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CURRICULUM REFORM, EMPLOYABILITY AND BRAIN DRAIN: A SYSTEMS APPROACH TO TALENT RETENTION

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ABSTRACT

This study investigates the interrelationship between curriculum reform, graduate employability, and brain drain in Nigeria, adopting a systems-based approach to talent retention. Anchored on systems theory, the research conceptualises education, industry, and policy environments as interdependent components whose misalignment contributes to the emigration of skilled professionals. Using a mixed-methods convergent parallel design, quantitative data were collected from 270 respondents (graduates, employers, and academic staff in Lagos State) via structured questionnaires and analysed using descriptive statistics, Pearson correlation, and multiple regression in SPSS (version 26), while qualitative data from 24 semi-structured interviews were analysed thematically. Findings reveal that outdated curricula, insufficient practical training, and weak industry-academic collaboration reduce graduates' employability, with 68.5% of respondents reporting low employability scores also expressing strong migration intentions. The study further demonstrates that targeted curriculum reforms, particularly competency-based education, experiential learning, and digital skills, substantially improve job readiness and reduce migration intentions. In addition, supportive policy measures, including incentives for local employment and strengthened public-private partnerships, were found to enhance talent retention. The study's key contribution is the development of an integrated systems model that links curriculum transformation with labour market demands and policy support mechanisms. It concludes that reducing brain drain requires coordinated, system-wide reforms that create sustainable and attractive opportunities within the domestic economy.

Keywords: Curriculum reform, Graduate employability, Brain drain, Talent retention, Systems approach, and Labour Market Alignment

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Introduction

The migration of highly skilled professionals from developing economies to advanced countries, commonly conceptualised as brain drain, has emerged as a persistent challenge in the contemporary global labour market. While labour mobility is an inherent feature of globalisation, the disproportionate loss of human capital from countries such as Nigeria raises critical concerns regarding long-term economic sustainability and institutional resilience. Nigeria, as the most populous nation in Africa and one with a rapidly expanding youth demographic, stands to lose not merely individual workers but the institutional memory and developmental momentum that skilled professionals carry with them. Increasingly, brain drain is understood not merely as a labour market outcome but as a manifestation of deeper structural disjunctions within domestic education systems, labour markets, and governance frameworks (Vega-Muñoz et al., 2025; Kanyesigye, 2026).

In Nigeria, the scale and persistence of this phenomenon have reached critical levels within key professional sectors. In healthcare, a significant number of medical professionals have migrated to the United Kingdom, Canada, and Australia in search of improved working conditions, leaving public hospitals in urban centres such as Lagos with severe workforce shortages and rising patient loads (Aibinuomo et al., 2025; Abasilim & Obozekhai, 2024; Ghanbari-Jahromi & Ahmadi Marzaleh, 2024). A similar pattern is evident in the academic sector, where universities struggle to retain experienced faculty due to inadequate remuneration, delayed promotions, and limited research infrastructure. In practical terms, the departure of senior lecturers creates a vacuum that junior staff, often lacking mentorship and research experience, cannot fill, thereby weakening both teaching quality and institutional research output (Anokye et al., 2019; Isiaka, 2025).

At the core of this challenge lies a fundamental misalignment between the education system and labour market demands. Nigerian universities are widely characterised by curricula that emphasise theoretical knowledge over practical, industry-relevant competencies, leaving many graduates without the digital literacy, innovation, and problem-solving skills required by contemporary workplaces (Ukonu & Oji-Emma, 2025; Wang & Jiang, 2024; Dyantyi, 2025). This misalignment is compounded by weak policy frameworks and limited collaboration between educational institutions and industry stakeholders, conditions that make migration appear less an option than a rational strategy for professional fulfilment (Isiaka, 2025; Abogunrin & Yisa, 2024). The consequence is a self-reinforcing cycle: weak curricula produce under-skilled graduates, under-skilled graduates fail to find rewarding domestic employment, and frustrated professionals seek opportunities abroad, further depleting the talent pool that institutions need to improve. Beyond Nigeria, similar dynamics are observed across developing regions, where the failure of higher education systems to align curricula with labour market requirements remains a major driver of human capital flight (Kanyesigye, 2026; Vega-Muñoz et al., 2025).

