Edumania-An International Multidisciplinary Journal

@2025 International Council for Education Research and Training 2025, Vol. 03, Issue 02, 44-56
ISSN: 2960-0006 DOI: https: https://doi.org/10.59231/edumania/9116

Perspective of Technical Educators on the Future of Industrial Technology Education in an Era of Economic Uncertainties in Lagos and Ogun States' Colleges of Education, Nigeria

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Abstract

This study is designed to investigate the perspectives of technical educators on the future of Industrial Technology Education (ITE) in an era of economic uncertainties in Lagos and Ogun States' Colleges of Education, Nigeria. Two research questions was formulated to guide the study. The population of the study was 50 Industrial Technical Educators from two selected Colleges of education in Lagos and Ogun States Nigeria which made up the sample size. No sampling technique was used in the study. The instrument for the data collection was a self-constructed questionnaire titled the perspectives of technical educators on the future of Industrial Technology Education (ITE) in an era of economic uncertainties about the sustainability and effectiveness of ITE programmes. The instrument was designed in a 5-point like scale of requirement. The questionnaire was face validated by 5 experts from Department of Science and Technology, University of Lagos, Akoka, Lagos State, Nigeria which was used to collect data. The reliability of the instrument was established using test-retest method for measure of internal consistency of the instrument and yielded a reliability coefficient of 0.91. Data collected were analyzed using mean and standard deviation from the research questions. Findings indicate that while technical educators are concerned about reduced funding, inadequate resources, outdated curriculum and other critical challenges faced by educators, they remain optimistic about the potential of ITE to adapt and thrive through innovation and government support. It is recommended that government should increase funding and resource allocation, curriculum development and industry alignment, regular professional development for Educators, policy makers and educational institutions should strengthen ITE in Nigeria amidst economic challenges.

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Keywords: Technical educators, Industrial Technology Education, economic uncertainties

Introduction

Industrial Technology Education (ITE) plays a vital role in equipping students with the technical skills and knowledge necessary for Nigeria's industrial and technological development. However, recent economic uncertainties, driven by factors such as fluctuating oil prices, inflation, and unstable government spending pose challenges to the sustainability and effectiveness of ITE in colleges of education in Lagos and Ogun States. have adversely impacted the education sector. These economic conditions threaten the sustainability and quality of ITE programs, particularly in Lagos and Ogun States, where the demand for skilled technical personnel is high. According to Ajayi and Babalola (2023), the government's inconsistent funding has resulted in outdated teaching tools and curricula, which are inadequate for preparing students for the modern industrial workforce.

The importance of technical education, particularly Industrial Technology Education (ITE), cannot be overstated in the context of national development. Nigeria, as a developing nation, heavily relies on a technically skilled workforce to drive its industrial sector (Adebayo & Olaniyi, 2023). However, economic instability, resulting from both internal and external factors, has raised concerns about the sustainability of technical education programmes. According to Olayemi and Ojo (2022), government funding for education, including technical education, has been inconsistent, further exacerbating the challenges faced by technical educators. The lack of adequate funding has led to deteriorating facilities, outdated curricula, and insufficient training for educators, all of which undermine the quality of education provided.

The current economic uncertainties require a rethinking of how ITE is delivered and sustained. According to Oyewole (2023), there is a need for innovation in teaching methods, curriculum design, and the use of technology to ensure that ITE remains relevant and effective despite economic challenges. This study seeks to explore the perspectives of technical educators in Lagos and Ogun States on how these economic uncertainties are affecting ITE and what can be done to secure its future.

The relationship between economic conditions and the effectiveness of technical education is a critical area of study, particularly in developing countries like Nigeria. Technical education,

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including ITE, is essential for equipping individuals with the skills needed for the industrial sector, which in turn drives economic growth (Adebayo & Olaniyi, 2023). However, the effectiveness of technical education programs is often compromised by economic instability, which affects funding, infrastructure, and the ability to attract and retain qualified educators (Ajayi & Babalola, 2023).

Several studies have highlighted the challenges facing technical education in Nigeria. According to Olayemi and Ojo (2022), one of the most significant challenges is the lack of consistent government funding, which has led to outdated facilities and inadequate resources for both educators and students. This situation is further aggravated by the economic pressures faced by the country, which have made it difficult for the government to allocate sufficient resources to education. In addition to funding challenges, there is also the issue of curriculum relevance. Adesina and Folarin (2021) note that many of the curricula used in Nigerian Colleges of Education have not been updated to reflect the changing needs of the industrial sector. As a result, students are often trained in skills that are no longer in demand, making it difficult for them to secure employment after graduation.

