

Evaluating the Institutional Effectiveness of Universities in Liberia: A Nationwide Review of Academic (STEM) Programs and Level of Degrees Offered

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DOI: <https://dx.doi.org/10.47772/IJRISS.2025.907000455>

Received: 24 July 2025; Accepted: 28 July 2025; Published: 22 August 2025

ABSTRACT

This research investigates the institutional effectiveness of Liberian universities, focusing on whether they offer STEM programs or not on the distribution of levels of academic programs they offer in compliance with the National Commission on Higher Education (NCHE) standards. Following the NCHE's 2024 national assessment, 32 universities were categorized as accredited/chartered institutions with challenges (Category A). In a descriptive research design, the study employed a purposive sampling to select all 32 institutions in category A. The Instrument used for the study included an NCHE's quality assurance indicators instrument designed by experts for the National Commission on Higher Education. Data collection process involved a visitation of Universities in Liberia by Staff of NCHE to collect data using the expert-designed Instrument mentioned above. Frequencies and percentages were used for data analysis. Findings revealed that only 46 percent of the institutions offered programs in STEM underpinning some reasons why there is less innovation amongst the Liberian universities as a result of widespread deficiencies across most institutions: limited availability of STEM programs, inadequate library and laboratory facilities, underqualified staff, and weak research and community engagement mechanisms. Despite their accredited status, most institutions struggled to meet minimum operational standards, suggesting an urgent need for policy enforcement, capacity building, and investment in quality assurance mechanisms. This study contributes to policy discussions on strengthening Liberia's higher education system through targeted reforms and increased accountability.

Keywords: Higher education, Liberia, institutional effectiveness, NCHE, quality assurance, compliance

INTRODUCTION

Higher education plays a pivotal role in national development, particularly in post-conflict societies, such as Liberia. Following years of civil unrest, rebuilding Liberia's educational infrastructure has become a cornerstone of national reconstruction (UNESCO, 2015; Teferra & Altbach, 2004). Higher education institutions are essential for producing the human capital required for governance, economic development, innovation, and peacebuilding (Bloom, Canning, & Chan, 2006; Barakat & Milton, 2015). The quality of higher education institutions usually informs Institutions' Effectiveness. This directly influences the level of skills and competencies within a nation's workforce, thereby determining its capacity to compete in the global knowledge economy (Salmi, 2009; World Bank, 2010). By 'Institutions' Effectiveness', we refer to appropriate discharge of mandates of universities licensed for operations in Liberia according to set standards and guidelines as given by the NCHE.

In post-conflict Liberia, revitalizing higher education has been prioritized as a key strategy to rebuild public trust, foster inclusive development, and support democratic governance (Milton & Barakat, 2016; Johnson, 2020). However, challenges such as underfunding, poor infrastructure, weak quality assurance mechanisms, and

limited academic capacity have significantly hampered progress (Varghese, 2013; Goll, 2019). Between November 2024 and June 2025, the National Commission on Higher Education (NCHE) conducted a comprehensive inspection of all higher education institutions in Liberia. This inspection aimed to assess institutional governance, academic programs, staffing, infrastructure, student support, research, and financial management (NCHE, 2025). Of the 79 recognized institutions, 32 were placed in Category A: accredited/chartered institutions with significant challenges. These universities, considered among the best in the country, were expected to serve as models of academic excellence. However, the inspection revealed systemic weaknesses, ranging from fake staff credentials to inadequate facilities and poor governance structures (NCHE, 2025; Altbach, Reisberg, & Rumbley, 2009).

Objectives of the study

This study explores the institutional strengths and weaknesses of these 32 Category A institutions. It seeks to answer the following questions: (1) What is the availability of STEM programs in various institutions of higher learning in Liberia? (2) What are the different programs offered in various institutions of higher learning in Liberia? By analyzing quantitative data from all Category A institutions, this study aims to provide actionable insights to policymakers, stakeholders, and institutional leaders (Materu, 2007; Sawyerr, 2004).

