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DIGITALIZATION OF ACCOUNTING LECTURES AND STUDENTS' PERFORMANCE IN NIGERIAN UNIVERSITIES

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Abstract: Poor academic performance among accounting students has raised concerns regarding the effectiveness of conventional teaching methods in Nigerian universities, thereby increasing the need for digitalized instructional approaches. This study examined the influence of digitalization of accounting lectures on students' academic performance in Nigerian universities, focusing on e-learning platforms, virtual/online lecture delivery, and digital instructional materials. A quantitative survey research design was adopted, while data were collected through a structured questionnaire administered to undergraduate accounting students selected from 18 universities across the six geopolitical zones of Nigeria. Out of 379 copies of the questionnaire distributed, 358 were properly completed and returned for analysis. Descriptive statistics and multiple regression analysis were used to analyse the data. The findings revealed that e-learning platforms ($\beta = 0.431$, $p < 0.05$), virtual/online lecture delivery ($\beta = 0.445$, $p < 0.05$), and digital instructional materials ($\beta = 0.303$, $p < 0.05$) exerted positive and statistically significant effects on students' academic performance. The study concluded that digitalized accounting lectures significantly enhance students' learning outcomes and academic achievement. The study recommended increased investment in digital learning infrastructure and technology-driven instructional strategies in Nigerian universities.

Keywords: *Digitalization, E-learning platforms, Virtual lectures, Digital instructional materials, Academic performance, Accounting education*.

JEL Classification: I23, I29, O33, M41, J24

1.0 Introduction

The rapid advancement of digital technologies has fundamentally transformed the landscape of higher education across the globe, with accounting education experiencing significant shifts from traditional lecture-based approaches to digitally mediated instructional systems.. Globally, institutions are integrating e-learning platforms, virtual lecture delivery, and digital instructional materials to enhance flexibility, accessibility, and student engagement. This transition has been accelerated by the need to align education with the demands of a technology-driven economy and the realities of modern learning environments.

In accounting education, digitalization has become important due to the evolving manner of the profession that now relies heavily on digital tools such as cloud accounting systems, data analytics, and simulation technologies. Recent studies indicate that digital accounting education enhances students' analytical skills, problem-solving abilities, and innovative capacity, thereby improving overall learning outcomes (Al-Hattami, 2023; Tettamanzi et al., 2023). Similarly, Safeei et al. (2026) note that the digital transformation of accounting

requires a corresponding shift in teaching strategies to adequately prepare students for contemporary workplace demands. Empirical evidence further demonstrates that digital learning tools positively influence students' academic performance. For instance, Noori et al (2023) found that the use of online learning platforms improves students' engagement and understanding of accounting concepts. Likewise, Kottara et al. (2025) reported that blended learning environments supported by digital tools significantly enhance students' performance, retention, and satisfaction. In addition, studies on gamified and technology-enhanced learning reveal that digital tools increase student engagement and contribute to improved academic outcomes (James et al., 2024).

In the Nigerian setting, the incorporation of digital learning in accounting education has gained momentum, particularly in response to the COVID-19 pandemic. Studies by Noori et al (2025) show that e-learning platforms enhance students' participation, collaboration, and motivation in accounting courses, although infrastructural challenges persist Similarly, Onuoha et al (2025) highlight that while digital learning offers significant opportunities for improving accounting education, issues such as poor internet connectivity, limited digital literacy, and inadequate institutional support continue to affect its effectiveness

Despite the growing body of literature, findings on the impact of digitalization on students' academic performance remain mixed and inconclusive. While many studies report positive effects, others suggest that contextual factors such as technological infrastructure, student readiness, and instructor competence may moderate the relationship. Moreover, existing studies often treat digital learning as a broad construct without adequately disaggregating its components. There is limited empirical evidence examining the distinct effects of e-learning platforms, virtual/online lecture delivery, and digital instructional materials on students' academic performance, particularly within Nigerian universities.

