency is enhanced through business simulation exercises	2.85	1.09	HE
2	Programs for internships improve students' employability skills	2.99	1.31	HE
3	Students can apply what they learn in the classroom to actual industry scenarios through industrial attachment	3.01	0.78	HE

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4	The acquisition of critical thinking and problem-solving skills is fostered via experiential learning	2.86	1.01	HE
5	Projects involving entrepreneurship improve practical business knowledge	2.40	0.69	LE
	Grand mean	**2.82**	**0.98**	**HE**

The findings provide evidence of several theory–practice outcomes that constitute pathways through which Business Education can contribute to sustainable development. The overall mean of 2.82 indicates that respondents generally perceived experiential learning as contributing to theory–practice integration. In particular, internship programmes were perceived to enhance employability skills (M = 2.99), while industrial attachment enabled students to apply classroom knowledge to actual industry situations (M = 3.01). These outcomes are relevant to SDG 4. After all, they demonstrate the development of practical and competency-based learning outcomes, and to SDG 8 because they strengthen students' preparedness for employment and productive economic participation. The finding should therefore be interpreted as evidence of the developmental pathway created by experiential learning rather than as direct evidence of SDG attainment.

Research Question two

How extent does industry–institution collaboration enhance theory–practice integration through employability, internships, innovation, curriculum relevance, and practical learning.

Table 2: Mean Responses on the extent to which industry-institution collaboration enhances effectiveness of theory-practice integration through employability. Internships, innovation, curriculum relevance and practical learning in Business Education program

S/N	Questionnaire items	X	SD	Remarks
1	Collaboration across industrial sectors enhances graduates' job prospects	3.78	0.76	VHE
2	Industrial cooperation enhances internship opportunities of business education program	3.16	0.19	HE
3	Innovation is strengthened by collaborative research between educational organizations and business	2.57	1.23	HE
4	Industry professionals' guest lectures promote hands-on instruction of business education program	3.05	0.87	HE
5	Curriculum relevance can be enhanced through industry collaboration	2.51	0.75	HE
	Grand Mean	**3.01**	**0.76**	**HE**

The findings from industry–institution collaboration provide further evidence of the mechanisms through which Business Education can support sustainable development. The highest-rated item concerned the contribution of industrial collaboration to graduates' job prospects (M = 3.78, SD = 0.76), while collaboration also supported internship opportunities (M = 3.16, SD = 0.19), practical instruction through industry professionals' guest lectures (M = 3.05, SD = 0.87), innovation through collaborative research (M = 2.57, SD = 1.23), and curriculum relevance (M = 2.51, SD = 0.75). These outcomes correspond to the educational and workforce-development dimensions associated with SDGs 4, 8 and 9, while the partnership itself provides a clear institutional mechanism relevant to SDG 17. Nevertheless, these findings should be regarded as indicators of contribution pathways rather than direct measurements of SDG achievement

Testing of Hypotheses

H_{01}: Experiential learning does not significantly enhance theory–practice integration and the development of practical, employability, and workplace-readiness competencies in Business Education programmes in Nigerian universities based on gender

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Table 3: T-test Analysis on the extent to which experiential learning significantly enhances the interaction of theory and practice development, employability and workplace-readiness competencies in business education programmes in Nigerian universities

Attribute	N	Mean	SD	t-cal	DF	P-value	Decision
Male	90	2.52	0.26				
				2.01	208	0.046	Retained
Female	120	2.19	0.34				

The independent samples t-test analysis of whether experiential learning greatly improves the connection between theory and practice in business education programs at Nigerian institutions according to gender is shown in Table 3. According to the findings, male respondents obtained an average score of 2.52 (SD = 0.26), whereas female respondents reported an average score of 2.19 (SD = 0.34). Despite the fact that the mean score of male respondents was somewhat higher than that of female respondents, the difference was not statistically significant (t = 2.01, df = 208, p = 0.046) because the p-value was above the significance level of 0.05. The null hypothesis, which was retained, indicates that respondents' opinions of how much experiential learning strengthens the connection between theory and practice in business education programs in Nigerian institutions are not significantly influenced by gender.