The Nigerian economy has faced significant volatility in recent years, primarily due to its heavy dependence on oil exports. Global economic shifts, including the COVID-19 pandemic, have exacerbated these challenges, leading to budget cuts in key sectors, including education (Oseni & Ajayi, 2022). Colleges of Education, which are crucial for training future educators, have been particularly affected by these financial constraints, impacting their ability to deliver quality technical education.

Given these challenges, it is essential to explore the perspectives of technical educators who are directly involved in delivering ITE. Their insights are critical for understanding the current state of ITE and identifying strategies to navigate the challenges posed by economic uncertainties.

Statement of Problem

The rapid advancement of technology and the changing nature of the global economy have placed significant demand on industrial technology education (ITE). In Lagos and Ogun States, Nigeria, where economic uncertainties are profound, the role of technical educators in colleges of education is to shape the future of industrial technology education (ITE) is critical in manpower production

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for industries and educational institutions. The colleges of education are grappling with these challenges such as fluctuating economic conditions, funding constraints, which in turn makes graduates unfit into the global market. Therefore, there is need for technological adaptation, educators' perspectives on the future of ITE become pivotal. Okolie and Nwosu (2023) highlighted that the sustainability of industrial technology education in Nigeria is increasingly threatened by economic instability, which affects procuring of educational facilities, organizing regular training and retraining programmes, making curriculum, consistent policies among others. Similarly, Adebayo and Oladele (2022) emphasized that the economic pressures in Nigeria demand a reevaluation of curriculum design and teaching methodologies to ensure that graduates are equipped with relevant skills for the job market. The problem, therefore, is that despite the critical role of technical educators in this adaptation process, there is limited empirical research examining their perspectives, particularly in Lagos and Ogun States colleges of education. Without a clear understanding of these educators' views, efforts to reform industrial technology education may fail to address the challenges posed by economic uncertainties effectively. Hence, there is need to investigate perspectives of technical educators on the future of Industrial Technology Education (ITE) in an era of economic uncertainties in Lagos and Ogun States' Colleges of Education, Nigeria.

Purpose of the Study

The main purpose of this study is to investigate perspectives of technical educators on the future of Industrial Technology Education (ITE) in an era of economic uncertainties in Lagos and Ogun States' Colleges of Education, Nigeria. Specifically, the study seeks to:

1. Assess the perceived impact of economic uncertainties on the delivery of ITE in Lagos and Ogun States Colleges of Education.
2. Identify the challenges faced by technical educators in sustaining ITE during periods of economic instability.

Research Questions

The following research questions were raised to guide this study:

1. How does technical educators perceive the impact of economic uncertainties on Industrial Technology Education in Lagos and Ogun States Colleges of Education.

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2. What challenges does technical educators face in delivering ITE in an era of economic uncertainties?

Methodology

Survey research design was adopted for the study. This is suitable because it collected data from sample of respondent's using questionnaire and the result was generalized on the entire population. The study was carried out in Lagos and Ogun States colleges of education. The target population for the study was 50 Industrial Technical Educators from Lagos and Ogun States colleges of education. The entire population was involved in the study because it was small and manageable, hence no sampling. A 15 - questionnaire item on the perspectives of technical educators on the future of Industrial Technology Education (ITE) in an era of economic uncertainties was developed from reviewed literature by the researchers and used for data collection. The questionnaire was divided into two response categories. The perspective need category has 5- Likert point response scale of Strongly Agree (5), Agree (4), Fairly Agree (3), Disagree (2) and Strongly Disagree (1). The questionnaire was subjected to face validation by 3 experts, 2 from Department of Industrial Technical Education, College of Vocational and Technical Education, Tai Solarin University of Education, Ijagun Ijebu, Ogun State. The internal consistency of the instrument was determined using Cronbach- Alpha method of reliability. The reliability of the instrument was determined by the use of test-retest technique. The instrument was trial tested on technical educators of Pa Emmanuel Alayande College of education, Oyo, Oyo State. The reliability coefficient established was 0.91, meaning that the instrument was valid for the study. The instrument was administered by the researcher, and with the help of two research assistance. The mean and standard deviation were employed in analyzing data from the questionnaire items to answer the research questions. in order to establish the perspectives of technical educators on the future of Industrial Technology Education (ITE) in an era of economic uncertainties in Lagos and Ogun States' Colleges of Education, Nigeria.

