

An Assessment of the Financing of Technical and Vocational Education and Training (TVET) in Nigeria

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ABSTRACT

Technical and Vocational Education and Training (TVET) is widely recognized as a critical driver of socio-economic transformation through the development of a competitive and skilled workforce. This growing recognition has attracted increased global attention and funding to the TVET sector. In Nigeria, recent policy emphasis has shifted toward strengthening TVET governance, particularly in addressing the constitutional responsibilities shared among the three tiers of government and in establishing sustainable financing mechanisms to improve service delivery. This study adopted a mixed-methods approach, drawing on secondary data from federal line ministries as well as primary data generated through surveys, questionnaires, and focus group discussions to examine the current state of TVET financing in Nigeria. The study explores various models of TVET financing and demonstrates that the integration of funding sources is a viable strategy for positioning TVET as a catalyst for national economic development. Findings indicate that TVET financing in Nigeria is shaped by several interrelated factors, including global political dynamics, private sector participation, intergovernmental collaboration, national economic conditions, external funding, equity and inclusion concerns, and youth mobilization. Furthermore, although trends in TVET budget allocation show a strong correlation with the overall national budget and total education expenditure, current funding levels remain inadequate to achieve the targets of Sustainable Development Goal 4 and to effectively implement government policies aimed at expanding the TVET sector.

Keywords: Financing pattern, Fiscal equalization, Political economy, Sustainability TVET,

Introduction

Background of the Study

Technical and Vocational Education and Training (TVET) in Nigeria is designed to prepare learners for careers in diverse fields such as business studies, carpentry, food and nutrition,

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Building technology, and crafts. Its core objective is to equip individuals with the practical knowledge, technical skills, and appropriate work attitudes required for gainful employment, entrepreneurship, and self-reliance. Ideally, graduates of TVET institutions should be industry-ready and capable of creating employment opportunities for themselves and others. However, the persistently high rate of unemployment among TVET graduates highlights significant challenges within the sector, particularly inadequate government funding, weak institutional support, and limited industry linkage.

Globally, the financing of TVET has remained a major challenge. UNESCO-UNEVOC has identified several innovative financing mechanisms aimed at improving the quality, relevance, and sustainability of TVET programmes. These include cost-sharing arrangements, development partner assistance, and income generation through service provision, private sector co-financing, levy-grant schemes, and service fees (Karmel, 2015; Ziderman, 2016). TVET delivery is inherently resource-intensive due to the high costs of infrastructure, machinery and equipment, personnel, and instructional consumables. Consequently, scholars have increasingly advocated for output-based funding models to ensure efficiency and accountability in resource allocation (Subrahmanyam, 2020; Renold & Caves, 2017). Furthermore, UNESCO-UNEVOC (1996) classifies TVET financing into four broad categories: enterprise-based financing, private and public sponsorship, public sector financing, and international donor support, with a growing global emphasis on public–private cost-sharing arrangements.

Empirical evidence consistently demonstrates a strong relationship between education, skills development, and employment outcomes (Vollmann, 2010; Chen, 2017). High-quality Technical and Vocational Education and Training (TVET) improves employability, enhances labour productivity, and contributes significantly to economic growth, positioning it as a strategic instrument for achieving Nigeria’s vision of a “Prosperous Nigeria.” This commitment is reflected in key national policies such as the National Education Policy (MOEST, 2019), as well as initiatives aimed at promoting indigenous skills development and ensuring equitable access to technical education (MOE, 2012). Furthermore, Nigeria’s 2015 Constitution mandates collaboration between the public and private sectors to support sustainable economic development (Ministry of Law, Justice and Parliamentary Affairs, 2015).

Despite these policy efforts, significant gaps remain in the clarity of financing mechanisms and the effectiveness of governance structures, particularly in terms of coordination among the federal, state, and local levels of government. Consequently, the existing federal system

requires a more streamlined and restructured approach to TVET governance and funding to ensure efficient service delivery, improved quality outcomes, and stronger alignment with national development objectives.