Problem Statement

Brain drain continues to pose a significant challenge to workforce sustainability, institutional effectiveness, and economic development in Nigeria, particularly within healthcare, education, and technology. The continuous emigration of medical personnel has strained healthcare systems, while the loss of academic staff has undermined teaching quality and research productivity in higher education (Aibinuomo et al., 2025; Anokye et al., 2019; Abasilim & Obozekhai, 2024). Despite various policy interventions, the sustained outflow of skilled labour suggests that existing approaches have not adequately addressed the underlying structural drivers of migration. Extant literature has largely focused on discrete determinants of brain drain without examining the role of curriculum design. For instance, Alhebshi et al. (2025) investigated HR

management strategies and job satisfaction as predictors of brain drain intentions among Yemeni academics but did not assess how curriculum quality shapes the employability that precedes migration. Similarly, Ghanbari-Jahromi and Ahmadi Marzaleh (2024) identified workplace dissatisfaction, low pay, and poor management as drivers of brain drain in Iran's health system, yet their analysis stopped at employment conditions without tracing those conditions back to educational preparation. Kanonge and Bussin (2022) examined motivational preconditions for curbing academic brain drain in Zimbabwe but treated curriculum as a background variable rather than a direct determinant. These studies collectively illustrate that curriculum design remains under-examined as a foundational determinant of employability and, by extension, migration decisions. This study addresses that gap by adopting a systems-based framework to examine how curriculum reform, employability, and labour market conditions interact within a defined scope to shape talent retention in Nigeria.

The main objective of this study is to examine curriculum reform, employability, and brain drain through a systems approach to talent retention. Specifically, the study seeks to:
examine the relationship between curriculum design and graduate employability in Lagos State higher education institutions and analyse the influence of graduate employability on brain drain (migration intentions) among skilled professionals in Lagos State, Nigeria.

Research Questions

1. What is the relationship between curriculum design and graduate employability in Lagos State higher education institutions?
2. How does graduate employability influence brain drain (migration intentions) among skilled professionals in Lagos State, Nigeria?

Research Hypotheses

Based on the research questions and the theoretical framework, the following hypotheses are proposed:

H^1: Curriculum design has a significant positive relationship with graduate employability in Lagos State higher education institutions.

H^2: Graduate employability has a significant negative influence on brain drain (migration intentions) among skilled professionals in Lagos State, Nigeria.

Literature Review

Theoretical Foundations

This study draws on three complementary theories. Systems Theory, originating with von Bertalanffy, conceptualises education, labour markets, and policy environments as interdependent subsystems whose misalignment produces structural inefficiencies (Vega-Muñoz et al., 2025; Kanyesigye, 2026). Within this lens, brain drain is not the outcome of individual dissatisfaction alone but a systemic failure arising from the breakdown of coordination across institutional domains, with employability functioning as the mediating mechanism linking educational outputs to migration behaviour (Abubakar et al., 2022; Wang & Jiang, 2024). The theory is, however, broad and can be difficult to operationalise empirically, and it tends to underrepresent individual agency such as career aspirations and lifestyle preferences (Abou Hashish & Alnajjar, 2025).

Push-Pull Migration Theory, associated with Lee (1966), explains migration as the product of push factors within the home country, such as poor remuneration and limited career progression, and pull factors abroad, such as higher wages and structured career paths (Aibinuomo et al., 2025; Anokye et al., 2019; Ishola et al., 2020; Abou Hashish & Alnajjar, 2025). Its main limitation is that it explains symptoms rather than the structural causes, such as curriculum misalignment, that sustain push conditions (Isiaka, 2025; Abogunrin & Yisa, 2024).

