

# TECHNIQUES FOR IMPROVING PARTNERSHIP BETWEEN TECHNICAL COLLEGES AND

## AUTOMOBILE COMPANIES FOR ENHANCING SKILL ACQUISITION IN SOUTH EAST, NIGERIA.

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### Abstract

*This study focused on the techniques for improving partnership between technical colleges and automobile companies for enhancing skill acquisition in south East, Nigeria. Two research questions and two hypotheses guided the study. A descriptive survey design was employed and the population for the study was 105 respondents made up of 25 automobile company managers, 32 school administrators and 48 MVM teachers and due to the manageable size of population, there was no sampling. The instrument for data collection was a structured questionnaire which was face validated by three experts in Department of Industrial technology education from Federal University of Technology, Minna. A reliability coefficient of 0.86 for the instrument was determined using Cronbach alpha. Data were analysed using mean for the research questions ANOVA for testing the hypothesis at .05 level of significance. The study revealed the following among others, that jointly organizing internship programme seminar, exhibitions, cooperative programme of research and workshops between technical colleges and automobile companies are techniques for improving partnership towards personnel development. Consequently, it was recommended among others that techniques such as using Rehabilitate Operate Transfer (ROT), Build Lease Transfer (BLT) and Build Own Operate Transfer (BOOT) should be utilized in the provision of infrastructures and services in technical colleges of South East, Nigeria. **Keywords:** Partnership, Technical College Education, Automobile Companies, Skills Acquisition.*

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## Introduction

Partnership is contractual arrangements where parties agree to cooperate and invest their resources for mutual interest (Harris and Wilkes 2013). According to Cyril (2016), school – industry partnership in Nigeria lacks adequate attention it deserves from the stakeholders in achieving its objectives and this has resulted into the dearth of skilled workers. However, Okpor and Hassan (2012) opined that in Nigeria and other developing countries sustainable access to technology development and products are best achieved through Public Private Partnership with Vocational Technical Education.

Public Private Partnership (PPP) is formed between public and private sectors involving the private sector in the development, financing, ownership, and or operation of a public facility or service. (Atsumbe, Raymond, Owodunni & Benjamin, 2013). It is the dynamic and interactive mutual collaboration between training institutions and industries in terms of training skills, ideas, research and innovations leading to a seasoned manpower generation and development for industrial competitive workforce which are part of the goals of technical colleges in Nigeria.

Technical colleges in Nigeria produce craftsmen for various sectors of the economy and are regarded as

the principal vocational institutions for stimulating technological and industrial development. Furthermore, technical colleges offer various programmes as automobile trade, building and wood work trade, business trade, computer trade, electrical/electronic trade, hospitality trade, mechanical trade, printing trade, textile trade and general education courses (NBTE, 2012). The automobile mechanics according to Federal Republic of Nigeria (FRN), (2013), is one of the vocational trades programmes offered at technical college level as Motor Vehicle Mechanics (MVM) work.

MVM graduates according to National Board for Technical Education (NBTE) (2012), should among others be able to inspect, identify problems, repair and service mechanical, electrical and electronic system and components of cars, buses and trucks to the manufacturer's specification. Cyril (2016) noted that MVM programme in Nigeria technical colleges have not produced the required skilled personnel for industrial consumption. This is evident in the increased number of jobless MVM graduates. He further suggested that programmes offered and skills acquired should be based on the skills needed by industrial organizations like automobile companies.

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Automobile companies are industrial setup which involves application of scientific knowledge in the design, selection of materials, construction, operation and maintenance of automobiles. In Nigeria, the 1970's was a turning point in the development of automobile companies (Salami 2006). By this time government had become aware of the importance of the Automobile companies as an agent of growth in the economy. It has without

doubt been at the heart of every meaningful industrial breakthrough recorded in the last few decades and has continued to transform maintenance operations with the endless discovery of new techniques (El-Namaki, 2012). Improved partnership between Automobile Companies and MVM trade in technical colleges will foster efforts of both partners through training programmes like workshops, seminars,

conferences towards personnel's development in MVM trade.

