ISSN 2278-2540 | DOI: 10.51583/IJLTEMAS | Volume XV, Issue V, May 2026

Educational Management Practices for Enhancing Triple Helix Partnerships in Building Inclusive Society Through Technical and Vocational Education and Training in Rivers State Universities

Tambari Mtormabari Deebom (PhD)[1] , Patricia Ebele Oshebor (PhD)[2] , Ikiedideike Atonye Sofia (PhD)[3]

[1]Department of Industrial Technology Education Faculty of Education, Rivers State University, Port Harcourt

[2]Department of Educational Management Faculty of Education, University of Port Harcourt

[3]Department of Industrial Technology Education Faculty of Education, Niger Delta University, Wilberforce Island

DOI: https://doi.org/10.51583/IJLTEMAS.2026.150500166

Received: 02 May 2026; Accepted: 08 May 2026; Published: 11 June 2026

ABSTRACT

The study examines educational management practices for enhancing triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State. Three questions were answered with corresponding null hypotheses that were formulated and tested at 0.05 level of hypotheses guided the study. The study employed the descriptive research survey design and was carried out in Rivers State Universities. The population of the study was 180 respondents (Government = 18, Industries = 143, Universities = 19). Due to small population size of the respondents, there was no sampling as the entire population was used and hence, it was a census study. The instrument for data collection was a self-structure questionnaire tagged **"**Educational Management Practices for Enhancing Triple Helix Partnerships Questionnaire (EMPETHPQ)" which was design and patterned after a modified Likert – 4-point rating scale of agreement. The instrument was validated and tested for reliability through test-retest method. A reliability coefficient of 0.83 was established using Pearson Product Moment Correlation (PPMC) coefficient. Data collected were analysed using mean descriptive statistics to answer the research questions while one way ANOVA was used to test the hypotheses. The study found that educational management practices that enhance triple helix partnership in TVET are resource allocation, curriculum management and monitoring, evaluation and quality assurance practices. Based on the findings of the study, it was recommended among others that there should be equitable distribution of financial resources among university, industry, and government partners in TVET programmes. There should be collaboration between the university, industry and government when developing and reviewing TVET curriculum to ensure that it captures the three tiers needs. The UIG should regularly supervise, monitored and evaluate TVET programmes based on collaboration with university - industry - government.

Keywords: TVET, Educational Management Practices, Triple Helix, Partnerships, Inclusive Society

INTRODUCTION

The contributions of universities to national socioeconomic development and knowledge advancement have become areas of increasing concern to scholars and educational stakeholders. In this knowledge-based society, universities are expected to fulfill an ever-growing spectrum of roles such as: educating and training students, conducting and disseminating excellent research, boosting productivity through collaborative relations with external partners, contributing to the socioeconomic wellbeing of their localities and enhancing civic value in the public realm (Sanchez, Uyarra & Kitagawa, 2016). However, the ability of universities to measure up to societal expectations depends to a large extent on the availability of adequate funding. The fund is one of the major resources that are needed to engender the provision of qualitative education. In the educational sector, for

ISSN 2278-2540 | DOI: 10.51583/IJLTEMAS | Volume XV, Issue V, May 2026

instance, the fund is needed to retain human resources, conduct research, procure, and maintain physical facilities and so on. With the astronomical increase in student population in the universities, coupled with the fact that the government's funding is inadvertently decreasing, it becomes expedient for the universities to collaborate with the industries, as well as the government, to take care of their numerous needs. This collaboration between the government, industries, and institutions with the aim of contributing a sectional role to enhance the education of students could be achieved through the partnership between the University – Industry – Government (UIG) which is referred to as the triple helix model.