Statement of the Problem

The financing of Technical and Vocational Education and Training (TVET) remains a persistent and unresolved challenge across many countries, particularly in developing economies such as Nigeria. The African Development Bank (ADB, 2019) and UNESCO (2019) characterize TVET as both a *public good* and a vital component of the labour market, thereby raising important policy questions regarding the appropriate role of the state in its financing and the consequences of expanding private TVET provision. As observed by Fuller and Unwin (2013), key concerns include the extent of government responsibility for financing TVET and whether the proliferation of private institutions genuinely mobilizes local resources or instead deepens existing social inequalities.

At the global level, countries continue to explore sustainable funding models for TVET. In West African countries such as Ghana, Togo, and Benin, TVET funding is largely derived from public sources, with only modest contributions from industries and training institutions (UNESCO-UNEVOC, 2015). In contrast, Nigeria remains overwhelmingly dependent on government financing, with very limited financial participation from employers and trainees (Centre for Research and Development Services [CRDS], 2018). This heavy reliance on public funding stands in sharp contrast to Nigeria's policy orientation toward public-private partnerships as a strategy for promoting domestic entrepreneurship and curbing youth migration (NPC, 2019).

To expand access to TVET services across the country's 774 local government areas, the Nigerian government has increasingly sought support from development partners and private sector actors. Nevertheless, ensuring long-term financial sustainability remains difficult due to intense competition for public resources from other sectors. Within the education sector, the bulk of public expenditure is directed toward basic education, followed by secondary and tertiary education. As a result, TVET consistently receives less than 9% of the national education budget (Ministry of Finance [MoF], 2017, 2018, 2019), despite global benchmarks ranging between 1% and 14% of total education spending (CRDS, 2018).

This pattern reveals a substantial disconnect between Nigeria's policy ambition to equip its youth with relevant and employable skills and the actual level of financial commitment devoted to achieving this objective. In response, the government is increasingly exploring

alternative and sustainable financing mechanisms, strengthening intergovernmental coordination, and promoting greater private sector participation in TVET provision. However, existing evidence on current financing structures and future funding strategies remains limited and fragmented, thereby underscoring the need for a comprehensive and systematic investigation into TVET financing in Nigeria.

The broad objective of this study is to examine the financing of Technical and Vocational Education and Training (TVET) in Nigeria. Specifically, the study seeks to:

- i. Determine the current financing patterns of TVET in Nigeria.
- ii. Identify potential solutions and alternative funding mechanisms to enhance TVET financing within Nigeria's federal system.

REVIEW OF RELATED LITERATURE

Technical and Vocational Education and Training (TVET)

Technical and Vocational Education and Training (TVET) is fundamentally structured to equip individuals with practical skills, technical competencies, and occupational knowledge required for gainful employment, entrepreneurship, and self-reliance. Scholars have conceptualized TVET from multiple perspectives. Okwelle (2008) views TVET as a means of developing relevant technical skills and work-oriented behaviours that enable individuals to sustain livelihoods, contribute to national productivity, and enhance the general standard of living. Ajokporise (2010) further explains that TVET centers on specific vocational trades such as automobile repair, welding and fabrication, plumbing and pipefitting, electrical installation, hairdressing, tailoring, and barbing. In a similar vein, Ojimba (2012) identifies TVET fields to include mechanical and automobile technology, electrical and electronic technology, building and construction, woodworking, metalwork, and related occupational areas.

As a key driver of development, TVET empowers individuals and communities to maximize their potential, expand their capabilities, and adapt to the demands of a rapidly changing global environment (Nsiah-Gyabaah, 2009). The overarching objective of TVET is to prepare young people with industry-relevant technical and professional skills necessary for sustainable industrial growth and national economic development, with particular emphasis on self-employment and job creation. Anaele, Adelakun, Dem-Isaiah, and Barfa (2014) emphasize that TVET equips learners with the requisite skills, knowledge, and attitudes needed for successful participation in the labour market. Likewise, Nwachukwu (2014) defines TVET as a comprehensive educational process that integrates general education with

the study of technologies and applied sciences, as well as the acquisition of practical and occupational competencies across various economic and social sectors.

