INNOVATIVE STRATEGIES FOR ALIGNING HIGHER EDUCATION WITH LABOUR MARKET DEMAND IN THE 21ST CENTURY IN NIGERIA

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Abstract

The concern of this study is on the innovative strategies for aligning higher education with labour market demand in the 21st century in Nigeria using the correlational research design. Data were collected using a validated questionnaire. The study adopted the mean and standard deviation statistical tools to answer the research questions and tested the single hypothesis with the Pearson Product Moment Correlation Coefficient at a 0.05 significance level. The findings revealed a very strong and significant relationship between innovative strategies in higher education and labour market demand in Nigeria ($r = 0.998$; $p < 0.05$). The study concluded that Education is the most significant pillar that underpins individual, societal and economic growth and development of any nation, therefore it should be given all it takes and that aligning Nigeria higher education with labour market demand is crucial for driving economic growth, reducing unemployment and improving living standards. Based on the findings in this study, it is majorly recommended that the government should involve employers and external bodies in higher education programmes and curriculum development and try to implement industry based curriculum that will incorporate digital skills and emerging technologies.

Keywords: Higher Education, Innovative Strategies, Aligning, Labour Market Demand

Introduction

Education is a veritable tool for equipping and empowering individuals with relevant knowledge, skills, values and attitudes towards developing their potentials intellectually, socially, emotionally and physically as such preparing them to contribute meaningfully to the society and achieve their personal goals (Obizue & Obizue, 2018). It is an indisputable fact that education is the foundation of the economic development of nations, hence it is notable that the level of economic development is an index of the literacy level of the citizens. As a matter of fact, "the right type of education produces citizens who discover their potentials, eager to develop themselves, realize their dreams and actively engage in the societal development" (Oko-Jaja & Oko-Jaja, 2024:108). This means that there ought to be positive efforts towards increasing the literacy level of the citizens and empowering them to become meaningful economic players in the economy,

In the global context, the relationship that exists between levels of achievement in the higher education and the workforce development has a very significant influence on economic development of nations. The prioritisation of educational development stimulates efficient workforce development and consequently the creation of a high-skilled, knowledge economy.

In recent years, having the world as a global village, enhanced human interactions, the experience in social, economic and political life and the attendant digital improvements all over the world can be directly attributed to the development of education. Based on this, the society has experienced high-speed globalisation, which has influenced all other aspects that define life and this has proved education to be essential in the development of all spheres of life (Graham & Anderson, 2022). Consideration of this fact has led different countries, organisations and individuals to consider in detail the development of higher educational systems that serve to feed the labour market with what it demands. With the understanding of the inter-connection between education systems and labour market needs, governments all over the world focus on the creation of strategies that assure a proper alignment of the two elements in order to ascertain success and improve on the development of their economies. In Nigeria's rapidly evolving economy, aligning higher education with labour market demands is crucial in driving growth, innovation and prosperity. The 21st century has brought unprecedented changes, with technological advancements and shifting industry landscapes reshaping the labour market. To remain competitive, Nigeria higher education sector must adapt, innovate and respond to emerging trends. Bamidele and Adeyemi (2022) advised that it requires innovative strategies to foster industry-academia partnerships, integrate digital technologies and prioritise in-demand skills. They further posited that by exploring these strategies, Nigeria can unlock its potentials, produce job-ready graduates and achieve sustainable development in the 21st century.

The major challenges are that Nigeria's higher education system is not adequately aligned with the country's labour market demands resulting in a mismatch between graduates' skills and industry requirements leading to high unemployment rates, low productivity and stunted economic growth (Asabor and Rabina, 2023). This paper focuses on identifying possible innovative strategies that could be applied to address these challenges and achieve the desired success in aligning the Nigerian higher education product to suit the inherent work force demand and also improve on the economic condition of the country.