This gap highlights the need for a more focused and decomposed analysis of digitalized accounting lectures. Consequently, this study evaluates the effect of e-learning platforms, virtual lecture delivery, and digital instructional materials on students' academic performance in Nigerian universities. By adopting this approach, the study provides a more nuanced understanding of how specific dimensions of digitalization contribute to learning outcomes in accounting education.

2.0 Literature Review and Conceptual Framework

2.1 E-Learning Platforms and Accounting Education

E-learning platforms are digital systems that support online teaching and learning through content delivery, interaction, and assessment. Common examples include Moodle, Google Classroom, and Blackboard. These platforms enable flexible, self-paced learning and facilitate communication between students and instructors. Empirical studies highlight the significant role of e-learning platforms in enhancing accounting education. Noori et al. (2023) found that online learning platforms improves students' engagement, flexibility, and academic performance by enabling interactive and personalized learning experiences. Similarly, Noori et al. (2023) further report that technology-enhanced learning environments increase students' retention, participation, and critical thinking abilities in accounting courses. In the Nigerian context, Noori et al (2025) observe that interactive e-learning platforms significantly enhance students' engagement, collaboration, and motivation in

accounting education, although challenges such as poor internet connectivity and limited digital literacy remain.

2.2 Virtual/Online Lecture Delivery

Virtual or online lecture delivery refers to the use of digital communication technologies such as Zoom, Microsoft Teams, and video conferencing tools to conduct lectures remotely. This mode of instruction enables real-time interaction between lecturers and students, regardless of geographical location. The concept gained prominence during the COVID-19 pandemic and has since become a core component of digital education. According to Babalola et al. (2023), virtual learning environments provide new pathways for delivering education through synchronous and asynchronous methods, enhancing accessibility and flexibility in higher education. However, the effectiveness of virtual lecture delivery depends on factors such as internet accessibility, technological infrastructure, and users' digital competence.

2.3 Digital Instructional Materials

Digital instructional materials refer to electronic learning resources such as PowerPoint presentations, video lectures, animations, simulations, and interactive multimedia content used to support teaching and learning. These materials enhances students' better understanding of complex accounting principles. Nurwendari et al. (2025) emphasize that video-based and multimedia instructional materials improve conceptual clarity and provide alternative learning pathways that accommodate diverse learning styles. Moreover, digital instructional materials facilitate self-paced learning and repeated exposure to content, which facilitates greater understanding and sustained knowledge retention. The incorporation of interactive multimedia in accounting education has been reported to increase cognitive engagement and positively influence students' academic performance (Noori et al., 2025).

2.4 Students' Academic Performance

Students' academic performance refers to measurable learning outcomes, including grades, test scores, and the level of understanding of accounting concepts. It reflects the effectiveness of instructional strategies and the overall learning environment. Recent studies suggest that digital learning environments significantly influence students' academic performance. For instance, technology-enhanced learning has been shown to improve students' engagement, retention, and critical thinking, which are essential determinants of academic success (Noori et al., 2023). Additionally, research indicates that digital accounting education enhances students' innovative and problem-solving capabilities, particularly when supported by strong digital literacy and technological self-efficacy (Al-Hattami, 2025).

2.5 E-Learning Platforms and Students' Academic Performance

The relationship between e-learning platforms and students' academic performance has attracted increasing scholarly attention, particularly within the scope of accounting education where digital competencies are becoming essential. E-learning platforms refer to digital systems such as Moodle, Google Classroom, Blackboard, and Microsoft Teams that facilitate content delivery, interaction, and assessment in an online or blended learning environment. These platforms have transformed traditional teaching methods into more flexible, interactive, and student-centered learning systems. According to Nadir et al. (2025), e-learning systems have become a fundamental component of higher education, enabling continuous learning beyond the physical classroom and supporting diverse instructional strategies. This aligns with the view that digital platforms create dynamic learning environments where students actively participate in knowledge construction rather than

passively receiving information. Empirical evidence strongly supports the positive linkage between e-learning platforms and students' academic performance. For instance, Noori et al (2023) found that students who utilize online learning platforms demonstrate higher levels of engagement, improved understanding of accounting concepts, and better academic outcomes compared to those in traditional classroom settings

