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Current Researches in the Multidisciplinary Arena

Swati Madan

Rishabh Raj

Dr. Ritu Bhattacharyya

Current Researches in the Multidisciplinary Arena



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PREFACE

All the achievements that we have achieved today can be attributed to the curious and inquisitive nature of man. With the help of his innovative character and inquisitive tilt, man has discovered many mysteries and secrets of the earth. As a result, today our modern society is full of astonishing advancements and magnificent inventions. Academically our progress is par excellence. But still, we have to go a long way. Apart from scientific developments and inventions, the concept of globalization and liberalization, have given rise to many problems and challenges. All these problems are peculiar and enormous in nature. They are the subject matter of various disciplines. Evidently, a solution to these problems cannot be reached at with the help of research in only one discipline. Rather, they need concerted effort of all disciplines. This book highlights the need, significance, problem and prospects of multidisciplinary research approach.

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We are Grateful to the Almighty for giving us this opportunity to become editors of this Book on “**Current Researches in the Multidisciplinary Arena**”. We could complete this book on time only with the support of our immediate family members. They gave us full support during the entire time when we were busy editing this book. Without their support this would not have been possible. We cannot thank Nex Gen Publications enough for publishing this book in such a short span of time. They provided us with all the necessary services which made this journey of publishing this book very smooth. We highly recommend them.

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EVALUATION OF NATIONAL AUTOMOTIVE DESIGN AND DEVELOPMENT COUNCIL TRAINING PROGRAMMES IN INFORMAL SECTOR AUTOMOBILE MECHANICS IN NIGERIA

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ABSTRACT

The purpose of this study was to evaluate NADDC training programme for informal sector of automobile mechanics in Nigeria. Three research questions guided the study. The design of the study was descriptive survey design. The population of the study was one thousand, two hundred and two respondent (1,202). The study covered the entire country Nigeria which is divided into 6 geopolitical zones comprising of 15 training centres. The sample for the study was two hundred and seventy two respondents, which was purposefully selected. The instrument for data collection was structured questionnaire developed by the researcher. The data collected were analyzed using mean and standard deviation while the hypotheses were tested using t-test and ANOVA. The result revealed that the fifteen (15) objectives are highly appropriate for the training of automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria, human resources at the training centres are highly adequate for the implementation of NADDC training programmes for automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria. Among the recommendations made was that Federal Government through the Federal ministry of Employment, Labour and Productivity should ensure proper and adequate funding of the NADDC to enable it carry out its objectives/mandate effectively. Government and other stakeholders should provide addition human resources to cover all areas including health and safety personnel at all centres and efforts should be made to improve the material resources at all centres to cope with the

increasing need to up skill automobile mechanics and technological advancement in automobile industry.

BACKGROUND OF THE STUDY

To compete favourably with other developing nations in an era of rapid economic and technological changes, Nigeria must strive to improve her productivity throughout all sectors of the economy. This requires not only capital investment but also a workforce that is knowledgeable and has the flexibility to acquire new skills for new jobs as the structure of the economy and occupations change. This flexibility and productivity of workforce is critically dependent on the availability of skilled workers especially technicians and artisans. Idoko (2014) further explained that acquisition of practical skills involves the development of new skills, practice and way of doing things or performing a task, usually gained through training or experience. There is no doubt that the availability of a relevant and competitive skilled workforce will aid exploitation of the various investment opportunities for job and wealth creation. From the foregoing, practical skills acquisition could be referred to as an organized process of training which eventually leads to effectiveness in automobile technology. It is an ability to do a given job better and faster with enhanced output. The level of skills acquired by a country's workforce determine the quality and efficiency of its products and maintenance as well as the efficiency of improving skills and training of workers with lesser skills (Osuji, 2003). Developing country like Nigeria, the importance and relevance of Technical and Vocational Educational and Training (TVET) cannot be over emphasized. This is because according to Imogie (2014), no nation can develop to its fullest and keep pace with trends in science and technology without effective and efficient technical and vocational educational and training system. Technical and Vocational Educational and Training equips people with a broad range of knowledge, skills and attitudes that are now recognized as indispensable for meaningful participation in automobile technology (Okwelle & Ojotule, 2018). Technical and vocational educational and training involves the acquisition of skills and competencies that can help individuals to function productively in Automobile Technology (Wapmuk, 2011). The National Policy on Education (NPE) clearly states that, "technical and vocational education is used as a

comprehensive term referring to those aspect of the educational process involving in addition to general education, the study of automobile technology and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life” (FGN, 2014).

The modern automobile and its maintenance industry is already becoming more than what the roadside mechanic can handle. The industry is daily becoming more technologically oriented with many computerised systems, thus making it more sophisticated. Besides this is the ceaseless influx of modern cars into the country. The Nigeria automobile industry is made up of few automobile assembly plants, automobile merchandising, transportation, maintenance and spare parts dealership/sales. For the fact that there are no indigenous automobile manufacturing companies, the maintenance sector has grown to be a major automobile industry in Nigeria. Also because most of the modern vehicles are imported into the country, their maintenance poses a major challenge to the automobile technicians and thus the need for re training of the automobile technicians in maintenance and servicing of modern vehicle. Jalal (2015) posited that, due to the increasing complexity of technology that gives birth to modern automobiles that runs by integrated electronic system and complex computers, which measure their performance while on the road, it becomes very necessary for automobile technicians and users to acquire broad based knowledge and ability to work with electronic diagnostic equipment and computer based technical reference material through regular training and retraining. The advent of scanning tools for diagnosing engine faults and code readers has also brought about the elimination of guess work and trial by error services on modern automobiles. This development has also led to serious need for retraining of automobile mechanics in the informal sector. With the rapid changes in automobile technology, there is concern as to how the informal sector has coped, especially with the quality of work considering the unique characteristics of the informal sector. The Informal Sector is characterised by it being labour intensive, requiring very little capital and mostly in the open air (and hence the name Road Side Mechanics). Jalal (2015) affirmed that automotive mechanics in the informal sector perform the bulk of the repairs yet most of them do not have the right equipment and many have had no formal education in repairs of modern automotive vehicles

However, the quality of maintenance and repair services carried out in the Informal Sector (Road Side Mechanics) is usually much less than the equivalent from the formal sector and the charges (cost) for the same are correspondingly less. In spite of this, the Nigerian government has noted that the informal sector has the potential of being a major contributor to the economic development and technological advancement of the country.

Stufflebeam (2007) defined evaluation as a study designed and conducted to assist some audience to assess an object's merit or worth. Amike (2008) view evaluation as a systematic determination of a subject's merit, worth and significance, using criteria governed by a set of standards. It can assist an organization, program, design, project or any other intervention to assess any aim, realizable concept/proposal, to help in decision-making so as to ascertain the degree of achievement in regard to the aim and objectives and results of any such action that has been completed. It therefore means that evaluation is embedded in skills acquisition and training as a whole.

Evaluation measures the extent to which programs, processes, or tools achieve the purpose for which they were intended. Phillips (2012) also defined evaluation as a systematic process to determine the worth, value or meaning of something. The Evaluation of any training programme has certain aims to fulfill. These are concerned with the determination of change in the staff behaviour and the change needed in the organizational structure. Hence evaluation of any training program must inform us whether the training programme has been able to deliver the goals and objectives in terms of cost incurred and benefits achieved.

Statement of the Problem

United Nations Industrial Development Organization (UNIDO) in its skills gap assessment report stressed that in spite of the existence of over 100 Universities and over 120 Polytechnics and similar institutions, in addition to hundreds of Technical / Vocational Colleges, educational institutions have been largely disconnected from industrial and socio-economic needs by consistent neglect of competence and undue emphasis on paper qualification. In this regard, despite all the trainings organized and conducted by NADDC to address the skill gap in the

Automobile industry, the auto mechanics still find it difficult to efficiently work on modern vehicles in Nigeria. This leads to poor job been done on maintenance and repair which causes more damage to the vehicles or complete breakdown of the vehicle, as a result of which the car owner end up spending more money on replacement of parts and maintenance of the vehicle. With the changes in modern vehicle technologies, the automobile mechanics have not been able to update their skills and knowledge to meet up with the changes in modern vehicles and this has had a negative effect on the quality of the maintenance and repairs they undertake on motor vehicles in the country. This calls for development of new policies and incentives for the informal sector that can take care of and respond to technological changes (Jalal, 2017)

Research Questions

1. To what extent is the objectives/mandate of NADDC appropriate in the training of informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria?
2. To what extent are the human resources adequate for the implementation of NADDC training programmes for informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria?
3. To what extent are the material resources adequate for the implementation of NADDC training programmes in informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria?

Research Hypotheses

HO₁ There is no significant difference in the mean responses of NADDC trainers and assessors on the appropriateness of the objectives/mandate of NADDC for training informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria.

HO₂ There is no significant difference in the mean responses of NADDC trainers, assessors and graduates on the adequacy of human resources for implementation of NADDC training programmes for informal sector automobile mechanics on maintenance and repairs of vehicles in the Nigeria.

HO₃ There is no significant difference in the mean response of NADDC trainers, and assessors on the adequacy of material resources for the implementation of NADDC training programmes in the informal sector of automobile mechanics on maintenance and repairs of vehicles in Nigeria.

METHODOLOGY

The study adopted a descriptive survey research design. Ezeji (2004) describe a descriptive survey design as one which involves the assessment of public opinion using collection of detailed description of existing phenomena with the intention of using the data to justify current conditions and practices or to make better plans for improving phenomena. The study covered the entire country Nigeria which is divided into 6 geopolitical zones comprising of 15 training centres. The North East has training centre's in Abubakar Tafawa Balewa University Bauchi and Federal College of Education (Tech) Gombe. North Central has training centres in Federal University of Technology, Minna, Federal Technical College Orozo and Nasarawa State Polytechnic, Lafia. North West has three training centres namely Ahmadu Bello University, Zaria, Kaduna polytechnic and Peugeot Automotive Nigeria Learning centre, Kaduna. The south west has three training centres which are University of Ibadan Oyo State, Lady Mechanic Initiative, Lagos and Lagos State Polytechnic, Ikorodu. The South has two training centres namely Ken Saro- Wiwa Polytechnic Bori, Rivers state and University of Benin Edo State. The South East has two training centres namely Nnamdi Azikiwe University, Akwa and Metallurgical Training Institute, Onitsha all in Anambra State. The population of 1,202 respondents comprising 1,140 NADDC graduates, 45 NADDC Trainers and 17 NADDC Assesors from all the 6 geographical zone of Nigeria. Two sample techniques were used for this study namely Census Sampling and Purposive Sampling. The instrument used for data collection was structured questionnaire. The questionnaire was divided into two parts. Part 1 (Section A) sought for personal data of the respondent. While Part II (section A-G) elicited information from respondents on the evaluation of the national automotive design and development council training programmes for informal sector automobile mechanics. The questionnaire items were structured on a five-point scale. The respondents were required to tick the response categories that best describe their opinion as follows: Very Highly Appropriate (VHA)

= 5points, Highly Appropriate (HA)= 4points, Appropriate (A)= 3points, Moderately Appropriate (MA)= 2points, Barely Appropriate (NA)= 1point.

The instrument was validated by two automobile technology specialist from Department of Vocational Technology Education, ATBU Bauchi, 2 training centre heads and 1 NABTEB Certified Quality Assurance Assessor from NADDC. Their suggestions and corrections were used to improve the production of the final instrument used for the study. The Cronbach's alpha formula in order to determine the internal consistency of the instrument. Therefore, Cronbach alpha reliability coefficient was calculated and a reliability coefficient of 0.804 was obtained. The data collected were analyzed using the Mean and Standard Deviation with Statistical Package for Social Sciences (SPSS) version 23. The null hypotheses 2, was tested using Analysis of Variance (ANOVA) while t-test was used for null hypothesis 1, and 3 at 0.05 level of significance.

For the null hypotheses, if the computed p-value is less than the alpha-value, the hypothesis was rejected and where the computed p-value is greater than or equal to the alpha-value, the null hypothesis was accepted.

RESULTS

Table 1: Mean and Standard Deviation of the respondents on the appropriateness of the objectives/mandate of NADDC in training of automotive mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria

S/N	ITEMS	Trainers		Assessors			
		N ₁ = 45		N ₂ = 17			
		X	SD	X	SD	XG	RMK
1	Initiating training programs for automobile mechanics in the informal sector	4.89	0.43	4.82	0.53	4.87	VHA
2	Develop skills competency standards in the automobile	4.27	0.58	4.53	0.62	4.34	HA
3	Coordinate an employer led organization that will involve all stake holders in Nigeria.	4.13	0.84	4.29	0.69	4.18	HA
4	Develop sector skills development plan	4.16	0.79	4.24	0.75	4.18	HA
5	Establish process of coordinating	4.16	0.82	4.24	0.90	4.17	HA

	emerging trend in skills development in Nigeria							
6	Conducting regular skills gap survey of automobile mechanics in Nigeria.	4.40	0.75	4.53	0.87	4.44		HA
7	Assessing skills and competencies acquired on the job at home in a training institution.	4.09	0.85	4.06	0.97	4.08		HA
8	Develop a training curriculum for training technicians in the informal sector.	4.38	0.75	3.82	0.81	4.23		HA
9	Participating in accreditation of training centers.	4.31	0.79	4.18	0.81	4.27		HA
10	Coordinating/regulate of training centers.	4.29	0.77	4.24	0.83	4.27		HA
11	Conducting a standard assessment of automobile mechanics during and after training	4.36	0.68	4.41	0.79	4.37		HA
12	Conduct regular inspection of facilities in all training centers.	4.00	0.69	4.47	0.62	4.41		HA
13	Training and empowering automobile mechanics.	4.22	0.82	4.53	0.72	4.31		HA
14	Supervising automobile mechanics	4.33	0.79	4.47	0.62	4.37		HA
15	Providing the enabling environment for entrepreneurs in automobile.	4.22	0.88	4.47	0.72	4.29		HA
	Total Grand Mean	4.28	0.75	4.35	0.75	4.30		HA

Source: Field Survey (2021)

KEY

N₁ – Sample size of NADDC Trainers

N₂ - Sample size of NADDC Assessors

\bar{x} – Mean

SD – Standard Deviation

The results in Table 1 revealed that the grand means ranges from 4.28 and 4.35 with standard deviation of 0.75. The mean of the trainers ranging from 4.00 and 4.89 with their corresponding standard deviation of 0.43 to 0.88. While the mean of the assessors ranged from 4.24 to 4.82 with corresponding standard deviation of 0.53 to 0.97. The

grand mean also ranged from 4.08 and 4.87 for the individual items. This implies that initiating training programs for automobile mechanics in the informal sector, develop skills competency standards in the automobile, coordinate an employer led organization that will involve all stake holders in Nigeria, conducting regular skills gap survey of automobile mechanics in Nigeria, assessing skills and competencies acquired on the job at home in a training institution, participating in accreditation of training centers, training and empowering automobile mechanics and providing the enabling environment for entrepreneurs in automobile is appropriate in the training of informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria.

Table 2: Mean and Standard Deviation of the respondents on adequacy of human resources for the Implementation of NADDC training programmes automobile Mechanics in the Informal Sector on Maintenance and Repairs of Vehicles in Nigeria

S/N	ITEMS	RESPONDENTS CATEGORIES							
		Graduate		Trainers		Assessors			
		N ₁ = 202		N ₂ = 45		N ₃ = 17			
		X	SD	X	SD	X	SD	XG	RMK
1	Health safety personnel in the training centers.	2.64	0.65	3.64	0.74	2.76	0.56	2.82	A
2	Engine maintenance and repair personnel.	3.28	0.74	3.09	0.70	3.59	0.62	3.27	A
3	Upholstery and interior fittings personnel.	3.07	0.75	3.09	0.82	3.47	0.62	3.10	A
4	Maintenance and repairs personnel.	4.33	0.80	4.08	0.87	3.06	0.89	4.27	HA
5	Air conditioning system maintenance and repairs personnel.	3.23	0.86	3.27	0.84	3.76	0.83	3.20	A
6	Engine fault diagnosis personnel.	3.07	0.83	3.04	0.88	3.11	0.93	3.07	A
7	Wheel balancing and management personnel.	3.14	0.82	3.13	0.81	3.24	0.90	3.14	A
8	Barking system maintenance and repair personnel.	3.19	0.75	3.13	0.84	3.06	0.83	3.18	A

9	Suspension system maintenance and repairs personnel.	4.33	0.76	4.13	0.84	4.41	0.87	4.29		HA
10	Injection system maintenance and repairs personnel.	4.33	0.77	4.24	0.87	4.06	0.75	4.29		HA
11	Vulcanizers and tyre repair and maintenance personnel.	4.35	0.79	4.04	0.88	4.35	0.79	4.29		HA
12	Injector services maintenance personnel.	4.19	0.83	4.16	0.93	4.53	0.73	4.21		HA
	Total Grand Mean	3.60	0.78	3.59	0.84	3.62	0.78	3.60		HA

Source: Field Survey (2021)

KEY

N₁ – **Sample size of NADDC Graduates**

N₂ - **Sample size of NADDC Trainers**

N₃ - **Sample Size of NADDC Assessors**

\bar{x} – **Mean**

Results on Table 2 show mean ratings of Graduates, Trainers and Assessors on the adequacy of Human Resources for the Implementation of NADDC Training Programmes for Automobile Mechanics in the Informal Sector. The results revealed that their means ranges from 3.60, 3.59 and 3.62 with standard deviation ranging between 0.78, 0.84 to 0.78.