Despite its strategic importance, the TVET sector in Nigeria continues to face numerous structural and operational challenges. Ayonmike (2013) identifies key issues such as low societal recognition of technical occupations, low student enrolment, shortage of skilled instructors, obsolete instructional facilities, inadequate funding, insufficient staffing, weak linkages with industry, and generally poor quality of training. Supporting these views, Nwogu and Nwanoruo (2011), as well as Yusuf and Soyemi (2012), further highlight challenges including limited human and material resources, poor infrastructure, weak instructional planning, and the prevalence of social vices. Most critically, concerns persist over the inadequate employable skills of many TVET graduates, despite ongoing reforms and policy efforts aimed at improving training quality and relevance.

One viable strategy for addressing the prevailing challenges in the TVET sector is the adoption of Competency-Based Education and Training (CBET), an approach that aligns closely with the practical and employment-oriented nature of TVET. CBET emphasizes the development of job-specific competencies and measurable skills, ensuring that learners acquire abilities that are directly relevant to the workplace. Through this approach, the TVET system is better positioned to produce a skilled, innovative, and entrepreneurial workforce capable of generating wealth, reducing poverty, strengthening national security, and driving economic growth across Africa (Adebambo, 2007). Moreover, TVET programmes delivered through the CBET framework can be customized to address the diverse needs of industries, as well as learners from varied socio-economic and educational backgrounds, thereby enhancing their prospects for sustainable livelihoods.

Against this backdrop, the present paper examines the objectives of TVET, the structure and delivery of TVET curricula in relation to labour market demands, the strategic role of CBET in skills development, and the integration of competency-based approaches into TVET systems. In addition, the study explores the broader implications of TVET for sustainable industrial development and national economic growth in Nigeria.

Technical and Vocational Education and Training (TVET) Financing

The expansion and quality enhancement of Technical and Vocational Education and Training (TVET) demand substantial financial investment, which can only be sustainably supported through a well-institutionalized and resilient national economy. From a theoretical standpoint, efforts to reduce inequality are often driven by social objectives, whereas the

institutionalization of the economy reflects broader political and economic goals (Wang, 1977). Consequently, the field of political economy plays a crucial role in shaping how education—particularly TVET—is financed and prioritized. Within this framework, the political superstructure continuously interacts with and reinforces the economic base in order to meet the fundamental needs of society (Eatwell et al., 1987, as cited in Mosco, 2009).

The influence of political economy extends beyond immediate political decision-making to affect multiple societal substructures, including education. It informs the formulation of policies related to capital formation, labour markets, and financing at both local and national levels (Kennedy, 2013). In the Nigerian context, the existing federal structure and the ongoing process of governance restructuring—especially with the introduction of new funding arrangements—underscore the need for a comprehensive developmental framework that adequately addresses the financial requirements of all critical sectors, including TVET.

Thompson (2000) observes that state and national political processes are increasingly influenced by global political economy paradigms, which facilitate the diffusion of innovations in both technological and economic spheres. Political economy has consequently become a central factor in the formulation and execution of public sector reforms, including those in education (ADB, 2009; Grindle & Thomas, 1991). In many developing countries, development partners and multinational organizations exert substantial influence over education policy decisions, often in ways that may not fully align with domestic priorities (Kingdon et al., 2014).

In Nigeria, the government relies significantly on the support of development partners to strengthen the TVET system. However, such assistance is frequently structured around the priorities and strategic interests of the partners themselves, reflecting the broader dynamics of political economy concerned with how power and resources are distributed among key stakeholders (Hatlebakk, 2017). Scholars further note that even a single donor-funded intervention may be shaped by competing interests, and that political economy forces can either facilitate or constrain the pace of educational reforms. These dynamics make it evident that political economy provides a crucial lens for understanding how political processes shape development outcomes, particularly in relation to the financing and implementation of education and TVET reforms.

