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Accelerating Technical College-Community Collaboration for Achieving Sustainable Entrepreneurship Development in Appliance Maintenance and Repairs

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Abstract: The study was on accelerating technical college-community collaboration for achieving sustainable entrepreneurship development in Appliance Maintenance and Repairs. The study was carried out in Rivers State, Nigeria. A descriptive survey research design was adopted for this study. The population consisted of all electrical and electronic teachers and students in the five Rivers State-owned technical colleges. Purposive random sampling was used to draw 30 teachers and 80 students from three (3) Technical Colleges in Rivers State. A total of 110 respondents were therefore purposively selected for the study. A structured questionnaire consisting of 15 items on a 4-point scale of Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1) was used to elicit information from respondents. The instrument was validated by three experts. Cronbach's Alpha reliability was used to determine the reliability coefficient of the instrument, which yielded 0.76, indicating that the instrument was reliable for the study. The instrument was administered to the respondents by the researcher and retrieved on the spot after completion. Mean statistic was used to answer the research questions. Items with mean value of 2.50 and above were regarded as Agree (A) while items with mean value below 2.50 were regarded as Disagree (D). The result showed among others that accelerating collaboration in skill acquisition enhances the achievement of entrepreneurship development in Appliance Maintenance and Repairs. Among the recommendations was that the community should provide opportunities for skill acquisition, scholarship and mentorship to technical colleges.

Keywords: **Collaboration, Community, Entrepreneurship development, Technical College**

Introduction

The development of many modern societies has been traced to availability of skilled technical manpower. Availability of such manpower is primarily a product of any of the various forms of educational processes. According to Iloma and Osaji (2015), education is an essential tool for achieving economic growth by bringing about important changes in the way people think and do things and thus popularly accepted to be the core instrument for any meaningful development at all levels of human endeavours. Technical college as an aspect of educational institution is established to equip students with specific technical skills and theoretical experiences required for various trades and workplaces (National Policy on Education of the Federal Republic of Nigeria, (NPE, FRN), 2013).

A technical college is an educational institution designed to provide students with specialized training in practical and applied skills necessary for specific trades, professions, or technical occupations (United Nations Educational, Scientific and Cultural Organization, UNESCO, 2023). The aims of technical colleges according to U.S. Department of Education (2022) include provision of education and training in specific fields such as engineering, information technology, healthcare, automotive technology, electrical electronic technology and more.

Appliance Maintenance and Repairs (AMR) is among several courses offered in Electrical Electronic Trades in technical colleges. The aim of the course includes equipping individuals with the necessary skills and knowledge needed to effectively diagnose, maintain, and repair a wide range of electrical appliances (UNESCO-UNEVOC, 2021). According to the National Center for Construction Education and Research (NCCER, 2020), the aim of appliance maintenance and repairs includes training individuals to acquire prerequisite skills in repairs, maintenance, safety, entrepreneurial skill and technological adaptation in maintenance and repairs of electrical appliances. Technical college as a subsystem of the larger society engages learners in a well-articulated instructional activity that functionally coordinates with the needs of the immediate environment and the community in which it is situated. **Technical college therefore does not exist or operate in isolation but designed to meet technical aspiration of the community.**

A community is a social group with similar interests, social structure, values and lifestyles. It is an entity comprising living organisms with commonality such as religion and cultural such as place, norms, religion, values, customs, or identity which may share a sense of place situated in a given geographical area (e.g. a country, village, town, or neighbourhood) or in virtual space through communication platforms (Wikipedia, 2022). James, Nadarajah, Haive and Stead (2012) defined community as a group or network of persons who are connected (objectively) to each other by relatively durable social relations that extend beyond immediate genealogical ties and who mutually define that relationship (subjectively) as important to their social identity and social practice. Fielding (2000) opined that community is not fundamentally about place, time memory, or even the belonging or significance of close relationships, and fidelity but the reciprocal experience people have as persons in certain kind of relationships, it is an experience of being that is alive in its mutuality and vibrant in its sense of possibility.