Human Capital and HRM Theory, associated with Schultz (1961) and Becker (1964), frames migration as a rational response by individuals seeking higher returns on their skills when domestic labour markets fail to provide competitive wages, career progression, or supportive HRM practices (Osagie & Akhimien, 2026; Abubakar et al., 2022; Ristovska & Eftimov, 2019; Kanonge & Bussin, 2022; Ishola et al., 2020; Abogunrin & Yisa, 2024). Its limitation lies in overstating individual rational agency at the expense of structural constraints and non-economic factors such as social ties (Vega-Muñoz et al., 2025). Taken together, the three theories converge on a single proposition: curriculum design shapes employability, employability mediates migration decisions, and weak institutional and policy conditions amplify the resulting outflow.

Curriculum Design and Graduate Employability

A dominant position in the literature is that traditional Nigerian curricula, characterised by theoretical orientation and limited industry engagement, are increasingly incompatible with contemporary labour market requirements (Ukonu & Oji-Emma, 2025; Dyantyi, 2025). Ukonu and Oji-Emma (2025) argue that Nigeria's higher education system is structurally detached from industry realities, while Wang and Jiang (2024) demonstrate that the absence of continuous, competency-based training significantly reduces employability. Engineering graduates often complete their programmes with strong theoretical knowledge but minimal exposure to industry-standard tools, while graduates in business and the social sciences commonly lack data analytics and digital competencies, forcing many into informal training or unpaid internships to bridge the gap (Ukonu & Oji-Emma, 2025; Wang & Jiang, 2024).

A persistent limitation of this body of work is its fragmented analytical orientation: curriculum deficiencies are typically examined in isolation from the broader institutional and labour market contexts that determine whether reform translates into employment gains (Isiaka, 2025; Abogunrin & Yisa, 2024). Where curriculum misalignment persists, low employability functions as a structural push factor that links educational deficiencies directly to brain drain, particularly in technology and healthcare (Aibinuomo et al., 2025; Wong et al., 2026).

Brain Drain: Drivers and Structural Dynamics

Brain drain is increasingly recognised as a multidimensional process shaped by economic, institutional, and socio-political factors rather than a simple response to wage differentials (Vega-Muñoz et al., 2025; Kanyesigye, 2026). In Nigeria, Aibinuomo et al. (2025) show that workplace dissatisfaction and limited career development are major drivers of migration among healthcare professionals, while Anokye et al. (2019) identify poor remuneration, delayed promotions, and inadequate research infrastructure as key drivers among academic staff. Cross-nationally, Vega-Muñoz et al. (2025) highlight governance quality and economic inequality as critical determinants, while Wong et al. (2026) find that, in Malaysia, limited career mobility and weak innovation ecosystems drive migration more than salary differences. These findings collectively point to a systemic phenomenon shaped by the interaction of institutional weaknesses and labour market inefficiencies, though much of the literature continues to analyse these factors in isolation (Alhebshi et al., 2025; Kanonge & Bussin, 2022).

Human Resource Practices and Curriculum Reform as Tools for Retention

A separate strand of literature examines firm-level human resource management practices as mechanisms for retention. Osagie and Akhimien (2026) and Abubakar et al. (2022) show that career advancement opportunities, training, and supportive work environments significantly predict retention, while Ristovska and Eftimov (2019) and Kanonge and Bussin (2022) emphasise structured HRM practices for retaining young talent. However, HRM-focused studies tend to treat retention as a purely organisational issue, overlooking the structural constraints, such as

infrastructure deficits and policy inconsistencies, that limit the impact of even well-designed HRM practices (Isiaka, 2025; Abogunrin & Yisa, 2024).

A complementary and more proactive strand positions curriculum reform as a strategic tool for talent retention. Kanyesigye (2026) argues that aligning higher education curricula with industry requirements is essential for reducing human capital flight across Africa, while Ukonu and Oji-Emma (2025) demonstrate that functional, skill-oriented curricula significantly enhance employability. Wong et al. (2026) similarly find that career fulfilment and access to innovation-driven opportunities matter more than wage differentials. Nonetheless, curriculum reform is conditional rather than sufficient on its own: its effectiveness depends on complementary labour market and policy conditions (Isiaka, 2025; Abogunrin & Yisa, 2024; Vega-Muñoz et al., 2025). Few studies, however, explicitly integrate curriculum reform, employability, and structural conditions into a single explanatory framework, a gap this study addresses by positioning curriculum reform as a central component of a systems-based model of talent retention.