The mean of the graduates ranges from 2.64 and 4.33 with corresponding standard deviation of 0.65 to 0.86. The mean of the trainers ranged from 3.09 and 4.24 with corresponding standard deviation of 0.70 to 0.93. While mean of assessors ranges from 2.76 and 4.53 with corresponding standard deviation of 0.56 to 0.93. The grand mean also ranged from 2.82 to 4.29. This implies that maintenance and repairs personnel, Suspension system maintenance and repairs personnel, injection system maintenance and repairs personnel, vulcanizers and tyre repair and maintenance personnel are adequate in human resources for the implementation of NADDC training programmes

automobile Mechanics in the Informal Sector on Maintenance and Repairs of Vehicles in Nigeria

Table 3: Mean and Standard Deviation of the respondents on the level of adequacy of material resources for the implementation of NADDC in training of automotive mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria

S/N	ITEMS	Trainers		Assessors			
		N₁ = 45		N₂ = 17			
		X	SD	X	SD	XG	RMK
1	OBD scan tool	2.67	0.71	2.65	0.60	2.66	A
2	Multimeter	3.24	0.65	3.24	0.75	3.24	A
3	Injector tester & adjuster	2.04	0.90	3.35	0.86	2.40	MA
4	Digital wheel alignment set	3.36	0.74	3.29	0.84	3.34	HA
5	Brake & suspension tester	2.22	0.82	2.00	0.79	2.16	MA
6	Exhaust gas analyzer	3.82	0.83	3.83	0.88	3.82	HA
7	Air conditioning system refilling machine	3.98	0.84	4.11	0.93	4.02	HA
8	Car lift (Boom Ram)	4.09	0.87	3.47	0.87	3.92	HA
9	Oscilloscope	2.42	0.76	2.29	0.59	2.38	MA
10	A/c Leak Tester	3.33	0.79	2.35	0.78	3.06	A
11	Timing Light for petrol engine	2.22	0.83	2.47	0.79	2.29	MA
12	Electronic headlight tester	3.47	0.69	4.11	0.49	3.65	HA
13	Wheel balancing machine	2.29	0.51	3.59	0.71	2.65	A
	Total Grand Mean	3.01	0.76	3.13	0.76	2.96	A

Source: Field Survey (2021)

KEY

- N₁** – Sample size of NADDC Trainers
N₂ – Sample size of NADDC Assessors
 \bar{x} – Mean
SD – Standard Deviation

Results on Table 3 show mean ratings of Trainers and Assessors on the adequacy of Material Resources for the Implementation of NADDC Training Programmes for Automobile Mechanics in the Informal Sector. The results revealed that their grand means ranges from 3.01 to 3.13 with standard deviation of 0.76. The mean of the trainers ranges from 2.04 and 4.09 with their corresponding standard deviation of 0.51 to 0.90. While mean of the assessors ranges from 2.29 and 4.11 with corresponding standard deviation of 0.49 to 0.93. The grand mean also ranged from 2.16 and 4.02 for the individual items. This implies that all the respondents agreed with the items statement on the level of adequacy of material resources for the implementation of NADDC in training of automotive mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria

Table 4: t test Analysis of the Mean Ratings of NADDC Trainers and Assesors on the Appropriateness of the objectives/Mandate of NADDC for Automobile Mechanics in the Informal Sector on maintenance and Repairs of Vehicles in Nigeria.

Group	N	Mean	SD	Std. Error mean	t-test	Df	p-value	Decision
NADDC Trainers	45	64.60	3.88	0.58				
					-0.882	50	0.382	H ₀ is upheld
NADDC Assessors	17	65.29	2.20	0.53				

N = frequency of group, $p > 0.05$, $df = 50$

Result presented in Table 4 shows that the mean responses of NADDC trainers and assessors on the appropriateness of the objectives/mandate of NADDC for automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria do not significantly differ, $t(50) = -0.882$, $p = 0.382$. This therefore suggests that the null hypothesis is upheld.

Table 5: ANOVA Result comparing mean responses of NADDC Trainers, assessors and graduates on the human resources available for implementation of NADDC training programmes for informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria.

Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.	Remarks
Between Groups	47.458	2	23.729	0.960	0.384	NS
Within Groups	6452.527	261	24.722			
Total	6499.985	263				

ANOVA result in table 5 indicated an $F(2, 261) = 0.960$, $p = 0.384$ at 0.05 level of significance. This p-value is greater than the 0.05 level of significance. In this situation, the null hypothesis was accepted and the alternative rejected. This implies that there is no significant difference in the mean responses of NADDC trainers, assessors and graduates on the human resources available for implementation of NADDC training programme for informal sector automobile mechanics on maintenance and repairs of vehicles in the Nigeria.

Table 6: ANOVA Result Adequacy of material resources for the implementation of NADDC training programme in the informal sector of automobile mechanics on maintenance and repairs of vehicles in Nigeria

Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.	Remarks
Between Groups	174.016	2	87.008	1.907	0.150	NS
Within Groups	9330.798	261	35.750			
Total	9504.814	263				

In table 6, $F(2, 261) = 1.907$, $p = 0.150$ at 0.05 level of significance. Since the p-value is greater than alpha value, the null hypothesis was accepted. This indicated that there is no significance difference among the sampled centres on the adequacy of material resources for the implementation of NADDC training programmes in the informal sector of automobile mechanics on maintenance and repairs of vehicles in Nigeria.

FINDINGS AND DISCUSSION

From the data analyzed in the study, it was revealed that the fifteen (15) objectives are remarkably appropriate for the training of automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria. Learning objectives such as initiating training programs for automobile mechanics in the informal sector followed by conducting regular skills gap survey of automobile mechanics in Nigeria. These objectives identified agreed with NADDC (2015) which concludes that the automotive mechatronics apprenticeship programme is aimed at providing solutions to the service maintenance problems of high technology motor vehicles through the production of competent craftsman and women who will be enterprising and self-reliant. Other objectives were supervising automobile mechanics, participating in accreditation, coordinating and regulating the training centres thereafter providing the enabling environment for entrepreneurs in automobile. Supporting these findings Jeffrey (2017) found that youth restiveness is usually aggravated by unemployment situation, so roadside mechanics has kept so many of the youths very busy thereby alleviating the rate of restiveness among them. The study revealed that there is no significant difference between the mean responses of NADDC trainers and assessors on the appropriateness of the objectives/mandate of NADDC for automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria. This is in agreement with the set objectives of NADDC (2017) that it was set up among other functions primarily to initiate, recommend, and supervise policies and programmes for locally manufactured vehicles and components. Based on this premise, the objective conducting skills gap survey for automobile mechanics is necessary.

CONCLUSION

From the results of this study, it was discovered by the researcher that the programme objectives are remarkably appropriate as they aim towards a robust training and retraining of automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria. These objectives are implemented by moderate available human resources at separate centres of NADDC in Nigeria. A few material resources such as fuel injector servicing and testing machine, digital wheel alignment machine, wheel

balancing machine, electronic headlight tester, timing light for diesel engines, car lift, exhaust gas analyzer are available and adequate as well as being utilized in the training of automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria. The trainers employ high-level pedagogical skills to implement the NDDC training objectives for automotive mechanics in the informal sector on maintenance and repair of vehicles in Nigeria. However, stringent efforts must be made towards improving the human and material resources in order to drive the up-skilling mandate of NADDC in the automobile industry of Nigeria. This will in turn create jobs for the teaming youths within the industry and reduce social vices in the society as experiencing presently.

RECOMMENDATIONS

1. Federal Government through the Federal ministry of Employment, Labour and Productivity should ensure proper and adequate funding of the NADDC to enable it carry out its objectives/mandate effectively. Government and other stakeholders should provide addition human resources to cover all areas including health and safety personnel at all centres.
2. Efforts should be made to improve the material resources at all centres to cope with the increasing need to up skill automobile mechanics and technological advancement in automobile industry.
3. Workshop should be organized to train the trainers on the utilization of the materials provided as most machines or equipment/instruments are highly computerized.

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AUDIT SAMPLING

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INTRODUCTION

According to Wikipedia, auditing is a systematic process of objectively obtaining and evaluating evidence regarding assertions about economic actions and events to determine the degree of correspondence between those assertions and established criteria and communicate the results to interested users (Pant, 2014).

According to Pant (2014), audits are perplexing processes defined by the auditor's connection between the authority requesting the evaluation and the company being audited. Auditors are obligated to render opinions (attestations) based on legitimate evidence relating to the state of their clients' accounting procedures by the nature of their profession, and the auditor is responsible for the accuracy of the opinion rendered.

The purpose of this International Standard on Auditing (ISA) is to define guidelines for auditors' use in audit sampling and other methods of choosing testable items when developing audit procedures. Selecting the right things to test is essential for audit process design. It helps the auditor gather enough relevant audit evidence to achieve the audit procedures' objectives.

The goal of a financial statement audit is to provide an opinion on them. To do this, the auditor conducts compliance and substantive tests on the financial statement's numerous components to acquire and analyze relevant audit evidence. Ideally, the auditor should evaluate all transactions, items in an account balance, and controls for the period under review to support his audit opinion.

The auditor may choose to conduct his audit testing on all things he will conclude. He may, however, choose a representative from among all of the objects, test them, and develop an opinion as to if he had evaluated all of them. Against this backdrop, we'll take a look at auditing sampling.

AUDIT SAMPLING

According to ISA 530 and cited in Adeniji (2012) audit sampling is the application of audit procedures to less than 100% of the items within an account balance or class of transactions to enable auditors obtain and evaluate evidence about some characteristics of the items selected in order to form or assist in forming a conclusion concerning the population which makes up that account balance or class of transaction.

An "audit sampling" (sampling) procedure is one in which the audit procedures are applied to less than 100 per cent (or all) of the items in a class of transactions or account balance to form an opinion or assist in developing a conclusion regarding the population from which a sample is drawn; this will allow the auditor to obtain and evaluate audit evidence about some characteristic of the items selected for the sample.

According to Adeniji (2012) give out the reasons for auditing sampling as follows:

- i. It is often impracticable to carry out 100% audit testing because of the large number of items of transactions, assets, liabilities and owner equity items to be examined.
- ii. In order to meet the auditor reporting deadline, 100% auditing testing may be impracticable.
- iii. Carrying out 100% auditing testing may be time consuming and therefore, uneconomical.
- iv. 100% audit testing may be tedious and may reduce the audit to mere routine procedure which could detract from the objective of the audit.
- v. It is possible for the auditor to reach conclusion by way of sampling procedures instead of conducting 100% audit testing.
- vi. The audit objectives is not to report on the accuracy of the financial statement but on its truth and fairness. Consequently, the auditor does not need to examine all the items.

Also, Adeniji (2012) point out some circumstances where audit sampling may not be appropriate. The circumstances are as follows:

- i. Where the auditor is put upon inquiry

- ii. Where the internal control procedures are weak and 100% audit testing is feasible.
- iii. Where the transactions under review is one-off or non- recurring in nature and is material.
- iv. Where the items are unusual or extraordinary
- v. Where the items are specially required to be disclosed in the financial statements by law or other professional requirements.
- vi. Where the items within the class of transactions, assets, liabilities and owner equity items are few and individually material.

POPULATION

The population is defined as the complete set of facts from which a sample is picked and from which the auditor seeks to draw conclusions, according to Eilifsen, Messier, Jr, Glover, and Prawatt (2014) and ACCA (2006).

The population is defined as the complete set of elements about which a conclusion is wanted (Louwers, Ramsay, Sinason, Strawsor & Thibodean, 2013).

All of the data from which an audit sample is drawn and a conclusion is known as the population. A population can be defined as the total number of transactions or balances in a given class. These sub-populations of the population can be examined in isolation from the rest. It is common to use the term population to refer to the stratum.

The auditor needs to ensure that the population is:

- (a) Appropriate to the objective of the audit procedure, which will include consideration of the direction of testing. For example, if the auditor's goal is to test for overstatement of accounts payable, the population could be defined as the accounts expected to list. On the other hand, when trying for understatement of accounts payable, the population is not the anticipated accounts detailing but rather subsequent disbursements, unpaid invoices, suppliers' statements, unmatched receiving reports or other populations that provide audit evidence of understatement of accounts payable; and
- (b) Complete. For example, suppose the auditor intends to select payment vouchers from a file. In that case, conclusions cannot be drawn about all vouchers for the period

unless the auditor is satisfied that all vouchers have been filed. Similarly, suppose the auditor intends to use the sample to conclude whether a control activity operated effectively during the financial reporting period. In that case, the population needs to include all relevant items throughout the entire period. A different approach may be to stratify the population and use sampling only to draw conclusions about the control activity during the first ten months of a year and to use alternative audit procedures or a separate sample regarding the remaining two months. ISA 330 contains additional guidance on performing audit procedures during an interim period.

TYPES OF SAMPLING

According to Soyemi (2014) audit sampling divided into two. It is possible to conduct an audit sampling in two ways: statistically or non-statistically.

- a. Statistical audit sampling
- b. Non- statistical audit sampling

STATISTICAL AUDIT SAMPLING

This is also known as the probability sampling technique. Here, the auditor relies on the extensive usage of the rule of mathematical probabilities in selecting the items to be tested. It is a sampling method that allows the quantification of sampling risk in planning the sample and evaluating the results.

The different techniques usually adopted under this method include:

- i. Simple Random sampling – also known as the lottery method. Here not only that the elements of the population are known. Each has an equal chance of being selected as well.
- ii. Random Systematic Sampling- also referred to as the constant skip method. It is not a totally random technique as only the first element is randomly selected. To use this technique the population elements are serially numbered to the upper limit, the population size is then divided by the sample size to obtain the sample interval. To select subsequent elements (apart from the first), the interval is added to each succeeding number. This is repeated until the required sample size is obtained.

- iii. Multi- Stage Sampling – this is used where the population is large, therefore making the simple random sampling ineffective and impracticable. This technique is usually carried out at two or more stages with each stage reducing the sample until a final and working sample is arrived at.
- iv. Cluster or Block sampling – also called area sampling. This technique is useful when the population subjects cluster into small groups which need to be sampled at random. However, it may be required that a proportionate or disproportionate sample units may be taken from each cluster.
- v. Stratified Sampling – where the population displays differential strata each of which is expected to be sampled, this technique is desirable. However, in selecting from each stratum, the auditor may decide to adopt either a uniform sampling fraction or the variable sampling fraction.

Non-Statistical Audit Sampling

This is also known as judgmental sampling. Here, the auditor dumps the use of mathematical rules and hinges largely on his judgments based upon his experience and exposure to client's operating system. He / She believes will provides the most useful information in the particular circumstance. In addition, conclusions are reached about population on a judgmental basis.

Non-Statistical Versus Statistical Sampling Methods Is Compared

Statistical or non-statistical sampling can be used following international, American Institute of Certified Public Accountants (AICPA), and Public Company Accounting Oversight Board (PCAOB) auditing standards, respectively. According to PCAOB AU 350, non-statistical sampling and statistical sampling are both subject to sampling risk, and any audit sampling requires judgment in deciding on the sampling technique and analyzing sampled data results (Elder, Akresh, Glover, Higgs & Liljegren, 2013). The non-statistical piece can produce findings as effective as those from a well-planned statistical sampling application, according to paragraph 2.24 of the AICPA (2012a, 14) Sampling Guide, which is based on the AICPA's sample design recommendations. When doing statistical sampling, an auditor can estimate the sampling error precisely. Because auditing standards require sample sizes for statistical and non-statistical

sampling to be comparable, the advantage of statistical sampling may not be as meaningful to auditors when populations examined via audit sampling contain zero or minimal misstatement (PCAOB AU 350). The non-statistical piece is less acceptable, according to Colbert (1991). Financial statement consumers regret that the sample sizes were not greater and more scientifically chosen during focus groups conducted by Gray et al. (2011). Experimenters Gilberston and Herron (2003) asked jurors and students to decide liability and damages in the case of a fake sale comprising 800 transactions out of a population of 12,000 transactions. No inconsistencies were detected in the examination of 100 sales invoices. Subjects in the non-statistical sample condition were no longer likely to believe the auditors were guilty than those in the statistical sampling condition. Non-statistical sampling, on the other hand, resulted in much more severe damages.

Sampling Risk

Sampling risk arises from the possibility that the auditor's conclusion, based on a sample of a certain size, may be different from the conclusion that would be reached if the entire population were subjected to the same audit procedure (ACCA, 2006).

According to Louwers et al. (2013) sampling risk is the likelihood that the decision made based on the sample differs from the decision that would have been made had the entire population been examined.

Eilifsen et al. (2014) look at sampling risk as the possibility that the sample drawn is not representative of the population and that, as a result the auditor reaches an incorrect conclusion about the account balance or class of transactions based on the sample.

For an auditor to determine if there is a deviation rate above the acceptable deviation rate, the sample size that will be selected should be large enough to allow for the conclusion that will be drawn from the cash amount of the deviation in substantive accuracy tests for the details does not exceed the acceptable amount (Felix, 1978 cited in Mucha et al., 2018). In this situation, we are discussing sampling risk, which means that the result of the sample-based auditor may differ from the conclusion the auditor would have reached if he audited the entire population by the same audit technique (Hitzig, 1995 cited in Mucha et al., 2018).