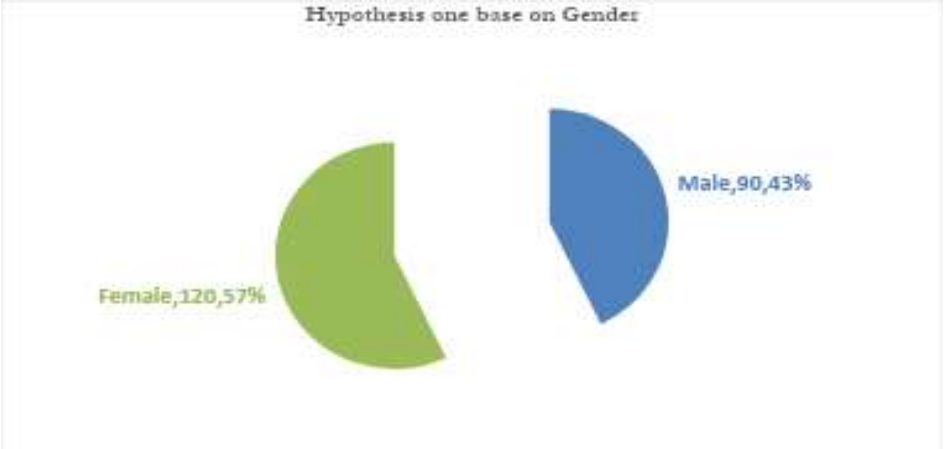


Figure 1. Hypothesis one base on gender

H_{02}: Industry–institution collaboration does not significantly enhance theory–practice integration, employability, internship opportunities, innovation, curriculum relevance, and practical learning in Business Education programmes in Nigerian universities based on ownership.

Table 4: T-test Analysis on the extent to which Industry-institution collaboration significantly enhances the interaction between theory and practice integration, employability, internship opportunities, innovation, curriculum relevance and practical learning in business education programs in Nigerian universities based on ownership

Variable	N	Mean	SD	t-cal	DF	P-value	Decision
Private universities	78	3.12	0.46				
				2.09	208	0.038	Retained
Public universities	132	3.29	0.74				

The independent samples t-test analysis of whether industry-institution collaboration significantly enhances the interaction between theory and practice in business education programs in Nigerian universities based on institutional ownership is presented in Table 4. In line with the findings, respondents from private universities (M = 3.12, SD = 0.46) had a slightly lower mean score than those from public universities (M = 3.29, SD = 0.74). Despite the p-value exceeding the significance level of 0.05, the difference between the two groups was not statistically significant (t = 2.09, df = 208, p = 0.038). As a result, the null hypothesis was upheld, showing that respondents' assessments of how much industry-institution collaboration improves the interaction between theory and practice in business education programs in Nigerian universities are not significantly influenced by institutional ownership.

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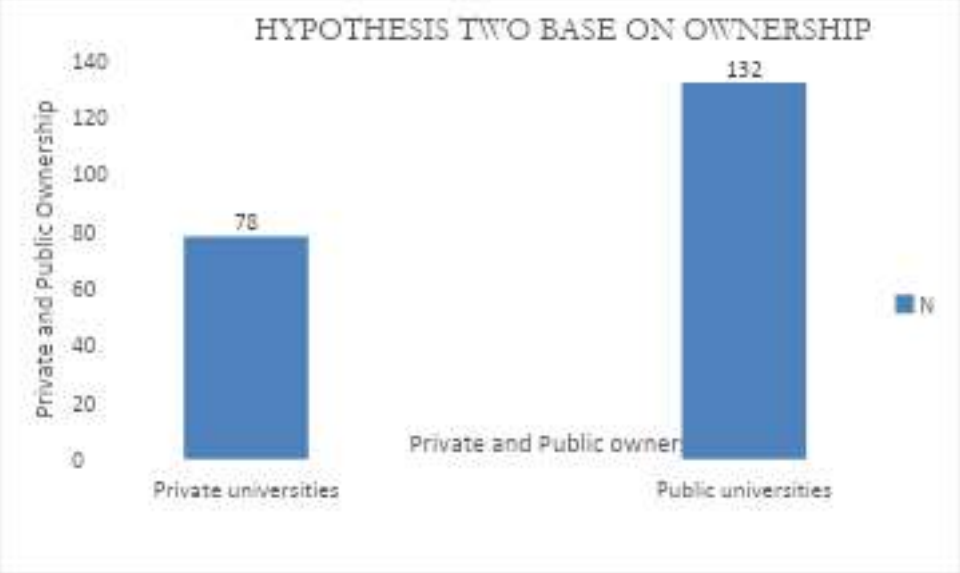


Figure 2. Hypothesis two base on ownerships

DISCUSSION OF FINDINGS

This study examined how experiential learning and industry–institution collaboration enhance theory–practice integration in Business Education programmes in Nigerian universities, and whether business educators' perceptions of these strategies differ by gender and institutional ownership. Taken together, the results show that both strategies were rated as contributing to a high extent (grand means of 2.82 for experiential learning and 3.01 for industry–institution collaboration, against a criterion mean of 2.50). The item-level results, however, show that this contribution is uneven. The discussion below therefore considers not only what was rated highly, but also which dimensions fell short, why this may be so in the Nigerian context, and what the pattern implies for the contribution of Business Education to sustainable development.