Specifically, the study sought to examine:

1. the innovative strategies in aligning higher education with labour market demand in Nigeria in the 21st century
2. the benefits of aligning innovative strategies in higher education with labour market demand in Nigeria in the 21st century

To achieve the stated specific objectives of the study, the following research questions were posed to guide the study:

1. What are the innovative strategies in aligning higher education with labour market demand in Nigeria in the 21st century?
2. What are the benefits of aligning innovative strategies in higher education with labour market demand in Nigeria in the 21st century?

A single null hypothesis was formulated to guide this study and it was tested at 0.05 level of significance.

H$_{01}$: There is no significant relationship between innovative strategies in higher education and labour market demand in Nigeria in the 21st century.

Literature Review

Innovative Strategies

According to Bamidele and Adeyemi (2022) innovative strategies are plans to drive growth and competitiveness through new ideas, products and processes. Before innovative strategies are adopted, there are existing undesired situations that need to be improved upon to attain some desired goals. To align higher education with the demands of Nigeria's labour market implies strategising

education programmes and activities in order to produce qualified job-ready graduates that will contribute to national development. This will help a great deal in curbing the challenge of education without integration, which according to Oko-Jaja and Arobiole (2023) is the type of education that distanced the learners from the realities that exist in the society. The innovative strategies may include; curriculum formation and partnership in collaboration with employer, digital transformation, skills forecasting and entrepreneurship focus to encourage students to create jobs, not to fill them.

According to Ahmed (2016), Ebube and Okezie (2019), Nwogugu and Abazie (2023) and Asabor and Rabina (2023), the following are the innovative strategies for aligning higher education with the demand of the labour market in Nigeria.

Integration of Digital Technologies: The integration of digital technology in Nigeria's higher education will make it more effective, inclusive, innovative and responsive to the demands of the labour market by producing graduates with relevant globally demanded skills that will improve their employability. Digital technologies can provide online learning platforms and virtual classrooms which expand access to quality education as well as enhanced learning experiences. Obizue and Obizue (2018), Oko-Jaja, Olaobaju and Jutum (2025) averred that the AI-powered tools give opportunity for personalize education, improved outcomes, data-driven insightful decision making, with the attending access to global knowledge and research.

Workforce Development: Application of some aspects the UK's educational system within the Nigeria educational systems can enhance the process of workforce development. Nigeria should ensure to develop learners who are not only focused on acquiring jobs, but who aim throughout their educational life to acquire values that enable them to lead sustainable lives (Coughlan & Hunt, 2011). In this respect, fundamental principles include ideas of self-directed learning and lifelong learning, and the view of education as broader than preparation for employment. Ebebe and Okezie (2019), Oko-Jaja (2020) observed that the major purpose of the education should be the development of citizens who focus on their personal development, and on the development of society. An all-round well-developed workforce should possess a broad range of skills that enable it to undertake different duties proficiently, meeting the labour market needs.

Engaging Employers in Curriculum Development and Quality Assurance in Higher Education: The UK aims to ensure labour market participation in the development of education through the establishment of a distinct relationship between employers and the higher education sector in the region. Cohen and Bhall (2012) advocated that the Quality Assurance Agency (QAA), a UK body responsible for quality and standards in UK universities, fosters the development of

employer participation/engagement and encourages a relationship between the higher education sector and employers. The collaborative relationship works towards the development of awards that respond to both academic expectations and the practical needs of the labour market. Throughout the UK, employers have in the past revealed a close inter-connection with the educational system, showing extensive engagement, which has created a basis for the development of further healthier relationships (Harry, 2007). Such relationships constantly lead to effectiveness in aligning the educational system with the labour market needs.

Improved Academic Infrastructure: In the recent past, Nigeria has focused on the improvement of its academic infrastructure in the quest to align its educational system with labour market needs. The assurance of an improved academic infrastructure includes the adoption of different measures of performance that focus on the improvement of quality and standards of education within the institutions of learning. Agencies like Tertiary education trust fund (TETFUND) and Education trust fund (ETF) are among the platforms for the development of an enhanced educational infrastructure.