Materials and Methods

This study adopted a mixed-methods convergent parallel design to examine the relationship between curriculum reform, graduate employability, and brain drain within the defined scope of Lagos State, Nigeria. The design was justified by the need to capture both measurable outcomes, such as employability levels and migration intentions, and subjective experiences relating to curriculum relevance and labour market conditions. Quantitative and qualitative data were collected concurrently and integrated at the interpretation stage to enhance validity and depth.

Respondents were drawn from three stakeholder groups directly implicated in the curriculum-employability-migration chain: recent graduates of public universities in Lagos State, academic staff of those universities, and employers or industry representatives in the education, healthcare, and technology sectors operating within the state. These groups were purposively selected for their direct experience of curriculum delivery, skill demand, and migration decision-making, with stratified sampling applied to ensure adequate representation across the three sectors. The total accessible population comprised 850 individuals across the three stakeholder groups: 420 recent graduates (drawn from convocation records of LASU, LASUSTECH, and LASUED for the 2022/2023 and 2023/2024 academic sessions), 230 academic staff members (obtained from departmental staff lists), and 200 employers and industry representatives (identified through industry directories and professional associations in the education, healthcare, and technology sectors within Lagos State). Using Krejcie and Morgan's (1970) sample size determination table, a minimum sample of 265 was required for a population of 850 at a 95% confidence level. A total of 300 questionnaires were distributed proportionately across the three groups (140 graduates, 90 academic staff, and 70 employers), of which 270 were returned complete and usable, yielding a response rate of 90%. Within each stratum, respondents were selected using simple random sampling. Additionally, 24 participants (8 from each stakeholder group) were purposively selected for semi-structured qualitative interviews based on willingness to participate and diversity of disciplinary background.

Quantitative data were collected using a structured questionnaire measuring curriculum relevance, practical and digital skill acquisition, employment status, job satisfaction, and migration intentions on a five-point Likert scale. Qualitative data were obtained through semi-structured interviews exploring respondents' lived experiences of curriculum effectiveness, employability, and migration motivations. In the analytical model, curriculum reform was treated as the

independent variable, graduate employability as the mediating variable, brain drain (migration intention) as the dependent variable, and the policy environment as a moderating factor.

Quantitative data were analysed using the Statistical Package for the Social Sciences (SPSS), version 26. Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to summarise respondent demographics and Likert-scale responses. Pearson product-moment correlation was used to assess bivariate relationships among the key variables, and multiple regression analysis was employed to test the hypothesised predictive relationships. Qualitative data from the 24 interviews were transcribed verbatim and analysed thematically following Braun and Clarke's (2006) six-phase framework. The questionnaire was validated through expert review and alignment with existing instruments in the literature, and achieved a Cronbach's alpha of 0.78, exceeding the conventional threshold of 0.70. Ethical standards were observed throughout, including informed consent, voluntary participation, confidentiality of responses, and secure storage of all data collected.

Results and Discussion

The findings reveal a strong and consistent relationship between curriculum design, graduate employability, and brain drain within the sampled population. Three central patterns emerged: curriculum misalignment significantly reduces employability; low employability increases migration intentions; and systemic and institutional factors amplify the migration decision. Together, these patterns confirm that brain drain among the sampled respondents is not an isolated outcome but the product of interconnected systemic failures.

Table 1: Demographic Profile of Respondents (N = 270)

Category	Frequency	Percentage (%)
Stakeholder Group		
Recent Graduates	126	46.7
Academic Staff	81	30.0
Employers/Industry Representatives	63	23.3
Sector		
Education	104	38.5
Healthcare	89	33.0
Technology	77	28.5
Gender		
Male	152	56.3
Female	118	43.7

The demographic distribution shows a balanced representation across the three stakeholder groups, with recent graduates comprising the largest proportion (46.7%), followed by academic staff (30.0%) and employers/industry representatives (23.3%). The sectoral distribution demonstrates substantial coverage across key professional areas, with education (38.5%), healthcare (33.0%), and technology (28.5%) all well-represented, ensuring that the findings capture perspectives from the sectors most affected by brain drain in Nigeria. The gender composition, with 56.3% male and 43.7% female respondents, reflects a reasonable gender balance though slightly skewed toward male participants, which is consistent with the typical gender distribution in Nigerian higher education and professional sectors.