There are two types of risks associated with material misstatement: sampling and non-sampling. Performing control tests, the auditor may detect no errors in a sample and assume that controls are working well when the overall error rate is too high to be acceptable. For instance (sampling risk). Alternatively, the auditor may have missed mistakes in the sample that should have been apparent to him (non-sampling risk). The auditor has a wide range of options for reducing detection risk in terms of substantive procedures. Depending on their nature, these methods are susceptible to sampling and non-sampling risks. Examples include the auditor using a substantive analytical approach (non-sampling risk) or finding only minor errors in a test of details when the population error is more than acceptable (sampling risk). It is possible to reduce sampling risk by increasing the number of samples; however, it is impossible to minimize non-sampling risk without effective engagement planning, supervision, and review.

Also, the risk of sampling arises from the possibility that the auditor's conclusion based on a sample will differ from the conclusion reached if the entire population is subjected to the same audit procedure. There are two types of sampling risk: (a) the chance that the auditor will conclude, in the case of a control test, that controls are more effective than they are, or, in the case of a detailed examination, that a material error does not exist when it does. This type of risk has an impact on audit effectiveness and is more likely to result in an incorrect audit opinion; and (b) the chance that the auditor will conclude, in the case of a control test, that controls are less effective than they are, or in the case of an examination of management, that rules are less effective than they are.

There are two types of sampling risks for attributes sampling applications.

- a. Risk of under reliance (risk of assessing control risk too high)
- b. Risk of over reliance (risk of assessing control risk too low)

Table 1: Sampling Risks Associated with Attributes Sampling

SAMPLING RISK	SAMPLE RESULTS	UNKNOWN STATE OF THE POPULATION	LOSS
Risk of under reliance (risk of assessing control risk too high).	Adjusted sample rate of deviation $>$ Tolerable rate of deviation. Conclusion: Control is not functioning	Population rate of deviation \leq Tolerable rate of deviation. Conclusion: Control is functioning	Efficiency loss because additional substantive procedures will be performed.
Risk of over reliance (risk of assessing control risk too low).	Adjusted sample rate of deviation \leq Tolerable rate of deviation. Conclusion: Control is functioning.	Population rate of deviation $>$ Tolerable rate of deviation. Conclusion: Control is not functioning.	Effectiveness loss because an insufficient level of substantive procedures will be performed.

Source: Louwers *et al.* (2013).

As shown in the Table 1, the risk of over reliance occurs when the audit team's sample evidence suggests that the control is functioning effectively (the adjusted sample rate of deviation is less than or equal to the tolerable rate of deviation) when the true (but unknown) state of the population is that the control is not functioning effectively (population rate of deviation is higher than the tolerable rate of deviation). Because the risk of over reliance results in the audit team's failure to reduce audit risk to acceptable levels (an effectiveness loss), controlling exposure to this risk is of primary importance. Although the risk of under reliance is also a form of sampling risk, this risk will actually result in the audit team achieving a lower level of audit risk than planned. Therefore, in an attributes sampling plan, the audit team will control only the exposure to the risk of over reliance in determining the appropriate sampling size.

How does the audit team assess the acceptable level of the risk of over reliance? This risk depends on the planned level of control risk (which reflects the degree of reliance that the audit team wishes to place on the client's internal control). As the planned level of control risk is lower, it becomes quite important for the audit team to reduce the exposure to the risk of over reliance.

IMPLICATIONS FOR AUDITING

The risk of sampling assumes that if the total population passed through the same procedure used in the sample population, the auditor should have another conclusion. In other words, the show was not properly chosen because it does not reflect the reality of the population as a whole. The auditor faces the risk of sampling in two cases: in the control test and in verification procedures. In the control test, there is a risk of over-evaluation or under-assessment of reliability, that is, in which case the sample result would apparently not provide reliable support for the assessment of the population as a whole, which in fact does not occur (Mahaluça et al., 2019). Thus, the reliability of the sample is underestimated (Jones, 2017). In the verification procedures, there is the problem of the risk of incorrect rejection and the risk of incorrect acceptance. The problem of the risk of incorrect rejection occurs when the result of the sample leads one to believe that the transaction data are materially distorted, while in fact they are not.

Some of the drawbacks of audit sampling can be attributed to selection in auditing.

The sampling method has a significant drawback in that it only selects a small number of subjects, leading to incorrect conclusions. Bias occurs when the sample selection process is flawed. Smaller samples that are appropriately chosen may be more trustworthy than larger samples that are poorly chosen.

Only when a sample is truly representative of the entire population can the results be considered accurate and trustworthy. It is challenging to select a truly representative sample when the studied phenomena are complicated. It's hard to find good pieces.

There must be sufficient subject-specific knowledge in the sampling technique to use the sampling method effectively and safely. Analysis and estimation of sampling error are part of sampling. A lack of specialized expertise in selection can lead to severe mistakes. As a result, the study's findings will be inaccurate.

Samples are unscientific when the populations are not homogeneous. Even if the sample size is small, staying focused on the predetermined topics can be difficult when sampling. The sample's units can be spread out across a large area.

While some sample cases may not cooperate with the researcher, other circumstances may be inaccessible. Because of these issues, all of the problems may not be addressed. Some of the cases may have to be replaced with other circumstances. The flexibility of the units hinders the study results.

When the universe is too small or too diverse, it isn't easy to develop a representative sample. Census research is the only option in this situation. It's also possible that the sampling method isn't appropriate for studies that require an extremely high degree of accuracy. Even if samples are drawn with the utmost care, there will always be room for error.

SUMMARY AND CONCLUSIONS

Audit sampling is the application of an audit procedure to less than 100 percent of the items within an account balance or class of transactions for the purpose of evaluating some characteristic of the balance or class. This section provides guidance for planning, performing, and evaluating audit samples. The auditor often is aware of account balances and transactions that may be more likely to contain misstatements. He considers this knowledge in planning his procedures, including audit sampling. The auditor usually will have no special knowledge about other account balances and transactions that, in his judgment, will need to be tested to fulfill his audit objectives. Audit sampling is especially useful in these cases. There are two general approaches to audit sampling: non-statistical and statistical. Both approaches require that the auditor use professional judgment in planning, performing, and evaluating a sample and in relating the evidential matter produced by the sample to other evidential matter when forming a conclusion about the related account balance or class of transactions. Either approach to audit sampling can provide sufficient evidential matter when applied properly. This section applies to both non-statistical and statistical sampling but most of the scholar recommended statistical sampling.

An independent auditor's role requires them to guarantee that procedures are followed appropriately, and that sufficient audit evidence is gathered. Since it is impossible to thoroughly study and test all financial statements and supporting documents, the auditor must select a representative sample.

Sample collection is more prone to mistakes. The auditor's finding can be different; the entire population's verification would be achieved. When choosing the optimum sample size for your research, numerous criteria must be considered. The auditor must consider risk assessment, expected and allowable error rates, etc.

The sample's character is more important than the sampling procedure itself. Before concluding, auditors must thoroughly examine and assess all elements in a set. At the same time, negative external influences must be avoided. If necessary, the sample should be stratified, which implies being segregated into layers containing similar or identical objects.

The auditor must choose between statistical and non-statistical sampling methods based on assessing individual items and the population. As a result of our findings, auditors may generally recommend statistical sampling approaches over chance. The results of sample testing cannot be extrapolated to the entire population using non-statistical methods, supporting the concept that statistical samples are more objective and representative of the whole population than non-statistical samples.

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CREATING AND LEVERAGING SYNERGY BETWEEN INFORMATION TECHNOLOGY AND TEACHING-LEARNING PROCESSES IN 4IR

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ABSTRACT

Early part of the new millennium heralded the onset of Education 2.0 as it witnessed technology percolating the education process as teachers and students alike began using basic technology. This era is followed by Education 3.0 where intensive infiltration of user-generated internet on a massive scale as well as many and varied technological advancements became its hallmarks. During this period, with increased access to their own information, learners have the option to learn virtually. Availability of several platforms makes it possible for the learners to establish, use, and maintain easy connectivity with members of faculty and other students also. The erstwhile back and forth student-teacher centric processes are replaced by a unique personalized and networked approach to education where learner's independence, autonomy, and connectivity to different and diverse sources of information became the primary reasons for real celebrations all over. Now, Higher Learning Institutions are on the cusp of an entirely new phase, which is the harbinger of Education 4.0, which is the most desired and desirable approach as it aligns itself with the emerging Fourth Industrial Revolution or 4IR powered by smart technology that has immense potential to impact human lives. Swift developments in the science and technology space subsequent to the onset of 4IR had their concomitant consequences not only on the people's lives but also on those of the learners. As Higher Learning Institutions (HLIs) have to adequately prepare the graduating students to become employable and future-ready, they must ensure that their teaching-learning methods and processes are always in sync with the technological breakthroughs happening outside their ecosystems. This Concept Paper answers questions such as: (i) How LEIs can hone the skills of the students to prepare

them ready for and take up employment in the evolving industries, (ii) What new and novel approaches are needed to make the students 4IR- ready, (iii) What mechanisms and strategies required for coping with and adapting to the new realities of the emerging education ecosystem, (iv) How to leverage technology-supported teaching-learning strategies to welcome Education 4.0, and (v) The need for revisiting and revising current strategies to make HEIs future-ready.

Keywords: Industrial Revolution 4.0 (4IR); Higher Learning Institutions (HLIs); Education 4.0; Higher Educational Institutions (HEIs) Eco-system.

➤ INTRODUCTION

Fourth Industrial Revolution was announced by the World Economic Forum at Davos, USA, in the year and predicted a 'major shift about the future of jobs'. Industry 4.0 is definitely driving the disruptive technologies and further propelling the already volatile, uncertain, complex, and ambiguous (VUCA) world. They are irreversibly impacting human lives, social relationships, also the future of our jobs as well. The frontiers that we witness today between the tasks performed by the humans and those by the machines are getting shifted due to these technological breakthroughs happening at a rapid pace. If we compare the workloads shared by machines vis-à-vis humans, as total percentages, in several industries and selected sectors, average figures of the latter are going to get contracted as the years pass by.

Everything is not gloomy despite the fact that increasingly more jobs are likely to be taken over by machines as a new set of jobs is expected to emerge where Human skills and EQ will be valued and become more critically important. They are forcing educators to adopt new teaching methods as curricula underwent radical changes due to the introduction of Artificial Intelligence (AI) and Internet of Things (IoT), etc. Education 4.0 is a purposefully well thought through philosophy toward teaching-learning approach making it thoroughly in sync with Fourth Industrial Revolution as both are intrinsically intertwined. Keeping creativity—bringing something new into being—as its pivot, Education 4.0 underscores the importance of honing the skills of the learners to face and deal with the new era challenges head-on It is highly personalized, creative, and learner-centric and is poised to supplant the obsolete and clumsy

conventional educational procedures that have long outlived their utility while welcoming and giving way to cyber-physical systems that are prevalent across all industries today.

Industry 4.0 is defined by connected Cyber-physical systems that are powered by IoT and are fueled by data to create a fully interconnected society. Whenever we witness an enhancement in MI, to keep pace with it, Education 4.0 needs to produce better human competence to drive Machine Intelligence and Artificial Intelligence. It is a Hobson's choice for HEIs in a hyper-connected disruptive and highly volatile world and adapting to the changes in Industry that are brought by disruptive technologies becomes an imperative and the only solution lies in an assiduous implementation of Education 4.0 both in letter and spirit. Since Education 4.0 denotes changes corresponding with and relevant to Industry 4.0, we find Lectures and Memorization (Education 1.0), Internet Enabled Learning (Education 2.0), and Knowledge-based education (Education 3.0) is not good enough to yield positive results. It's time to focus on Innovation-based education (Education 4.0).

- **Primary Distinguishing Characteristics of Education 4.0 and Its Profound Implications**

Education 4.0 is a purposeful approach to learning that lines up with the fourth industrial revolution and it is all about transforming the future of education using advanced technology and automation. Creativity becomes the foundation of Education 4.0 underscoring the imperativeness to prepare students to take on new era challenges, head-on. Of course, it calls for several paradigm shifts in Education 4.0 such as (i) education that is demand-led instead of supply-led, (ii) competency-based rather than knowledge-based, (iii) modular degree in the place of one-shot going ones, and (iv) greater emphasis on EQ rather than only IQ. These shifts urgently call for revisiting our traditional education paradigms with a futuristic approach. To keep pace with the changes happening with a warp speed, learners should be adept with skills set by these technological challenges. Information should be made available and accessible to the students but not fed to them and they need to be lead and never instructed.

Both general and vocational education should aim at making students skill-ready to catch up and compete with the outside transformations. HEIs need to be sensitized to the fact that Education 4.0 demands at least ten digital skills that would become critical and remain as a top priority. They are: (i) Complex Problem Solving, (ii) Critical Thinking, (iii) Creativity, (iv) People Management, (v) Coordinating with Others, (vi) Emotional Intelligence, (vii) Judgment and Decision Making, (viii) Service Orientation, (ix) Negotiation Skills, and (x) Cognitive Flexibility. One of the immediate and profound fallouts of the 4IR is augmented human productivity in all the lives of professionals who are able to make smart choices, faster than ever before.

Education 4.0 is a purposefully well thought through philosophy toward teaching-learning approach making it thoroughly in sync with its much related to Fourth Industrial Revolution. Keeping creativity—bringing something new into being—as its pivot, Education 4.0 underscores the importance of honing the skills of the learners to face and deal with the new era challenges head-on. It also utilizes automation and leverages the advanced smart technology, Artificial Intelligence (AI), Virtual Reality (VR), Augmented Reality (AR), Virtual environments, robotics, including online assessment tools. It is highly personalized, creative, and learner-centric and is poised to supplant the obsolete and clumsy conventional educational procedures that have long outlived their utility while welcoming and giving way to cyber-physical systems that are prevalent across all industries today. As higher learning institutions are now required to adequately prepare the graduating students to become employable and future-ready, they must ensure that their teaching-learning methods and processes are always in sync with the technological breakthroughs happening outside their ecosystems.

Now, Higher Learning Institutions are on the cusp of an entirely new phase, which is the harbinger of Education 4.0, which is the most desired and desirable approach as it aligns itself with the emerging Fourth Industrial Revolution powered by smart technology that has immense potential to impact human lives. There is an imminent need on the part of HLIs to revisit their curricula so that suitable modifications can be made and these newer technologies are taught that have the potential to produce improved learning experiences and most valuable career options in their campuses.

Alongside their learning journey, students should be made to look for hands on work experiences and employment opportunities besides acquiring degrees. An exposure of such a kind supports the students financially and also helps hone their skills in communication and teamwork that would make their transition into the corporate corridors facile and successful.

- **Honing the Skills of the Students to Prepare Before Preparing Them to Take Up Employment in the Evolving Businesses**

Skill sets that are expected of the prospective employees invariably get impacted as an accompanying consequence once the cyber-physical systems gradually get integrated into different lines of business of an economy. It is no wonder hard and even soft skills required for performing the regular activities of more and more occupations and professions potentially get disrupted due to automation and the influence of AI during the 4IR era making newer competencies that are not currently considered crucial. It is predicted that acquiring and demonstrating soft skills such as complex problem solving, social skills, and process skills becomes absolutely a sine qua non. Technology not only brings in constant connectivity among humans but also transforms their job roles more and more adaptable and flexible. Education 4.0 is principally all about ticking and evolving with the times, and for higher learning institutions, it boils down to understanding what is required of their graduating students. Looking at the stark reality of conventional systems and processes of HEIs getting altered and getting replaced, nay, reversed at times, they need to welcome change and evolve gradually but surely. Undoubtedly, in order to produce more graduates who are prepared to take on the future state of employment, universities must evolve, and accept that changes to some traditional processes are inevitable. This paradigm shift becomes a necessary preliminary to make their graduating students and prospective employees absolutely future-ready.

- **Preparing the learners for Industry 4.0: New and Novel Approaches to Learning**

The only litmus test for assessing the efficacy of Education 4.0 is through the extent to which HLIs are successful in establishing a perfect sync between a variety of skill sets

that make learners future-ready and the type of curricula and pedagogical tools used by them. Encouraging ‘**Accelerated Remote Learning**’ could be considered as one of the best options in this context. Using digital means learners would not only be exposed to the theoretical knowledge of the domain remotely but also gain practical skills face-to-face to face the new realities in this method. Emergence of a freelance economy necessitates in acquiring skills in effective time management and cyber-physical systems while ensuring quicker adaptability to new contexts and accountability on the part of the learner in their ever evolving careers they might face in future.

- **Project-Based Learning**

Learning, applying, and sticking to a set of role-specific skills is passé and acquiring and becoming proficient in a diverse set of skills that are demanded by different scenarios and settings is the need of the hour and are highlighted during Education 4.0. Utilizing SCALE-UP as a learning practice is being used these days and gaining currency among several universities of repute such as North Carolina State University. This method of learning allows the students to sit around the tables that are scattered across while “working out problems on laptops and whiteboards, answering real-time quiz questions, and helping each other learn.” However, the faculty members walk through freely within the lecture halls whenever needed. This approach also calls for a change in the way the examinations are conducted and assessments are made. This entails a radical departure from the conventional styles where loads of information is absorbed and relayed, relegating the much needed skills to face the future to the background. Focus is now going to be shifted from teaching to learning and also to a critical analysis of the learning journey that the students have had by undertaking field works or projects that are practical and experiential learning-based. With the onset of Education 4.0, students are placed at the center of the entire education process and deeper diffusion of smart technologies into the teaching-learning processes is going to be reckoned as one of the biggest game changers with the HLEs.