Theoretical Framework

This study employed two theories - the Systems Theory of Institutional Effectiveness and Human Capital Theory. The Systems Theory of Institutional Effectiveness emphasizes the Input–Process–Output (IPO) Model. When applied in the context of institutional effectiveness, the theory views a university or higher education institution as a system composed of interrelated parts. The IPO model describes Inputs as resources and conditions entering institutions (e.g., STEM program availability, faculty qualifications, infrastructure, funding, etc.). It also views processes as Core activities (e.g., teaching, research, curriculum development, quality assurance mechanisms, NCHE compliance efforts), and Output as results or outcomes (e.g., number of programs offered, quality of graduates, research output, innovation levels, accreditation status, institutional rankings, etc.). In higher education, scholars like Bogue (1998) and Hearn (1991) have emphasized systems models to explain how governance, resources, and practices determine institutional effectiveness.

On the other hand, the Human Capital theory pointed out that education and training were investments that could add to productivity (Becker, 1962). This theory simply explained that a person can improve their human capital by increasing their education level or learning new skills.

The current study assesses how universities are performing (effectiveness) in terms of compliance with NCHE standards and STEM program availability and level of degrees offered. With this in mind, the theoretical framework helps structure the evaluation by identifying specifically how outputs are affected (e.g., limited STEM programs offered and limited level of degrees offered). The theories also provide a logical structure to link resource gaps to performance outcomes and policy implications.

METHODOLOGY

The study adopted a descriptive design in a quantitative research method. Descriptive Research Design is a type of research methodology that aims to describe the characteristics of a population, phenomenon, or situation without influencing or manipulating variables (Creswell, 2014). It focuses on answering "what" questions rather than "why" or "how" questions, often using methods such as surveys, observations, and case studies to gather data. This design was used to assess institutional performance across selected indicators for sampled institutions of higher learning. Descriptive design was deemed appropriate for the research because the objective of the study seeks to find assess and present the state of academic programs offered in different institutions of higher learning in Liberia against a certain criterion defined by the National Commission on Higher Education in Liberia.

Population and Sample

The population consisted of all 79 higher education institutions in Liberia recognized by the NCHE. The sample

included 32 institutions classified in Category A in the NCHE 2024 inspection. These institutions were selected for the study because they were supposed to be the best in the country according to the findings of the NCHE (NCHE, 2025). According to the NCHE's report, the institutions in the other categories were of lower qualities than those listed in category A. Any deficiency in the effectiveness in institutions in category A, would suggest the situation in the rest of the higher educations in the country.

The purposive sampling was used to sample all institutions in category A which were used in this study.

Data Collection Instrument:

The instrument used for the purpose of data collection was an Evaluation Instrument developed by experts for the National Commission on Higher Education (NCHE) in Liberia. This instrument was designed for the purpose of eliciting data on the conditions of both academic programs and facilities at various institutions of higher Learning in Liberia. The study utilized the NCHE inspection instrument used during the national evaluation which lasted between November 2024 to July 2025. The questionnaire assessed five main domains: Availability of STEM programs, Levels of academic programs offered, Staff qualifications (Presidents and Vice Presidents for Academic Affairs), Availability and adequacy of facilities and infrastructure, and Presence and functionality of research departments. However, the current study focuses on the programs (especially STEM program) offered by the various higher educational institutions.

Data Analysis

Data was analyzed using frequencies and percentages distribution. The analysis was done to determine patterns and compliance levels with NCHE benchmarks.

RESULTS AND FINDINGS

Results gotten from data analysis from the study are presented below:

Categorization of Institutions Based on Data

Results from Table 2 focus on the institutions in the 32 institutions in Category A. These institutions were located in nine (9) out of fifteen (15) counties in Liberia. The institutions in category A include:

Table 1: List of Institutions in Category A

CATEGORY A:		
ACCREDITED/ CHARTERED INSTITUTIONS WITH CHALLENGES		
No.	Name	Location
1.	University of Liberia	Capitol Hill, Monrovia
2.	Cuttington University (CU)	Suakoko, Bong County
3.	William V.S. Tubman University	Harper, Maryland County
4.	African Methodist Episcopal Zion University	Po River, Bomi County
5.	African Methodist Episcopal University	Camp Johnson Road, Monrovia
6.	African Bible College University	Yekepa, Nimba County
7.	Stella Maris Polytechnic University	Capitol HillUN Drive, Monrovia
8.	Liberia Baptist Theological Seminary	Duazohn, Ria Highway, Montserrado County
9.	Nimba University	Sanniquellie, Nimba County