Well-Defined Labour Market Qualification: Nigeria should establish a well-defined labour market qualifications that any individual must meet in order to secure a chance in the labour market. The educational system within the country has to align with the labour market needs in order to respond efficiently towards issues of workforce development, employee and employer relationship, and unemployment among others within the market (Ebebe & Okezie, 2019). In addition, due to the labour market shortages experienced across the world, the Nigerian higher educational system should adopt a policy that creates a strong interest among students at school in the technical occupations, nature and technology. Such programs include practice-oriented programs which help to align the educational systems with labour market needs. By such policies, learners would acquire the competences needed to develop a knowledge based economy, like in Germany, the development would also respond specifically to the labour market shortages in the technological, technical and innovative fields (Nwaogugu & Abazie, 2023).

The Demand and Supply Perspectives: Hartog (2012) asserted that the UK and German educational systems have experienced significant success by adopting the demand and supply factor of the labour market. By the understanding the labour market shortages, the issues of unemployment and the poor development of the workforce, the governments of the Nigeria should focus on financing higher education with digital resources to meet the demands from students and employers (Obizue & Obizue, 2018). In doing so, aligning demand and supply is critical and the focus should be on the development of students with the capability to meet the present shortages and the future needs in the labour market.

Financing Higher Education

In the broadest sense, the establishment of an effective educational system that aspires to provide quality education and to meet the full development of learners requires significant financing. Governments that allocate additional funds for the educational sector consequently record levels of performance to ensure increased effectiveness and a quality educational output. Insufficient funding is a major challenge in the education sector in Nigeria hence it is proper for the government of Nigeria to step up in funding her educational systems in order to assure quality service delivery in all levels of its system leading to quality graduates (Oko-Jaja & Ariobole, 2023; Oko-Jaja & Oko-Jaja, 2024; Akudo & Ezugoh, 2024). Ease in access to state-sponsored loans and other loans, scholarships, and public sources like political foundations are some of the ways students fund their education in institutions of higher learning. Though almost all countries have concentrated on funding the education sector in the quest to develop a knowledge based economy, there is a need to adopt measures and policies to manage and evaluate the use of education funds.

Benefits of Aligning Higher Education with the Demands of the Labour Market in Nigeria in the 21ˢᵗ Century

According to Coughlan and Hunt (2011), Ahmed (2016) and Graham and Anderson (2023), aligning higher education with labour market demands in Nigeria can bring numerous benefits, including and not limited to the following;

Improved Employability: Graduates will possess skills and knowledge relevant to the job market, increasing their chances of employment. This will make them more attractive to employers thereby increasing their chances of getting hired and help them to earn their living and contribute effectively to economic growth and development.

Reduced Unemployment: Aligning higher education with labour market demand will bring about the production of skilled and job-ready graduates leading to significant reduction in the rate of unemployment in the country. The key aspects will be bridging skill gaps, increase in entrepreneurship, job creation, better livelihood and overall economic stability. Unemployment is a major problem in Nigeria and by tackling it, Nigeria can unlock her potentials and create an improved and prosperous future for its citizens.

Economic Growth: A skilled workforce can drive economic growth and development by increasing, entrepreneurship, creativity, innovation, competitiveness, job creation and productivity, all leading to enhanced economic diversification, foreign investment and stability.

Industry-relevant education can produce graduates with entrepreneurial skills can create jobs and stimulate economic innovation and increase productivity and efficiency in various sectors.

Better Industry-Academia Collaboration: Partnerships between universities and industries can lead to research, innovation, and knowledge sharing.