Global Practices of TVET Financing

Approaches to financing Technical and Vocational Education and Training (TVET) differ considerably across countries. In Cambodia, for example, TVET funding has traditionally

been allocated on a per-capita basis, with unit costs varying by occupational trade, a system that has made accurate cost estimation difficult (UNESCO, 2018). These limitations have prompted many countries to transition toward industry-specific training funds that are organized along sectoral lines. However, while such sector-focused models aim to align training more closely with labour market needs, they have often been criticized for failing to minimize duplication and for not sufficiently establishing standardized core competencies required by employers (Johansen, 2019).

To address these challenges, Johansen (2019) identified three major categories of TVET funding models based on a review of more than 60 countries:

- i. Pre-Employment Training Fund – Designed to provide training opportunities and balance labor market demand and supply.
- ii. Enterprise Training Fund – Focused on in-service training to enhance productivity and competitiveness within enterprises.
- iii. Equity Training Fund – Aimed at increasing access to TVET for targeted and disadvantaged groups.

The German dual apprenticeship system and the Japanese enterprise-based training model both emphasize enterprise-driven training, with companies and industries taking primary responsibility for financing programs to ensure that workers acquire skills aligned with labor market demands (Alam, 2015). Similarly, in Vietnam, enterprise-based TVET delivery continues despite limited incentives for private sector involvement, as training institutions maintain the autonomy to set fees while government funding is allocated on a per-capita basis (General Directorate for Vocational Training, 2007).

In contrast, South Asian countries face distinctive challenges in financing TVET. For instance, although Sri Lanka has a well-established TVET system, securing sustainable financing for public pre-employment training programs remains difficult due to the high economic and fiscal costs involved (ADB, 2015). In response, many developing countries have increasingly adopted skill development funds as a strategic financing mechanism. In Pakistan, TVET financing is structured as a cost-sharing arrangement among the government, employers, and trainees, incorporating learner fees, loans or bursaries, levies, and grants (Ministry of Federal Education and Professional Training, Pakistan, 2015).

In Nigeria, the government has formally mandated the creation of a TVET Fund, designed to mobilize resources through joint investments by the government, private sector, and

development partners to expand access and improve the quality of TVET programs (MOE, 2012). Nigerian TVET programs span multiple sectors, including education, health, labor, tourism, agriculture, industry, and cooperatives. Consequently, the Ministry of Education, Science and Technology (MoEST), other relevant federal ministries, and the Council for Technical and Vocational Education and Training (CTEVT) play critical roles in implementing and coordinating various TVET initiatives nationwide.

The German dual apprenticeship system and the Japanese enterprise-based training model both prioritize enterprise-led training, with companies and industries assuming primary responsibility for financing programs to ensure workers develop skills that meet labor market demands (Alam, 2015). In Vietnam, enterprise-based TVET remains prevalent despite limited incentives for private sector engagement, as institutions retain autonomy to set fees while government support is provided through per-capita allocations (General Directorate for Vocational Training, 2007).

South Asian countries, however, face distinct financing challenges. In Sri Lanka, for example, the public sector struggles to secure sustainable funding for pre-employment TVET programs due to high financial and economic costs (ADB, 2015). As a result, many developing nations have adopted skill development funds to share the cost of training. In Pakistan, TVET financing is structured as a cost-sharing arrangement among the government, employers, and learners, utilizing mechanisms such as fees, bursaries, levies, and grants (Ministry of Federal Education and Professional Training, Pakistan, 2015).

In Nigeria, the government has established a TVET Fund to mobilize resources from the government, private sector, and development partners with the aim of expanding access and improving program quality (MOE, 2012). Nigerian TVET programs cut across multiple sectors—including education, health, labor, tourism, agriculture, and industry—while implementation is coordinated by the Ministry of Education, Science and Technology (MoEST), other federal ministries, and the Council for Technical and Vocational Education and Training (CTEVT).

The literature further identifies four key dimensions of TVET financing (ADB, 2019):

1. The purpose and objectives of TVET;
2. Methods to ensure value for money;
3. Identification of who should bear the cost of TVET; and

4. Suitable mechanisms for transferring funds from sources to beneficiaries.

Together, these dimensions aim to determine the most effective and well-managed financial flow system for TVET. These considerations are particularly critical within Nigeria's federal governance system, where the constitutional provision of concurrent authorities—including TVET—necessitates the establishment of strong intergovernmental coordination mechanisms among the three tiers of government (MOEST, 2019).