Personnel development covers activities that improve awareness and identity, develop talent and potential, build human capital and facilitate employability, enhance the quality of life and contribute to the realization of dream and aspirations (Ogbuanya and Fakorede, 2009). This indicates that if MVM personnel are sufficiently trained and exposed to new industrial changes, the quality of MVM graduates will improve. Hence, the need for MVM teachers to be intensively trained and re-trained with new industrial skills and adequate infrastructures.

Infrastructures are the basic physical and organizational structures needed for the operation of the society or an enterprise. School infrastructures are referred to physical structures which enhances the running of the school to attain its educational objectives (Lewis and Mervyn, 2007). Poor infrastructure development has actually impacted negatively on the standard of MVM programme in Nigeria and by extension on the nation's economy (Umar, 2012). It becomes imperative for the private sector been encouraged to initiate and participate in the provision of infrastructures and facilities using such methods as build operate-and-transfer (BOT), build own-operate and transfer (BOOT) and rehabilitate-operate and transfer (ROT), through improved partnership with technical colleges. Such infrastructures as MVM workshops offer opportunities for practical training of MVM students towards skill acquisition.

Skill acquisition is the ability to be trained on a particular task or function and become expert in

it (Olabiyi, 2015). When skills are acquired in any occupation it will provide and improve the standard of living with the insurance against poverty, there by sustaining national development. Skills acquisition obviously enhances employment and productivity as well as sustains competitiveness in the global economy. In the words of Deloitte (2011), 74% of manufacturers have agreed that lack of skilled workers had a significant negative impact on company's ability to expand operations or improve productivity. The foregoing clearly reveals that there is need for technical institutions and companies to tackle these skills mismatch.

Nevertheless, Shane (2014) revealed that, technical colleges have been regarded as a source of technological development that is useful to industrial activities but high numbers of MVM graduates remain unemployed due to low or no industrial skills. Hence, there is need to identify the techniques for improving partnership between technical colleges and automobile companies for enhancing skill acquisition in South East, Nigeria.

### **Statement of the Problem**

In south east of Nigeria for instance, many of the auto mechanics craftsmen resort into commercial motor cyclist to help themselves out of unemployment, instead of practicing as an auto mechanic craftsman. Thousands of automobiles are being imported into Nigeria. The increasing importation of both new and used automobiles into Nigeria market provides ample business opportunities for auto mechanics craftsmen to start up business enterprise and expand (Jimoh and Adebayo, 2014). It becomes necessary that auto mechanics craftsmen establish maintenance

centre equipped with modern gadgets to keep vehicles on road. Hence, it is essential that auto mechanics craftsmen have the appropriate skills required to thrive in the 21<sup>st</sup> century global market and world of work.

The question is: Could it be that the appropriate improvement techniques are not adequately adopted for partnership in south east Nigeria?

### **Purpose of the Study**

The purpose of this study is to determine the techniques for improving partnership between technical colleges and automobile companies for enhancing skills acquisition in South East, Nigeria.

### **Research Questions**

The following research questions guided the study:

1. What are the techniques for improving partnership between technical colleges and automobile companies in personnel development?
2. What are the techniques for improving partnership between technical colleges and automobile companies in infrastructural development?

### **Hypotheses**

The following null hypotheses were formulated and tested at .5 level of significance:

- HO1:** There is no significant difference in the mean responses of MVM teachers, school administrators and managers of automobile companies on the techniques for improving partnership in personnel development
- HO2:** There is no significant difference in the mean responses of MVM teachers, school administrators and managers of automobile companies on the

