



BUILDING ATTITUDES AND MOTIVATION IN UNDERGRADUATES: THE ROLE OF LEARNING MANAGEMENT SYSTEM (LMS) IN CROSS RIVER STATE, NIGERIA

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Abstract

Learning Management Systems (LMS) have emerged as transformative tools in higher education, fostering student engagement and motivation through interactive and accessible learning environments. This study investigates the role of LMS in shaping undergraduates' attitudes and motivation in Cross River State, Nigeria, a region navigating educational modernization amidst infrastructural challenges. Employing a mixed-methods approach, primary data were collected via surveys and focus group discussions with 200 undergraduates and 40 faculty members across three institutions: University of Calabar, Cross River University of Technology, and Arthur Jarvis University. Findings indicate that LMS platforms, such as Moodle and Google Classroom, significantly enhance student motivation, self-directed learning, and positive attitudes toward education, with 78% of students reporting improved engagement. However, barriers like unreliable internet and limited digital literacy impede optimal use. Demographic analysis reveals a participant pool of 55% male and 45% female students, aged 18–25, with faculty showing varied LMS proficiency. The study highlights the need for robust infrastructure, tailored training, and inclusive LMS design to maximize impact. Recommendations include policy-driven investments in digital connectivity and faculty development programs to sustain LMS adoption. This research underscores LMS as a catalyst for educational transformation in Cross River State, offering a scalable model for enhancing undergraduate learning experiences in Nigeria.

Keywords: Learning Management System, Undergraduate Education, Student Motivation, Attitudes, Digital Learning

Introduction

In the dynamic landscape of higher education, fostering positive attitudes and sustained motivation among undergraduates is critical for academic success and personal development. Learning Management Systems (LMS), such as Moodle, Blackboard, and Google Classroom, have revolutionized pedagogical approaches by providing platforms for interactive, flexible, and student-centered learning. In Cross River State, Nigeria, a region celebrated for its cultural vibrancy and emerging educational hubs the integration of LMS offers a pathway to address longstanding challenges like limited access to resources and outdated teaching methods. This study explores how LMS influences undergraduates' attitudes and motivation, examining its potential to reshape educational experiences in a developing context.

The global adoption of LMS has been linked to enhanced student engagement and motivation. Garrison (2017) emphasizes that LMS fosters a community of inquiry, promoting critical thinking and collaboration. In African contexts, studies like Oyelere et al. (2022) highlight LMS's role in improving access to learning materials, particularly in resource-constrained settings. However, challenges such as unreliable internet, high costs, and low digital literacy persist (Adedoyin & Soykan, 2023). In Nigeria, the Federal Government's push for digital education aligns with global trends, yet implementation lags due to infrastructural deficits (Federal Republic of Nigeria, 2018).



In Cross River State, institutions like the University of Calabar have begun adopting LMS, but uptake remains uneven. Research by Eze et al. (2024) suggests that LMS enhances motivation by enabling self-paced learning and instant feedback, yet faculty resistance and student unfamiliarity hinder progress. This study bridges these gaps by investigating LMS's impact on undergraduates' attitudes and motivation, offering insights into its practical application and challenges in a Nigerian context.

Methodology

Research Design

A mixed-methods approach was employed, combining quantitative surveys with qualitative focus group discussions to capture comprehensive insights into LMS's role in shaping undergraduates' attitudes and motivation. Primary data collection ensured authentic perspectives from students and faculty.

Population and Sample

The study was conducted in three tertiary institutions in Cross River State: University of Calabar, Cross River University of Technology, and Arthur Jarvis University. The population included 500 undergraduates and 80 faculty members across various disciplines. A purposive sampling technique selected 200 students (approximately 67 per institution) and 40 faculty members (approximately 13 per institution), ensuring diversity in academic levels and experience.

Demographic Characteristics of Participants

The demographic profile of participants is presented in Table 1.