➤ **COPING WITH AND ADAPTING TO THE NEW REALITIES OF THE EDUCATION ECOSYSTEM**

The fact that societies are moving towards a more personalized way of learning can be known from the way data is being used and student performance is tracked to identify the languishing and struggling learners before offering optimized learning strategies to fill their needs. Once we realize that each individual's learning needs are unique, demanding different desired outcomes, he/she is treated accordingly. This is where Education 4.0 embraces the recent advancements made in analytics. It may sound bizarre and appear to be fraught with problems for some people, of late, educationists are toying with the idea of completely customized degrees vis-à-vis traditional ones where a student chooses merely modules from multiple programs rather than settling down for just one or two subjects. On the contrary, till such time the HEIs retain and continue with fixed curricula there is a danger that such institutions that inject an element of flexibility into them would be looked down upon as of lower quality. We do expect HEIs to turn out more versatile, well-rounded students capable of adapting to different and multiple career choices and who would be highly useful to the society at large in the years to come under the new approach to academic program structure.

Now, under 4IR, educators are duty bound to garner greater time for individual instruction to facilitate tailor-made and personalized learning to the students so that they acquire capacities in creativity, innovation, and problem-solving by keeping their teaching strategies in sync with the business realities. Driven by a new wave of global technology, Industry 4.0 or the Fourth Industrial Revolution, or simply 4IR, calls for a dynamic transformation or internationalization of how all activities of different spheres are carried out in different sectors of an economy making it a new norm for all aspects of business and industry to the citizens of the world. To reap the beneficial outcomes of 4IR fully in a global village, academic leaders and administrators of this new era have to become value-driven. They will need to be liberally educated to become and remain critical thinkers, problem solvers, and become boundary spanners across the globe through self-reflective and interdisciplinary approaches. These developments and imperatives are bound to leave their impact on the quality of education that gets imparted in a nation. In this context, the next generation of employees will need to be

exposed to and thoroughly trained in the emerging technologies but, more importantly, the values associated with applying them as well. Business schools especially need to quickly reinvent themselves to be able to adapt to the demands of the RI4 and come out of their shell and hermetic spaces to provide ample opportunities by creating a sufficient number of contexts for the learners and to prepare them future-ready.

Coming years in the knowledge economy are going to witness acute shortage of skills more acutely rather than lack of employment opportunities. Students are required to develop an ability to acquire, correlate, apply, and use knowledge and skill sets in varied and diversified contexts so that they are in a position to understand their implications and create synergies. In this new era, it becomes a critically important task and the learners' efficacy lies in developing something de novo that connects to and resonates well with the real world. For this, the learners need to become knowledge-seeking to develop critical thinking and newer ways to communicate, collaborate, and work in a framework of projects with their associates, teachers, and other stakeholders in complex situations outside their world. Addressing the daunting challenges and solving the complex problems at hand calls for the learners to be imaginative, creative, adaptable, and flexible with well developed brain plasticity. Creating the much needed models and required contexts to permit such changes to happen shall become the primary obligation of all the parties concerned in higher learning institutions. To put it in the words of Alex Gray (2016), "Change won't wait for us: business leaders, educators, and governments all need to be proactive in up-skilling and retraining people so everyone can benefit from the Fourth Industrial Revolution".

- **Leveraging Technology-supported Teaching-Learning Strategies in the 4th IR**

HEIs are required to take advantage of technology to the hilt only to prepare learners to drive future innovations and shape the world of tomorrow. It can be stated unequivocally that IR 4.0 is making educators come up with newer strategies that can support personalized learning for creativity, innovation, and problem solving while releasing more time for individual instruction. Learners are increasingly being called upon to become self-reflective and self-learning individuals to keep up with the rapidly changing workplace requirements brought about by the 4IR technological

breakthroughs. Students can't be expected to equip themselves with necessary latitude in acquiring new skill sets and continue with their passionate pursuits unless the educators take the necessary support from the newly available technology and succeed in making a smooth and quick transition into 'facilitators of learning beyond personal expertise' roles.

Education 4.0 can't afford to lag behind but catch up and evolve to aid the teachers in developing the students as self-learners and transforming their potential into reality in consonance with Industry 4.0. Emerging technologies are not just shaping the societies at large but the modern classrooms of HEIs as well to make tomorrow's world creative and innovative.

- **Teaching Students to Be Ready for Industry 4.0**

If innovation is supported by technology of 4IR, it is going to usher in an era where a learner's potential is going to be unlocked to prepare the individual to deal with 21st Century challenges with courage and conviction. But for this to happen, educators are duty bound to come up with the required facilitating strategies and methodologies. When thinking of preceding industrial revolutions, it's important to note the correlation of workplace needs with education. The First Industrial Revolution used power generated by water and steam for producing goods, requiring physical labor. The Second Industrial Revolution used electricity and assembly lines for mass production run by skilled labor educated with higher-learning techniques.

➤ **THE FOURTH INDUSTRIAL REVOLUTION AND TECHNOLOGY**

Beginning of the IR 3.0 was heralded by extensive use of Information Technology (IT), computers, data, and smart machines that could be programmed by humans. However, the current IR4 is merging the physical and digital worlds by leveraging Artificial Intelligence (AI), the Internet of Things (IoT), and smart factories to produce goods allowing the machines and men to work side by side. In the new paradigm, computers and robots are performing mundane, repetitive, routine, or hazardous tasks, releasing men to concentrate only on communication, strategic decision-making, problem-solving, and other management related roles. Teaching strategies need to evolve before the way education is imparted is expected to change. Remembering and understanding a

given topic in the curriculum by the students has to make room for learning how to apply, analyze, and create, using what they learn in the classroom. Personalized learning can't be glorified as a goal any longer but it has to be treated as a means to achieving those outcomes. The goal is to build students' talents and problem-solving skills using available technology tools that allow them to resolve issues in ways never imagined before.

For example, Bloom's taxonomy is one hierarchical classification system educators use to define and discriminate between different levels of thinking, learning, and understanding. Each level of cognition corresponds to different levels of learning. The goal behind using Bloom's taxonomy is to encourage higher-order thinking in students by building upon lower-level reasoning skills. Teachers can use Bloom's taxonomy, and other approaches supported by technology, to experience optimal ingenuity, innovation, and convergent thinking while ensuring more time for individual instruction. It's no longer about enabling students to perform functions as future workers, but instead it's about empowering them to think independently and design their own future in tomorrow's workplace. The pandemic, among other social factors, has impacted education to the degree that priorities must be reconsidered to effectively maximize education continuity, relevance, and resilience. Essentially, a combination of technology and higher-level creative thinking skills are needed to innovate and shape future work. We need our learning systems to encourage youth to develop their own visions about what it means to connect and flourish in their constantly emerging world and equip them with the skills to pursue those visions."

➤ **VIEWING AND TREATING THE TEACHERS AS FACILITATORS**

In the recent past, especially during COVID-19 times, we had seen HEIs re-crafting their teaching strategies and keeping new standards for classrooms that not only accommodate but also are in sync with altered scenarios viz., in-class, hybrid, and remote modes of thinking and engagement processes. To meet the challenges of Education 4.0 and to keep the learners actively engaged, teachers need to be equipped with e-learning tools, resources, and teaching methodologies. In this context, some of the strategies may include the following:

- **Active Learning:** An approach where students are made to get immersed fully and are encouraged to participate directly and fully to learn by “doing”.
- **Collaborative Classrooms:** They represent student-centric shared environs that are targeted at active and tech-savvy visual learners
- **Flipped Classrooms:** Here, students are expected to complete class work at home before involving themselves in hands-on activities later in the classrooms.
- **Creating a New Learning Environment**

An altogether new learning environment can be created in a way to accommodate a breadth of modalities and personalized learning while ensuring enough time with the faculty as and when required. We can visualize for a given topic, a range of activities happen simultaneously independent of the physical location of the learners. For instance, one learner is found in a learning lab, another following a video presentation, while a group of learners would be collaboratively completing a project. Of course, when the expected learning is varied and is of higher level, it needs to be powered and leveraged by appropriate technology for better academic performance and learning outcomes. In a learning environment where teachers and learners are found predominantly at the epicenter, the need and necessity for understanding the underlying technology landscape by the members of the college administration need not be overemphasized. Personalized learning remains a far cry without the active support in the form of needed resources and mandatory investment in technology. Only when all the students, including those found in K—12 learning environments, become self-learners would they be in a position to really catch up with fast-paced changes happening outside. Nothing can be more catastrophic than HLIs becoming complacent and getting tempted to postpone honing and developing the skill sets of students to make them deftly deal with the emerging employment opportunities.

➤ **TECHNOLOGY-CENTRIC CHALLENGES IN EDUCATION AND KEY ISSUES TO BE ADDRESSED**

Education systems throughout the world experienced a tectonic shift due to Covid-19 crisis forcing HEIs to either partially or fully migrate to online and virtual modes of teaching and learning with greater or lesser success. Now, a new normal in education

has emerged that will possibly have a lasting influence on pedagogy, assessment, and evaluation modalities throwing up severe critical challenges. But now a time has come when HEIs need to seriously focus a great deal on technology use and integration when they vehemently argue for and emphasize holistic and multidisciplinary education with the flexibility of subjects and provisions for multiple entry and exit. When technological innovations are given a boost, they would definitely make teaching, learning, and assessment processes much better. One can witness transformational changes in the delivery of classroom-based traditional formats but also enhance and supplement the online or hybrid pedagogies and eventual educational experiences if they are adequately technology-enabled. When compared to traditional formats, modern technology undoubtedly provides more learning support besides possessing the power of flexibility.

Educators would become more collaborative and even afford opportunities to extend learning experiences beyond the boundaries of the classrooms. However, to be able to maintain a regular flow of authentic and credible data from diverse sources such as educational technologies, innovators, and practitioners, we need to establish and keep in place an educational technology foundation. For furthering international research efforts to address the global educational challenges, a nation requires such a forum to be able to play a key role in advancing core research in AI and also for developing and deploying research that is mostly application-based. For instance, one of the most important challenges is conducting remotely proctored examinations demanding several pedagogical innovations by the teachers. Substituting examinations by project or take home challenges may be considered to provide some viable and cost effective alternative. A pragmatic solution also needs to be found out for conducting laboratory classes and hands-on exercises for remote students. In the place of bricks and mortar labs, alternatively, designing and deploying a tool box of virtual and remote labs for different courses to bridge this gap has to be considered thoughtfully.

Similarly, HEIs are required to tackle the issue of lack of human to human touch as there can be no substitute for the value that face to face interaction produces in education in the form of building an organizational culture. For this challenge, "blended learning using a mix of online and on campus resources could be a viable option". India,

being a multilingual country, faces language barriers that create complexities. Deep learning systems alone can translate English lectures in students' native or vernacular language. Cutting edge research in text translation and machine learning help create such supportive systems. HEIs can also explore similar technologies in voice recognition and text summarization that can transcribe an entire lecture and reduced paragraphs of text into relevant bullet points. Without receiving appropriate individual training and development, even the best teachers of traditional classrooms can't evolve into effective online educators. Technology ceases to be an enabler or a driver in the absence of the crucial capacity building interventions meant for teachers. Technology deployment is not without certain inherent risks related to security, privacy, and inequity due to digital divide. A possible risk is that some people can be permanently left behind as the process of digitalization is accelerated at a rapid pace, inequalities would perhaps be aggravated and that needs to be addressed. Finally, when digitalization picks up momentum, inequalities may get aggravated as there is a greater risk of some of the stakeholders of HEIs getting sidelined and left behind forever.

➤ **REVISITING AND REVISING THE EDUCATION STRATEGIES ARE THE ONLY WAY FORWARD FOR PRODUCING OPTIMAL STUDENT LEARNING EXPERIENCES**

To be able to conceive and create a world that is innovative education also has to evolve commensurately wherein the educators are empowered to develop the potential within the individual students and to make them self-learners. In this endeavor, the emerging technologies are expected to influence and shape the world that is getting increasingly digitized and modern HEIs. They are expected to emerge as change champions even in the 4IR era to drive core technology innovation and embrace the new applications of emerging technologies that are being welcomed and adopted in other sectors of the economy. Bracing up and adequately preparing for a nation's collective future employee force requires making the learners and their education aided and assisted by education technology the obvious focal point. In the midst of rapid technological advancements, learners need to be connected by the right technology that provides skill-learning opportunities that also permit them to pace their learning as well.

It should also facilitate increased collaboration and engagement among the learners and to experience meaningful takeaways so that it would build the skills in demand and bridge the talent gap in the future job market. At the same time, teachers also need better devices, better connectivity, and easy manageability to power their classrooms. The right technology that handles peripheral hardware well—with appropriate processing power—gives teachers more time with students and capabilities for teaching. Technology enables the most significant classroom resource—the teacher—to focus more on teaching. Some examples include:

1. **Interactive Whiteboards:** Quality education can be made accessible to all students by using these interactive flat panel displays.
2. **Artificial Intelligence (AI):** AI has huge potential not only to solve highly complex challenges of HEIs but can identify learning patterns before effectively predicting student behavior and outcomes.

➤ **DESIGNING TECHNOLOGY SOLUTIONS TO CREATE MORE IMMERSIVE CLASSROOMS**

Today, we have solutions that go beyond technology to support existing software and hardware to create more-immersive classrooms in HEIs that amply support teachers in leading the transformation in education through various frameworks. After all, any framework that guides educators and decision-makers as they develop and implement active, engaging learning experiences to meet skill-building goals augurs well for welcoming and adapting to the challenging demands of Education 4.0! In a highly technology-driven world, HEIs are required to confidently integrate technology into their curriculum to produce future-proof learners and job seekers with higher-order cognitive skills and hands-on activities. To help transform present teachers to become and remain 4IR-ready, HEIs now have access to personal development tools and lesson plans in the marketplace. They can also think of providing learning and in-person workshops that are tailor-made to keep them current with the latest trends that immensely impact students' future besides technological tools that maximize learning outcomes. Technology adaptation and mentoring innovative mindsets are two daunting

tasks and are equally challenging for all the educators and they need models with content that are carefully ‘curated’ to address and deal with their needs.

➤ CONCLUDING COMMENTS

The various converging technologies of today present new challenges despite offering opportunities for both the educators and the learners. They provide and support engagement, increased access, personalized teaching-learning, and skill building. HEIs can succeed in creating a holistic and integrated ecosystem by closely working with educators, administrators, and policy makers. If we consider today's learners to be creative and innovative having the potential to shape the collective future, supporting and making their learning optimal becomes vitally critical. Technology should be made available, accessible, and affordable to the learners who need it for their success in HEIs and beyond. In this endeavor, bridging the digital divide that denies underprivileged and un-served learners from accessing the technology enabled online learning resources and study-at-home guides, and device connectivity assistance becomes a top priority. The long-term goal of HEIs should be to make all their stakeholders viz., educators, administrators, and all other systems of the ecosystem to deliver powerful, engaging, and stimulating student learning experiences.

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USING PARTICIPANT ACTIVITIES SUPPORT ACTUAL MAJORITY (PASAM) MODEL WITH EFL LEARNERS FOR READING SKILLS ACHIEVEMENT IN DIGITAL SURROUNDING

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ABSTRACT

This study was to observe using participant activities support actual majority (PASAM) model with EFL learners for reading skills achievement in digital surrounding. This learning model was created as an option in reading class for EFL learners who familiar with social networking in their daily lives. The model was applied for 44 students who enrolled a Critical Reading class in the first semester of 2022 academic year at Khon Kaen Wittayayon school. The designed tasks, sought out from reliable sources, were made up of authentic materials with 30 multiple-choice items that were set for the participants to complete. The students were informed about reading strategies, familiarized with various reading texts. Then the students were trained to handle digital devices, to find the social network platforms, to connect to practical applications, to intercommunicate with their classmates, to share information, and to perform tasks on each school meetings. The participants had to carry out their mediated tasks on the platform set for eight periods of school hours. The participants' scores were collected, analyzed and compared to regard as their learning improvement. The result showed that the outcome had onwards moved by using participant activities support actual majority (PASAM) model for reading skills achievement in digital surrounding.

Keywords: PASAM model, reading skills, achievement, digital surrounding

INTRODUCTION

English has long been introduced to schools around the world as it is used as the language for intercommunication, involving information exchange among the global populations. One way to be able to communicate effectively, students need to be good readers. Sattar and Salehi (2014) stated that foreign language learners need to read large quantities of authentic materials in order to be able to read for communication. If the

teachers want their students to learn to read well, they should find a way to encourage them to read for knowledge and pleasure simultaneously (Baba, 2017).