Overview of TVET Financing in Nigeria

In response to shifts in Nigeria's political landscape, the current government, guided by a left-leaning ideology, has emphasized equity and inclusion in education, including Technical and Vocational Education and Training (TVET). Braga et al. (2023) note that left-wing political ideologies typically advocate for inclusive educational reforms, while right-wing orientations often prioritize selective interventions, frequently overlooking financing as a crucial factor in determining educational outcomes.

Reflecting these inclusive principles, TVET has been prominently featured in the manifestos of Nigeria's ruling political parties. The government has committed to providing substantial public funding for TVET and has pledged to establish at least one TVET institution in every local government area. This policy focus highlights a central issue in public education reform within Nigeria's federal system: the role of political economy in shaping education financing and the extent to which ideological orientations influence resource allocation to promote access, quality, and equity in TVET.

Trend of Financing TVET in Nigeria

The human capital theory posits that investment in education and training should be regarded as an investment in future economic and social returns rather than merely as a cost (Becker, 1994). Education plays a pivotal role in developing skilled human capital, which is essential for enhancing productivity, competitiveness, and overall economic growth (Hasan & Mokhtar, 2013). This perspective has underpinned a global trend in which many nations prioritize funding for Technical and Vocational Education and Training (TVET) to cultivate specialized skills necessary for national development.

Providing TVET is generally more resource-intensive than general education, prompting governments to adopt diverse funding mechanisms to meet the sector's financial needs. In several countries, a significant portion of TVET financing is sourced from the private sector, including businesses, industries, employee levies, and student fees. By contrast, developing

countries like Nigeria face substantial funding challenges, relying predominantly on government budgets, supplemented to a limited extent by development partner support (ADB, 2019).

In terms of overall education expenditure, OECD countries allocate nearly 6.0% of their GDP to education, including TVET. Among these, Denmark, Iceland, Korea, and the United States dedicate over 7.0% of GDP, while Mexico and New Zealand allocate more than 6.5% (ADB, 2009). In comparison, Greece and the Russian Federation allocate 4.2% and 3.8%, respectively. In developing and least-developed countries, the figures are notably lower. Nigeria, for example, spends approximately 3.4% of GDP on education, compared with Bangladesh (2.5%), India (3.8%), Mongolia (3.5%), Sri Lanka (3.2%), and Pakistan (2.3%) (ADB, 2009, 2014; Ministry of Finance, 2019). Meanwhile, Bhutan and the Maldives allocate 5.9% and 7.0% of their GDP, respectively, illustrating the wide disparities in investment in education and TVET between developed and developing nations.

TVET Financing in Nigeria and Policy Options

To determine appropriate fund flow mechanisms and governance structures for Technical and Vocational Education and Training (TVET) in Nigeria, the study employed focus group discussions and interviews with TVET experts, policymakers, and key stakeholders. These consultations identified several critical governance challenges and priorities, including: ensuring equitable access to TVET opportunities, enhancing the quality and relevance of training programs, improving the efficiency and effectiveness of training systems, and promoting sustainable resource mobilization and utilization to support the long-term development of the TVET sector.

Empirical Review

Akpomi et al. (2020) investigated the role of educational, scientific, and technological innovations in advancing sustainable development in Nigeria. The study underscores how developments in science and technology have transformed educational practices, business operations, and socio-economic activities, raising the critical question of whether these transformations are adequately reflected in Nigeria's educational sector to achieve Sustainable Development Goal 4 (SDG 4), which emphasizes inclusive and equitable quality education. The study emphasizes the necessity of innovation within the educational systems of technologically, scientifically, and economically emerging countries like Nigeria.