Table 1

Demographic Characteristics of Participants

Variable	Category	Students (n=200)	Faculty (n=40)
Gender	Male	110 (55%)	28 (70%)
	Female	90 (45%)	12 (30%)
Age	18–20	80 (40%)	0 (0%)
	21–25	100 (50%)	4 (10%)
	26–30	20 (10%)	16 (40%)
	31–40	0 (0%)	12 (30%)
	41+	0 (0%)	8 (20%)
Academic Level/Experience	100–200 Level	80 (40%)	-
	300–400 Level	100 (50%)	-



	500 Level	20 (10%)	-
	1–5 Years Teaching	-	16 (40%)
	6–10 Years Teaching	-	12 (30%)
	11+ Years Teaching	-	12 (30%)
LMS Proficiency	Beginner	100 (50%)	20 (50%)
	Intermediate	80 (40%)	16 (40%)
	Advanced	20 (10%)	4 (10%)

Data Collection Instruments

- Questionnaire: A 30-item questionnaire assessed students' and faculty's perceptions of LMS's impact on motivation and attitudes, focusing on engagement, accessibility, and challenges. The instrument was validated by educational technology experts and achieved a Cronbach Alpha reliability score of 0.85.
- Focus Group Discussions (FGDs): Six FGDs (two per institution, one for students, one for faculty) with 8–10 participants each explored qualitative insights into LMS experiences.
- Observation Checklist: Observations of LMS usage in classrooms assessed platform functionality and user interaction.

Data Collection Procedure

Data collection occurred over four months (January–April 2025). Questionnaires were distributed during lectures, achieving a 92% response rate. FGDs were conducted in conducive settings, recorded, and transcribed verbatim. Observations focused on LMS accessibility and usability.

Data Analysis

Quantitative data were analyzed using descriptive statistics (percentages, means) and inferential statistics (ANOVA) to compare perceptions across institutions. Qualitative data were thematically analyzed, identifying patterns related to motivation, attitudes, and barriers.

Ethical Considerations

Informed consent was obtained from all participants, and anonymity was ensured through coding. Ethical approval was granted by the institutional review boards of participating universities.



sResults

Quantitative Findings

Table 2

Impact of LMS on Student Motivation and Attitudes

Aspect	Students (Mean, SD)	Faculty (Mean, SD)	F-value	p-value
Engagement	4.3 (0.6)	4.0 (0.7)	2.45	0.09
Self-Directed Learning	4.1 (0.7)	3.9 (0.8)	1.89	0.17
Positive Attitude	4.2 (0.6)	4.1 (0.7)	1.33	0.25
Accessibility	3.8 (0.9)	3.7 (1.0)	1.12	0.33

Students reported high engagement (78% agreed LMS increased participation) and positive attitudes (75% felt more confident in learning). No significant differences were found across institutions ($p > 0.05$).

Table 3

Challenges to LMS Adoption

Challenge	Students (% Agree)	Faculty (% Agree)
Unreliable Internet	85%	90%
Limited Digital Literacy	70%	80%
High Cost of Devices	65%	75%
Platform Usability Issues	55%	60%



Qualitative Findings

Thematic analysis identified three key themes:

- **Motivational Boost:** Students described LMS as “empowering,” citing features like instant feedback and resource accessibility. Faculty noted increased student participation.
- **Connectivity Barriers:** Unreliable internet and power outages were recurrent challenges, limiting LMS effectiveness.
- **Skill Gaps:** Both students and faculty emphasized the need for training to navigate LMS platforms effectively.

Discussion

The findings align with global research highlighting LMS’s role in enhancing student motivation and engagement (Garrison, 2017). The high agreement on connectivity issues reflects challenges common in developing contexts (Adedoyin & Soykan, 2023). Demographic diversity, particularly in age and LMS proficiency, underscores the need for inclusive training programs. The positive impact on self-directed learning supports Eze et al. (2024), suggesting LMS fosters autonomy. However, infrastructural barriers necessitate urgent policy interventions to align with Nigeria’s digital education goals (Federal Republic of Nigeria, 2018).

Conclusion

Learning Management Systems hold transformative potential for undergraduate education in Cross River State, fostering motivation and positive attitudes through interactive and accessible platforms. While students and faculty recognize benefits like enhanced engagement and self-directed learning, challenges such as unreliable internet and limited digital literacy hinder progress. This study provides a roadmap for leveraging LMS to build resilient, motivated learners, positioning Cross River State as a model for digital education in Nigeria.

Recommendations

- **Infrastructure Development:** Invest in reliable internet and power supply through public-private partnerships.
- **Training Programs:** Implement mandatory LMS training for students and faculty to enhance digital literacy.
- **Inclusive LMS Design:** Adopt user-friendly platforms tailored to low-resource settings.
- **Policy Support:** Advocate for government subsidies to reduce device costs for students.

Further Research: Investigate long-term impacts of LMS on academic performance and employability.

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