Methodology

This study adopted a correlational research design to the innovative strategies (predictor variable) for aligning labour market demand in Nigeria in the 21st century (criterion variable). The study population consisted of all the stakeholders in higher education administration and employment in Nigeria which the researcher could not ascertain at the time of this study. These stakeholders are distributed across the tertiary institutions in Nigeria but this study focused on the south-south region of Nigeria from where a sample size of 387 was adopted using Taro Yamane's (1967) formula at a 5% margin of error. A stratified random sampling technique was applied to enhance representativeness by stratifying the population into Universities, Polytechnics and Colleges of Education. The study further used the proportional allocation and simple random sampling to select participants from each stratum. A researcher-developed questionnaire titled 'Innovative Strategies for Aligning Higher Education with Labour Market Demand in Nigeria' (ISHELMD) was used to collect the primary data used in this study. The questionnaire comprised of two sections; Section A on demographic data and Section B containing ten items arranged five each according to the research questions and rated on a 4-point Likert scale. Content validity was assured and reliability established. 387 copies of the questionnaire were given to the respondents, but only 320 were retrieved. The data were analyzed using the mean and standard deviation tools while the hypothesis was tested by the Pearson's correlation at a 0.05 level of significance via the Statistical Package for Social Sciences (SPSS) software.

Result

Research Question 1 Innovative strategies in aligning higher education with labour market demand in Nigeria in the 21st century?

Table 1: Mean and standard deviation on the ratings of higher education Administrators and Employers on the innovative strategies in aligning higher education with labour market demand in Nigeria in the 21st century

	Administrators	Employers

SN	ITEMS	X_1	SD_1	X_2	SD_2	DECISION
1	Integration of digital technology	3.40	0.62	3.15	0.71	Highly agreed
2	Quality assurance in higher education	3.37	0.63	3.12	0.70	Highly agreed
3	Proper and adequate funding	3.35	0.64	3.10	0.72	Highly agreed
4	Improved infrastructure	3.36	0.65	3.11	0.71	Highly agreed
5	Well defined labour market qualification	3.33	0.66	3.08	0.73	Highly agreed
	Grand/Set Mean	3.36	0.64	3.11	0.71	

From table 1 above, innovative strategies were found to meet labour market demands in Nigeria in the 21st century. The higher education Administrators and Employers highly recorded an average mean rating value of 3.36 and standard deviation of 0.64 which is slightly above that of the labour employers which stood at 3.11 and 0.71 respectively. Both scores are very high indicating that the two set of respondents highly agreed that items 1 to 5 are the innovative strategies for aligning higher education delivery in Nigeria to suit the 21st century demand of the labour market.

Research Question 2 Benefits of aligning innovative strategies in higher education with labour market demand in Nigeria in the 21st century?

Table 2: Mean and standard deviation on the ratings of higher education Administrators and Employers on the benefits of aligning innovative strategies in higher education with labour market demand in Nigeria in the 21st century

SN	ITEMS	X_1	SD_1	X_2	SD_2	DECISION
1	Improved employability	3.36	0.65	3.34	0.65	Highly agreed
2	Efficient labour market	3.32	0.67	3.33	0.66	Highly agreed
3	Increase in standard of living	3.34	0.65	3.40	0.62	Highly agreed
4	Overall economic growth and development	3.38	0.61	3.36	0.65	Highly agreed
5	Better industry – academia collaboration	3.29	0.66	3.08	0.73	Highly agreed
	Grand/Set Mean	3.34	0.65	3.30	0.66	

All the respondents subscribed to the items in table 2 as the benefits that accrue from aligning various innovative strategies in higher education with the labour market demand in Nigeria in the 21st century. The was derived from the grand mean and standard deviation values of 3.34 and 0.65 as well as 3.30 and 0.66 revealed in table 2 for the higher education Administrators and Employers respectively. The implication is that innovative strategies have a lot of impact on the attainment of the labour market demand in Nigeria.

Test of Hypothesis

H_{01}: There is no significant relationship between innovative strategies in higher education and labour market demand in Nigeria in the 21st century.