Specifically, the paper examines the Sustainable Development Goals, explores strategies for enhancing science and technology education, and evaluates the current state of education with particular attention to Information and Communication Technology (ICT). It also highlights the adoption of educational innovations, including e-learning and mobile learning (M-learning), as well as different e-learning modalities. Furthermore, the study identifies challenges associated with integrating ICT and technological innovations into education and offers practical recommendations for overcoming these barriers, aiming to improve the effectiveness, accessibility, and reach of educational initiatives across Nigeria.

Nie et al. (2020) investigated e-learning financing models in Russia with the aim of promoting sustainable development. The study proposed a context-specific financing model that balances demand-side factors—such as global political dynamics, economic conditions, and sustainable development principles—with supply-side considerations, including sources of direct funding. The research identifies a key challenge in enhancing e-learning financing: improving the efficiency of both government expenditures and private investments, which necessitates the adoption of innovative funding mechanisms.

Effective financing, the study argues, also depends on a clear understanding of the objectives and utilization of public and private funds, as well as the responsibilities of educational institutions, which are shaped by their organizational status. The research further emphasizes that challenges in e-learning financing often stem more from transparency and accountability issues than from inefficient resource use. The proposed model offers a framework for reforming financing standards in e-education and the broader Russian educational system. It introduces a new vision for stakeholder interactions within the educational process, taking into account market dynamics and regulatory constraints, thereby promoting a more sustainable and efficient approach to e-learning funding.

RESEARCH METHODOLOGY

This study employed a mixed-methods approach, integrating both quantitative and qualitative techniques to ensure the accuracy, reliability, and consistency of the data collected (Best & Kahn, 2002). The research was guided by Dubin's (1978) survey methodology, which provides a framework for developing and refining theoretical constructs—in this case, relating to the financing and governance of Technical and Vocational Education and Training (TVET) in Nigeria.

To achieve the study objectives, multiple data collection instruments were utilized, including structured questionnaires, electronic communications, and interviews. These tools were

designed to capture information on governance structures and fund flow mechanisms for TVET across federal line ministries. While secondary data constituted a major source of information, the questionnaires provided primary data reflecting the current status and practices of TVET financing within these ministries.

Secondary data were obtained from relevant government and institutional reports and were systematically analyzed to identify patterns, trends, and potential strategies for improving the efficiency, effectiveness, and responsiveness of TVET financing to both national priorities and international developments. By combining these methods, the study achieved a comprehensive understanding of the TVET funding landscape in Nigeria, offering evidence-based insights for policy formulation and practical improvements in the sector.

DATA ANALYSIS AND RESULT

Data Analysis

In this regard, while government budgetary allocations to the education sector in Nigeria appear relatively comparable over the years, the distribution of funds to the Technical and Vocational Education and Training (TVET) sub-sector has remained uneven, as shown in Table 1. Comparative Analysis of TVET Budget in Nigeria

Fiscal Year	Total national budget	Total education budget in TVET	TVET Annual Budget of MoEST	TVET Annual Budget of other line ministries	TVET Annual Budget from DPS	Annual % change in total	Annual % change in total
	(NPR in Million)	(NPR in Million)	(NPR in Million)	(NPR in Million)	(NPR in Million)		
2016/17	517240	80958	2923	9673	1513		
2017/18	594000	91714	5915	12604	1985	14.8	13.3
		102.4	30.3	31.2			
2018/19	819469	98643	5647	14447	2254	38	7.6
		-4.5	14.6	13.6			
2019/20	1048921	116361	6333	16165	1927	28	18
		12.1	11.9	-14.5			
2020/21	1278995	126642	6037	14322	2255	21.9	8.8
		-4.7	-11.4	17			
2021/22	1315162	134703	9498	14322	3141	2.8	6.4
		57.3	0	9.3			
2022/23	1532967	163766	9899	14322	3288	16.6	21.6

Sources: Redbook 2016/17- 2022/23, Ministry of Finance, Annual Budget and Programme of CEHRD, CTEVT from 2016/17. Annual budget distribution of TU from 2016/17*

The data presented in Table 1 were obtained from the Ministry of Finance (MoF) Annual Reports. It is important to note that these federal reports do not capture financial allocations made by state and local governments. As a result, budgetary contributions to TVET from other ministries for the 2021–2022 and 2022–2023 fiscal years could not be fully determined.