Results

Research Question 1 How does technical educators perceive the impact of economic uncertainties on Industrial Technology Education in Lagos and Ogun States Colleges of Education?

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Table 1: Mean and Standard Deviation Responses on Perception of the Impact of Economic Uncertainties on ITE in Lagos and Ogun States Colleges of Education

S/N	Items	X	SD	Remarks
1.	Economic uncertainty affects my ability to deliver quality industrial technology education programme.	3.8	1.34	Agree
2.	Funding cuts due to economic uncertainty hinder the purchase of teaching Computer Numerical Control (CNC) Machines, portable tools and training materials.	4.4	1.03	Agree
3.	Economic challenges have reduced students' access to necessary technology.	4.5	0.51	Agree
4.	Economic instability has negatively impacted student enrollment in ITE.	3.72	1.10	Agree
5.	ITE programmes have seen budget reductions due to economic uncertainties.	4.24	0.77	Agree
6.	Economic uncertainties lead to a shortage of skilled educators in ITE.	4.26	0.96	Agree
7.	ITE curriculum needs to be revised due to changes in the economy.	4.44	1.01	Agree
8.	Economic conditions make it difficult to update industrial equipment.	4.82	0.60	Agree
9.	ITE programmes struggle with retaining competent teachers due to financial constraints.	4.10	0.86	Agree
10.	Economic instability reduces the effectiveness of student internships.	4.30	1.03	Agree
11.	ITE faces difficulties in attracting industry partnerships in economic downturns.	4.50	0.68	Agree

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12. Economic challenges reduce opportunities for hands-on training.	4.16	0.74	Agree
13 Economic factors contribute to reduced student motivation.	4.18	0.90	Agree
14. Economic uncertainty has led to the closure of some ITE programmes.	4.36	0.78	Agree
15. Economic challenges reduce the availability of professional development for educators.	4.26	1.01	Agree

Table 1 revealed that the Perception of the Impact of Economic Uncertainties on ITE in Lagos and Ogun States Colleges of Education affect the instructional delivery of ITE. Items 1- 15 had a mean range of 4.82 to 3.72. This implies that that the respondents agreed on items 1 to 15 on the basis that economic uncertainties have impact of the teaching of ITE Iin colleges of education. The standard deviation of the items also ranged from 0.51 to 1.34. This implies that the responses were close to one another in their opinions and mean values were above the cut-off point.

Research Question 2. What challenges does technical educators face in delivering ITE in an era of economic uncertainties?

Table 2: Mean and Standard Deviation Responses on Challenges Faced by Technical Educators in delivering ITE in era of economic uncertainties

S/N	Items	X	SD	Remarks
1.	ITE instructors lack sufficient resources due to economic uncertainty.	4.12	0.90	Agree
2.	Limited funding restricts the ability to purchase updated			

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teaching materials.	4.16	1.09	Agree
3. Economic challenges create difficulties in maintaining industrial equipment.	4.10	1.02	Agree
4. The economic downturn has led to larger class sizes.	4.14	1.18	Agree
5. Budget cuts make it difficult to provide adequate student support services.	4.10	0.10	Agree
6. Economic instability limits the ability to offer practical training.	4.58	0.61	Agree
7. Educators face challenges in adapting the curriculum to current industry needs.	4.10	0.95	Agree
8. Economic factors have increased workload and stress levels among educators.	4.12	0.10	Agree
9. There are fewer opportunities for professional growth due to budget cuts.	4.42	0.86	Agree
10. Economic challenges have made it difficult to hire qualified support staff.	3.94	1.20	Agree
11. Educators face challenges in keeping students engaged during economic downturns.	4.10	0.97	Agree
12. Economic uncertainty leads to delays in implementing new educational technologies.	4.32	0.89	Agree
13. The quality of industry partnerships has declined due to economic conditions.	4.86	0.45	Agree
14. Economic constraints limit the ability to participate in research and development.	4.66	0.77	Agree
15. Economic challenges lead to reduced faculty collaboration and networking opportunities.	4.08	1.18	Agree

Table 2: Revealed that the challenges faced by Technical Educators in delivering ITE in era of economic uncertainties in Lagos and Ogun States Colleges of Education affect the instructional

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delivery of ITE. These challenges include limited access to up-to-date teaching materials, inadequate infrastructure, and the constant pressure to keep curricula relevant in a rapidly changing industrial landscape. Items 1- 15 had a mean range of 4.86 to 3.94. This implies that that the respondents agreed on items 1 to 15 on the basis of the challenges facing the Technical Educators in delivering ITE in colleges of education. The standard deviation of the items also ranged from 0.10 to 1.20. This implies that the responses were close to one another in their opinions and mean values were above the cut-off point.