techniques for improving partnership in infrastructural development

### **Methodology**

The study adopted the descriptive survey design. Fox & Bayat (2007) defined descriptive survey research design as design aimed at casting light on current issues or problem through a process of data collection. The study was carried out in South East, Nigeria. South East is one of the 6 geo political zones in Nigeria comprising of five states namely: Abia, Anambara, Ebonyi, Enugu and Imo State. The population for this study was 105 respondents consisting of 25 managers of Automobile Companies in South East Nigeria, 32 School Administrators and 48 MVM Teachers at the sixteen (16) Technical Colleges in South East Nigeria. There was no sampling due to manageable size of the population. Data was collected using a 42 item structured questionnaire designed by the researcher. The questionnaire was made up of two sections: A & B based on research question 1 & 2 respectively. Both sections were designed on five points rating scale of Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD) and Undecided (UD) with numerical values of 5, 4, 3, 2, and 1, respectively. The instrument was face validated by three experts in the Department of Industrial and Technology Education, Federal University of Technology, Minna. Cronbach Alpha statistics was used to determine the internal consistency of the instruments and found the reliability coefficient to be 0.86. Data collected for the study were analyzed using mean and standard deviation for the research questions and ANOVA to test the hypotheses. In order to accept or reject the mean responses of each item, a mean score of 3.00 was used as a cut-off point. Therefore,

S/NO	ITEMS	MEAN	SD	REMARK
10	Allocating technical teachers to spend part of their vacation in automobile companies to learn skills	3.88	1.36	Agree
11	Allowing technical college personnel to attend induction courses in automobile companies	3.85	0.93	Agree
12	Organizing training through industrial training fund by government for automobile companies and technical colleges	4.47	1.08	Agree
13	Providing special training on modern equipment to technical personnel by automobile companies	4.22	0.95	Agree
14	Technical colleges running short term training for technical personnel from automobile companies	3.88	1.10	Agree
15	Technical colleges and auto companies jointly executing projects for manpower development	4.46	0.92	Agree
16	Subjects for manpower development by automobile companies in technical colleges	4.18	1.17	Agree
17	Initiating projects in technical colleges to appoint technical teachers to deliver training lectures for automobile company employees	4.50	0.87	Agree
18	Appointing technical teachers in technical colleges for automobile companies and automobile companies jointly organizing corporate program of research	4.09	1.13	Agree
19	Jointly organizing seminars	4.28	0.88	Agree
20	Award contract employment to teach automobile technical colleges establishing cross training pattern that utilizes company personnel	4.46	0.98	Agree
21	Organizing corporate work study programme by automobile companies for technical college personnel	4.05	1.04	Agree
22	Involving automobile company personnel in accreditation exercise in technical colleges	3.96	0.96	Agree
23	Engage professionals from automobile companies in part usage of automobile companies workshop facilities	4.29	1.06	Agree
24	Establishment of corporate programme for technical personnel in automobile companies	4.19	1.09	Agree
25	Jointly organizing conferences	4.22	1.10	Agree
26	Both technical colleges and automobile companies organizing technology development forum for personnel development	4.40	0.88	Agree
27	Involving automobile company personnel's in on-going research at technical colleges	4.12	1.03	Agree
28	Automobile companies establish a cross training pattern that utilizes technical college personnel's	3.97	1.19	Agree
29	Technical colleges and auto companies jointly commission projects for manpower development	4.42	0.92	Agree
30	Technical colleges and automobile companies jointly organizing exhibitions.	3.85	1.20	Agree
<b>GRAND MEAN/SD</b>		<b>4.18</b>	<b>1.06</b>	<b>Agree</b>

KEY:

**Table 1: Mean with standard deviation of Respondents on techniques for improving partnership in Personnel development.**

N = 105

items with mean score of 3.00 and above were considered as agree, while items with 2.99 and below were considered as disagree.

**Results**

**Research Question 1:** What are the techniques for improving partnership between technical colleges and automobile companies in personnel development?

Respondents, SD = Standard Deviation.

Result in table 1 reveals that the respondents agree with all the 25 items as the techniques for improving partnership on personnel development because the mean average ranges from 3.85 - 4.50 which is above the criterion mean of 3.00. The standard deviation values of the 25 items ranges from 0.87 - 1.44 which are less than the standard deviation threshold value of

**Table 2: Mean with standard deviation of Respondents on techniques for improving partnership in Infrastructural development.**