2.6 Virtual/Online Lecture Delivery and Students' Academic Performance

Virtual or online lecture delivery has emerged as a central component of digital education, particularly in higher institutions where teaching and learning have increasingly shifted toward technology-mediated environments. Virtual lecture delivery refers to the use of digital communication tools such as video conferencing platforms (e.g., Zoom, Microsoft Teams) and recorded lecture systems to facilitate real-time (synchronous) or self-paced (asynchronous) instruction. This mode of teaching has significantly altered traditional pedagogical approaches by enabling flexible, accessible, and interactive learning experiences. According to Akpen et al. (2024), online learning environments, including virtual lectures, provide opportunities for self-paced learning and improved accessibility, which can positively influence students' academic performance. Akpen et al. (2024), in a systematic review of studies conducted between 2019 and 2024, found that a majority of studies reported improved academic performance among students engaged in online learning environments, largely due to the flexibility and accessibility of virtual instruction. García-Machado et al. (2024) emphasize that students' academic performance in virtual learning environments is significantly influenced by factors such as motivation, engagement, and institutional support.

2.7 Digital Instructional Materials and Students' Academic Performance

Digital instructional materials refer to electronic educational resources developed to promote, and improve teaching and learning process. These include multimedia presentations, video lectures, animations, simulations, e-textbooks, interactive modules, and other web-based content that supplement traditional instructional materials. In the context of accounting education, digital instructional materials are used to present complex topics in accessible formats, promote active learning, and provide diverse pathways for students to engage with course content. Nurwendari et al. (2025) found that video-based instructional materials significantly enhanced students' comprehension of accounting concepts compared to traditional text-based resources. Their study indicated that students exposed to multimedia content performed better in assessments and reported higher confidence in applying accounting principles. Similarly, Al-Qallaf et al (2024) reported that the integration of interactive digital modules in accounting courses enhanced students' engagement and academic achievement, particularly in complex topics such as financial reporting and cost accounting. Noori et al (2025) demonstrated that students who learned through multimedia content (video lectures, animations, and simulations) achieved higher academic performance than those who relied solely on printed materials.

2.8 Theoretical Framework and Hypothesis Development

This study was under pinned on two relevant theories. The two theories are Technology Acceptance Modell (TAM) and Constructivist Learning Theory (CLT)

2.8.1 Technology Acceptance Model (TAM)

This model was propounded by Fred Davis in 1989. TAM explains how users accept and utilize technology, proposing that perceived usefulness (PU) and perceived ease of use (PEOU) determine an individual's attitude toward a technology, which influences their behavioral intention and actual use (Davis, 1989). In this study, TAM is relevant because it explains how accounting students adopt digitalized lectures through e-learning platforms, virtual lecture delivery, and digital instructional materials. Students are more likely to engage with these tools if they believe they enhance learning outcomes (PU) and are easy to use (PEOU). Effective engagement, in turn, influences their academic performance. Empirical evidence supports TAM in educational settings. Noori, Yao, and Hussein (2023) found that accounting students' attitudes toward e-learning platforms influenced their utilization and improved academic outcomes. Similarly, Venkatesh et al. (2020) noted that students' perceptions of usefulness and ease of use significantly affect technology adoption and learning performance. Thus, TAM provides a solid theoretical basis for examining the relationship between digitalized accounting lectures and students' academic performance in Nigerian universities.

2.8.2 Constructivist Learning Theory

This theory was propounded by Jean Piaget (1970) and further advanced by Lev Vygotsky (1978). The theory posits that learners develop knowledge through active engagement with learning materials, experiences, and social environments rather than passively receiving information. The theory is relevant to this study as digitalized accounting lectures through e-learning platforms, virtual lectures, and digital instructional materials create interactive and student-centered learning environments. These tools enable students to engage with content, revisit concepts, and collaborate with peers, thereby enhancing understanding and retention. Thus, the significant positive effects of digitalization on students' academic performance can be explained by the constructivist view that active engagement with digital learning resources leads to deeper learning and improved academic outcomes**.** In line with the theories, we therefore hypothesise that:

H_{01}: The use of e-learning platforms has no significant effect on students' academic performance in accounting in Nigerian universities.