Triple Helix Model of university-industry-government (tripartite relationships) is any innovative approach universities are adopting to explore partnerships with industries and government due to the paucity of funds in implementing their objectives. Etzkowitz and Leydesdorff (1997) noted that this triadic relationship between university-industry-government has been proven to work effectively for world class-research universities, especially those that are faced with the draconian budget cut. The triple helix model refers to the collaboration between university, industry, and government to foster innovation and economic development. This model can also be applied to the field of educational administration and planning for advancement of Technical Vocational Education and Training (TVET). The Triple Helix Partnership in Educational Management is a collaborative model that brings together educational institutions, government agencies, and the private sector to improve educational outcomes. This partnership aims to leverage the unique strengths and resources of each stakeholder to address complex educational challenges in TVET. In thus study, the triple helix model is seen as a partnership or a collaboration that brings the university system, the industries and the government together with the aim of advancing TVET to achieve its aims and objectives. TVET is a practical oriented programme whose training involves the three domains of learning (Affective, Cognitive and Psychomotor) which is always refers to as the three Hs (Head, Heart and Hand). It then implies that TVET training could not be effective if adequate provisions are not made for financial and material resources to address workshops, facilities and personnel. These according to Etzkowitz and Leydesdorif (2000) could be achieved through partnerships.

Partnership simply means working together with others to achieve a common goal. Partnership can also provide new opportunities for universities to reconfigure the way research gets funded, developed, marketed, delivered, and supported. In a similar vein, Etzkowitz and Leydesdorif (2000) opined that the dynamic interactions among the three key innovative actors' university, industry, and government (UIG), will foster entrepreneurship, innovation, and economic growth. According to Abreu and Grinerich (2013), with the triple helix synergy, universities can become entrepreneurial, which can provide students with new ideas, skills and entrepreneurial talents that will enable them to contribute to economic growth and job creation in a society that needs such outcomes more than ever. The application of this relationship may go a long way to in achieving the aim of entrepreneurship education in tertiary institutions as enshrined in national policy of education. Some of the core achievement of triple helix model is creating an environment that (i) align curricula and training with evolving industry needs, (ii) widen access for marginalized groups (women, persons with disabilities, rural youth), and (iii) institutionalize shared governance, funding and quality-assurance mechanisms. However, the implementation of this model (triple helix) is marred with challenges and factors which according to Oyeyinka and Adebowale (2012) include inadequate funding (which limits joint research and innovation centre), low industry engagement (which reduces practical research and employability outcomes), bureaucracy (which delays partnerships and funding), weak innovation culture (which limits entrepreneurship and commercialization), skills mismatch (which produces graduates that unfit for industrial needs), deficit of trust (which reduces willingness to collaborate). Similarly, Ohia (2018) identified other factors to include shortage of infrastructure (that hinders research and innovation), political interference (which distorts priorities), lack of coordination platform (which weakens synergy among stakeholders), and weak policies (which causes lack of coordination and intellectual property management) among others. Intellectual property management here refers to how university in collaboration with industry and government handles ownership, protection and commercialization of innovations developed through research.

The triple helix helps in the achievement and advancement of TVET educational aims and objectives. Hence, educational management practices for the implementation of this model include innovation and technology transfer facilitation that support research commercialization and spin-off projects in collaboration with industry

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partners and promoting incubation centers and start-up support structures for students and staff, monitoring, evaluation, and quality assurance that implement systems to assess the effectiveness of partnerships and their impact on student outcomes and using feedback to continuously improve programs and collaborations, resource allocation and infrastructure management that ensures adequate funding, laboratories, workshops, and digital resources to support industry-relevant training and also facilitate shared facilities for joint projects with industry partners, stakeholder engagement and networking that builds relationships with local industries, government agencies, and professional bodies to create partnership opportunities and organizes joint seminars, workshops, and innovation challenges, and **p**rogram coordination and curriculum management that helps in designing competency-based programs that integrate practical experiences, internships, and entrepreneurship modules and also regularly reviewing and updating the curriculum based on industry feedback and technological trends.

On the other hand, a triple collaboration of university-industry-government (UIG) partnership is a hybridization of what Etzkowitz (2003) referred to as a "Triple Helix." It is an inter-institutional flow that exists between universities, the industry and government. Each of these institutions has roles to play. The universities play the role of producing the required manpower that may help in solving societal problems through research, the industry, in some cases provides the needed funds for the conduct of research and provision of facilities and also absorb the manpower produced by universities by way of employment while government creates the enabling environment for this partnership to thrive and yield the desired result. Recruitment of qualified personnel, design of curriculum in line with industry and international standards are some of the obligations of the government (Ohia, 2018). The environment where universities and industries operate is controlled by the government. It is therefore important for the government to come up with initiatives that will encourage the growth of universities and industries. These initiatives could be in the form of security, reduction of tax levies, protection of trademark and intellectual property.