S/NO	ITEMS	MEAN	SD	REMARK
1.	Provision of land by Technical colleges for development of infrastructure by automobile companies.	3.70	0.98	Agree
2.	Using Design Build Finance Operate (DBFO) means of finance to build libraries by automobile companies at technical colleges.	2.91	0.93	Disagree
3.	Government enhancing laws for private participation in infrastructural development at technical colleges	3.51	0.93	Agree
4.	Donating machine tools for students practice in technical colleges by automobile companies	3.50	1.02	Agree
5.	Using rehabilitate operate transfer (ROT) means of financing by automobile companies to rehabilitate workshops in technical colleges	4.08	0.90	Agree
6.	Automobile companies assist in the installation of machines in technical colleges	3.87	0.90	Agree
7.	Automobile companies should assist in the installation of equipment's at technical colleges.	4.19	0.91	Agree
8.	Providing conducive environment for mutual collaboration with automobile companies by technical colleges	4.27	0.94	Agree
9.	Technical colleges provide manpower for infrastructural development by automobile companies.	3.40	0.90	Agree
10.	Automobile companies assist in building of hostel accommodation through build operate and transfer (BOT) means of financing in technical colleges	2.87	1.10	Disagree
11.	Refurbishing of automobile machines in technical colleges by automobile companies	4.24	0.94	Agree
12.	Building workshops in technical colleges through build lease and transfer (BLT) means of financing by automobile companies.	4.15	0.83	Agree
13.	Providing of portable water system at technical colleges through intervention funds by automobile companies	2.52	1.39	Disagree
14.	Repairing of automobile equipment in technical colleges by automobile companies	3.76	1.00	Agree
15.	Automobile companies donating classroom chairs to technical colleges	2.38	1.23	Disagree
16.	Auto companies provide Information Communication Technology (ICT) equipment using Build Own and Operate (BOO) in technical colleges.	4.25	0.88	Agree
17.	Using Build Own Operate and Transfer (BOOT) means of financing by automobile companies to build administrative blocks in technical colleges.	2.77	0.93	Disagree
<b>GRAND MEAN</b>		<b>3.69</b>	<b>0.98</b>	<b>AGREE</b>

1.96 this implies that the respondents were closer to each other in their responses to the items.

technical colleges and automobile companies in infrastructural development?

**Research Question 2:** What are the techniques for improving partnership between

Table 2 shows that the mean of items 1, 3, 4, 5, 6, 7, 8, 9, 11, 12, 14 and 16 ranges between 3.40

- 4.27 which is above the criterion mean of 3.00, hence agreed by the respondents as techniques for improving partnership on infrastructural development in the study area. Items 2, 10,13,15 and 17 where disagreed upon as their means ranges between 2.38 - 2.91 which is below the mean criterion of 3.00. The standard deviation value of the 17 items are between 0.83 - 1.39 which are less than the threshold

f-ratio of 1.660 and a P value of 0.245 which is greater than 0.05.

Therefore, the null hypothesis was accepted. Hence, there is no significant difference in the mean responses of Administrators, MVM Teachers and automobile Managers on the techniques for improving partnership on personnel development in South East, Nigeria.

**Table 4: ANOVA of the mean responses of Respondents as regards partnership improvement techniques on infrastructural development.**

	Sum of Squares	Df	Mean Square	F	P
Between Groups	4.432	2	2.216	2.559	0.351
Within Groups	83.128	96	0.866		
Total	87.560	98			

value of 1.96. This means that the respondents were closer to each other in their responses.

**Hypothesis One**

**HO<sub>1</sub>:** There is no significant difference in the mean responses of MVM teachers, school administrators and managers of automobile companies on the techniques for improving partnership in personnel development.

**Hypothesis Two**

**HO<sub>2</sub>:** There is no significant difference in the mean responses of MVM teachers, school administrators and managers of automobile companies on the techniques for improving partnership in infrastructural development.

**Table 3: ANOVA of mean responses of Respondents on techniques for improving partnership in personnel development.**

	Sum of Squares	Df	Mean Square	F	P
<b>Between Groups</b>	1.695	2	.848	1.660	.245
<b>Within Groups</b>	49.085	96	.511		
<b>Total</b>	50.780	98			

Table 3 shows that there is no significant difference in the mean of respondents with an

Table 4 The result of the analysis showed an f-ratio of

2.559 and a P value of 0.351 which is

greater than 0.05. Therefore, the null hypothesis was accepted. Hence, there is no significant difference in the mean responses as regards the techniques for improving partnership on infrastructural development in South East, Nigeria.