The grand mean of 2.82 (SD = 0.98) for Research Question One indicates that business educators perceive experiential learning as a high-extent contributor to theory–practice integration. The strongest ratings were for industrial attachment (M = 3.01), through which students apply classroom knowledge to real industry scenarios, and internship programmes (M = 2.99), which were seen to improve employability skills. This is consistent with Kolb's Experiential Learning Theory, which holds that knowledge is created through concrete experience, reflective observation, abstract conceptualisation and active experimentation (Rathore & Mahesh, 2025). It also agrees with Piyasena et al. (2026), who found that work-integrated learning increases graduate employability and workplace preparation, and with Ademiluyi and Oyedele (2018), who stressed that meaningful learning happens through experience. From the viewpoint of those who teach and supervise students, the result gives empirical support to the argument of Owhoeke and Nwokocha (2021) that practical exposure is central to closing the skills gap in the Business Education curriculum. The prominence of industrial attachment and internship is not surprising in the Nigerian setting, where both are institutionalised through the Students' Industrial Work Experience Scheme (SIWES) and are therefore the most visible and most regularly implemented forms of experiential learning in the programme.

Business simulation exercises (M = 2.85) and the development of critical thinking and problem-solving skills through experiential learning (M = 2.86) were also rated as high-extent, although only modestly above the criterion mean. This pattern suggests that classroom-based experiential methods are in use, but perhaps less intensively than workplace placements. The result on problem-solving agrees with Raheem and Naveed (2025), who noted that experiential learning fosters creativity, problem-solving skills and durable competences in university students, and with Ramli et al. (2026), who associated experiential approaches with entrepreneurial competence, communication, teamwork and workplace readiness.

The one exception was entrepreneurship projects, which recorded a mean of 2.40 (SD = 0.69) and fell below the criterion mean. Educators therefore do not currently believe that entrepreneurship projects improve students' practical business knowledge to a high extent, even though they rated the other four forms of experiential learning

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favourably. A plausible explanation lies in the resource demands of this activity. Entrepreneurship projects require start-up capital, incubation space, mentors and access to markets, which are the very conditions that the literature identifies as scarce in Nigerian institutions: inadequate funding, outdated facilities and weak industrial linkages (Egunjobi & Ademisola, 2024; Quiros-Alpera et al., 2025). Where such projects are delivered as written business plans or classroom exercises, they remain theoretical rather than experiential. Musa et al. (2025) similarly point to a gap between curriculum design and classroom practice in entrepreneurship education. This finding deserves attention because Business Education graduates are expected to create jobs as well as fill them, and the weakest-rated component is the one most directly connected to that expectation.

The dispersion of responses adds a further layer to the interpretation. The standard deviations for internship programmes (SD = 1.31) and business simulation (SD = 1.09) were considerably larger than that for industrial attachment (SD = 0.78), which indicates substantial disagreement among respondents about how effective these activities are. This is in line with the observation that universities implement the same experiential programmes in different ways, so that the quality of placements, supervision and host organisations varies from one institution to another. The mean scores alone therefore mask an inconsistent experience across institutions.

The grand mean of 3.01 (SD = 0.76) for Research Question Two shows that industry–institution collaboration was perceived to enhance theory–practice integration to a high extent. The highest-rated item in the entire study was the contribution of collaboration across industrial sectors to graduates' job prospects (M = 3.78, SD = 0.76), and it was the only item rated very highly. Educators evidently see collaboration first and foremost as a bridge to the labour market. This is consistent with Adebola and Hoffman (2026), who observed that industry–university cooperation fosters graduate employability, innovation and curriculum relevance, and with the OECD (2023), which highlighted that stronger partnerships between higher education institutions and industry improve students' workplace competencies and labour-market readiness. Internship opportunities (M = 3.16) recorded the smallest standard deviation in the study (SD = 0.19), indicating near-consensus. This is logical, because internship places belong to employers: a university cannot secure attachments without host organisations, so respondents were almost unanimous that industrial cooperation is what makes placements available. Guest lectures by industry professionals (M = 3.05) were also rated highly. They are a relatively low-cost and low-commitment form of engagement that brings current business practice into the classroom, which may explain their favourable rating. These results support Shokunbi et al. (2025), who urged closer collaboration between universities and industry to prepare graduates with the competencies required in the modern workplace, and Nthako and Khumalo (2025), who advocated increased industry collaboration and genuine workplace participation.