Table 2: Descriptive Statistics for Key Variables

Variable	Mean	SD	Min	Max
Curriculum Relevance	2.64	0.89	1.00	5.00
Practical Skill Acquisition	2.38	0.94	1.00	5.00
Digital Skill Acquisition	2.51	1.02	1.00	5.00
Graduate Employability (composite)	2.71	0.82	1.00	5.00
Job Satisfaction	2.45	0.97	1.00	5.00
Migration Intention	3.72	0.91	1.00	5.00

Note: Items measured on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). N = 270.

The descriptive statistics reveal critical deficiencies across all measured variables, with mean scores consistently below the midpoint of 3.00 on the 5-point Likert scale. Curriculum relevance (M = 2.64), practical skill acquisition (M = 2.38), digital skill acquisition (M = 2.51), and graduate employability (M = 2.71) all fall within the "disagree" to "neutral" range, indicating widespread perception that curricula inadequately prepare graduates for the labour market. Job satisfaction recorded the lowest mean (M = 2.45), suggesting significant workplace dissatisfaction among employed professionals. Most strikingly, migration intention recorded the highest mean (M = 3.72), indicating that respondents generally agree or strongly agree with statements expressing desire to migrate abroad, confirming the severity of brain drain intentions within the sampled population.

Table 3: Pearson Correlation Matrix for Key Variables

Variable	1	2	3
1. Curriculum Design	1.00		
2. Graduate Employability	0.54**	1.00	
3. Migration Intention	-0.39**	-0.47**	1.00

***p < 0.01 (two-tailed). N = 270.*

The correlation matrix reveals statistically significant relationships among all key variables at the $p < 0.01$ level. Curriculum design demonstrates a strong positive correlation with graduate employability ($r = 0.54$), confirming that better-aligned curricula are associated with higher employability outcomes. Conversely, migration intention shows moderate negative correlations with both curriculum design ($r = -0.39$) and graduate employability ($r = -0.47$), indicating that as curriculum quality and employability improve, migration intentions decrease. The strongest correlation exists between graduate employability and migration intention, suggesting that employability serves as a critical mediating mechanism in the curriculum-brain drain relationship. These correlations provide preliminary support for the study's theoretical propositions.

Table 4: Multiple Regression Results: Curriculum Design Predicting Graduate Employability

Predictor	B	SE	Beta	t	p
(Constant)	0.92	0.18		5.11	<0.001
Curriculum Relevance	0.29	0.05	0.31	5.80	<0.001
Practical Skill Acquisition	0.18	0.05	0.21	3.60	<0.001
Digital Skill Acquisition	0.14	0.04	0.17	3.50	0.001

$R^2 = 0.38$; Adjusted $R^2 = 0.37$; $F(3, 266) = 54.26$, $p < 0.001$. Dependent variable: Graduate Employability.

The regression model demonstrates that curriculum design components collectively explain 38% of the variance in graduate employability ($R^2 = 0.38$), with the overall model being statistically significant ($F(3, 266) = 54.26$, $p < 0.001$). Curriculum relevance emerged as the strongest predictor (Beta = 0.31, $p < 0.001$), followed by practical skill acquisition (Beta = 0.21, $p < 0.001$) and digital skill acquisition (Beta = 0.17, $p = 0.001$). These findings indicate that each dimension of

curriculum design independently and significantly contributes to graduate employability, with curriculum relevance having the greatest impact. The substantial explained variance suggests that curriculum reform targeting these specific areas could meaningfully enhance graduate employability outcomes in Lagos State higher education institutions.