H_{02}: Virtual/online lecture delivery does not significantly influence students' performance in accounting courses in Nigerian universities.
H_{03}: Digital instructional materials have no significant relationship with students' academic performance in accounting in Nigerian universities

2.9 Empirical Review

Empirical literature on the digitalization of accounting education has increasingly focused on how specific digital tools influence students' academic performance. In particular, studies have examined the roles of e-learning platforms, virtual/online lecture delivery, and digital instructional materials in enhancing learning outcomes.

Studies on e-learning platforms consistently report positive influence on students' academic performance. For instance, Noori et al (2023) found that the use of online learning platforms significantly improved accounting students' engagement, understanding, and academic outcomes. Similarly, Kottara et al. (2025) reported that students exposed to blended learning environments performed better than those in traditional settings due to increased flexibility

and access to learning resources. In the Nigerian context, Babalola (2023) observed that e-learning platforms enhanced students' participation and motivation, which translated into improved academic performance. However, Onuoha et al (2025) noted that infrastructural challenges such as poor internet connectivity and limited access to digital devices could hinder the effectiveness of these platforms.

With respect to virtual/online lecture delivery, empirical evidence also indicates a significant relationship with academic performance. Apostolou et al. (2024) found that virtual learning environments improved students' comprehension and retention of accounting concepts, particularly when lectures were interactive and supported by real-time feedback. Similarly, Sharma et al. (2023) demonstrated that students' engagement in virtual learning settings positively influenced their academic outcomes. Research conducted in the wake of COVID-19 pandemic further show that virtual lectures enhanced flexibility and accessibility, enabling students to learn at their own pace. Nonetheless, some studies highlight limitations such as reduced face-to-face interaction and technological barriers, which may affect learning effectiveness (Babalola et al., 2023).

Empirical studies on digital instructional materials equally reveal their importance in improving students' academic performance. Nurwendari et al. (2025) found that multimedia instructional materials, including videos and animations, significantly enhanced students' understanding of complex accounting concepts. Likewise, Nadir et al (2024) reported that students who utilized digital learning resources performed better academically than those who relied solely on traditional materials. Noori et al. (2023) further emphasized that digital instructional materials promote self-paced learning and repeated exposure to content, which improves retention and academic achievement.

2.10 Research Gap

Existing empirical studies largely establish that digital learning tools enhance students' academic performance; however, most treat digitalization as a broad construct without isolating its core components. Consequently, there is limited evidence on the distinct and combined effects of e-learning platforms, virtual/online lecture delivery, and digital instructional materials on accounting students' performance. Furthermore, context-specific studies within Nigerian universities remain sparse and often overlook institutional diversity across geopolitical zones. This study addresses these gaps by providing a decomposed and context-specific analysis of digitalized accounting lectures and their influence on students' academic performance.

3.0 Methodology

The study adopted a quantitative research approach using a descriptive survey research design to examine the influence of digitalization of accounting lectures on students' academic performance in Nigerian universities. The quantitative method was considered appropriate because it enabled the collection and analysis of numerical data relating to e-learning platforms, virtual/online lecture delivery, digital instructional materials, and students' academic performance. The descriptive survey design further provided an objective means of obtaining data from a large population and examining the relationships among the study variables without manipulating them. The design was therefore suitable for generating reliable and generalizable findings regarding the effect of digitalized accounting lectures on academic performance.