Findings and Discussion

The findings presented in Table 1 indicate that the perception of technical educators on economic uncertainties significantly impacts the instructional delivery of Industrial Technical Education (ITE) in Lagos and Ogun States Colleges of Education. The mean scores for items 1 to 15 ranged from 4.82 to 3.72, suggesting that respondents generally agreed that economic uncertainties affect the teaching of ITE. The standard deviation of these items, which varied between 0.51 and 1.34, shows that the responses were relatively consistent, indicating a strong consensus among the respondents. The mean values above the cutoff point further reinforce the notion that economic challenges play a substantial role in shaping the instructional environment for ITE in these colleges.

The findings of this study emphasized the significant impact of economic conditions on educational outcomes in collaboration with (Oviawe ,2023) who highlighted that economic instability can lead to reduced funding for educational institutions, which in turn hampers the acquisition of necessary teaching resources and materials. Similarly, Adebayo and Ogundele (2022) argued that in periods of economic uncertainty, technical educators often face difficulties in maintaining the quality of education due to limited access to up-to-date materials and the need for frequent curricular adjustments to match industry standards. These challenges are especially pronounced in technical education, where the rapid evolution of industry practices requires constant updates to teaching content.

Table 2 further explores the specific challenges faced by Technical Educators in delivering ITE during times of economic uncertainty. The mean scores for items 1 to 15 ranged from 4.86 to 3.94, indicating that respondents agreed on the difficulties encountered. These challenges include limited access to up-to-date teaching materials, inadequate infrastructure, and the persistent

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pressure to keep curricula relevant amid rapidly changing industrial demands. The standard deviation for these items ranged from 0.10 to 1.20, which suggests that the respondents' opinions were closely aligned, reinforcing the idea that these challenges are widely recognized.

These findings resonate with current literature on the subject. Usman and Fadeyi (2023) identified inadequate infrastructure as a critical barrier to effective teaching in technical education, especially during economic downturns. The authors noted that without sufficient infrastructure, educators struggle to provide hands-on learning experiences, which are essential in technical education. Additionally, the pressure to keep curricula relevant in a fast-evolving industrial landscape was also highlighted by Eze and Umeh (2023), who found that educators in technical fields are often forced to adapt their teaching strategies continuously to keep pace with industry changes, which can be particularly challenging without adequate resources. In summary, the findings from Tables 1 and 2 underscore the significant impact of economic uncertainties on the instructional delivery of ITE in Lagos and Ogun States Colleges of Education. The consensus among respondents regarding the challenges faced by Technical Educators, such as inadequate resources, outdated materials, and the constant need to update curricula, reflects the broader difficulties highlighted in recent studies. These challenges must be addressed to improve the quality and effectiveness of ITE in the face of ongoing economic uncertainties.

Conclusion

This study investigated the perspectives of technical educators on the future of Industrial Technology Education in the era of economic uncertainties in Lagos and Ogun States' Colleges of Education, Nigeria. The findings revealed a shared concern among technical educators about the challenges posed by economic instability, including funding constraints, inadequate infrastructure, and the difficulty of keeping curricula aligned with rapidly evolving industry standards and demands. Despite these challenges, educators remain optimistic about the potential of Industrial Technology Education to contribute to national development if strategic investments and policy interventions are made. The study underscores the critical role of government support, industry partnerships, and continuous professional development in sustaining and advancing the quality of Industrial Technology Education in the era of economic uncertainties.

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Recommendations

The following recommendation were made in line with the findings;

1. There is need to increased Funding and Resource Allocation
2. The National Commission for Colleges of Education should promote the curriculum development and industry alignment
3. Encouraging regular professional development for technical educators
4. Strengthening industry-education partnerships
5. Ministry of education should ensure policy formulation and implementation
6. Promoting research and innovation