Similarly, Bagyo, Biemo, Satry and Sachi (2012) studies revealed that the Indonesian government through the Directorate General of Higher Education (DGHE) launched a number of programmes, including laws to aid universities' research and other community services. Some of the laws include: law 25/2007 on investment which provides land incentives and facilities for investment in specified industries, government regulation 35/2007 initiated by the Ministry of Research and Development providing tax incentive to drive industries to invest in research and development, and the presidential decree enacted by the Ministry of Information geared towards encouraging industries to invest in research and development (R&D). It was reported that these laws did not yield the desired objectives. However, these efforts showed government's willingness to initiate university-industry-government partnership (Ohia, 2018). Based on these, it becomes imperative to examine educational management practices for enhancing triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State.

Statement of the Problem

Educational management practices in TVET systems often fall short of developing and maintaining successful university-industry-government partnerships that align training and curricula with changing industry needs, expand access for marginalized groups (women, people with disabilities, and rural youth), and institutionalize shared governance, funding, and quality-assurance mechanisms, despite the theoretical promise of Triple Helix collaborations for innovation and social inclusion. The ability of TVET to create an inclusive society is undermined by a number of persistent issues that are revealed by empirical studies of TVET-industry linkages and institutional partnerships. These issues include unreliable financing arrangements, misaligned incentives across the three helices, weak institutional coordination, and inadequate institutional leadership for partnership management among others.

The implication is that when educational management practices are not intentionally designed to enable Triple Helix collaboration, TVET institutions risk remaining peripheral to labour markets and innovation systems rather than central actors for inclusive development. The consequences include persistent graduate unemployment or underemployment, continued marginalization of vulnerable populations, inefficient public spending, and missed opportunities for industry to co-invest in a skilled, diverse workforce. This weakens national and regional

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development efforts and undermines the potential of TVET to contribute to social inclusion and economic resilience. It is based on these observed scenarios that this study seeks to examine educational management practices for enhancing triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State.

Purpose of the Study

The purpose of the study is to examine educational management practices for enhancing triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State. Specifically, the study seeks to find out how;

1. Resource allocation practice enhances triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State.
2. Curriculum management practice enhances triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State.
3. Monitoring, evaluations, and quality assurance practices enhance triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State.

Research Questions

The following questions were answered to guide the study.

1. What are the resource allocation practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State?
2. What are the curriculum management practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State?
3. What are the monitoring, evaluations, and quality assurance practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State?

Hypotheses

The following null hypotheses were formulated and were tested at 0.05 level of significant to guide the study.

1. There is no significant difference in the mean response of university, industry and government on the resource allocation practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State.

2. There is no significant difference in the mean response of university, industry and government on the curriculum management practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State.

3. There is no significant difference in the mean response of university, industry and government on the monitoring, evaluations, and quality assurance practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State.

METHODOLOGY

The study adopted the descriptive research survey design and was carried out in Rivers State. The population of the study was 180 respondents (Government = 18, Industries = 143, Universities = 19). Due to small population size of the respondents, there was no sampling as the entire population was used and hence, it was a census study. The instrument for data collection was a self-structure questionnaire tagged **"**Educational Management Practices for Enhancing Triple Helix Partnerships Questionnaire (EMPETHPQ)" which was design and patterned after a modified Likert – 4-point rating scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) with numerical values of 4, 3, 2 and 1 respectively. The instrument was validated and tested for reliability

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through test-retest method. A reliability coefficient of 0.83 was established using Pearson Product Moment Correlation (PPMC) coefficient. Out of 180 copies that were distributed, only 167 copies were completely filled and successfully retrieved were used for the study. Data collected were analysed using mean descriptive statistics to answer the research questions. Item with mean score ranges between 2.50 – 3.49 was taken as "Agree (A)" while item with mean score of 3.50 and above was considered as "Strongly Agree (SA)" and item with mean score less than 2.50 was taken as "Disagree (D)". The null hypotheses formulated were tested at 0.05 level of significant using Analysis of Variance (ANOVA). The decision for the null hypotheses was that if the calculated value of f (f-ratio) is less than the critical value of f (f-ratio), the null hypothesis was accepted but if the calculated value of f (f-ratio) is equal to or greater than the critical value of f (f-ratio), the null hypothesis was rejected and hence the Scheffe's Post Hoc Multiple Comparison Test was used to determine significant group(s).