The population of the study comprised undergraduate accounting students drawn from selected Nigerian universities across the six geopolitical zones of the country. To achieve adequate national representation and institutional balance, three universities comprising one Federal, one State, and one Private university were selected from each geopolitical zone, resulting in a total of 18 universities. The focus on Accounting Departments was informed by the study's aim of examining the influence of digitalized accounting lectures on students' academic performance. In line with the admission benchmark of the National Universities Commission, which prescribes that universities should not admit more than 100 students per level into professional programmes such as accounting, each selected university was estimated to have an average of 100 students across the four undergraduate levels (100–400 level). This produced an estimated 400 accounting students per university. Accordingly, the total study population was estimated at 7,200 undergraduate accounting students, computed as: 18 universities×400 students=7,200 students. The population structure provided broad geographical and institutional coverage, thereby enhancing the representativeness and generalizability of the study findings within the Nigerian university system.

The sample size for the study was determined using the formula developed by Taro Yamane (1967), which is expressed as:

n = {N}/{1 + N (e)^2

Where:

n = Sample size

N = Population size

e = Level of significance (0.05)

Given that the population of the study was 7,200 undergraduate accounting students, the sample size was calculated as follows:

n=7200/1+7200(0.05) ^2
n = {7200}/ {1 + 7200(0.0025)}

n = {7200} / {1 + 18}
n=7200/19
n=378.95

The computed value was approximated to 379 respondents, which constituted the sample size for the study. This sample size was considered adequate for ensuring reliable and generalizable findings.

The study employed a multistage and proportionate stratified random sampling technique to ensure adequate representation across geopolitical zones, institutional categories, and levels of study. Three universities comprising one Federal, one State, and one Private university were selected from each of the six geopolitical zones, resulting in 18 universities. Thereafter, the Accounting Departments of the selected universities were targeted, and respondents were

proportionately selected across the 100–400 levels using simple random sampling techniques. This approach ensured that respondents had equal chances of participation while enhancing the representativeness of the sample. The study utilized primary data collected through a structured questionnaire administered to undergraduate accounting students in the selected universities. The questionnaire was designed to obtain information on e-learning platforms, virtual/online lecture delivery, digital instructional materials, and students' academic performance. Copies of the questionnaire were distributed physically and electronically to respondents across the selected institutions. Out of the 379 copies administered, 358 were properly completed and returned, representing a response rate of 94.5%, which was considered adequate for the analysis. The validity of the research instrument was established through face and content validity. The questionnaire was reviewed by experts in accounting education, educational technology, and research methodology to ensure that the items adequately measured the variables of the study. Their observations and recommendations were incorporated into the final version of the instrument to improve clarity, relevance, and adequacy. The reliability of the instrument was tested using Cronbach's Alpha technique to determine the internal consistency of the questionnaire items. The reliability coefficients obtained for e-learning platforms, virtual/online lecture delivery, digital instructional materials, and students' academic performance exceeded the minimum acceptable threshold of 0.70, indicating that the instrument was reliable for the study. Data collected from the field were coded and analyzed using the Statistical Package for Social Sciences (SPSS). Descriptive statistics were used to summarize respondents' demographic characteristics and responses. Inferential statistics, specifically multiple regression analysis, were employed to examine the influence of e-learning platforms, virtual/online lecture delivery, and digital instructional materials on students' academic performance. Statistical significance was tested at the 5% level.

The functional form of the model is expressed as:

$$SAP = \beta 0 + \beta 1ELP + \beta 2VLD + \beta 3DIM + \epsilon$$

Where:

SAP = Academic performance of student (measured by cumulative grade point average or self-reported academic scores)

ELP = Level of engagement with e-learning platforms by student

VLD = Level of engagement with virtual/online lectures by student

DIM = Level of engagement with digital instructional materials by student

$\beta 0$ = Intercept of the model

$\beta 1$, $\beta 2$, $\beta 3$ = Regression coefficients representing the influence of each independent variable on academic performance

ϵ = Error term capturing other unobserved factors affecting academic performance

Ethical standards were strictly observed throughout the study. Respondents participated voluntarily, and informed consent was obtained before questionnaire administration.