10.	Lofa University	Voinjama, Lofa County
11.	Grand Bassa University	Buchanan, Grand Bassa County
12.	Grand Gedeh University College	Zwedru, Grand Gedeh County
13.	Margibi University	Harbel, Margibi County
14.	Bong County Technical College	Gbarnga, Bong County
15.	Lutheran University of Liberia	Gbarnga, Bong County
16.	Liberia Maritime Training Institute	Marshall, Margibi County
17.	LICOCESS College of Education	GSA Road, Paynesville
18.	Liberia International Christian College	Ganta, Nimba County
19.	Sumo Moye Technical College	Brooklyn Community, Lofa Road, Gbarnga, Bong County
20.	Notre Dame University College	15 th Street Sinkor, Monrovia
21.	Bomi Community College	Tubmanburg, Bomi County
22.	Carver Mission Christian University	King Gray, Paynesville
23.	Baptist College of Missionary Physicians	Gbarnga, Bong County
24.	Adventist University of West Africa	Schefflin, Margibi County
25.	Apex University of Liberia	72 nd Community, Paynesville
26.	Liberia Assemblies of God University	Brewerville, Montserrado County
27.	Starz University	Airfield Sinkor, Monrovia
28.	Trinity University (Undergraduate)	Harbel, Margibi County
29.	Salvation Army Polytechnic	1 st Street, Sinkor, Monrovia
30.	PYJ Polytechnic University College	Ganta, Nimba County
31.	Smythe University College	16h Street Sinkor, Monrovia
32.	J.W. Harris University	Banjor, Virginia, Montserrado County

(Source: NCHE, 2025)

Following a public announcement after the assessment, the NCHE placed the institutions into four (4) categories, namely: a) accredited/chartered institutions with challenges, b) accredited/licensed institutions with challenges, c) institutions to be suspended, and d) institutions to be shut down completely. Institutions in **Category A** are accredited/chartered institutions with challenges (see Table 1), and **Category B** are accredited/licensed institutions with challenges. Institutions in these two categories are assessed for various challenges including: fake credentials of faculty and administrative personnel, lack of adequate faculty to teach academic programs, lack of library and laboratory, low visibility, and poor learning environments, which impede students (NCHE, 2025).

Category C includes institutions that fall below the higher education standards. Institutions in this category have the following challenges in addition to the challenges faced by institutions in Categories A and B: no sound strategic and financial plans, no existing institutional structure, and do not operate within their own buildings. Category C institutions “licenses are hereby suspended with immediate effect until they meet the NCHE’s standards” (NCHE, 2025).

Category D includes “illegal institutions operating in the country without the NCHE’s knowledge; they are

therefore shut down with immediate effect, and are requested to follow NCHE’s established procedures for the establishment of institutions of higher education in Liberia” (NCHE, 2025).

Availability of STEM academic Programs

Table 2: Frequency distribution of the availability of STEM programs in the Institutions of Higher Learning investigated.

Response	Frequency	Percentage
Availability of STEM programs	15	46.9%
Non-availability of STEM Programs	17	53.1%
Total	32	100

(Source: Researcher’s fieldwork, 2025)

Table 2 shows that only 15 out of the 32 institutions (46.9%) offered STEM programs. Most institutions in Liberia offer programs in business and humanities. The situation is so because most Liberian students do not go for STEM programs. Since majority of the institutions are private institutions, they offer programs according to demand and not according to social needs. This compels a lack of focus on science and technology, which are crucial for national development (Altbach et al., 2009).