Technical College-community collaboration is therefore a two-way symbiotic arrangement through which the college and the community co-operate for the realization of the goals of the college and that of the community (Kwashabawa, Okorie & Egu, 2009). Etuk (2021) opined that the collaboration between the school and the community should be a two-way relationship with the school management having a responsibility of informing the community about the needs, activities, and accomplishments of their school. An effective school-community collaboration is therefore all encompassing. School - community collaboration helps to improve the quality of education for all children. It helps parents and other citizens to recognize their responsibility for the quality expected from the students. School-community collaboration is expected to be a system of mutual understanding through which the school and the community link with each other for the achievement of goals of the community and that of the school by ensuring that the system revolve around manpower development.

Expected derivable benefits from technical college - community collaboration should be symbiotic and often characterized by mutual and harmonious dependence and cooperation with each party deliberately providing essential elements to the other for the mutual benefit of both parties. In the spirit of congenial collaboration, the community could support the college by providing for mentorship opportunities, motivations, awarding scholarship, and donating instructional facilities. Instructional facilities enhance the achievement of quality assurance in schools (Iloma, Ogbowu & Igwebuike, 2018). Community can also provide industrial training and internship opportunities and also grant employment to successful students. The community may as well support the college through legislation and implementation of educational demands.

In reciprocation, the college produces skilled and knowledgeable manpower in Appliance Maintenance and Repairs with sufficient capabilities to fit adequately into jobs, become self-employed and successful entrepreneurs and thus, contribute to the socio-economic development of the community. Corroborating this, Soke-Huberty (2022) opined that **school help young people build confidence, encourage critical thinking, give students a variety of opportunities, build communities and reduce poverty. Educational institution such as Technical College provide socialization, improve commerce and economic activities, facilitates the achievement of technical aspirations of the society and enhance acquisition of skills for self-reliance.** Skill enables individuals to create more wealth, facilitate increased productivity and sustainability for the employed and those seeking self-employment (Yusuf & Soyemi, 2012). Accelerating such mutuality in technical college-community collaboration could therefore yield to sustainable entrepreneurship development in AMR among students and staff in electrical electronic trades.

Entrepreneurship development is the process of enhancing the skillset and knowledge of entrepreneurs regarding the development, management and organization of a business venture while keeping in mind the risks associated with it (Leverage, 2025). According to Sam, Stephen and Peter (2021), entrepreneurship development is the process of enhancing entrepreneurial skills, knowledge, and mindset through structured training, mentorship, and resource allocation to foster business creation and growth. It involves improving an individual's ability to identify opportunities, manage risks, and innovate in business ventures.

Entrepreneurship development in Appliance Maintenance and Repairs is therefore a continuous process of utilising available opportunities in AMR to increase employment and profit by applying innovative business strategies in a competitive market environment. Development of skilled manpower in AMR through mutual collaboration becomes imperative as the resultant effect could contribute positively to socio-economic development of any community and State. It

could alleviate poverty, improve security, and yield to industrialisation and sustainable development in all facets of human endeavours.

It is important to mention that one major challenge faced by Nigerians in recent time is high level of unemployment which has led to visible poverty among the populace. Poverty which has been associated with several factors including unemployment has multifaceted negative implications on its victim and the society. Akpan, (2011) has also identified corruption, unemployment and poverty as the major national problems mitigating sustainable socio-economy development of which Rivers State is not exceptional**. Rivers State** which is one of the States in Nigeria is endowed with several resources such as crude oil, gas, agricultural products, forestry and land etcetera is not excluded from the venoms of poverty which has impeded sustainable socio-economic development.

Consequentially, technical college-community symbiotic relationship in achieving skilled manpower for sustainable entrepreneurship development in Appliance Maintenance and Repairs could be imperative for the achievement of vibrant socio-political economic society which is fundamental to the benefit of the college and the community. It is on this basis that this study sought to determine the perception of respondents on accelerating technical college-community collaboration for achieving sustainable entrepreneurship development in appliance maintenance and repairs.