Participants were assured of confidentiality and anonymity, while information provided was used strictly for academic purposes. Respondents were also informed of their right to withdraw from the study at any stage without penalty.

4.0 Results and Discussion

4.1 Descriptive Analysis

Table 4.1: Questionnaire and Response

1. S/N	**E-LEARNING PLATFORMS**	**SD**	**D**	**N**	**A**	**SA**
EP1	I regularly assess the university e-learning platform to study accounting concepts	21	24	29	132	152
EP2	The e-learning platform helps me understand accounting topics better	23	28	37	124	146
EP3	I use the e-learning platform to revise and prepare for exams.	21	23	25	133	156
EP4	The e-learning platform provides interactive resources that improve my learning.	24	26	39	123	146
EP5V	I find the e-learning platform easy to navigate and use effectively.	22	25	32	128	151
S/N	**VIRTUAL/ ONLINE LECTURES DELIVERY**	SD	D	N	A	SA
VLD1	I attend online/virtual lectures regularly for my accounting courses.	23	246	32	127	150
VLD2	Virtual lectures improve my understanding of accounting topics.	20	25	28	131	154
VLD3	I can interact with lecturers and ask questions effectively during virtual lectures.	24	27	38	122	147
VLD4	Recorded virtual lectures allow me to revise topics at my own pace.	21	25	29	130	153
VLD5	Virtual lectures motivate me to engage more in learning accounting concepts.	23	27	35	125	148
S/N	**DIGITAL INSTRUCTIONAL MATERIAL**	SD	D	N	A	SA
DIM1	I use digital resources such as videos, animations, and e-books to study accounting.	21	24	29	131	153
DIM2	Digital instructional materials help me understand complex accounting topics better.	21	22	24	134	157
DIM3	I can easily access and use digital instructional materials for self-study.	22	26	33	127	150
DIM4	Digital materials provide practical examples that improve my learning.	25	27	37	120	149
DIM5	The use of digital instructional materials has positively affected my academic performance	21	23	26	134	154
S/N	**ACADEMIC PERFORMANCE**	SD	D	N	A	SA
AP1	I consistently achieve good grades in my accounting courses.	21	25	33	128	151
AP2	I am confident in applying accounting concepts learned from lectures and digital resources	24	28	33	125	158
AP3	My engagement with digitalized lectures has improved my academic performance.	20	23	26	134	155
AP4	I am satisfied with my academic results in accounting since using digital learning tools.	20	22	26	134	156
AP5	I believe that digital lectures and materials have enhanced my overall understanding of accounting	23	27	41	120	147

Source: Field Survey (2026)

4.2 Diagnostic/Assumption Tests

4.2.1 Normality Test

The normality of the residuals was assessed using the Shapiro–Wilk test. The result indicated that the residuals did not significantly deviate from normality ($W = 0.948$, $p > 0.05$), suggesting that the assumption of normality was satisfied.

4.2.2 Multicollinearity Test

Multicollinearity among the independent variables was assessed using the Variance Inflation Factor and tolerance values. The results indicated that all variables had VIF values ranging from 1.003 to 1.007 below the threshold of 10 and tolerance values above 0.10, suggesting the absence of multicollinearity. Therefore, the independent variables were considered sufficiently independent for reliable regression analysis.

4.2.3 Heteroscedasticity Test

The test for heteroscedasticity was conducted to examine whether the variance of the error terms is constant across observations. The result indicates that the test statistic is not statistically significant ($p > 0.05$), suggesting the absence of heteroscedasticity in the model. This implies that the assumption of homoscedasticity is satisfied, and the error terms exhibit constant variance. Therefore, the regression estimates are considered reliable and not biased due to heteroscedasticity.

4.3 Test of Hypotheses

4.3.1 Test of Hypothesis I

H_{01}: The use of e-learning platforms has no significant effect on students' academic performance in accounting in Nigerian universities.

Table 2 Regression Results: Effect of E-learning Platforms on Students' Academic Performance in Accounting in Nigerian universities.