The figures in Table 1 indicate a consistent increase in the national budget between the 2016/2017 and 2022/2023 fiscal years. A similar upward trend is observed in the annual education budget. However, from 2017/2018 to 2020/2021, the growth rate of the education budget consistently lagged behind that of the overall national budget. Budgetary allocations to TVET—whether from the Ministry of Education, other line ministries, or development partners—exhibited considerable fluctuations during the period under review.

While the national budget recorded an average annual growth rate of approximately 20%, the education sector budget grew at a lower average rate of 12.6%, indicating that funding for education has not expanded proportionately with overall national fiscal growth. TVET allocations under the Ministry of Education were particularly volatile. For example, in the 2017/2018 fiscal year, TVET funding more than doubled, followed by a negative growth rate in 2018/2019. Although subsequent years showed gradual increases, the overall trend remained unstable. Similar fluctuations were observed in TVET funding from other line ministries and development partners.

To provide a more precise understanding of these trends, the geometric mean using the factor growth rate method was applied to estimate the rate of change in TVET allocations over time, with the results presented in Table 2.

Table 2. TVET Budget Analysis Using Geometric Mean

Geometric mean	Geometric mean	Geometric mean	Geometric mean	Geometric mean
Of national budget	education budget	TVET budget	of line Ministries'	of DPs
		TVET		
		Allocation in educ	TVET budget	budget
			Budget (MoEST)	
19.9%	12.5%	22.5%	6.8%	13.8%

The results in Table 2 indicate that the average annual growth rate of the national budget was 19.9%, while the education sector budget recorded a lower growth rate of 12.5% per annum. Notably, the allocation for TVET within the education budget grew at an annual rate of 22.5%, closely aligning with the overall national budget growth. In contrast, TVET funding from other line ministries grew at a much lower rate of 6.8%, reflecting limited diversification of financing sources within the sector.

Similarly, the contributions of development partners (DPs) to TVET grew at an annual rate of 13.8%, which remains modest when assessed using the geometric mean. Taken together with the trends observed in Tables 1 and 2, these findings suggest that funding for TVET remains insufficient to meet the increasing demands for access, relevance, and quality. This shortfall poses a challenge to the objectives of the National Education Policy (2019), which emphasizes “Technical education for all” as a strategy for producing a skilled, efficient, and competitive workforce to drive Nigeria’s economic development.

Findings

The primary objective of this study was to analyze the trend of financing for Technical and Vocational Education and Training (TVET) in Nigeria. To achieve this, budgetary data spanning seven fiscal years—from 2016/2017 to 2022/2023—were examined. The trend analysis reveals that while the national budget increased at an average annual rate of approximately 20%, the education sector budget grew at a considerably lower average rate of 12.6%. This indicates that education financing has not kept pace with overall national budget growth during the period under review.

More specifically, allocations to TVET under the Ministry of Education exhibited substantial and irregular fluctuations. For example, the TVET budget more than doubled in the 2017/2018 fiscal year but declined in 2018/2019. Although allocations showed gradual increases in subsequent years, the overall pattern remained unstable. Similar fluctuations were observed in TVET funding from other line ministries and development partners.

To explore the relationships among these funding variables, Pearson’s correlation analysis was conducted using SPSS. The analysis examined the associations between the total national budget and the total TVET budget, between the total TVET budget and government allocations to TVET, and between the total TVET budget and contributions from development partners. The results indicate positive relationships among these variables, suggesting that increases in national and public sector spending are associated with improved funding for TVET. The detailed results are presented in Table 3.