Purpose of the Study

The main purpose of this study is to determine the perception of respondents on accelerating technical college - community collaboration for achieving sustainable entrepreneurship development in Appliance Maintenance and Repairs. Specifically, this study sought to:

1. determine the perception of respondents on accelerating collaboration in skill acquisition for achieving sustainable entrepreneurship development in AMR
2. determine the perception of respondents on accelerating collaboration in the award of scholarship for achieving sustainable entrepreneurship development in AMR
3. find out the perception of respondents on accelerating collaboration on mentorship for achieving sustainable entrepreneurship development in AMR

Research Questions

This study was guided by the following research questions

1. what is the perception of respondents on accelerating collaboration in skill acquisition for achieving sustainable entrepreneurship development in AMR?
2. What is the perception of respondents on accelerating collaboration in award of scholarship for achieving sustainable entrepreneurship development in AMR?
3. what is the perception of respondents on accelerating collaboration in mentorship for achieving sustainable entrepreneurship development in AMR?

Method

A descriptive survey research design was adopted for this study. The population for this study consists of all the five (5) Government Technical Colleges in Rivers State. Purposive random sampling was used to draw 30 teachers and 80 students in the department of electrical electronic trade from three (3) purposively selected Technical Colleges. A total of 110 respondents were therefore used for the study. A structured questionnaire consisting of 15 items in a 4-point scale of Strongly Agree (4), Agree (3), Disagree (2) and Strongly Disagree (1) was used to elicit information from respondents. The instrument was validated by three experts. Cronbach Alpha reliability was used to determine the reliability coefficient of the instrument which yields 0.76 indicating that the instrument was reliable for this study. The instrument was administered on the respondents by the researcher and a research assistant which was recruited by the researcher in each of the colleges. The instrument was retrieved on the spot after completion. Mean statistic was used to answer the research questions. Items with mean value of 2.50 and above were regarded as Agree (A) while those items with mean value below 2.50 were regarded as Disagree (D).

Results

Research Question 1

what is the perception of respondents on accelerating collaboration in skill acquisition for achieving sustainable entrepreneurship development in AMR

Table 1: Mean ratings of respondents' perception on accelerating collaboration in skill acquisition for achieving sustainable entrepreneurship development in AMR

N=110

S/N	Items	Mean X	Standard Deviation SD	Decision
1	enhances employable entrepreneurship competencies	3.00	1.01	A
2	Improves skills for self-employment	2.86	1.01	A
3	Improved competency for job creation	3.53	0.73	A
4	Increases employment opportunities	2.93	1.15	A
5	Increases opportunity to work with real experts	3.00	0.83	A
	Grand Mean	**3.06**		**A**

Table 1 shows that the respondents agreed to each item of the instrument as the mean score of the items is higher than 2.50. The overall mean of 3.06 showed that it is the perception of respondents that accelerating technical college-community collaboration in skill acquisition positively enhance the achievement of sustainable entrepreneurship development in AMR.

Research Question 2

What is the perception of respondents on accelerating collaborations in scholarship for achieving sustainable entrepreneurship development in AMR?

Table 2: Mean rating of respondents' perception on accelerating collaboration in scholarship for achieving sustainable entrepreneurship development in AMR

N=110

S/N	Items	Mean X	Std	Dec
6	Provides access to quality training	2.73	1.04	A
7	help beneficiaries start and expand their businesses	3.00	0.83	A
8	Provides financial empowerment for entrepreneurs in AMR	3.20	0. 94	A
9	Enhances learners' skill and competencies for job retention	2.74	1.04	A
10	Provides opportunity for startups	2.29	1.04	
	Grand Mean	**2.79**		**A**

Table 2 shows that the respondents agreed to each item of the instrument as the mean score of each of the items are higher than 2.50. The overall mean of 2.79 showed that it is the perception of respondents that accelerating technical college-community collaboration in the award of scholarship positively enhance the achievement of sustainable entrepreneurship development in Appliance Maintenance and Repairs.