Model Summary	**R Square**	**0.208**	
ANOVA	F	93.448	
	Sig.	0.000	
Coefficients	**B**	**T**	**Sig**
Constant	2.287	12.460	0.000
E-learning Platforms	0.431	9.669	0.000

Source: SPSS v. 26 output (2026)

Table 2 shows the regression results on the effect of e-learning platforms on students' academic performance in accounting in Nigerian universities. The R^2 value of 0.208 indicates that 20.8% of variations in students' academic performance in accounting in Nigerian universities are explained by e-learning platforms. The F-statistic of 93.448 with a

significance of 0.000 validates the overall model at 5%. The constant ($\beta = 2.287$, $p < 0.05$) is significant, suggesting that even in the absence of e-learning platforms, there is a minimum level of students' academic performance in accounting in Nigerian universities. The coefficient for learning platforms ($\beta = 0.431$, $p < 0.05$) reflects a positive marginal effect, implying that for every one-unit increase in e-learning platforms, students' academic performance in accounting in Nigerian universities increases by 0.431 units, holding all other factors constant, and this effect is significant. Hence, the null hypothesis is rejected, establishing that e-learning platforms significantly and positively influences students' academic performance in accounting in Nigerian universities.

4.3.2 Test of Hypothesis II

H_{02}: Virtual/online lecture delivery does not significantly influence students' performance in accounting courses in Nigerian universities.

Table 3 Regression Results: Effect of Virtual/Online Delivery on Students' Academic Performance in Accounting in Nigerian universities.

Model Summary	**R Square**	**0.209**	
ANOVA	F	94.159	
	Sig.	0.000	
Coefficients	**B**	**T**	**Sig**
Constant	2.235	11.884	0.000
Virtual/Online Lecture Delivery	0.445	9.703	0.001

Source: SPSS v. 26 output (2026)

Table 3 shows the regression results on the effect of Virtual/online lecture delivery on students' performance in accounting courses in Nigerian universities. The R^2 value of 0.209 indicates that 20.9% of variations in students' performance in accounting courses in Nigerian universities are explained by Virtual/online lecture delivery. The F-statistic of 94. 159 with a significance of 0.000 validates the overall model at 5%. The constant ($\beta = 2.235$, $p < 0.05$) is significant, suggesting that even in the absence of Virtual/online lecture delivery, there is still a moderate level of students' performance in accounting courses in Nigerian universities. The coefficient for Virtual/online lecture delivery ($\beta = 0.445$, $p < 0.05$) reflects a positive marginal effect, implying that for every one-unit increase in Virtual/online lecture delivery the students' performance in accounting courses in Nigerian universities increases by 0.445 units, holding all other factors constant, and this effect is significant. Hence, the null hypothesis is rejected, establishing that Virtual/online lecture delivery significantly and positively influences students' performance in accounting courses in Nigerian universities.

4.3.3 Test of Hypothesis III

H_{03}: Digital instructional materials have no significant relationship with students' academic performance in accounting in Nigerian universities

Table 3 Regression Results: Effect of Digital Instructional Material on Students' Academic Performance in Accounting in Nigerian universities.

Model Summary	**R Square**	**0.091**	
ANOVA	F	35.741	
	Sig.	0.000	
Coefficients	**B**	**T**	**Sig**
Constant	2.796	13.393	0.000
Digital Instructional Material	0.303	5.978	0.001

Source: SPSS v. 26 output (2026)

Table 4 shows the regression results on the effect of digital instructional materials on corporate reputation of digital-driven firms. The R^2 value of 0.091 indicates that 9.1% of variations in students' academic performance in accounting in Nigerian universities are explained by digital instructional materials. The F-statistic of 35. 741 with a significance of 0.000 validates the overall model at 5%. The constant ($\beta = 2.796$, $p < 0.05$) is significant, suggesting that even in the absence of digital instructional materials, there is still a moderate level of students' academic performance in accounting in Nigerian universities. The coefficient for digital instructional materials ($\beta = 0.303$, $p < 0.05$) reflects a positive marginal effect, implying that for every one-unit increase in digital instructional materials, students' academic performance in accounting in Nigerian universities increases by 0.303 units, holding all other factors constant, and this effect is significant. Hence, the null hypothesis is rejected, establishing that digital instructional materials significantly and positively influence students' academic performance in accounting in Nigerian universities