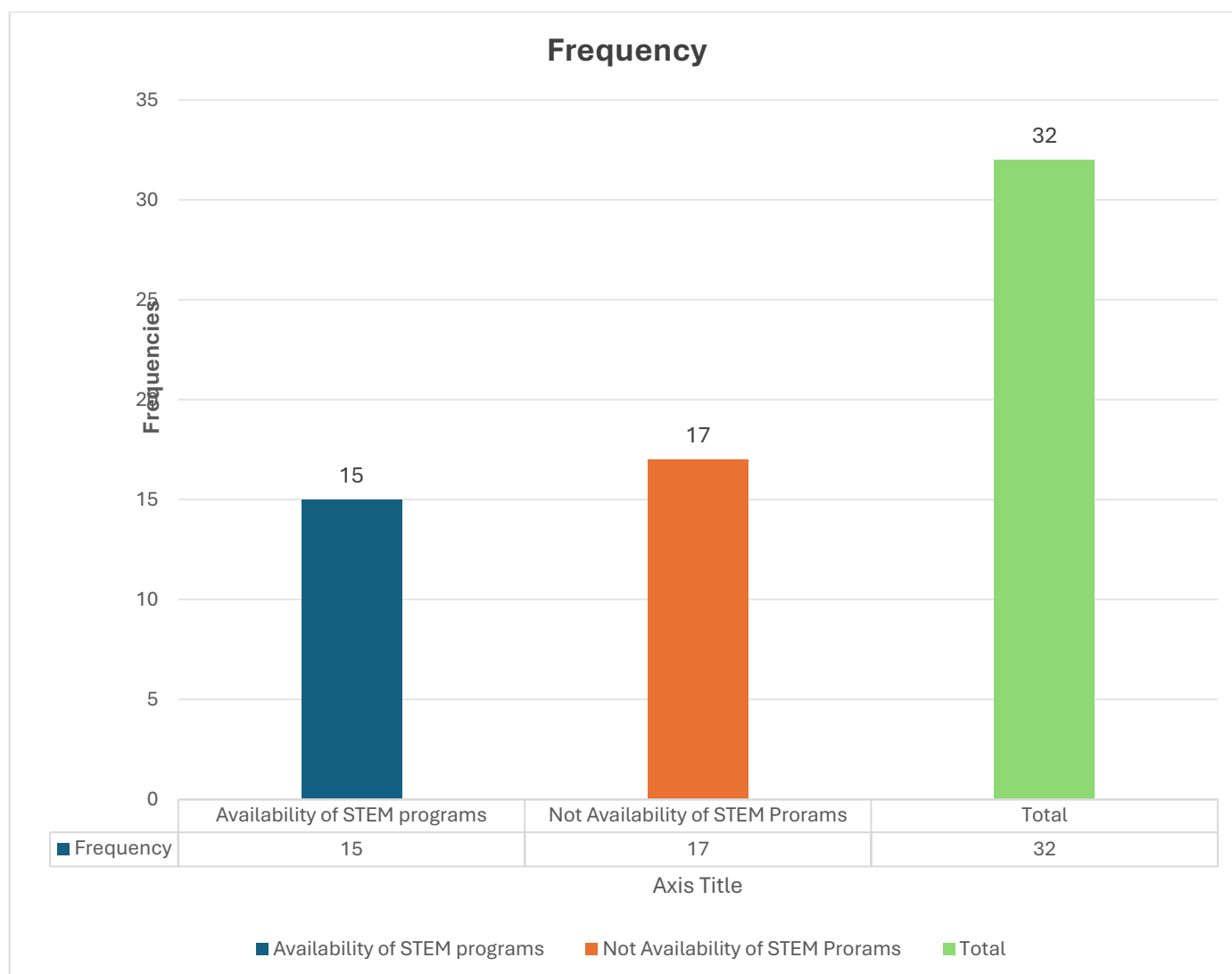


Figure 1: Frequency distribution of STEM availability in the Institutions Investigated