Research Question 3

what is the perception of respondents on accelerating collaboration in mentorship for achieving sustainable entrepreneurship development in AMR?

Table 3: Mean ratings of respondents' perception on accelerating collaboration in mentorship for achieving sustainable entrepreneurship development in AMR
N=110

S/N	Items	Mean X	SD	Decision
11	boost mentees' confidence in taking entrepreneurial decisions	3.53	0.73	A
12	Encourages creativity and innovative business skills among AMR mentees	2.93	1.15	A
13	Provides opportunity to acquire expertise guidance on business management and financial planning	2.30	1.04	A
14	Provides assistance for handling complex appliance problems and business challenges.	3.00	0.81	A
15	Provides opportunity to be mentored by professional entrepreneurs.	3.20	0. 94	A
	Grand Mean	**2.99**	**0.93**	**A**

Table 3 shows that respondents agreed to each of the items of the instrument as the mean score of each item is higher than 2.50. The overall mean of 2.99 showed that it is the perception of mentorships enhances the achievement of sustainable entrepreneurship development in AMR.

Discussion of Findings

The result as analyzed showed strong indication that accelerating technical college-community collaboration in skill acquisition enhances the achievement of sustainable entrepreneurship development in Appliance Maintenance and Repairs. The finding corroborates that of Kwashabawa, Okorie and Egu (2009) that the community co-operate with the school for the realization of the goals of the college and that of the community. It is also in line with the findings of Tanner (2006) that providing instructional facilities positively enhance healthy instruction, behavioral modification, facilitative engagement, learning, and growth in students' interest and achievement which facilitate job creation and poverty alleviation.

The finding also revealed that accelerating technical college-community collaboration in the award of scholarship positively enhance the achievement of sustainable entrepreneurship development in Appliance Maintenance and Repairs. This finding corroborates that of Berlanga and Corti (2025) that students with scholarships exhibit higher success rates and greater chances of continuing their studies when compared to students without scholarships. The finding is also in line with that of Muhammad, Sidra, Shahbaz, Kirn, Mukarram, Amaim and Muhammad (2024) that beyond individual academic achievements, scholarships contribute to broader societal impacts, including social mobility, economic development and innovation. This finding as well agrees with that of Iloma, Atose and Austin (2021) that scholarship award and other supports provided by the community helps to broadens learners' chances for acquiring sufficient knowledge for job and for industrialization.

The finding further showed that that accelerating technical college-community collaboration in mentorship immensely contribute to the achievement of sustainable entrepreneurship development in AMR. This finding is in line with that of Mamman (2024) that there is a significant impact of mentoring programme on job performance and retention among mentees. The study also corroborates that of Hamilton, Boman, Rubin and Sohata (2019) that student mentees gained professional and career-related benefits including increased job search self-efficacy from participation in a mentorship programme that paired them with mentors from industry.

Conclusion

Based on the findings of the analyzed data, it was concluded that accelerating technical college-community collaboration in skill acquisition positively enhanced the achievement of sustainable entrepreneurship development in AMR. It was further concluded that accelerating technical college-community collaboration in award of scholarship to students in electrical electronic trade enhanced the achievement of sustainable entrepreneurship development in AMR. It was also concluded that accelerating technical college-community collaboration in mentorship programme enhances the achievement of sustainable entrepreneurship development in AMR.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. community should collaborate with technical colleges in the provision of instructional supports to enhanced entrepreneurship development for increased employment generation and sustainable socio-economic development.
2. community should collaborate with technical college by providing scholarship to students in appliance maintenance and repairs to enhance accessibility to quality learning and business startups.
3. community should collaborate with technical colleges by providing entrepreneurship mentoring opportunities to students in AMR for increase wealth creation, development of experts in AMR and generate skilled manpower for industrialization and socio-economic development of the community.

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