RESULTS

The results of the study were presented in Table 1 – 6 below.

Research Question 1: What are the resource allocation practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State Universities in Rivers State?

Table 1: Response of University, Industries and Government on the Resource Allocation Practices that Enhance Triple Helix Partnerships in Building Inclusive Society through TVET in Rivers State Universities

S/N	Resource Allocation Practices that Enhance Triple Helix Partnerships in Building Inclusive Society through TVET Include	X_1 University.	X_2 Industry	X_3 Government	XAve	RMK
1	Adequate funding is provided by universities to support collaborative TVET projects with industry and government.	3.83	3.56	3.75	**3.71**	**SA**
2	There is equitable distribution of financial resources among university, industry, and government partners in TVET programmes.	3.04	3.82	3.43	**3.43**	**A**
3	Budgetary allocations for TVET are efficiently managed to support innovation and inclusivity.	3.14	3.36	3.68	**3.39**	**A**
4	Universities regularly review funding strategies to strengthen partnership-driven training programmes.	3.69	3.72	3.41	**3.61**	**SA**
5	Industry partners contribute financial and material support to TVET infrastructure.	3.65	3.61	3.42	**3.56**	**SA**
6	Government provides special grants or incentives to support TVET collaboration with universities and industries.	3.05	3.57	2.67	**3.10**	**A**
7	Resource allocation is transparent and jointly monitored by university, industry, and government representatives.	3.80	3.53	3.42	**3.58**	**SA**
8	Resource allocation policies promote inclusivity and equal access for all groups in TVET programmes.	3.41	3.26	3.18	**3.28**	**A**
	Average Mean	**3.45**	**3.55**	**3.37**	**3.46**	**A**

Source: Researchers' Field, 2025

Table 1 reveals the resource allocation practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training. The result from Table 1 shows that resource allocation practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training include provision of adequate funding by universities to support collaborative

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TVET projects with industry and government, budgetary allocations for TVET are efficiently managed to support innovation and inclusivity, universities regularly review funding strategies to strengthen partnership-driven training programmes, resource allocation policies promote inclusivity and equal access for all groups in TVET programmes, and that industry partners contribute financial and material support to TVET infrastructure among others The result shows that the respondents agree that resource allocation practices enhances triple helix partnerships in building inclusive society through technical and vocational education training with an average mean values of 3.45, 3.55 and 3.37 respectively.

Research Question 2: What are the curriculum management practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State?

Table 2: Response of University, Industries and Government on the Curriculum Management Practices that Enhance Triple Helix Partnerships in Building Inclusive Society through TVET in Rivers State Universities

S/N	Curriculum Management Practices that Enhance Triple Helix Partnerships in Building Inclusive Society through TVET Include	X_1 University.	X_2 Industry	X_3 Government	XAve	RMK
9	Curriculum review in TVET programmes involves inputs from industry and government experts.	3.47	3.53	3.22	**3.41**	**A**
10	The curriculum integrates entrepreneurial and innovation skills based on industry requirements.	3.61	3.93	3.35	**3.63**	**SA**
11	There is periodic review of the curriculum to meet emerging labour market demands.	3.22	3.94	3.73	**3.63**	**SA**
12	The curriculum includes practical learning modules supported by industry collaboration.	3.17	3.52	3.97	**3.55**	**SA**
13	University–industry partnerships influence the design and implementation of TVET courses.	3.64	3.26	3.25	**3.38**	**A**
14	The curriculum supports inclusivity by integrating gender-sensitive and disability-friendly learning content.	3.53	3.64	3.54	**3.57**	**SA**
15	The curriculum is developed using competency-based approaches in consultation with employers.	3.64	3.81	3.74	**3.73**	**SA**
16	Industry experts contribute to course delivery through guest lectures, workshops, and seminars.	3.50	3.88	3.12	**3.50**	**SA**
17	The curriculum promotes collaboration with government agencies for national skills development goals.	3.13	3.58	3.09	**3.27**	**A**
18	Effective curriculum management practices promote inclusive innovation and societal development.	3.61	3.19	3.87	**3.56**	**SA**
	Average Mean	**3.45**	**3.63**	**3.49**	**3.52**	**SA**