Table 3: Result of Analysis on Relationship between Innovative Strategies in Higher Education and Labour Market Demand in Nigeria in the 21st century.

Variables		Innovative Strategies	Labour Market Demand
Innovative Strategies	Pearson correlation	1	.998**
	Sig (2-tailed)	.021	
	N	320	320
Labour Market Demand	Pearson correlation	.998**	1
	Sig (2-tailed)	.021	
	N	320	320

Source: SPSS Output, (2025) **correlation is significant at 0.05 level (2-tailed)

Table 3 revealed a Pearson correlation of 0.998 with a significance probability value of 0.021 which is less than the significance level of 0.05, demonstrating a very strong and statistically significant relationship between innovative strategies in higher education and labour market demand in Nigeria. Given this result, the null hypothesis which stated that there is no significant relationship between innovative strategies in higher education and labour market demand in Nigeria in the 21st century is hereby rejected. This affirms that innovative strategies in higher education is statistically and significantly correlated with labour market in Nigeria in the 21st century.

Discussion of Findings

Findings from the study provide strong empirical evidence that the innovative strategies in aligning higher education with labour market demand in Nigeria in the 21st century in impactful. Statistically, the perfect correlation means that variations in the effectiveness in adopting these innovative strategies will turn to corresponding variations in the labour market expectations. Practically, this finding shows that both variables work in direct proportion in the sense that effective innovative strategies in higher education will translate to robust labour force in Nigeria. This highlights the necessity for higher education Administrators and Employers to adopt vigorous strategies that will bring about innovations and improvements in higher education in Nigeria thereby producing

graduates with efficient service delivery that will suit the demand of the labour market and enhance the economy of the nation

It was discovered from the result that the items listed in table 1 are the various strategies that can bring innovation and align higher education in Nigeria to suit the demand of her labour market in the 21st century.

From table 2, it was shown that innovative strategies in higher education have significant benefit and impact on Nigerian labour market thus positive relationship exist between the two variables.

Findings from Table 3 revealed perfect, strong and statistically significant correlation between innovative strategies in higher education and labour market demand in Nigeria. This strong positive association indicates that adopting innovative strategies in higher education almost entirely predicts the quality of graduates that the Nigeria's labour market demands. This result aligns with previous scholarly findings of Fasih (2008), Hertog (2012), Ebebe and Okezie (2019), Bamidele and Adeyemi (2022), and Uwaoma and Abazie (2023) who respectively concluded that innovation is a key factor and the most critical determinant of high quality graduate that are employable and be productive in the Nigeria's labour market. Specifically, this study findings are also coherent with the findings of Ebebe and Okezie (2019) who in their study on the quality of Nigerian graduates and the needs of Nigerian labour market discovered that higher education requires adequate funding to be able to integrate some important digital devices that will help in improving that quality of education service delivery as well as enhance the quality of education products that will be able to equip the labour market and contribute effectively toward economic growth and development of their host economies. However, there are other scholarly views that somehow contradict result of this current study. Cohen and Bhall (2012) posited that no matter how highly education is funded in Nigeria, there are some human and environmental factors that impede the full realisation of its set goals.

Conclusion

Education is the most significant pillar that underpins individual, societal and economic growth and development of any nation, therefore it should be given all it takes to see that there is good policy formulation and implementation to achieve a sound and impactful education of the citizenry. In conclusion, aligning Nigeria higher education with labour market demand is crucial for driving economic growth, reducing unemployment and improving living standards.

Recommendations

Based on the findings in this study, the following are therefore recommended;

1. The government should involve employers and external bodies in higher education programmes and curriculum development and try to implement industry based curriculum that will incorporate digital skills and emerging technologies
2. The government should ensure adequate funding of education so as to cater for infrastructural upgrade, staff training and better salary.
3. There is need to foster industry-academia partnerships for internship, research and job placement
4. Increasing range of vocational programmes and further emphasis on the development of lifelong learning

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