4.4 Discussion of Findings

The study examined the influence of digitalized accounting lectures on students' academic performance, focusing on e-learning platforms, virtual/online lecture delivery, and digital instructional materials. The regression results indicate that all three variables have positive and statistically significant effects on students' academic performance, confirming that digitalization is a strong driver of improved learning outcomes in accounting education.

Specifically, E-learning platforms showed a strong positive and significant effect ($\beta = 0.431$, $p < 0.05$), implying that students who actively utilize these platforms tend to achieve better academic results. The availability of course materials, discussion forums, and continuous assessment tools on these platforms likely contributes to improved comprehension and consistent study habits. This result corroborates findings by Noori et al (2023), who reported that e-learning platforms enhance student engagement and performance in accounting education.

Virtual/online lecture delivery recorded the highest coefficient ($\beta = 0.445$, $p < 0.05$), indicating that it is the most influential predictor of students' academic performance among the variables examined. This suggests that real-time interaction, flexibility, and access to recorded sessions significantly enhance students' understanding and retention of accounting concepts. The finding aligns with prior studies such as Sharma et al. (2023) and Apostolou et al. (2024), which emphasize that interactive and flexible learning environments improve student engagement and academic outcomes.

Similarly, digital instructional materials were found to have a positive and significant impact ($\beta = 0.303$, $p < 0.05$) on students' academic performance. Although comparatively lower than the other variables, the coefficient indicates that multimedia resources such as videos, slides, and interactive content play a meaningful role in facilitating understanding of complex accounting topics. This supports the findings of Nurwendari et al. (2025), who established that digital materials improve comprehension and retention, thereby enhancing academic achievement.

Overall, the findings demonstrate that all components of digitalized accounting lectures significantly contribute to students' academic performance, with virtual lecture delivery emerging as the most impactful, followed by e-learning platforms and digital instructional materials. The results underscore the complementary role of these digital tools in creating an engaging, flexible, and student-centred learning environment.

5.0 Conclusion

The study revealed that e-learning platforms, virtual/online lectures, and digital instructional materials all have a statistically significant positive impact on undergraduate accounting students' academic performance in Nigerian universities. This indicates that the digitalization of accounting lectures enhances comprehension, engagement, retention, and overall academic outcomes. The findings reveal that integrating digital technologies into accounting education is fundamental to improving students learning outcome and academic performance while aligning with contemporary pedagogical practices.

5.1 Recommendations

Based on the findings, the study makes the following recommendations:
(1) Universities should strengthen and maintain e-learning platforms to ensure accessibility, usability, and reliability for students across all levels of study.
(2) Lecturers should leverage virtual and online lecture delivery by providing interactive, recorded, and real-time sessions to enhance engagement and self-paced learning.

(3) Digital instructional materials should be regularly developed and updated to cover core accounting concepts, including animations, simulations, and multimedia resources.

5.2 Limitations of the Study

(1) The study focused only on undergraduate accounting students, limiting generalizability to other disciplines.
(2) Data were collected using self-reported questionnaires, which may be subject to response bias.
(3) The study was limited to 18 selected universities, and results may not fully reflect all universities in Nigeria.

5.3 Areas for Further Studies

Future research can build on this study in the following ways:
(1) Further research should investigate the impact of digitalized lectures on students in other academic disciplines, such as business, engineering, or social sciences.
(2) Examine the long-term effects of digitalized lectures on graduates' professional competencies and employability.
(3) Further research should conduct qualitative studies to explore students' and lecturers' perceptions of digital instructional tools and challenges faced in online learning environments.

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