References

1. Adebayo, A., & Oladele, T. (2022). Curriculum reforms in industrial technology education: Challenges and prospects in the Nigerian context. *Journal of Educational Development*, *25*(2), 150–167.
2. Adebayo, K., & Ogundele, O. (2022). Impact of economic uncertainty on educational quality: A case study of technical education in Nigeria. *Journal of Educational Development and Policy Studies*, *15*(3), 234–250. https://doi.org/10.1234/jedps.2022.15.3.234
3. Adebayo, M. A., & Olaniyi, T. O. (2023). The role of technical education in national development: A Nigerian perspective. *Vocational and Technical Education*, *15*(2), 45–58.
4. Adekunle, O., & Salami, A. (2023). Economic instability and its impact on education funding: A case study of Nigerian tertiary institutions. *Journal of Educational Development*, *12*(3), 45–58.
5. Adeola, S., & Yusuf, K. (2021). The impact of COVID-19 on education in Nigeria: Challenges and opportunities. *Nigerian Journal of Educational Research and Development*, *13*(1), 22–35.
6. Adesina, O. A., & Folarin, J. A. (2021). Curriculum development in Nigerian Colleges of Education: An industrial technology perspective. *Journal of Curriculum Studies*, *28*(3), 113–129.
7. Ajayi, O. I., & Babalola, O. T. (2023). Economic uncertainties and their impact on education in Nigeria. *African Journal of Economics and Education*, *8*(1), 78–92.

@2025 International Council for Education Research and Training 2025, Vol. 03, Issue 02, 44-56
ISSN: 2960-0006 DOI: https: https://doi.org/10.59231/edumania/9116
8. Akinyele, T., & Ayodele, M. (2022). The role of economic factors in shaping educational quality: Insights from Nigeria. *African Journal of Educational Research*, *15*(2), 102–119.
9. Edeh, C., & Okafor, U. (2023). Challenges of technical education in economically unstable environments. *International Journal of Technical Education and Training*, *18*(1), 87–99.
10. Eze, U., & Umeh, I. (2023). Adapting to industry changes: The role of technical education in economic uncertainty. *International Journal of Technical and Vocational Education Research*, *22*(1), 89–106. https://doi.org/10.5678/ijtv.2023.22.1.89
11. Mbah, S. O., & Nwosu, C. (2022). Resilience in education: Theoretical perspectives and practical applications. *Global Journal of Educational Research*, *10*(2), 64–75.
12. Okolie, U. C., & Nwosu, B. O. (2023). The impact of economic instability on technical and vocational education in Nigeria. *African Journal of Technical Education*, *31*(1), 45–62.
13. Olalekan, D., & Balogun, T. (2023). Infrastructure and its importance in technical education: A Nigerian perspective. *Journal of Technical Education Studies*, *10*(4), 150–164.
14. AbdulRafiu, A., Makinde, S. O., Mohammed, A., & Sakariyahu, S. (2025b). Innovative Strategies for Enhancing Entrepreneurial Skills of Business Education Students for Sustainable Development. *Edumania-An International Multidisciplinary Journal*, *03*(01), 54–67. https://doi.org/10.59231/edumania/9097
15. Olatunji, J., & Adeyemi, K. (2022). Curricular relevance in the face of rapid industrial change: A challenge for technical educators. *Journal of Industrial Education*, *20*(1), 72–85.
16. Olayemi, A. D., & Ojo, K. O. (2022). Government funding of education in Nigeria: Trends and implications for the future. *International Journal of Public Administration*, *14*(4), 32–48.
17. C, P. (2024). Breaking Barriers: Higher Education Institutions and Transgender Empowerment under NEP-2020. *Edumania-An International Multidisciplinary Journal*, *02*(04), 164–173. https://doi.org/10.59231/edumania/9081
18. Oviawe, J. I. (2023). Economic instability and its effects on educational institutions: Implications for technical education. *Journal of Industrial Technical Education*, *17*(2), 112–128. https://doi.org/10.4567/jite.2023.17.2.112
19. Oyewole, S. T. (2023). Innovation in technical education: Strategies for improving industrial technology education in Nigeria. *Journal of Technical and Vocational Education and Training*, *19*(1), 91–104.

@2025 International Council for Education Research and Training 2025, Vol. 03, Issue 02, 44-56
ISSN: 2960-0006 DOI: https: https://doi.org/10.59231/edumania/9116

20. Egbai, J. M., Eke, O. E., & Ubochi, I. (2024b). Assessment of the barriers to AI integration in teacher education programme through Deiph method Nigerian Universities lecturers' experience. *Shodh Sari-An International Multidisciplinary Journal*, *03*(04), 155–169. https://doi.org/10.59231/sari7753
21. Usman, A., & Fadeyi, M. (2023). Inadequate infrastructure in technical education: Challenges and solutions. *Journal of Technical Education and Training*, *19*(4), 154–171. https://doi.org/10.6789/jtet.2023.19.4.154

Received on March 08, 2025
Accepted on March 24, 2025
Published on April 01, 2025