Source: Researchers' Field, 2025

Table 2 reveals the curriculum management practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training. The result from Table 2 shows that curriculum management practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training include periodic review of the curriculum to meet emerging labour market demands, curriculum is developed using competency-based approaches in consultation with employers, curriculum management practices promote inclusive innovation and societal development, university–industry

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partnerships influence the design and implementation of TVET courses, and that curriculum supports inclusivity by integrating gender-sensitive and disability-friendly learning content among others The result shows that the respondents agree that curriculum management practices enhances triple helix partnerships in building inclusive society through technical and vocational education training with an average mean values of 3.45, 3.63 and 3.49 respectively.

Research Question 3: What are the monitoring, evaluations, and quality assurance practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State?

Table 3: Response of University, Industries and Government on Monitoring, Evaluations, and Quality Assurance Practices that Enhance Triple Helix Partnerships in Building Inclusive Society through TVET in Rivers State Universities

S/N	Monitoring, Evaluations, and Quality Assurance Practices that Enhance Triple Helix Partnerships in Building Inclusive Society through TVET Include	X_1 University.	X_2 Industry	X_3 Government	XAve	RMK
19	Stakeholders are involved in monitoring programme implementation and outcomes.	3.67	3.70	3.67	**3.68**	**SA**
20	Monitoring reports are shared among university, industry, and government stakeholders for review.	3.11	2.05	2.52	**2.56**	**A**
21	The university has a monitoring framework for tracking collaboration outcomes in TVET.	3.51	3.12	2.81	**3.15**	**A**
22	Monitoring practices involve evaluating the inclusivity of training programmes for marginalized groups.	3.86	3.94	3.57	**3.79**	**SA**
23	There is regular supervision of student internships and industrial attachments.	3.91	3.63	3.06	**3.53**	**SA**
24	The university regularly conducts evaluation of TVET programmes in collaboration with industry and government.	3.33	3.24	3.17	**3.25**	**A**
25	Evaluation criteria are based on both academic outcomes and industry skill requirements.	3.40	3.01	2.93	**3.11**	**A**
26	Evaluation reports are disseminated to all triple helix partners for informed decision-making.	3.01	3.51	3.56	**3.36**	**A**
27	Evaluation findings are used to revise and improve the TVET curriculum.	3.11	3.34	3.28	**3.24**	**A**
28	The university has an internal quality assurance (QA) unit overseeing TVET programmes.	3.14	3.89	3.52	**3.52**	**SA**
29	QA processes involve industry and government representatives in accreditation and validation of programmes.	3.76	3.87	2.98	**3.54**	**SA**
30	Quality assurance policies promote continuous improvement in teaching and learning processes.	3.55	2.81	3.54	**3.30**	**A**

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31	The QA unit collaborates with government regulatory bodies (e.g., NBTE, NUC) to maintain standards.	3.80	3.63	2.78	**3.40**	**A**
32	Quality assurance enhances trust and long-term collaboration among triple helix partners.	3.51	3.79	3.03	**3.44**	**A**
	Average Mean	**3.48**	**3.40**	**3.17**	**3.35**	**A**

Source: Researchers' Field, 2025

Table 3 reveals the monitoring, evaluations, and quality assurance practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training. The result from Table 3 shows that monitoring, evaluations, and quality assurance practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training include stakeholders are involved in monitoring programme implementation and outcomes, university has a monitoring framework for tracking collaboration outcomes in TVET, there is regular supervision of student internships and industrial attachments, evaluation reports are disseminated to all triple helix partners for informed decision-making, and that quality assurance unit collaborates with government regulatory bodies (e.g., NBTE, NUC) to maintain standards among others. The result shows that the respondents agree that monitoring, evaluations, and quality assurance practices enhances triple helix partnerships in building inclusive society through technical and vocational education training with an average mean value of 3.48, 3.40 and 3.17 respectively.