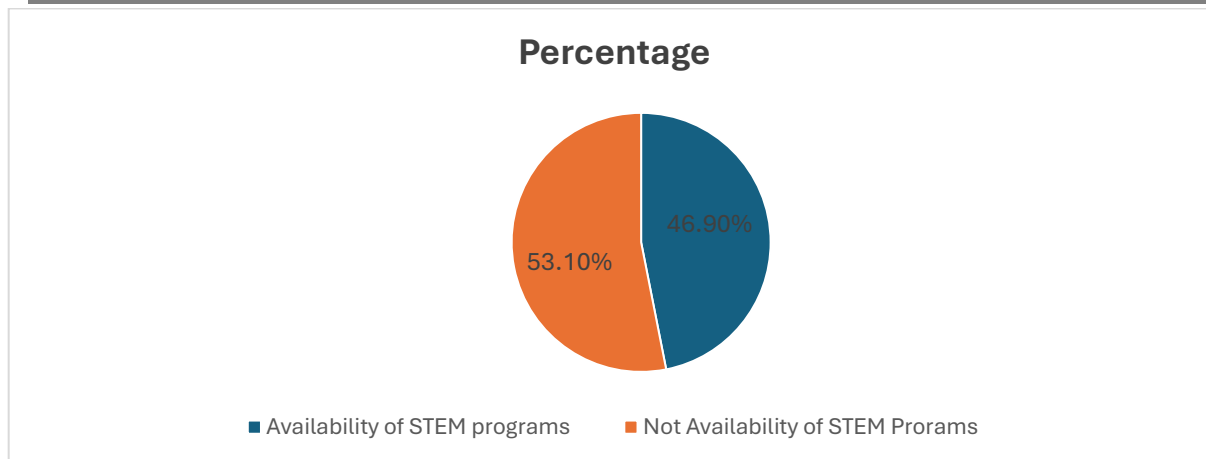


Figure 2: Percentage distribution of STEM availability in the Institutions Investigated

Levels of programs offered in the various Institutions investigated

Table 3: Levels of Academic programs offered in various institutions in Liberia

Program Level	Frequency	Percentage
Associate	4	12.5%
Bachelor	20	62.5%
Master	6	18.8%
Doctorate	2	6.3%
Total	32	100

(Source: Researcher's fieldwork, 2025)

The above table shows the data distribution of the levels of academic programs offered in the various Institutions investigated. Most institutions offer bachelor's degrees (62.5%), followed by master's (18.8%), associate (12.5%), and doctorate (6.3%) programs. This best describes the situation in the higher education sector in Liberia. Only very few institutions have graduate programs in very few disciplines! As a result Liberian students with financial capabilities find elsewhere outside the country to obtain advanced degrees in much needed areas.

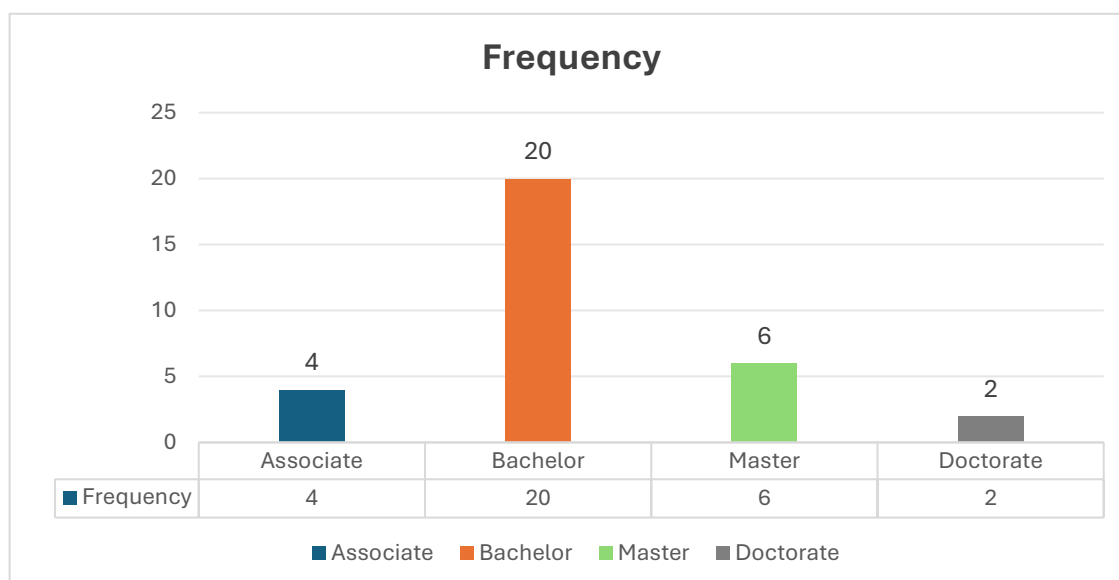
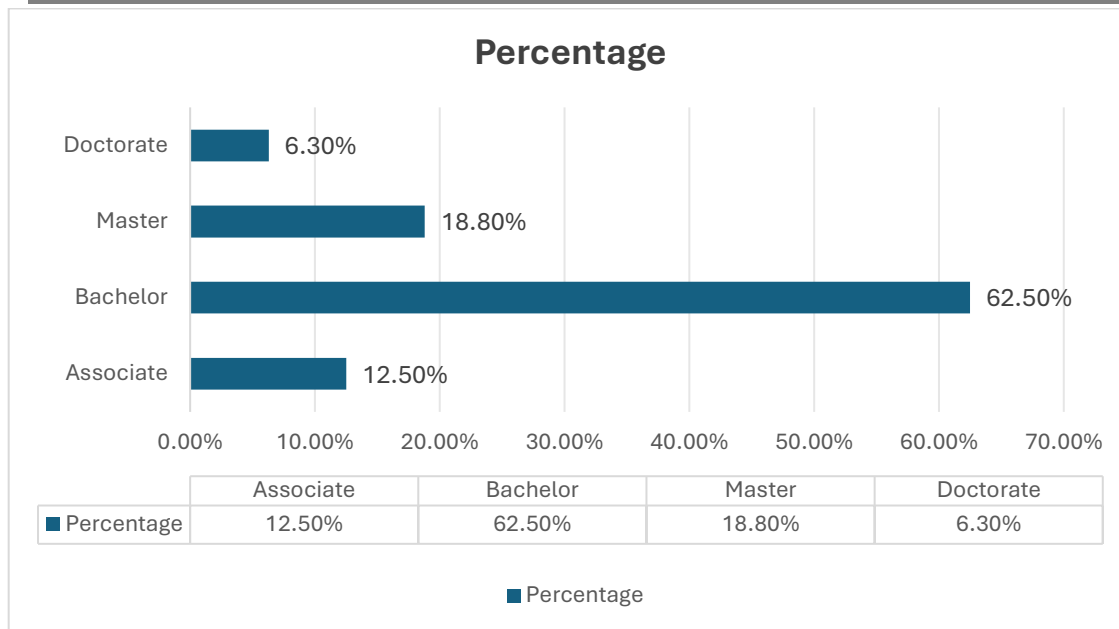