### Discussion of Findings

The findings in Table 1 relating to research question one revealed that inviting automobile companies personnel to facilitate during career days in technical colleges, organizing training through industrial training fund for auto managers and MVM teachers by government, jointly organizing seminars, jointly organizing workshops and automobile companies establishing a cross training pattern that utilizes technical college personnel would greatly improve partnership towards personnel development in South East, Nigeria. The finding is in agreement with the work of Umar *et al.*, (2016), in their study on strategies for improving school industry collaboration for effective student industrial attachment in the technical colleges of Gombe State revealed that industrial professional's involvement for effective mentoring and jointly organizing training activities, seminars and conferences are strategies for improving school-industry collaboration in personnel development. Improving partnership between technical colleges and automobile companies in personnel development will play a greater role in the realization of the objectives of the MVM programme. The assertion is supported by Ogbuanya and Fakorede (2009) who disclosed that, activities such as improving awareness and identity, developing talent and potential, building human capital and facilitating employability will enhance the quality of graduates and contribute to the realization of the objectives of the MVM programme.

Furthermore, the findings on hypothesis one in Table 3 showed that there was no significance difference in the mean responses of MVM Teachers; school Administrators and Automobile Managers as regards techniques for improving partnership on personnel development in South East, Nigeria. The finding is in conformity with the study of Cyril (2016) that revealed no significant difference between the mean response of industrial supervisors and technical teachers on the administrative strategies that could improve school industry collaboration for skill acquisition in electrical installation and maintenance work in technical colleges of Plateau State. This implies that, MVM Teachers, Administrators and Automobile Managers exhibited similar views in their responses.

The findings in Table 2 revealed that Conducive environment provision for mutual collaboration with automobile companies by technical colleges, automobile companies using means of finance as Build Own Operate (BOO) to provide ICT equipment in technical colleges, build lease and transfer (BLT) in building workshops in technical colleges, rehabilitate operate transfer (ROT) to rehabilitate workshops in

technical colleges and automobile companies assist in refurbishing the machines in technical colleges are techniques for improving partnership on infrastructural development in South East, Nigeria. These concords with the findings of Fadeyi *et al.*, (2016) in their study, assessment of public private partnership on infrastructural development in Nigeria: Challenges and prospects that revealed Rehabilitate Operate Transfer (ROT), Build Lease Transfer (BLT) and Build Own Operate (BOO) in building, rehabilitating of workshop, as techniques for improving partnership towards infrastructural development.

The analysis of variance in Table 4 relating to hypothesis two revealed that there was no significance difference in the mean responses of MVM Teachers, Administrators and Automobile Managers as regards techniques for improving partnership on infrastructural development in South East, Nigeria. The finding is in agreement with the study of Cyril (2016) that revealed no significant different between the mean responses of industrial supervisor and technical teachers on the industry based activities that would improve school industry collaboration for infrastructural development in electrical installation and maintenance work in technical colleges of Plateau State. This implies that, MVM Teachers, Administrators and Automobile Managers exhibited similar views.

## **Conclusion**

Base on the findings of this study, it can therefore be concluded that inviting personnel from automobile companies to facilitate during career days in technical colleges, organizing training through industrial training fund for auto managers and MVM teachers by government, jointly organizing seminars, jointly organizing workshops and automobile companies establishing a cross training pattern that utilizes technical college personnel are techniques for improving partnership in personnel development.

Furthermore, providing conducive environment for mutual collaboration with automobile companies by technical colleges, automobile companies using means of finance as Build Own Operate (BOO) to provide ICT equipment in technical colleges, build lease and transfer (BLT) in building workshops in technical colleges, rehabilitate operate transfer (ROT) to rehabilitate workshops in technical colleges and automobile companies assist in refurbishing the machines in technical colleges are techniques for improving partnership on infrastructural development.

## **Recommendations**

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

1. All stake holders in school industry partnership including technical teachers should be involved in articulating the partnership objectives especially in technical colleges towards enhancing personnel development.

2. Government should create enabling environment for improved partnership to flourish and emphasize using means of financing as BOO, BLT, BOT by private sectors to provide state of the art infrastructures in technical colleges through partnership.

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