Reading is the important skill and the most significant activity used in both school and daily life (Saaaid &Wahab, 2014). Reading helps readers to gain knowledge and information that come from different sources and platforms. Reading is an interactive process (Nur, 2017) in which readers construct a meaningful representation of a text using effective reading strategies (Gilakjani, 2016). Besides, K (2021) stated that reading skills are essential for academic success as it involves imagination what the words describe, understand the context of the book and being able to answer questions related to the text as well as Young (2014) mentioned that reading is the solution for vocabulary improvement, clarifying main idea, distinguishing facts from opinion, and critical thinking engagement.

Reading strategies are considered needed skills that have received special attention from educators and school teachers who are concerned with developing students' reading performance. Kaya (2015) suggested teachers to focus on language development as well as reading strategies practice.

Reading strategies also play important stage to engage students into learning. Classic reading strategies that introduced in this study were: finding word meaning, skimming, scanning, author's purpose and attitude, sources, audience or targets, abbreviation, acronym, metonym, and some grammar points.

Reading tasks are conducted to help students learn languages through reading activities. Eisterhold (2003 as cited in Gilakjani, 2016) asserted that extensive reading activities can be beneficial for learners as it helps them to become more self-directed while searching for meanings provided.

Learning model is one way that can engage students to learn reading skill. Learning model in this study was Participant Activities Support Actual Majority (PASAM) model which was created as EFL learning model to improve reading performance.

The terms participants activities were; employing reading strategies, reading texts, digital devices, social network platforms, connect to practical applications.

Support in this study was to intercommunicate with classmates, to share information, and to perform mediate school tasks. When students learned about something, they like to share among their classmates.

Actual majority means the whole group who help one another while doing school tasks.

Students have familiarized themselves with electronic devices since the community encountered the severe acute respiratory syndrome coronavirus 2 (SAR-CoV-2) in 2019. On those days, the school authorities had issued school workers and students to stay at home and perform their duties via internet assessment.

Various kinds of texts had been searched and schoolwork had been designed as tasks and used as authentic materials for EFL classes. The tasks were uploaded onto the media platforms. The school teachers and learners had to communicate through social media.

As the community residents learned how to deal with the virus, school officials had issued school workers and students to come and perform their duties at school ground again.

The behaviors of using electronic devices have developed ever since for both parties.

It has been convenient for teachers to design tasks, consult the experts, upload the tasks onto the platforms as well as grade the tasks. It has been simple for teachers to do and make some points of the tasks suitable for each meeting group. For school students, using electronic devices has been part of their life styles. They have familiarized themselves to the devices long before the pandemic came to the region. Smythe (2019) supported the idea of introducing electronic devices into the class as the devices give students opportunities to explore the world outside their classrooms. Smythe mentioned that the electronic devices help to foster meaningful conversation, promote better learning, create a democratic atmosphere, reduce physical load, boost self-confidence and are environment friendly.

The study aimed to observe using participant activities support actual majority (PASAM) model with EFL learners for reading skill achievement in digital sounding.

PASAM model is the EFL learning model used in this study; reading skills means ability to read, comprehend, interpret and decode written texts; achievement means done successfully; digital surrounding means electronic devices and social media

METHOD

2.1 Participants: This study was conducted as classroom action research concerned reading skills achievement. The participants were 44 students who took Critical Reading as an additional subject at Khon Kaen Wittayayon school in the first semester of academic year 2022 which lasted twenty weeks for a semester. The tasks were conducted and tried on 42 students who took the very first chance of the school hour. Then some parts of the task would be adapted a little for the next classroom meet. The adaptation maintained within the same text.

2.2 Instruments: This study used interview, behavioral observation, and tasks score that used to indicate learners' progressiveness.

The interview part was used to collect their interests on what topics the participants wanted to explore in their schoolwork. The topics related to what was required from the national core curriculum.

The behavioral observation used to record participant behaviors during the class. Some students attended class regularly while some who accustomed to the stay-at-home learning would prefer to be outside of the classroom. This caused a problem for them at the beginning of the school day. Later on, they had learned to be self-discipline and focused on learning.

The task scores of each participant were recorded, analyzed, and compared to see the students' progress.

Electronic Applications: The study used Socrative.com and line applications as part of learning of language. Socrative.com application was where the tasks were uploaded onto. The menus on the application provided user to create the tasks, the rooms, and to launch the tasks. When students had finished each task, the scores would appear on their devices. This was much stimulated their task engagement.

Procedure: The instructional tasks were used during school meets when learners attended class. These instructional tasks were sought out from various kinds of texts. The materials then were designed and consulted the expert in the area. The tasks were then uploaded onto the media platform and rechecked all strategies needed and appropriate for students.

Some images were put onto the items that contained cross cultural matter and international terms. The images and figures helped students learn and came across what the text were about. These also helped creating relaxing learning atmosphere as they could see interesting images while they were working.

How PASAM model was used in the study. Firstly, participant activities: participants took part in selecting the topics they want to study. This impressed and felt important as they were welcomed to be part of course-tasks decision.

Pre-reading: Hours before the school hour, some clips that concerned the text were sent to students via the application. Participants were allowed to watch the clips and familiarize themselves with issues. Participants could identify a topic and details of the text. Watching clips before class helps learner learn more effective as CrowdWisdom (2017) mentioned that learners can remember well by via visual audio content.

Secondly, Support: as mentioned above that learners took part in selecting topics for the class, they could choose the ones that they really interested in.

While-reading: Engaged students with some reading strategies like skimming as to find main idea or title, scanning as to find more details about dates, numbers, people, places, names, reviewed on author's purpose and attitude, the audience, and more.

This part, participants were welcomed to support their classmates as to intercommunicate among their classmates via application. They could exchange information, review on reading strategies, seek or give advice about the text. This part promoted speaking, listening, writing, into reading skill.

For those who needed help with some language understanding could communicate and reach the teacher via the platform or in person.

Thirdly: actual majority

Post-reading: Learners, actual majority, were come up with what had been read. They were encouraged to retell what they had learned. They could share some information they picked up from the tasks with their classmates. Learners and teacher could share some feedbacks concerned reading skill.

Asking and answering short questions were recommended after the task. Learners could share some information as well as engage another learning skills along with reading.

Further activities were to do were some pieces of writing. For example, students could share their favorite words or sentence. The post-reading part were recommended to upload onto the media so that learners could see their performance. For those who did not like being seen on the media could present their works to classmates.

2.3 Data Collection: The interview part was used to know the issues that match the students need. The behavior observation was used to check class attending. The task scores of each participant were recorded, analyzed, and compared to see their progress.

2.4 Data Analysis: The interview part was welcomed by learner as they wanted to learn the topics they voted for. The class attendance part was closely observed and checked.

The scores of reading comprehension tasks of each school meet were collected and computed to determine total scores, and percentages. This scores and percentages were compared from the first to the eight school-meet.

RESULTS

The provided topics were all satisfied by learners. Most of the topics concerned current issued that students could follow from social media. There were some topics that concerned arts, culture, and political issues that students needed some time to work on.

Participants of this study were highly disciplined. They had a few struggling with the devices on the very first school meet but that encouraged them to be more concentrated and employed on self and time management.

The result of the study of reading skill achievement grew gradually. As showed on Table 1 and figure 1 below, the scores were critically little on beginning of the study.

There were some times that the learning process was hindered by some obstacles. The very first hour of a school week was distracted by learners' behaviors. Some students had a trouble logging in on a required application while others suffered with the menus provided on the application. Classmates played a grand part on this problem.

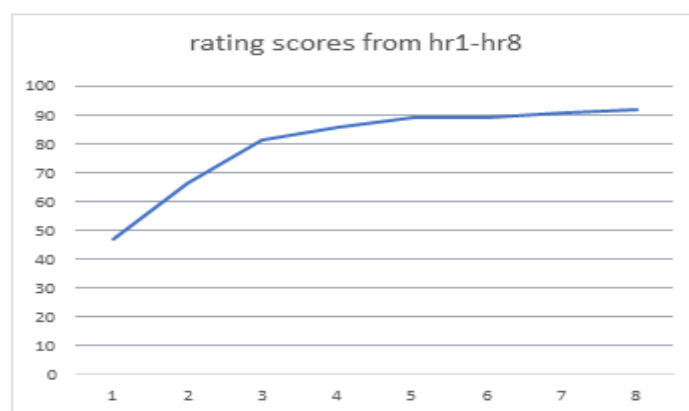
As the learners had been accustomed to using the electronics devices, the platforms, and internet accessment, reading activities went normally on a later school meet.

While some students did not log in on schedule set, they had to follow their classmate by redoing the task in a special room provided. The task was launched along with another group and the task had to be done completely. The higher scores of the same user were recorded to compare the performer progress.

Table 1: showed the total scores and its percentage collected from the 1st - 8th hour.

scores/periods	1	2	3	4	5	6	7	8
total scores	2063	2913	3575	3767	3917	3917	4001	4031
percentage	46.88	66.20	81.25	85.63	89.02	89.02	90.93	91.61

Figure 1: showed the rising line as the score earned at each school meet.



When students familiarized with reading strategies and texts, they performed well on the later tasks. The figure showed the scores went stably high on the later hour.

Reading skills achievement can be fulfilled by providing learners to various kinds of texts that they need to learn as well as the current issues that learner familiar with on social media in their daily life. To access to school activities can be various ways. They can learn during school class or follow up with another group who take a later class or redo the task on their convenience. Reading behavior can happen anywhere.

Reading topics can be selected carefully by both teacher and learners. Some topics that concern delicate details should be well-guided. Some topics that are benefitable and inspirable in learners' reading achievement can be introduced.

Intercommunication via social media should be critically concerned. Languages usage in the during the class should be closely conducted. Learners should be allowed to communicate freely and academically command.

Learning activities during the class should be flexible. Approval characteristic like being honest, self-discipline, work commitment, pursue learning, serviced-minded should be followed on before and after class.

DISCUSSION AND CONCLUSION

The students' performance from Table 1 and Figure 1 showed that their scores kept rising and went stably on the later school hour which meant that students did well on their schoolwork. This inter-act through electronic devices lesson turned out well. They intercommunicated well among their schoolmates as well as with the teacher.

Learning reading skill via electronic devices has been a great chance for EFL learners. They can choose and vote for the topics they like to study in class; they can redo the task if they have difficulties in the electronic devices or cannot engage in class by any means. They can intercommunicate among their classmates before, during and after the class which help them expand what they had learnt.

There have been various ways to engage students in learning English language and improve the reading skills. They can (1) read a great number of books, articles appear on the press, and social media, (2) follow the media through internet accessment or television broadcast to follow current world affairs as the issues are likely to use and construct as school tasks, (3) share information among friends or post some on internet websites, (4) interact with foreigners, language trainers, or schoolmates who have strong language background, (5) participate in language activities both in and outside school ground, (6) involve in many kinds of local events that learners are able to practice language.

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**A STUDY ON THE COMPETENCY OF PHYSICS STUDENTS IN THE USE OF
INFORMATION AND COMMUNICATION TECHNOLOGY: A CASE STUDY
OF DEPARTMENT OF PHYSICS SHEHU SHAGARI COLLEGE OF
EDUCATION SOKOTO**

Shi'itu Abubakar and Zayyanu Shehu

ABSTRACT

In this digital area, ICT use in the classroom is important for giving students opportunities to learn and apply the required 21st century skills. Hence studying the issues and challenges related to ICT use in teaching and learning can assist lecturers in overcoming the obstacles and become successful technology users. Therefore, the main purpose of this study is to analyze objectives of this study were to investigate the competency of Physics students in the use of information and communication technology, to investigate the challenges and effect of teaching using ICT on students' physics academic achievement and find out whether students are receiving instruction on physics with the use of ICT devices such as computer system, internet facilities, projector, interactive boards etc. The design of the study was descriptive survey and was carried out in the department of physics of the college. Data were collected from ten lecturers of the departments using questionnaire. More data were collected from 100 NCE I, NCE II and NCE III physics students using questionnaire. The data were analyses using both descriptive and inferential statistics. The data analysis revealed that indicate that average level of the students' competency in the use of ICT tools in teaching and learning in the classroom.

Keywords: ICT, information, students, competency and physics.

INTRODUCTION

In this 21st century, the term "technology" is an important issue in many fields including education. This is because technology has become the knowledge transfer highway in most countries. Technology integration nowadays has gone through innovations and transformed our societies that has totally changed the way people think, work and live (Grabe, 2007). As part of this, schools and other educational institutions

which are supposed to prepare students to live in “a knowledge society” need to consider ICT integration in their curriculum (Ghavifer et al, 2012). Integration of Information, Communication, and Technology (ICT) in education refers to the use of computer- based communication that incorporates into daily classroom instructional process. In conjunction with preparing students for the current digital era, teachers are seen as the key players in using ICT in their daily classrooms. This is due to the capability of ICT in providing dynamic and proactive teaching-learning environment (Arnseth & Hatlevik, 2012). While, the aim of ICT integration is to improve and increase the quality, accessibility and cost-efficiency of the delivery of instruction to students, it also refers to benefits from networking the learning communities to face the challenges of current globalization (Albirini, 2006, p.6). Process of adoption of ICT is not a single step, but it is ongoing and continuous steps that fully support teaching and learning and information resources (Young, 2003).

ICT integration in education generally means technology-based teaching and learning process that closely relates to the utilization of learning technologies in schools. Due to the fact that students are familiar with technology and they will learn better within technology-based environment, the issue of ICT integration in schools, specifically in the classroom is vital. This is because, the use of technology in education contributes a lot in the pedagogical aspects in which the application of ICT will lead to effective learning with the help and supports from ICT elements and components (Jamieson-Procter et al., 2013). It is right to say that almost all ranges of subjects’ starts from mathematics, science, languages, arts and humanistic and other major fields can be learned more effectively through technology-based tools and equipment. In addition, ICT provides the help and complementary supports for both teachers and students where it involves effective learning with the help of the computers to serve the purpose of learning aids (Jorge et al, 2003). Computers and technology does not act as replacing tools for quality teachers but instead they are considered as an add-on supplements needed for the better teaching and learning. The need for ICT integration in education is crucial, because with the help of technology, teaching and learning is not only happening in the school environment, but also can happen even if teachers and students are physically in distance. However, ICT integration is not a one-step learning process,

but it is a continual process of learning that provides proactive teaching-learning environment (Young, 2003).

ICT can be used in various ways where it helps both teachers and students to learn about their respective subject areas. A technology- based teaching and learning offers various interesting ways which includes educational videos, stimulation, storage of data, the usage of databases, mind-mapping, guided discovery, brainstorming, music, World Wide Web (www) that will make the learning process more fulfilling and meaningful (Finger & Trinidad, 2002). On the other hand, students will benefit from ICT integration where they are not bounded to the limited curriculum and resources, instead hands-on activities in a technology-based course is designed to help them to stimulate their understanding about the subject. It also helps teachers to design their lesson plans in an effective, creative and interesting approach that would result in students' active learning. Previous researches proved that use of ICT in teaching will enhance the learning process and maximizes the students' abilities in active learning (Finger & Trinidad, 2002; Jorge et al., 2003; Young, 2003; Jamieson-Procter et al., 2013). Hermans, Tondeur, Van-Braak, and Valcke (2008) have identified three main stages for ICT to be highly valued and regarded by the teachers; integration, enhancement and complementary. Integration approach is about implementing right use of ICT in particular subject area that involved complex concepts and skills to improve student's achievement and attainment. Besides, the review of curriculum is also needed so that only related ICT resources and appropriate software will be installed for the main aims and objectives of curriculum to be achieved. Enhancement approach is about using ICT to give great emphasis on the topic introduced. For instance, Microsoft PowerPoint can be used to present the topic in a very innovative and creative way that will lead into discussion and exchanging ideas and thoughts. Finally, complementary approach is when the ICT is used to aid and support the student's learning. This approach allow students to be more organized and efficient in which they can take obtain the notes from computer, submit their works by email from home as long as they meet the deadline and looking for information from various sources provided online to fulfil the task given to them (Hermans et al, 2008) .

Technology-based teaching and learning can make many changes in school that requires for proper planning and policy making. Researchers and policymakers must both have the same insight about the future plan. Dudeney (2010) noted that national ICT policies can serve several crucial functions. They provide a rationale, a set of goals, and a vision of how education systems run if ICT is integrated into teaching and learning process, and they are beneficial to students, teachers, parents and the general population of a given country. Ministry of Education Malaysia has formulated three main policies for ICT in education. The first policy insists on all students are given opportunity to use ICT. This is aimed to reduce the digital gap amongst the schools. The second policy focuses on the role and function played by ICT in education. Besides that, another policy stressed on the use of ICT for accessing information, communication and as productivity tool (Chan, 2002).

However, infrastructure and facility of ICT is then needed to supply to the schools throughout the nation. A key factor in use of ICT is sufficient computer labs and ICT equipment. This is to ensure that subject teachers are easily access to ICT tools whenever needed (Hennessy, Ruthven, & Brindley, 2005). Lack of adequate ICT equipment and internet access is one of the key problems that schools specifically in rural areas are facing now. For example, results of a research show that in Kenya, some schools have computer but this could be limited to one computer in the office only. Even in schools with computers, the student-computer ration is high. In addition, the report continues revealed that the schools with ICT infrastructure are supported by parents 'initiative or community power (Chapelle, 2011).