Figure 3: Frequency distribution of the academic programs offered



DISCUSSION

The shortage of STEM programs undermines national development goals, especially in a global context where STEM skills are critical for economic growth and technological innovation (British Council, 2021). The inadequacies in staffing and infrastructure indicate that many institutions may be operating more in name than in substance, potentially compromising the educational experiences of thousands of students (Teferra & Altbach, 2004).

The distribution of academic levels which shows that very minimal number of PhD programs are offered in various universities in Liberia. This calls for serious intervention in this sector. Such a significant a smaller number of PhD programs underscores the point that establishing more PhD programs should be deemed a matter of national emergency and national need which require most serious intervention by Universities in Liberia. Stakeholders in the education sector should also see this as a serious gap in education in Liberia that needs urgent response.

The findings of this study also reflect a paradox in Liberia's higher education sector. Institutions that are officially recognized as "accredited" demonstrate widespread non-compliance with fundamental quality assurance standards. These findings align with global literature on post-conflict education systems, which often face structural and capacity-related challenges (World Bank, 2018).

RECOMMENDATIONS AND POLICY IMPLICATIONS

The following recommendations are suggested which present a road map to mitigate the problems:

1. That the NCHE should organize a stakeholders' conference that will bring together all Higher Education Institutions together to discuss the issues affecting the higher education institutions. In this forum, programs offered and level of programs offered by these institutions will be highlighted in the agenda. The philosophy behind STEM programs will be discussed which will in turn serve as an eye opener to the administration of these institutions to include STEM programs into their curriculum.
2. That the NCHE should give incentives to universities offering STEM programs. This will motivate others to venture into STEM programs. Such incentives could include accreditation fee waiver, and/or grants to these institutions.
3. That the NCHE should work with more Universities in Liberia, as a matter of urgency, to prioritize developing more PhD programs which are research intensive to foster innovations needed in a developing nation such as Liberia.

CONCLUSION

This study highlights the gap between accreditation and actual institutional capacity in Liberia's higher education sector. The data show that even institutions deemed the best in the country face serious shortcomings that affect quality. Addressing these gaps requires decisive action from regulatory agency and the institutions themselves.

Continued research and systematic monitoring are necessary to strengthen institutional governance, academic quality, and student outcomes. Only then can Liberia's universities fulfill their potential as engines of national transformation.

Funding

The data collection process of the data used in this article was obtained with funding made available by the Liberian National Commission on Higher Education (NCHE).

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