Table 5: Multiple Regression Results: Graduate Employability Predicting Migration Intention

Predictor	B	SE	Beta	t	p
(Constant)	5.14	0.22		23.36	<0.001
Graduate Employability	-0.52	0.07	-0.41	-7.43	<0.001
Job Satisfaction	-0.16	0.05	-0.17	-3.20	0.002

$R^2 = 0.27$; Adjusted $R^2 = 0.26$; $F(2, 267) = 49.38$, $p < 0.001$. Dependent variable: Migration Intention.

The regression model reveals that graduate employability and job satisfaction collectively explain 27% of the variance in migration intention ($R^2 = 0.27$), with the overall model being statistically significant ($F(2, 267) = 49.38$, $p < 0.001$). Graduate employability emerged as the strongest negative predictor of migration intention (Beta = -0.41, $p < 0.001$), indicating that a one-unit increase in employability is associated with a 0.41 standard deviation decrease in migration intention. Job satisfaction also contributed significantly but with a smaller effect (Beta = -0.17, $p = 0.002$). These findings confirm that enhancing graduate employability substantially reduces the likelihood of migration intentions, supporting the hypothesis that employability serves as a critical protective factor against brain drain. The model's explanatory power suggests that employability improvements could meaningfully contribute to talent retention strategies.

Hypothesis Testing

H1 stated that curriculum design has a significant positive relationship with graduate employability. The regression results in Table 4 confirm that curriculum relevance (Beta = 0.31, $p < 0.001$), practical skill acquisition (Beta = 0.21, $p < 0.001$), and digital skill acquisition (Beta = 0.17, $p = 0.001$) each significantly predicted graduate employability, with the combined model explaining 38% of the variance. H1 is therefore supported.

H2 stated that graduate employability has a significant negative influence on migration intention. Table 5 shows that graduate employability was a significant negative predictor of migration intention (Beta = -0.41, $p < 0.001$), explaining 27% of the variance alongside job satisfaction. H2 is therefore supported.

Qualitative Findings

Thematic analysis of the 24 interviews yielded three dominant themes consistent with the quantitative results: curriculum-labour market disconnect, employability as a migration trigger, and institutional push factors.

On curriculum relevance, a graduate respondent in the education sector remarked: "I spent five years studying theories that my employers had never heard of. When I got to the workplace, I had to start learning from scratch, and that is when you begin to ask yourself whether it would not be better to just go abroad where at least the training matches the job" (Graduate Respondent 4, Education).

An academic staff member described the institutional dimension: "We know the curriculum is outdated, but the process of revising it takes years because of bureaucracy. Meanwhile, our best graduates leave, and the ones who stay are frustrated" (Academic Respondent 7, Healthcare). An employer in the technology sector highlighted the skills gap directly: "Out of every ten graduates we interview, perhaps two can do the job without significant retraining. The rest have degrees but not competencies, and many of them tell us openly that they are applying for jobs in Canada or the UK at the same time" (Employer Respondent 3, Technology).

1 Curriculum Misalignment and Employability Deficit

Many graduate respondents perceived their university education as insufficiently aligned with labour market demands, reporting consistent gaps in practical skills, digital competencies, problem-solving abilities, and industry exposure. This finding aligns with Ukonu and Oji-Emma (2025), who argue that Nigeria's education system prioritises theoretical knowledge at the expense of practical competence. From a systems perspective, this represents a breakdown in the education subsystem: rather than feeding the labour market with job-ready professionals, the system produces graduates who require further training, a pattern reflected in interview accounts of graduates completing four to five years of study with little exposure to real-world application and facing repeated rejection for lack of experience.

2 Employability and Migration Intentions

Low employability increased migration intentions, confirming the mediating role of employability in the relationship between curriculum and brain drain. Graduates who reported difficulty securing meaningful employment were more likely to express a desire to migrate, apply for jobs abroad, or pursue skill acquisition targeted at foreign markets. This is consistent with human capital theory, which suggests that individuals migrate toward environments where their skills yield higher returns, and corroborates Aibinuomo et al. (2025), who show that dissatisfaction with job conditions and limited career growth significantly increase migration intentions among Nigerian professionals.