Hypotheses

The following null hypotheses were formulated and were tested at 0.05 level of significant to guide the study.

There is no significant difference in the mean response of university, industry and government on the resource allocation practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State.

Table 4: Summary of ANOVA on Resource Allocation Practices that Enhance Triple Helix Partnerships in Building Inclusive Society through Technical and Vocational Education Training in Rivers State.

Source of Variation	**Sum of Squares (SS)**	**Degree of Freedom (df)**	**Mean of Square (MS)**	**F-cal**	**F-crit**	**Remark**
Between Groups	124.01	2	31.33			
				1.93	3.00	Accepted
Within Groups	11883	178	21.45			
Total	**12,007.01**	**180**				

Source: Researcher's Field Data; 2025 Significant at .05, df = 2 and 178

From the F-distribution table, the critical value of F with 2 and 178 degrees of freedom at 0.05 level of significant is .3.00. Since the computed F-value of 1.93 is less than the critical value of F (3.00), the null hypothesis was accepted. This implies that there is no significant difference in the mean response of university, industry and government on the resource allocation practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State.

There is no significant difference in the mean response of university, industry and government on the curriculum management practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State

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Table 5: Summary of ANOVA on Curriculum Management Practices that Enhance Triple Helix Partnerships in Building Inclusive Society through Technical and Vocational Education Training in Rivers State.

Source of Variation	Sum of Squares (SS)	Degree of Freedom (df)	Mean of Square (MS)	F-cal	F-crit	Remark
Between Groups	121.06	2	34.61			
				2.18	3.00	Accepted
Within Groups	8477.36	178	19.07			
Total	**9,544.59**	**180**				

Source: Researcher's Field Data; 2025 Significant at .05, df = 2 and 178

From the F-distribution table, the critical value of F with 2 and 178 degrees of freedom at 0.05 level of significant is .3.00. Since the computed F-value of 2.18 is less than the critical value of F (3.00), the null hypothesis was accepted. This implies that there is no significant difference in the mean response of university, industry and government on the curriculum management practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State.

3. There is no significant difference in the mean response of university, industry and government on the monitoring, evaluations, and quality assurance practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State

Table 6: Summary of ANOVA on Monitoring, Evaluations, and Quality Assurance Practices that Enhance Triple Helix Partnerships in Building Inclusive Society through Technical And Vocational Education Training in Rivers State.

Source of Variation	Sum of Squares (SS)	Degree of Freedom (df)	Mean of Square (MS)	F-cal	F-crit	Remark
Between Groups	263.08	2	88.00			
				5.23	3.00	Accepted
Within Groups	9310.13	178	16.81			
Total	**9,573.21**	**180**				

Source: Researcher's Field Data; 2025 Significant at .05, df = 2 and 178

From the F-distribution table, the critical value of F with 2 and 178 degrees of freedom at 0.05 level of significant is .3.00. Since the computed F-value of 5.23 is greater than the critical value of F (3.00), the null hypothesis was rejected. This implies that there is a significant difference in the mean response of university, industry and government on the monitoring, evaluation and quality assurance practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State.

The table below shows the result of Scheffe's multiple comparisons test to determine pair-wise difference among the groups.

Table 7: Scheffe's Post Hoc Multiple Comparison Test

Compared Groups	Paired Groups	F-crit	Absolute F-Values	Remark
$\bar{X}_1 - \bar{X}_2$	University Vs Industry		3.17	Significant
$\bar{X}_1 - \bar{X}_3$	University Vs Government	3.00	2.18	Not Significant
$\bar{X}_2 - \bar{X}_3$	Industry Vs Government		1.35	Not Significant

Source: Researcher's Field Data; 2025

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Result from Table 7 revealed that significant difference exists between three one group which include university and industry. Hence the Post-Hoc Multiple Comparison Test was significant with value of 3.17 which is greater than the F-critical value of 3.00 at degree of freedom 2 and 178.