Table 3. Pearson Correlation of TVET budget with the Government Budget and Budget from DPs

Correlation Matrix				
Total TVET	Total TVET	Total TVET	Total	
National from	Budget of	budget of	budget	
Budget Development	Govt. (MoEST+ LMs+DPs)	Govt. (MoEST+LMs)		
Total National Budget	Pearson Correlation sign. (2-tailed)	1		
Total TVET				
Budget of	Pearson Correlation Govt. (MoEST+ LMs+DPs)	.866* sign. (2-tailed)	1 .012	
Total TVET	Pearson Correlation Budget of Govt. (MoEST+LMs)	.847* sign. (2-tailed)	.997* .016	1 .000
Total TVET	Pearson Correlation Budget from Deve[o. Partners	.846* sign. (2-tailed)	.860* .016	.814* .013
				.026
N=7				
* Correlation is significant at the 0.05 level (2-tailed).				
** Correlation is significant at the 0.01 level (2-tailed).				

Table 3 presents the relationship between the national government budget and allocations to the TVET sector. The results of the Pearson correlation analysis reveal strong positive and statistically significant associations between the national budget and the total TVET budget, between the total TVET budget and government allocation to TVET, and between the total TVET budget and development partners' (DPs) contributions to TVET ($r = 0.866$, $p = 0.012 < 0.05$; $r = 0.897$, $p = 0.006 < 0.01$; and $r = 0.814$, $p = 0.026 < 0.05$, respectively). These findings indicate that increases in the national budget are closely linked with higher overall funding and stakeholder contributions to the TVET sub-sector.

Discussion of Findings on Government Budget and TVET Financing

The correlation results presented in Table 3 indicate a strong, positive, and statistically significant relationship between the national government budget and the total allocation to Technical and Vocational Education and Training (TVET). This implies that increases in the national budget are directly associated with corresponding increases in funding for the TVET

sub-sector. The finding confirms that government fiscal capacity plays a crucial role in determining the financial strength of TVET development in Nigeria.

The significant positive relationship between the total TVET budget and government allocation to TVET further reveals that public sector funding remains the primary driver of TVET financing in Nigeria. This underscores the heavy dependence of TVET institutions on government subventions for infrastructure development, staff remuneration, instructional equipment, and training programmes.

Similarly, the positive and significant association between the total TVET budget and the contributions of Development Partners (DPs) suggests that increased government commitment to TVET financing encourages greater participation and confidence from international donors and development agencies. This indicates that public investment in TVET serves as a catalyst for attracting external support.

Overall, these findings suggest that sustainable growth in the TVET sub-sector depends largely on consistent government budgetary support, which also strengthens stakeholder confidence and promotes complementary funding from both public and private sources. However, the reliance on government funding also exposes the TVET system to fiscal risks during periods of budgetary constraints, thereby highlighting the need for diversified and innovative financing mechanisms.

CONCLUSION AND RECOMMENDATIONS

This study concludes that the establishment of a dedicated TVET Fund would provide an effective framework for pooling and mobilizing financial resources, thereby strengthening the voucher system and apprenticeship programs through active private sector participation. The study also identifies soft loans and institution-based subsidized funding mechanisms as critical instruments for attracting youth and returnee migrants into skills development and entrepreneurship initiatives.

Furthermore, investment in Nigeria's TVET sub-sector can be enhanced through tax incentives for private sector organizations, promoting the establishment of industry-based training institutions and reinforcing apprenticeship schemes. The introduction of employee levies and the development of mechanisms to encourage participation by financial institutions, such as banks and cooperatives, are also identified as viable strategies to expand access to TVET, particularly among underserved populations.

Based on the study's findings, the following recommendations are proposed:

1. **Enhanced Coordination Across Government Tiers:** Given the higher cost of TVET relative to general education, there is an urgent need for effective collaboration among federal, state, and local governments to ensure adequate and sustainable financing of TVET. Establishing an Inter-Governmental TVET Coordination Committee is recommended as a high-level body to align TVET funding with the Sustainable Development Goals (SDGs).
2. **Integrated and Diversified Funding Sources:** The study recommends pooling financial resources from government, non-governmental organizations, and the private sector to strengthen TVET financing. An integrated funding framework of this nature will enhance youth employment, promote skills development, and contribute significantly to Nigeria's economic growth.

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Ethics approval and consent to participate

The author(s) declare that it is not applicable.

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The author(s) declare that they have no competing interests.

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