3 Institutional and Sectoral Evidence

Beyond employability, institutional weaknesses, including poor remuneration, limited career progression, inadequate infrastructure, and weak organisational support, emerged as critical drivers of brain drain, consistent with Anokye et al. (2019) and Osagie and Akhimien (2026). Academic respondents described prolonged promotion timelines and limited research funding relative to counterparts abroad, while healthcare respondents described disproportionate patient loads and outdated equipment, conditions that Aibinuomo et al. (2025) associate with high migration consideration among healthcare workers. Comparative evidence from Wong et al. (2026) in Malaysia and Vega-Muñoz et al. (2025) at the cross-national level reinforces that structural factors, rather than salary alone, are the dominant determinants of migration, suggesting that retention requires systemic reform rather than isolated interventions.

4 Systems Interpretation

Interpreted through systems theory, the findings describe a reinforcing feedback loop in which weak curricula lower employability, low employability drives unemployment and underemployment, poor employment conditions drive migration, migration removes skilled professionals from the system, and the resulting loss of talent further weakens institutions, perpetuating the cycle. This explains why isolated interventions, such as one-off salary adjustments or short-term training programmes, have largely failed to produce lasting retention outcomes. The results support the study's central proposition that curriculum reform, although necessary, is most effective for talent retention when implemented alongside complementary labour market and policy reforms, rather than as a standalone measure.

Conclusion

This study adopted a systems-based analytical framework to examine how curriculum reform, graduate employability, and brain drain interact among graduates, academic staff, and employers across three public universities in Lagos State, Nigeria. The central finding is that brain drain, within the studied population, is a systemic outcome rather than an individual choice: misaligned curricula reduce employability, low employability drives migration intentions, and the

resulting loss of skilled professionals weakens the very institutions responsible for reform. The study's principal contribution is its integrated systems model, which demonstrates that employability functions as a mediating mechanism linking curriculum quality to migration behaviour, moderated by the policy environment. This framing moves beyond fragmented explanations and highlights why isolated interventions, whether salary adjustments or short-term training, have failed to produce lasting retention outcomes. Several limitations should be acknowledged. First, the study was confined to public universities in Lagos State; private universities and institutions in other states may present different dynamics. Second, the cross-sectional design captures migration intentions at a single point in time rather than actual migration behaviour over time. Third, the quantitative data relied on self-reported perceptions, which may be subject to social desirability bias. Fourth, the study did not track respondents who had already emigrated, meaning the perspectives of those who acted on their intentions are absent. Future research should adopt longitudinal designs to track whether migration intentions translate into actual emigration, extend the scope to private universities and other geopolitical zones, and incorporate diaspora perspectives to complete the picture of the brain drain cycle.

Recommendation

Drawing from the findings, the following recommendations are proposed:

i. Curriculum transformation: given that curriculum relevance was the strongest predictor of graduate employability in this study (Beta = 0.31, $p < 0.001$) and that respondents consistently reported gaps in practical and digital skills, educational institutions should prioritise competency-based learning, integration of digital and technological competencies, and experiential learning models such as internships and project-based learning.
ii. Industry-academia collaboration: respondents across all three stakeholder groups identified limited industry engagement as a primary weakness of existing curricula; accordingly, universities and industry stakeholders should institutionalise joint curriculum development, industry-led training, and structured internship and mentorship opportunities to close the skills gap documented in this study.
iii. Improved labour market conditions: academic and healthcare respondents in this study described prolonged promotion timelines, inadequate remuneration, and disproportionate workloads as direct triggers of migration consideration; government and organisations should therefore enhance salary structures, provide clear career progression pathways, and improve workplace infrastructure to address these specific institutional push factors.
iv. Policy and institutional reform: policymakers should strengthen governance and institutional accountability, promote investment in education, healthcare, and technology, and develop national talent retention strategies, consistent with Vega-Muñoz et al. (2025).
v. Innovation ecosystem development: employer respondents in the technology sector reported that the absence of local innovation infrastructure drives their best recruits abroad; Nigeria should therefore invest in entrepreneurship support, research and development funding, and technology hubs to create domestic alternatives to the career opportunities that currently pull skilled professionals toward foreign markets.

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