In most schools, technical difficulties sought to become a major problem and a source of frustration for students and teachers and cause interruptions in teaching and learning process. If there is lack of technical assistance and no repair on it, teachers are not able to use the computer for temporarily (Jamieson-Proctor et al., 2013). The effect is that teachers will be discouraged from using computers because of fear of equipment failure since they are not given any assistance on the issue. Türel and Johnson's study (2012) revealed that technical problems become a major barrier for teachers. These problems include low connectivity, virus attack and printer not functioning. However, there are a

few exceptions. Schools in the countries like Netherland, United Kingdom and Malta have recognized the importance of technical support to assist teachers to use ICT in the classroom (Yang & Wang, 2012).

In addition, teachers' readiness and skills in using ICT are playing essential role in the use of ICT in education. Teachers need sufficient ICT skills to implement the technology and to have high confident level to use it in a classroom setting. Besides, teachers require insight into the pedagogical role of ICT, in order to use it meaningfully in their instructional process (Hennessy et al., 2005). According to Winzenried, et al, (2010) teachers who have gone through ICT course are more effective in teaching by using technology tools as opposed to those that have no experience in such training. A school in Ireland reported that teachers who did not develop sufficient confidence avoided using ICT. Similar case happened in Canada, some teachers admitted they were reluctant ICT users because they worried they might get embarrassed that the students knew more about the technology than they did (Hennessy et al., 2005). Beyond basic skill training, schools had used a variety of strategies to provide further professional development for teachers. According to Warwick and Kershner (2008) the significance and advantages of ICT should be known by teachers in order to conduct a meaningful lesson with the use of ICT. Indeed, teachers should be sent to attend training courses to learn about integration ICT in teaching and learning process. Nonetheless, many school schools used peer-tutoring systems. A more skillful teacher in ICT would assist and guide another teacher who has less experience with ICT along the preparation work for teaching and learning process. As what has been discussed, there are many factors to enable the use of ICT in classroom teaching and learning. Begin with policy, follows by the supplement of all the ICT hardware and software facilities, continued by readiness and skills of teacher to integrate it into pedagogical process (Agbatogun, 2012). Besides, technical support and continuous professional development in ICT should be conducted from time to time. In short, all parties must cooperate in order to bring the nation to become a country advance in technology.

In a survey done by Strengthening Mathematics and Science in Secondary School Education (SMASSE) project in 1998, reported that one of the causes of poor

performance in science subjects and physics in particular is the theoretical approach to teaching and learning of concepts subjects. Given that some of the concepts taught in physics are Abstract, learners find it difficult to conceptualize when taught theoretically. This had made learners to develop a negative attitude towards the subject leading to poor performance. To become a great among the committee of nations, Nigeria must change her method of teaching and learning of science education from the traditional way of talk and chalk in teaching as well as reading by carrying books around. Aina (2012) pointed that method of teaching has gone beyond traditional method of talk and chalk. Therefore, anyone preparing to become a teacher must incorporate with technology. ICT today has become an essential element of information dissemination in education which its importance cannot be denied.

The roles of ICT today in our society today is enormous as underscored by Adebayo (2010) that ICT is an important indispensable part of contemporary society that allows access to information anywhere in the world; promote networking that is not restricted by boundary, language and culture, foster community empowerment and spread knowledge. Absence of ICT in any educational system makes such educational system as old as centuries behind the present age.

MATERIALS AND METHOD

The main purpose of this research project is to study competency of physics students in the use of information communication technology, a case study of department of physics, Shehu Shagari College of education Sokoto.

RESEARCH DESIGN

This is a descriptive survey research design in which students' competency in the use of ICT in THE physics in department of physics, Shehu Shagari College of education Sokoto were explored. The research design is quite modest, and was used to effectively investigate and explain why the undesirable situation of physics abandonment exists in the Nigerian schools system. According to Nkpa (1997) descriptive studies make no attempt to manipulate variables. Their concern is to either describe and interpret existing relationships, attitudes, practices, processes and trends, or compare variables. Thus all that one was required to do under this design was to collate respondents'

opinions, add data from the students and lecturers of the department of physics, Shehu Shagari College of education Sokoto, analyze them, and then identify the observed causes of low enrollment of female students in the department. The data were extracted from the research instruments, standardized and used to reach the conclusions. Some other relevant data were obtained from the registration officer of the department.

POPULATION OF THE STUDY

The target population was the department of physics, Shehu Shagari College of education Sokoto. The total number of students in the department was three hundred and seventeen and the total number of lecturers was ten. These formed the study population.

SAMPLES AND SAMPLING TECHNIQUES

The study samples were selected from department of physics, Shehu Shagari College of education Sokoto as described above. For this purpose of study, a simple random sampling technique was used to select the sample. 40 students was selected from NCE III, 30 students from NCE II, 30 students from NCE I and another 3 students from PRE-NCE. All academic staffs of the department were selected. Details of the sample are shown in the table 3.1

Level	Numbers of male students selected	Numbers of female students selected	Total
NCE I	26	11	37
NCE II	19	11	30
NCE III	15	15	30
PRE-NCE	2	1	3

Table 3.1 sample selected for study

INSTRUMENTS FOR DATA COLLECTION

The main instruments of data collection for the survey were questionnaires. Two different questionnaires were produced, one for NCE students (SQ) and the other for lecturers (TQ), (SQ stands for students' questionnaire while TQ stands lecturers'

questionnaires. In either questionnaire, information directly and indirectly leading to answers to the research questions was sought for. Though quite exhaustive, the questionnaires were framed in such a way that an enthusiastic respondent would need ten to fifteen minutes to complete either. Both questionnaires are reproduced in the appendices. On the whole, one hundred and ten questionnaires were produced, one hundred for students and ten for lecturers. Information demanded from each questionnaire differed almost entirely from the other, but were aimed at the same goal. Additional data were obtained by oral interviews with the registration officer of the department, depending on where one was directed to. Such data included female populations, enrollment for each session, and staff strength.

ADMINISTRATION OF THE INSTRUMENTS

Questionnaires were distributed to students as stratified, without preconditions until the number of questionnaires for the particular stratum was exhausted. In the case of lecturers they were all given questionnaires for responses as long as they were present and willing to respond. The reason for this is that lecturers were relatively few in number. To ensure high percentage of response and minimum wastage, the questionnaires were either collected on the spot or entrusted to willing lecturers who gathered the students, got them fill the questionnaires and collected them back for return to the researcher. In any case, the students were fully briefed on how to fill the document and given room to seek clarification on any item.

VALIDITY AND RELIABILITY OF THE INSTRUMENTS

Validity of the instruments of research was adopted on the basis of face value (face validity) by experts in the field of educational research, measurements and evaluation. Reliability According to Nkpa (1997), the degree of random error is inversely proportional to the degree of reliability. Reliability was ensured in the present research by using the test-retest method. This was carried out in two of the sampled schools and certified okay.

METHODS OF DATA ANALYSES

Analyses of procured data were mainly based on the computation of the extent (proportion) of response to each test item within item members in the questionnaires.

All two and most three-member items were converted to percentage by the usual formula. Procured data from both questionnaire species were taken up and analyzed according to their relationship with the research questions (RQs). Items from the students' questionnaire were designated as 'SQ' while those from lecturer's questionnaire were designated as 'TQ'. Out of the 100 questionnaires served to students, 60 went to male students while 40 went to female students. The questionnaire items, however, were not analyzed by gender strata. Valid returns were 60 from males and 40 from females, giving a total of 100 valid returns, or, 100%. Ten questionnaires were served to lecturers and they were all returned and correctly filled. Thus the validity and returns in this case was 100%. One can now re-familiarize oneself with the research questions (RQs) 1 to 4 earlier itemized, as the items are now analyzed under them.

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

This chapter presents the findings of the study which have been analyzed and discussed under the following thematic and sub-thematic areas. These include: Demographic characteristics, Response return rate, students competency in the use of ICT and the challenges of implementing ICT tools in teaching and learning in the classroom.

QUESTIONNAIRE RETURN RATE

A total of 100 questionnaires were given out to students and 10 questionnaires to the lecturers. They were all responded to and collected back. The table below shows the number of questionnaires given to different levels and the response return rate.

Category	Administered	Returned	Percentage return rate (%)
Lecturers	10	10	100%
NCE I	40	40	100%
NCE II	30	30	100%
NCE III	30	30	100%
TOTAL	N= 100	N=100	100%

Table 4.1 Questionnaire Return Rate

DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

This part captures the characteristics of the respondents in terms of their age and gender.

AGE DISTRIBUTION OF LECTURERS

The data collected shows that the lectures between the age of 20-30 constituted only 1 respondent. This is only 10% of the total respondents. This age group comprises of newly employed teachers who have not taught for many years. This is an indicator that responsibilities in schools are given to lecturers basing on their teaching experience. The respondents between the ages of 31-40 were 4 in number. This constitutes 40% of the total respondents. This percentage of class teachers is higher than that of those between the ages of 20-30 due to the fact that responsibilities go with the teaching experience. The highest number of respondents fell between the ages of 41-50 years. This constituted 50% of the total respondents. This indicates that a majority of lecturers fall in this age bracket.

Age group	Frequency	Percentage (%)
20-30	1	10%
31-40	4	40%
40-50	5	50%
50-65	0	0%
Total	10	100%

Table 4.1 Frequency and Percentage Distribution of lecturers' respondents According to age

AGE DISTRIBUTION OF STUDENTS

The data collected students indicate that the respondent between the age of 15-20 were 29. This constitutes 29 % of the total respondents. This age bracket comprises of students who are undergoing adolescent and are prone to many challenges, in terms of enrolment and participation in college. The highest number of respondents fell between the ages of 21.-25. That is 57 constituting 57% of the total respondents. These groups of those students who are above 20 years of age are in the age bracket of college students. Respondents between the ages of 26-30 were 14. This constitutes 14 % of the total respondents. Most of the people within this age group were graduates; this indicates that

they must have been other factors that hindered them from completing school at the right age.

Age group	Frequency	Percentage (%)
15-20	29	29%
21-25	57	57%
26-30	14	14%
31-40	0	0%
Total	100	100%

Table 4.3 Frequency and Percentage Distribution of student respondents According to age

GENDER DISTRIBUTION OF THE RESPONDENTS

From the data collected, the gender distribution of the respondents can be presented as follows. Among the students interviewed, 60 were boys representing 60% while 40 were girls, representing 40%. On the side of lecturers, out of 10 who were interviewed, 10 were male constituting 100% of the respondents. From the above gender presentation it is clear that education for the male gender is preferred over that of their female counterparts.

Category	Gender	Frequency	Percentage (%)
Lecturers	Male	10	10%
	Female	0	0%
Lecturers	Male	60	60%
	Female	40	40%

Table 4.4 Frequency and percentage distribution of respondents according to gender

STUDENTS' COMPETENCIES IN THE USE OF ICT

The following Table shows the descriptive statistics about the students' competencies in the use of ICT.

S/N	ITEM	MEAN	RANK	DECISION
1	Students can operate computer	2.54	14	Competent
2	Students can operate many digital materials	2.37	19	Not competent
3	How competent are the students in the use of internet	3.69	1	Competent
4	How competent are the students in the use of email	3.11	5	Competent
5	How competent are the students in the use of Microsoft word	3.32	4	Competent
6	How competent are the students in the use of multimedia presentation	2.01	17	Not competent
7	How competent are the students in the use of excel	2.11	21	Not competent
8	How competent are the students in the use of blogs	2.39	17	Not competent
9	How competent are the students in the use database	2.39	17	Not competent
10	How competent are the students in the use of social media	3.47	6	Competent
11	Students can apply the above digital tools to obtain information for their studies	2.11	11	Not competent
12	Students interact and collaborate with their lecturers and course mates using variety of digital resources	3.69	2	Competent
13	Students solve physics problems and make decision using appropriate tools and digital resources	2.33	13	Not competent
14	Students value ICT as instrument of permanent learning	2.89	8	Competent

15	Students value ICT as a medium of collaboration and social communication	2.84	9	Competent
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(Tmean = 2.5)

Table 4.5 students' competencies in the use of ICT

According to Table 2, the entire disclosures mean showed a moderate level. It shows that most of the students are competent and are aware of the goodness and usefulness of ICT in the learning of physics. Most students realized that the use of ICT helps them to improve learning with more updated materials that shown the lowest mean of 1.70. It is undeniable that teaching resources and materials provided online are more updated. Nowadays even lecturers can refer to it in order to design more interesting and engaging lesson for students.

Students' familiarity and competency in handling email, internet, social media, Microsoft word and excel also obtained from the data where the mean of 1.81 shows that most students feel confident learning new computer skills and they are able to use ICT to find learning materials and resources. In this context, it shows that students are open towards the use of ICT in learning, not being resistant and feels comfortable in learning new things. Other than that, students value ICT as instrument of permanent learning with the mean score of 2.89 but at the same time, they still believes in the conventional way of teaching where teachers are the center of learning and stated that they can still have an effective learning without the use of ICT.

CHALLENGES IN USING ICT TOOLS IN TEACHING & LEARNING

ITEMS	Always	often	Sometime	Rarely	Never	Mean	SD
Insufficient number of computers	36	30	29	5	0	2.03	.926
Insufficient number of internet Connected computers	35	33	26	6	0	2.03	.926
Lack of adequate skills	1	10	14	43	32	3.95	.978

of teachers							
Insufficient technical support for teachers	30	44	25	1	0	1.97	.771
School time organization	11	23	16	27	23	2.38	1.324

SUMMARY OF THE FINDING, CONCLUSION AND RECOMMENDATIONS

This chapter presents the summary of the study findings, draws conclusions from the findings and provides recommendations on students' competency in the use of ICT: a case study of department of physics Shehu Shagari College of education Sokoto.

CONCLUSION

In ICT tools in teaching and learning in the classroom, high level of challenges of using ICT tools in teaching and learning in the classroom recognizing the effectiveness of the extent of ICT tools in supporting teaching and learning in the classroom.

With the advent of Information and Communications Technologies (ICT) in education, teachers form their own beliefs about the role of ICT as a teaching tool, the value of ICT for student learning outcomes and their own personal confidence and competency (Prestidge, 2007). Barriers exist in integrating ICT in teaching and learning (Ertmer, 2005). The barriers are extrinsic to the teacher and include lack of resources, time, access and technical support. Findings of this research suggest that teachers were still giving comment on the barriers in implementing ICT tools at school in teaching and learning. Results of the Cachia and Ferrari (2010) study showed that teachers do combine different resources in their teaching, as well as utilizing various modes of ICT with almost two-thirds claiming to use technologies (63%) and website (62%). Anyway, it is also evident that textbooks are still considered fundamental in the educational systems. Nearly two thirds of our respondents (64%) always or often follow textbooks in their teaching. Important technologies for learning such as computers (98%) and educational software (93%) were ranked as the top technologies by the respondents of Cachia and Ferrari's (2010) research. On the other hand, our research showed that the rate of ICT use among teachers

hers in school is average. However, the finding shows that more teachers used computer with teaching software in the classroom to present or demonstrate examples to student. They also like to use the computer to access students' results and keep track of their progress. Despite the current efforts in ICT integration in schools, many families specifically in rural areas still do not know how to use ICT tools in their daily life. They even did not know how to check their children's results in the existing systems. Not all houses have computers and Internet facilities to use daily. In this regard, the main challenge is to provide appropriate ICT tools to both urban and rural areas efficiently.

RECOMMENDATIONS

It might be too common for issues and challenges of ICT integration to be discussed but in-depth study of ICT integration in core subjects in schools is least discussed. It is good if further studies can be made based on what barriers teachers are facing in using ICT in their daily classrooms in schools. Besides, rather than just focusing in public schools, it is best if this study can be conducted in 3 major schools we have in Malaysia that includes public schools, Chinese school as well as Indian school. This is because some schools might have more funding that makes ICT implementation much faster and easier. It is good if comparison can be made between different schools in which it can take the good side as examples and make improvements needed from the flaws identified.

Other than that, it is highly recommended for comparison studies about ICT integration in teaching and learning to be done between public and private schools. This is because most private schools permit students to bring gadgets to school and teaching and learning process takes place within the use of ICT. It would be exciting to see the findings between the effectiveness of ICT integration in public and private school

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**ASSESSMENT OF NATIONAL AUTOMOTIVE DESIGN AND
DEVELOPMENT COUNCIL TRAINING PROGRAMMES IN INFORMAL
SECTOR AUTOMOBILE MECHANICS IN NIGERIA**

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ABSTRACT

The purpose of this study was to assess NADDC training programme for informal sector of automobile mechanics in Nigeria. Three research questions guided the study. The design of the study was descriptive survey design. The population of the study was one thousand, two hundred and two respondent (1,202). The study covered the entire country Nigeria which is divided into 6 geopolitical zones comprising of 15 training centres. The sample for the study was two hundred and seventy two respondents, which was purposefully selected. The instrument for data collection was structured questionnaire developed by the researcher. The data collected were analyzed using mean and standard deviation while the hypotheses were tested using t-test and ANOVA. The result revealed that the fifteen (15) objectives are highly appropriate for the training of automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria, human resources at the training centres are highly adequate for the implementation of NADDC training programmes for automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria. Among the recommendations made was that Workshop should be organized to train the trainers on the utilization of the materials provided as most machines or equipment/instruments are highly computerized. NADDC training programmes graduates should be closely monitored for further training and retraining to meet up with the challenge of modern technologies and innovations in automobile.