In contrast, collaborative research as a driver of innovation (M = 2.57, SD = 1.23) and the role of industry collaboration in improving curriculum relevance (M = 2.51, SD = 0.75) were only marginally above the criterion mean of 2.50, and should be read with caution. Educators appear to value collaboration for the benefits it delivers directly to students, namely placements, lectures and job access, but are less convinced that it currently shapes research and curriculum content. Joint research requires sustained funding, clear arrangements for intellectual property and an industry culture of research and development, which are not yet well developed in the Nigerian context. The large standard deviation for innovation also suggests a split in experience, with some institutions having active research partnerships and many having none. The low rating for curriculum relevance echoes the finding that outdated curricula hinder theory–practice integration (Owhoeke & Nwokocha, 2021; UNESCO, 2024). If industry practitioners are not involved in curriculum review, outdated content will persist regardless of how many students are placed on attachment.

Hypothesis one was retained at the 0.05 level of significance, indicating no significant difference between male and female respondents in their perception of the extent to which experiential learning enhances theory–practice integration. Educators of both genders work within the same curriculum framework and share exposure to the same national programmes such as SIWES, so similar views are plausible. This suggests that experiential learning is regarded as equally beneficial by male and female business educators. Equal perception of a strategy's value should not, however, be taken to mean equal access to its benefits. Egunjobi and Ademisola (2024) document persistent gender gaps in entrepreneurship and technology-related opportunities in Nigeria. The present study measured educators' perceptions, not students' access to placements or entrepreneurial opportunities, so whether male and female students benefit equally remains an open question for future research.

A comparison of the two research questions is instructive. Collaboration (M = 3.01) was rated higher than experiential learning (M = 2.82), and its highest-rated items concern access to the workplace. The two strategies

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appear to be interdependent: the most highly rated forms of experiential learning, which are industrial attachment and internship, depend on industry partnerships, whereas the lowest-rated form, entrepreneurship projects, depends more on resources that the institution itself must provide. The bottleneck may therefore lie less in the soundness of either strategy than in institutional capacity to deliver the components that universities themselves control. This reading is an interpretation of the pattern, since a descriptive survey cannot test it directly, but it is consistent with the view that university–industry collaboration is an effective strategy for closing the gap between academic learning and professional practice (Abraham & Franklin, 2026; Davidson & Chase, 2025).

Hypothesis two was likewise retained, showing that educators in public and private universities do not differ significantly in their assessment of how far industry–institution collaboration enhances theory–practice integration, although the public universities recorded a slightly higher mean (M = 3.29) than the private universities (M = 3.12). One reason may be that both categories of university operate under the same regulatory and accreditation requirements of the National Universities Commission and the same national arrangement for industrial training, which sets a common minimum standard of exposure. Differences in context may also offset each other: public universities tend to have larger enrolments, longer-established industry networks and government-linked placement channels, while private universities have smaller cohorts, closer supervision and more flexible, commercially motivated partnerships. The similarity of views suggests that the challenges of weak linkages, infrastructure and curriculum relevance are system-wide rather than specific to ownership. It may further indicate that institutional commitment matters more to successful collaboration than ownership status, although this is an inference because institutional commitment was not measured in this study.

CONCLUSION

The study's findings show that industry-institution cooperation and experiential learning are crucial tactics for enhancing the connection between theory and practice in business education programs in Nigerian higher education institutions. The results show that while industry-institution relationships increase graduate employability, internship opportunities, innovation, and curricular relevance, experiential learning improves students' practical competence and job preparation. Additionally, the study found that respondents' opinions of these tactics were not much affected by institutional ownership or gender, suggesting that they are broadly applicable throughout business education programs. Therefore, it is essential to combine experiential learning with long-term business partnerships to produce qualified graduates who can meet the evolving demands of the contemporary job market.

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