DISCUSSION OF FINDINGS

The result from Table 1 shows that resource allocation practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training include provision of adequate funding by universities to support collaborative TVET projects with industry and government, budgetary allocations for TVET are efficiently managed to support innovation and inclusivity, universities regularly review funding strategies to strengthen partnership-driven training programmes, resource allocation policies promote inclusivity and equal access for all groups in TVET programmes, and that industry partners contribute financial and material support to TVET infrastructure among others The result shows that the respondents agree that resource allocation practices enhances triple helix partnerships in building inclusive society through technical and vocational education training. This finding is in line with Osagie (2024) Ebiere (2023) and Nduka (2021) who found that in area of resource sharing and capacity building**;** triple helix partnerships significantly improve the quality and availability of educational facilities. This includes constructing modern classrooms, laboratories, and digital libraries. The authors affirmed that the Bayelsa State government's collaboration with universities and private sector stakeholders has resulted in policies that promote sustainable practices in educational infrastructure development, such as the use of renewable energy sources in schools.

The result from Table 2 shows that curriculum management practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training include periodic review of the curriculum to meet emerging labour market demands, curriculum is developed using competency-based approaches in consultation with employers, curriculum management practices promote inclusive innovation and societal development, university–industry partnerships influence the design and implementation of TVET courses, and that curriculum supports inclusivity by integrating gender-sensitive and disability-friendly learning content among others The result shows that the respondents agree that curriculum management practices enhances triple helix partnerships in building inclusive society through technical and vocational education training. The finding of this study agrees with that of Oluwatoyin, Olamide and Olumakinde (2025) who found that involving industry partners in curriculum development review was the strongest predictor of industrial engagement and graduate employment of TVET and that curriculum management that involves university – industry and government (UIG) will therefore benefit TVET institutions, NBTE, NIPOF, State and Federal ministries of education, industry owners and policy makers.

The result from Table 3 shows that monitoring, evaluations, and quality assurance practices that enhance triple helix partnerships in building inclusive society through technical and vocational education training include stakeholders are involved in monitoring programme implementation and outcomes, university has a monitoring framework for tracking collaboration outcomes in TVET, there is regular supervision of student internships and industrial attachments, evaluation reports are disseminated to all triple helix partners for informed decision-making, and that quality assurance unit collaborates with government regulatory bodies (e.g., NBTE, NUC) to maintain standards among others. The result shows that the respondents agree that monitoring, evaluations, and quality assurance practices enhances triple helix partnerships in building inclusive society through technical and vocational education training. The finding of this study corroborates with Oguzor (2011) stated that TVET effectiveness is an induction of the impact of a group of activities performed on the achievement or attainment of intended learning outcome which otherwise is achieved through effective and adequate monitoring, evaluation, supervision and quality assurance. the finding also corroborates with (Seyi, 2014; Nwogu & Nwanoruo, 2011; & Nwachukwu, 2013) who found affirmed that TVET is faced with a lot of challenges ranging from inadequate or mismanagement of funds, inadequate infrastructure, inadequate implementation of curriculum, and lack of follow-up and continuity in government policies and students on internships and industrial training.

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CONCLUSION

The study examines educational management practices for enhancing triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State. It was found from the study that resource allocation practices, curriculum management practices, and monitoring, evaluation and quality assurance practices are some of the educational management practices that enhances triple helix partnerships in building inclusive society through technical and vocational education training in Rivers State.

RECOMMENDATIONS

The following recommendations were made based on the findings of the study.

1. There should be equitable distribution of financial resources among university, industry, and government partners in TVET programmes.
2. There should be collaboration between the university, industry and government when developing and reviewing TVET curriculum to ensure that it captures the three tiers needs.
3. The UIG should regularly supervise, monitored and evaluate TVET programmes based on collaboration with university - industry - government.

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ISSN 2278-2540 | DOI: 10.51583/IJLTEMAS | Volume XV, Issue V, May 2026

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