BACKGROUND OF THE STUDY

The modern automobile and its maintenance industry is already becoming more than what the roadside mechanic can handle. The industry is daily becoming more technologically oriented with many computerised systems, thus making it more sophisticated. The Nigeria automobile industry is made up of few automobile assembly plants, automobile merchandising, transportation, maintenance and spare parts dealership/sales. Also because most of the modern vehicles are imported into the country, their maintenance poses a major challenge to the automobile technicians and thus the need for re training of the automobile technicians in maintenance and servicing of modern vehicle. Jalal (2015) posited that, due to the increasing complexity of technology that gives birth to modern automobiles that runs by integrated electronic system and complex computers, which measure their performance while on the road, it becomes very necessary for automobile technicians and users to acquire broad based knowledge and ability to work with electronic diagnostic equipment and computer based technical reference material through regular training and retraining. The advent of scanning tools for diagnosing engine faults and code readers has also brought about the elimination of guess work and trial by error services on modern automobiles. This development has also led to serious need for retraining of automobile mechanics in the informal sector. Adams (2008) observed that the informal sector serves as a safety net for those unable to find employment in the formal sector and that the term “informal sector” disguises a significant degree of informal activities and involves different types of activities. It is worth mentioning that in Nigeria, like in other countries, the informal sector has two distinct sides (Walther, 2011). On one hand, it is a negative manifestation of inadequate employment creation in private companies, parastatal and government services which ‘pushed’ large numbers of jobless in informal activities. On the other hand, it refers to the positive response of the poor (and many not-so-poor) in the face of such a situation, combining their minimal resources, hard work and often a large dose of ingenuity to earn low but important incomes. The International Labour Organisation (ILO), defines the informal sector as “all economic activities by workers and economic units that are in law or in practice not covered or insufficiently covered by formal arrangements” (ILO, 2012). The informal

sector of the automobile mechanics (roadside mechanics) no doubt have a lot of problem ranging from lack of sound educational background, poor performance in an attempt to rectify fault, poor site location among many things. Many customers for instance accuse them of employing trial and error procedure when rectifying fault on the vehicle, this seems to be a problem to their maintenance and repair works (Johansen, 2012).

Automobile Mechanics training work provides the youth with the practical skills in works pertaining to engine management system, basic auto electricity, wheel balancing and wheel alignment operations, vehicles charging system, suspension system, fuel injection system and having skill and knowledge on the use of computerized vehicle diagnosing machine (Africa Mechanics Trust, 2007). Automobile mechanics trainers and instructors are the source of knowledge in the informal workshop environments. As scholars, they operate by analyzing, designing, implementing and evaluating teaching (Training) and learning activities. They establish activities that are measurable and achievable to their instruction. Since the curriculum is expected to essentially reflects the needs of the society, it is the responsibility of the teachers and trainers to organize activities for students and trainees in such a manner to produce useful individuals who are functional and capable of satisfying the needs and aspirations of the society (Walther, 2011). According to Nitko (2008), assessment is a process of obtaining information that is used for making decisions about trainees, curricula, and programmes. According to Capper (2015), assessment is a process of investigating an individual, a group or a programme performance with reference to set objectives and expected outcome. For Adedokun (2009), assessment is a process of determining whether or not an individual has gained from an instruction (i.e. in a teaching and learning process). Assessment is the collection, synthesis, interpretation and use of information to aid the teacher in taking decision before, during, and after instruction. Assessment is central in overall quality of teaching and learning which is seen by Alogne (2017) as a lesser form of evaluation. Udoh (2013) has suggested the following procedures which could be used by technical teachers for assessing performances of their students:

- Performance or practical tests

- Oral responses and examinations
- Written tests and examinations this should be essay type or objectives
- Self-evaluation by students
- Individual score card and check lists
- Completed assignment or projects
- Personal interviews and observations
- Note books

Statement of the Problem

United Nations Industrial Development Organization (UNIDO) in its skills gap assessment report stressed that in spite of the existence of over 100 Universities and over 120 Polytechnics and similar institutions, in addition to hundreds of Technical / Vocational Colleges, educational institutions have been largely disconnected from industrial and socio-economic needs by consistent neglect of competence and undue emphasis on paper qualification. In this regard, despite all the trainings organized and conducted by NADDC to address the skill gap in the Automobile industry, the auto mechanics still find it difficult to efficiently work on modern vehicles in Nigeria. This leads to poor job been done on maintenance and repair which causes more damage to the vehicles or complete breakdown of the vehicle, as a result of which the car owner end up spending more money on replacement of parts and maintenance of the vehicle. With the changes in modern vehicle technologies, the automobile mechanics have not been able to update their skills and knowledge to meet up with the changes in modern vehicles and this has had a negative effect on the quality of the maintenance and repairs they undertake on motor vehicles in the country. This calls for development of new policies and incentives for the informal sector that can take care of and respond to technological changes (Jalal, 2017).

In view of the above scenario of inadequate competence reflected by the NADDC's industry skills' assessment, the National Board for Technical

Education granted approval to the council to establish a Sector Skills Council for the automotive industry in the country (NADDC Journal, 2017). Therefore, there is need to assess the National Automotive Design and Development Council Training Programmes for automobile mechanics in the informal sector in Nigeria.

Purpose of the Study

The general purpose of this study is to assess NADDC training programme for informal sector of automobile mechanics in Nigeria. Specifically, the study seeks to:-

1. Determine the utilization of material resources provided by NADDC in the training of informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria.
2. Ascertain the pedagogies employed in the implementation of NADDC training programmes for informal sector automobile mechanics on maintenance and repair of vehicles in Nigeria.
3. Determine the NADDC graduate's attained the objectives of the training programme for automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria

Research Questions

1. To what extent is the utilization of materials resources for the implementation of NADDC programmes in the training of informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria?
2. To what extent are the pedagogies employed in the implementation of NADDC training programme for informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria?
3. To what extents have the NADDC graduate's attained the objectives of the training programme for automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria

Research Hypotheses

Ho₁ There is no significant difference in the mean response of NADDC trainers, assessors and graduates on the utilization of material resources for the implementation of NADDC training programmes in the informal sector of automobile mechanics on maintenance and repairs of vehicles in Nigeria.

Ho₂ There is no significant difference in the mean response of NADDC trainers, assessors and graduates on the pedagogies employed in the implementation of NADDC training programmes for informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria.

Ho₃ There is no significant difference in the mean responses of NADDC trainers and assessors on the attainment of NADDC training objective by graduates of informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria.

METHODOLOGY

The study adopted a descriptive survey research design. Ezeji (2004) describe a descriptive survey design as one which involves the assessment of public opinion using collection of detailed description of existing phenomena with the intention of using the data to justify current conditions and practices or to make better plans for improving phenomena. The study covered the entire country Nigeria which is divided into 6 geopolitical zones comprising of 15 training centres. The North East has training centre's in Abubakar Tafawa Balewa University Bauchi and Federal College of Education (Tech) Gombe. North Central has training centres in Federal University of Technology, Minna, Federal Technical College Orozo and Nasarawa State Polytechnic, Lafia. North West has three training centres namely Ahmadu Bello University, Zaria, Kaduna polytechnic and Peugeot Automotive Nigeria Learning centre, Kaduna. The south west has three training centres which are University of Ibadan Oyo State, Lady Mechanic Initiative, Lagos and Lagos State Polytechnic, Ikorodu. The South has two training centres namely Ken Saro- Wiwa Polytechnic Bori, Rivers state and University of Benin Edo State. The South East has two training centres namely Nnamdi Azikiwe University, Akwa and Metallurgical Training Institute, Onitsha all in Anambra State. The population of 1,202 respondents comprising 1,140 NADDC graduates, 45 NADDC

Trainers and 17 NADDC Assessors from all the 6 geographical zone of Nigeria. Two sample techniques were used for this study namely Census Sampling and Purposive Sampling. The instrument used for data collection was structured questionnaire. The questionnaire was divided into two parts. Part 1 (Section A) sought for personal data of the respondent. While Part II (section A-G) elicited information from respondents on the evaluation of the national automotive design and development council training programmes for informal sector automobile mechanics. The questionnaire items were structured on a five-point scale. The respondents were required to tick the response categories that best describe their opinion as follows: Very Highly Appropriate (VHA) = 5points, Highly Appropriate (HA)= 4points, Appropriate (A)= 3points, Moderately Appropriate (MA)= 2points, Barely Appropriate (NA)= 1point. The instrument was validated by two automobile technology specialist from Department of Vocational Technology Education, Modibbo Adama University Yola, 2 training centre heads and 1 NABTEB Certified Quality Assurance Assessor from NADDC. Their suggestions and corrections were used to improve the production of the final instrument used for the study. The Cronbarch's alpha formula in order to determine the internal consistency of the instrument. Therefore, Cronbach alpha reliability coefficient was calculated and a reliability coefficient of 0.804 was obtained. The data collected were analzed using the Mean and Standard Deviation with Statistical Package for Social Sciences (SPSS) version 23. The null hypotheses 2, was tested using Analysis of Variance (ANOVA) while t-test was used for null hypothesis 1, and 3 at 0.05 level of significance. For the null hypotheses, if the computed p-value is less than the alpha-value, the hypothesis was rejected and where the computed p-value is greater than or equal to the alpha-value, the null hypothesis was accepted.

RESULTS

Table 1: Mean and Standard Deviation of the respondents on the utilization of material resources for the Implementation of NADDC Programmes in the Training of Automobile Mechanics in the Informal Sector on Maintenance and Repairs of Vehicles in Nigeria

S/N	ITEMS	RESPONDENTS CATEGORIES							
		Graduate		Trainers		Assessors			
		N ₁ =202		N ₂ = 45		N ₃ = 17			
		X	SD	X	SD	X	SD	XG	RMK
1	OBD Diagnostic Tool (Scanner)	3.47	0.71	3.67	0.71	3.65	0.61	3.52	HU
2	Multimeter	3.33	0.75	3.24	0.65	3.24	0.75	3.31	U
3	Fuel Injector Servicing and Testing Machine	4.17	0.79	4.04	0.90	4.35	0.86	4.16	HU
4	Digital Wheel Alignment machine	4.16	0.89	4.35	0.74	4.29	0.85	4.21	HU
5	Brake & Suspension Testing Machine	4.07	0.85	4.22	0.82	4.00	0.79	4.09	HU
6	Exhaust Gas Analyzer	3.16	0.87	2.82	0.83	2.82	0.88	3.08	U
7	Air conditioning system Refilling Machine	4.33	0.79	3.98	0.84	4.12	0.93	4.25	HU
8	Car lift (Boom Ram)	4.26	0.78	4.09	0.87	4.47	0.87	4.24	HU
9	Oscilloscope	3.25	0.79	3.42	0.75	3.29	0.58	3.28	U
10	A/c Leak Tester	3.22	0.76	3.33	0.79	3.35	0.78	3.25	U
11	Timing light for Petrol Engines	4.49	0.67	4.22	0.82	4.47	0.78	4.43	HU
12	Timing light for Diesel Engines	4.13	0.70	3.46	0.59	4.11	0.49	4.02	HU
13	Electronic Headlight Tester	3.51	0.74	3.29	0.51	3.59	0.71	3.50	HU
14	Wheel Balancing machine	4.49	0.67	4.22	0.82	4.47	0.78	4.43	HU
	Total Grand Mean	3.86	0.77	3.74	0.76	3.87	0.76	3.84	HU

Source: Field Survey (2021)

KEY

- N₁** – **Sample size of NADDC Graduates**
N₂ - **Sample size of NADDC Trainers**
N₃ - **Sample Size of NADDC Assessors**
 \bar{x} – **Mean**
SD – **Standard Deviation**

Results on Table 1 show mean ratings of Trainers and Assessors on the Utilization of Materials Resources for the Implementation of NADDCC Programmes in the Training of Automobile Mechanics in the Informal Sector. The results revealed that their grand means ranges from 3.86, 3.74 and 3.87 with standard deviation of 0.76 and 0.77. The mean of the graduates ranging from 3.160. and 4.49 with their corresponding standard deviation of 0.67 to 0.89. The mean of the trainers ranges from 2.82 to 4.35 with standard deviation of 0.59 to 0.82. While the mean of the assessors ranges from 2.82 and 4.47 with a corresponding standard deviation 0.49 to 0.93. The grand mean also ranged from 3.08 and 4.43. This implies that material resources for the Implementation of NADDCC Programmes in the Training of Automobile Mechanics in the Informal Sector on Maintenance and Repairs of Vehicles are utilized.

Table 2: Mean and Standard Deviation of the respondents on the extent of pedagogies employed in the implementation of NDDC training programmes for automotive mechanics in the informal sector on maintenance and repair of vehicles in Nigeria

S/N	ITEMS	RESPONDENTS CATEGORIES							
		Graduate		Trainers		Assessors			
		N ₁ = 202		N ₂ = 45		N ₃ = 17			
		X	SD	X	SD	X	SD	XG	RMK
1	Leaning by watching.	4.24	0.79	4.18	0.83	4.47	0.62	4.25	HE
2	Leaning by imitation	3.27	0.71	3.37	0.69	3.64	0.68	3.31	E
3	Learning by practicing	3.09	0.83	3.38	0.98	3.29	0.77	3.16	E
4	Learning through feedback	4.18	0.80	4.16	0.67	4.41	0.62	4.19	HE
5	Learning through conversation	4.19	0.83	3.98	0.72	4.29	0.85	4.16	HE
6	Learning through teaching	3.24	0.81	3.02	0.87	3.23	0.90	3.20	E
7	Learning by real world problem solving	3.09	0.80	3.11	0.86	3.00	0.87	3.09	E
8	Learning through inquiry	4.11	0.87	4.33	0.85	4.35	0.86	4.17	HE
9	Learning by drafting and sketching	4.20	0.77	4.37	0.75	4.41	0.71	4.24	HE

10	Learning by listening transcribing and remembering	3.18	0.72	3.40	0.62	3.70	0.47	3.25		E
11	Learning by coaching	4.15	0.81	3.93	0.81	4.47	0.62	4.13		HE
12	Learning by competing	2.38	0.79	2.60	0.62	2.59	0.51	2.43		ME
13	Learning through virtual environment	3.34	0.79	3.20	0.81	3.58	0.61	3.33		E
14	Learning through simulation and role	3.23	0.84	3.09	0.76	3.29	0.77	3.21		E
15	Learning through facilitation	3.13	0.85	3.31	0.87	3.64	0.49	3.19		E
	Total Grand Mean	3.53	0.80	3.56	0.78	3.76	0.69	3.55		HE

Source: Field Survey (2021)

KEY

N₁ – Sample size of NADDC Graduates

N₂ - Sample size of NADDC Trainers

N₃ - Sample Size of NADDC Assessors

\bar{x} – Mean

SD – Standard Deviation

Results on Table 2 show mean ratings of Trainers and Assessors on the pedagogies employed in the Implementation of NADDC Programmes in the Training of Automobile Mechanics in the Informal Sector. The results revealed that their grand means ranges from 3.53, 3.56 and 3.76 with standard deviation of 0.80, 0.78 and 0.69. The mean of the graduates ranging from 3.094.24 and 3.00 with their corresponding standard deviation of 0.71 to 0.87. The mean of the trainers ranges from 3.02 to 4.37 with standard deviation of 0.62 to 0.98. While the mean of the assessors ranges from 3.29 and 4.47 with a corresponding standard deviation 0.69, 0.78 and 0.80. The grand mean also ranged from 3.09 and 4.25. This implies that among others Learning by watching, Learning by imitation, Learning by practicing, Learning through feedback, Learning through teaching, Learning through inquiry and Learning by coaching are the pedagogies employed in the implementation of NDDC training programmes for

automotive mechanics in the informal sector on maintenance and repair of vehicles in Nigeria.

Table 3: Mean and Standard Deviation of the respondents on the attainment of NADDC graduate's programme objectives for the training of automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria

S/N	ITEMS	RESPONDENTS CATEGORIES					
		Trainers		Assessors			
		N ₂ = 45		N ₃ = 17			
		X	SD	X	SD	XG	RMK
1	Health, safety and environment operation.	4.60	0.62	4.59	0.51	4.59	VH A
2	Basic computer skills.	4.38	0.68	4.11	0.79	4.31	HA
3	Motor vehicle electrical/electronic system installation operation.	4.40	0.77	4.49	0.61	4.42	HA
4	Power train and rolling chassis diagnosis operation	4.37	0.91	4.20	0.72	4.32	HA
5	Electrical/electronic system rectification.	4.31	0.79	4.26	0.78	4.30	HA
6	Motor vehicle air conditioning system maintenance and repairs operation	4.43	0.69	4.09	0.78	4.34	HA
7	Motor vehicle maintenance/repairs	4.40	0.74	4.20	0.83	4.35	HA
8	Motor vehicle wiring system	4.51	0.66	4.23	0.77	4.43	HA
9	Reading and interpreting trouble codes.	4.20	0.76	4.23	0.77	4.21	HA
10	Wheel alignment operation	4.26	0.70	4.17	0.75	4.24	HA
11	Wheel balancing operation	4.46	0.66	4.26	0.85	4.41	HA
12	Braking system maintenance and repair.	4.71	0.52	4.94	0.24	4.77	VHA
13	Suspension system maintenance and repairs.	4.54	0.61	4.17	0.71	4.44	HA
14	Petrol engine overhauling.	4.23	0.77	4.17	0.75	4.21	HA
15	Petrol engine injection maintenance and repairs.	4.43	0.81	4.57	0.69	4.47	HA
	Total Grand Mean	4.41	0.71	4.31	0.71	4.38	HA

Source: Field Survey (2021)

KEY

- N₁** – Sample size of NADDC Trainers
- N₂** - Sample size of NADDC Assessors
- \bar{x}** – Mean
- SD** – Standard Deviation

Results on Table 3 show mean ratings of Trainers and Assessors on the graduate's attainment of NADDC objectives in the training of automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria? The results revealed that their grand means ranges from 4.31 and 4.41 with standard deviation of 0.71. The mean of the trainers ranging from 4.20 and 4.71 with their corresponding standard deviation of 0.52 to 0.81. The mean of the assessors ranges from 4.09 to 4.94 with standard deviation of 0.24 to 0.85. The grand mean also ranged from 4.21 and 4.47. This implies that health, safety and environment operation, motor vehicle electrical/electronic system installation operation, power train and rolling chassis diagnosis operation, electrical/electronic system rectification, braking system maintenance and repair petrol engine overhauling were all attained by NADDC graduate's in achieving the objectives of the training programme for automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria.

Table 4: ANOVA Result comparing mean responses of the Trainers, Assessors and Graduates on the Utilization of material recourses for the implementation of NADDC training program.

Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.	Remarks
Between Groups	75.010	2	37.505	0.743	0.477	NS
Within Groups	13168.975	261	50.456			
Total	13243.985	263				

Table 4 showed that $F(2, 261) = 0.743$, $p = 0.477$ at 0.05 level of significance. This p-value is greater than the alpha value of 0.05 hence, the null hypothesis is accepted and the alternative rejected. This implies that there is no significant difference in the mean response of NADDC trainers, assessors and graduates on the utilization of material resources for the implementation of NADDC training programmes in the informal sector of automobile mechanics on maintenance and repairs of vehicles in Nigeria.

Table 5: ANOVA Result comparing mean responses of NADDC trainers, assessors and graduates on the pedagogies employed in the implementation of NADDC training programmes for informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria.

Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.	Remarks
Between Groups	174.016	2	87.008	2.434	0.090	NS
Within Groups	9330.798	261	35.750			
Total	9504.814	263				

In table 5, $F(2, 261) = 2.434$, $p = 0.090$ at 0.05 level of significance. Since the p-value is greater than the 0.05 level of significance, the null hypothesis was accepted. This indicated that there is no significance difference in the opinions of the three groups of respondents on the pedagogies employed in the implementation of NADDC training programmes for informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria.

Table 6: Summary of t - test of NADDC Trainers and Assessors on the extents to which the NADDC graduate's attained the objectives of the training programme for automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria

Respondents	N	\bar{x}	S. D	Df	t – value	P -value	Remark
NADDC Trainers	45	58.80	9.11				
				60	0.869	0.382	NS
NADDC Assessors	17	61.11	9.46				

The results of t-test on Table 6 determined the significance difference between the mean responses of NADDC trainers and assessors on the extents to which the NADDC graduate's attained the objectives of the training programme for automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria. The result showed a degree of freedom of 60, t-value of 0.869 and P-value of 0.382. Since the P-value (probability value) of 0.382 is greater than the 0.05 level of significance, the null hypothesis is accepted. The study therefore concludes that there is no significant

difference between the mean responses of NADDC trainers and assessors on the extents to which the NADDC graduate's attained the objectives of the training programme for automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria.

FINDINGS AND DISCUSSION

From the data analyzed in the study, it was reveal that materials resources present at centres are highly utilized in training of automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria. This finding is in agreement with Sawaba (2016) who revealed that the impact of machine tools utilization on students skill acquisition on students on students skills acquisition in Kano state technical colleges is moderate in all major technical skill area identified and teacher background in those technical skill are either obsolete or defective. Based on the findings, the researcher recommended that teachers and students should be provided the needed resources to keep them up to date with changing technology and enabling environment by the authorities for them to be equipped with needed technical skills for effective utilization of modern machine tools for self-employment and in industries. This indicated that the availability and effective utilization of facilities for training in any programm enhances the vital process of the skills to be acquired. Findings on research hypotheses revealed a no significant difference in the mean responses of NADDC trainers, assessors and graduates on the utilization of material resources for the implementation of NADDC training programmes for informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria.

On pedagogies employed in the implementation of NADDC training program, the study found that trainers employ high-level pedagogical skills to implement of NDDC training programmes for automotive mechanics in the informal sector on maintenance and repair of vehicles in Nigeria. For the NADDC graduates to attain the programme objectives, the psychomotor or manipulative skills must be taught properly. These are tasks that the technician is expected to carry out or perform expertly and effectively. This is in consonance with Fadairo (2019) whose mmajor study revealed ten environmental factors, ten curriculum factors, ten practical skills, ten instructional strategies and ten

administrative strategies for improving students' interest in the study of automobile technology. Based on the finding, it was recommended that automobile technology curriculum should be reviewed to include innovations that can improve students' interest in the study of automobile technology. The overriding requirement for practical is the ability of the learner to be able to do the job rather than only talk about it (Julian, 2015). The findings also agrees with Giri (2017) who added that the job and competence of craftsmen are measured by what he/she can do as against how well he/she can describe what he/she can do. The pedagogical skills employed such as learning by coaching as well as by practicing are more of apprenticeship which is in line with the ILO (2012), that informal apprenticeship refers to the system by which young learner (the apprentice) acquires the skills for a trade or craft in a micro or small enterprise learning and working side by side with an experienced craftsperson.

Findings on research hypotheses revealed a no significant difference in the mean responses of NADDC trainers, assessors and graduates on the pedagogies employed in the implementation of NADDC training programmes for informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria. Research question six also revealed that the graduates attained the NADDC programme objectives creditably after been trained in the informal sector on maintenance and repairs of vehicles in Nigeria. These training are aimed at enabling the graduates to effectively repair, maintain modern vehicles and also advise their clients on the proper purchase and maintenance of vehicles (NADDC, 2017). The finding is in line with Ezeama, Obe and Ede (2016) that found out that MVM trainers need capacity building in the use of auto scan tools for vehicle systems diagnosis and repairs. The study recommended that workshop/seminars should be organized by centers like the National center for equipment maintenance and development, the National automotive council and so on to enable MVM trainers acquire the required skills to meet up with the training job facing them. Findings on research hypotheses revealed a no significant difference in the mean responses of NADDC trainers, assessors on the graduate attainment of NADDC training programmes objective for informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria.

CONCLUSION

From the results of this study, it was discovered by the researcher that the programme objectives are remarkably appropriate as they aim towards a robust training and retraining of automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria. The trainers employ high-level pedagogical skills to implement the NDDC training objectives for automotive mechanics in the informal sector on maintenance and repair of vehicles in Nigeria. However, stringent efforts must be made towards improving the human and material resources in order to drive the up-skilling mandate of NADDCC in the automobile industry of Nigeria. This will in turn create jobs for the teaming youths within the industry and reduce social vices in the society as experiencing presently.

RECOMMENDATIONS:

1. Trainers should be encouraged to study and acquaint themselves with the appropriate pedagogical skills for the implementation of NADDCC training programmes for informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria.
2. NADDCC training programmes graduates should be closely monitored for further training and retraining to meet up with the challenge of modern technologies and innovations in automobile.

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ANTI-TRUST ACTION IN DIGITAL MARKET- A COMPARATIVE STUDY BETWEEN USA, CHINA AND EUROPEAN UNION AND THE LESSON FOR INDIA

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ABSTRACT

The main objective of this paper is to understand and analyse the different laws and actions that have been taken by countries such as United States, People's Republic of China and the European Union along with the legislations passed by the United Kingdom.

The Digital Market has been on the rise over the two decades since the beginning of the New Millennium. The Digital market sowed its boost with the coming of 2010 wherein various companies established their services and their actions on the Internet which made it easily accessible for the consumers sitting at home on the internet.

The paper intends to understand the effect of the laws, regulations and executive actions taken by the country as well as certain loopholes that have been present in the laws of these countries.

The paper concludes by suggesting the methods with which India can work upon its Domestic laws and create better legislations with which they shall be able to create a fairer and freer digital market.

Keywords: *Digital Market, Competition law on digital market*

INTRODUCTION

The Digital market in recent times has steadily grown itself into a market of its own influencing and affecting the economies of the nations as well as on the global economy. Almost 2 out of every 5 companies have directly brought out their digital segment or section which participates on the online market as well as develops the best possible mechanism which shall have its own effect. With the gradual shift from

physical to global market. With the virtual platforms being the new face of the market, there is a dire need to regulate the market from the dominators who have used in their powers and strategies to make it difficult for others to become a participant in the market. There comes a need to provide laws and legislations that shall regulate the market and give an opportunity for all.

RESEARCH QUESTIONS

Q.1 What are the laws and legislations that have been passed by various countries to regulate their respective Digital Market?

Q.2 What effects do these laws have on the digital market?

Q3. What are the lessons for India to learn and improve its economy?

RESEARCH OBJECTIVE

1. Analysing the effect of the laws that have been passed in the countries such as US, China and Eu and the improvement brought in.
2. Lessons for India to improve its condition and become a better regulator of the market.

METHODOLOGY

The method of research in this paper is derivative based. This paper intends to look at the laws that have been passed in countries such as United States, China and European Union to counter the Digital Market. The various effects of the law on their market are analysed through their application in various cases presented before them. To further validate the actions and effect of the laws passed in the respective countries, several secondary sources such as Journals, Articles, commentaries and case laws were looked at to support the research.

1.0 COMPETITION IN THE DIGITAL MARKET OF THE UNITED STATES

The United States evolving over the period has brought drastic changes in the field of competition law through Bylaws, amendments, Sub-Judicial committees, and the report based on the circumstances running through the market. With the coming in of the digital market, it was realised that the structure of the digital market is different to the structure which regulates the physical market. The various departments have undertaken

various processes to regulate the competitive market, however the cases of Digital Market required special emphasis from each of the various departments. The various departments brought changes in them and the effect of each are as follows:

1.1 DEPARTMENT OF JUSTICE

1.1.1 The Technological and Financial Section of Department of Justice

The Department of Justice initiated the process of reforming and restructuring the competitive market with the rise of digital platforms taking over in recent times. The Department of Justice over time has researched deeper into the prospects of the Zero-price products which has been increasing its ability in the market to be used as a product to attract customers. The DOJ has analysed and understood that the big-tech firms such as Amazon, Walmart have been able to produce the highest number of zero-price products which makes it difficult for other competitors to sustain.

The Technological and Financial Services(TFS) section of the Department has sought to retract the mergers and developed a structure with which a merger could process for online platform and the participants to the market. The TFS department initiated the process of introducing transparency to the tax structure as well as of the information which was required to be filled by the participants of Digital Market.

As a result of the analysis made by the TFS department, the implementation of the do-it-yourself digital taxation has helped in disclosing information concerning the mergers and observations made to check on a company that has indulged in merging themselves with a zero-pricing oriented company. Amazon and Walmart were fined for an undisclosed sum for resorting to zero-pricing strategy. With the passing of the do-it-yourself digital tax portal, the DOJ was able to solve the controversy of mergers between Expedia and Orbitz, who were charged on the grounds of going for a horizontal agreement and violating Section 5 of the Federal Trade Commission Act.

Through its deeper research and understanding the competition on Digital Market, the Department was also able to find out the merger between Google and ITA concerning takeover of the company which was directly affecting the sales of air-traveling and other transport services through online platforms. The report found that Google's merger with the producer of airfare pricing and shopping systems would have

substantially lessened competition among online flight search platforms, resulting in reduced choice and less innovation for consumers who used those zero-price services.

The Department of Justice in August 2020 decided to completely restructure announced a structural reform and established the following divisions:

- Office of Decree Enforcement and Compliance: Checking on all the mergers and non-merger judgments along with the decree violations.
- Permanent Civil Conduct Task Force: investigating and prosecuting non-merger-related anticompetitive business practices.
- New civil Section: Reduction of the burden on TFS for cases about industrial civil disputes.

With the newly established structure of the Department of Justice, there have been certain observatory gains made out of it which have not only helped the Department of Justice but also motivated the Federal Trade Commission to work upon a structure that will help in both investigating as well as in leveraging the penalty on the companies with more efficiency.

Some of the other improvements that were observed in the Department of Justice are as follows:

- The anti-trust division is now able to vigorously monitor their compliance with the civil judgment and consent decrees of cases against companies, and when in need, order for contempt of violation of those decrees which will bring in criminal liabilities on the companies.
- The structure has ensured that “the Division's civil conduct investigations are no longer “deprioritized” due to the staffing and resource needs of merger investigations.” With the establishment of the new division, the newly appointed personnel shall carry out the investigative process that helps in finding new angles and approaches to any of the cases pending.

1.1.2 Media, Entertainment, and Professional Services Section

The Department of Justice provides for a separate section under its anti-trust division which caters to the advertising revenue field which has a separate competition market. Within a few months of taking cognizance of the cases, the MEPS section concluded, that after investigating from both the listener and advertiser sides of local radio broadcasting markets in concluding that Entercom's acquisition of CBS Radio stations would result in harm to competition in local advertising markets in Boston, San Francisco and Sacramento which shall also invite for the radios on a virtual platform to face a monopoly in acquitting the advertisement contract". The section passed an order seeking to regularise the market both on radio and on the online platform.

FEDERAL TRADE COMMISSION

1.2.1 Direct control over the digital market

With the progress being made in the field of technology, the FTC promotes competition in technology industries (like computers, software, communications, and biotechnology) as the best way to reduce costs, encourage innovation, and expand choices for consumers. The Federal Trade Commission, with the implementation of the Hart-Scott-Rodino (HSR) Act, has been successfully able to control the domination of the Big-tech firms by mandating the necessary waiting period before acquiring or merging with any other company which can bring in the Adverse Competitive effect in the market. With the introduction of the online system, there has been a drastic rise in the application of 2000 mergers and acquisitions. In the year 2018, the FTC has been able to effectively challenge 21 mergers based on the guidelines and online system which has been supported by the Federal court of US.

The commission, using Section 7 of the Clayton Act was able to challenge the merger of CDK Global and its smaller competitors. The challenge was based because the acquisition of its smaller competitors would result in domination in a concentrated market.

1.2.2 Establishment of the Technology Enforcement Division

In the year 2019, the FTC announced to change its internal structure and move towards Technology Enforcement Division whose purpose is to ensure constant monitoring over

the U.S digital competitive market and consequently provide for the action when in need. The duty and the regulations were changed and more pattern-based observations were put into use. Within a year of establishment, TED initiated the suit against the online medical giant Surescripts for monopolizing the two-sided market system by structuring its contracts to lock customers into exclusive arrangements, providing “loyalty” discounts that would make it unattractive for buyers to shift their business away to Surescripts’ rivals.

The Division was also able to counter the dominance of 1-800 contact cases, wherein the company indulged in collusion with the other competitors of the market which involved in deselecting particular key-words on their search engine which deprived the customers of receiving correct information.

In a testimony presented by the commission in September 2019, the statement presented stated “the current law provides the Commission with several potential avenues to counter anti-competitive conduct by large technology firms that seek to thwart nascent and potential threats by acquisition or other means”. In the Flo Health Inc. case, the commission was able to prove that the company was violating the user privacy law by sharing the data to the requisite buyers even after promising to retain the information and not sharing it further for any purposes. The average adjudication of the cases sped up by 12% with the establishment of the Technology Enforcement Division.

One of the landmark cases which has been noted by TED is the case of Facebook and its notable allegation of monopolizing the social-media data storage over nine years post the acquisition of WhatsApp in 2014. The Division has been able to cut through the various algorithm pattern of the company in terms of storing data as well as monopolizing structurally through acquiring various platforms. The case is pending in the FTC chamber with a possibility of moving to a federal court in near future.

1.3 The United States Congress

The anti-trust matter has been of great concern for the Congress present in the United States. Commencing from the time of the Sherman Act in 1890 to evolving and passing the Clayton Act in 1914, both the houses have been actively participating in providing the best possible result and at the same time constantly putting in the effort to become

the premier institute of establishing the best possible structure which shall help in providing and improving the situation in the market and prevent any such dominance which would harm the market

1.4 United States Senate

The United States Senate has actively been participating in the field of Anti-trust and creating a safe niche with the passage of the Sherman Act, 1890 to counter the monopoly of Rockefeller and Hamilton.

With the coming in of the digital market competition, the US Senate provided for various committees and management to provide for amendments and sought for review committee that shall implement the idea of naturalizing the competition in the market.

The Senate in December 2019 emphasized the need to keep a check on the Vertical Agreements on the digital platform. With the passage of recommendations and adoption of resolutions, the Senate summoned Apple Inc. and Co. to question the monopoly being held by the company over the domination on the “online music platform.”

The Senate has carried out investigations substantially with much more efficiency which was overlooked by the other authorities taking cognizance of the same. With the best example of carrying on the case of Amazon’s dominance in the market, the Senate has questioned the marketing strategy and its pricing strategy being sold on the platform.

The Senate has been able to moderate the dominance of the Big-tech companies and controlling the structure with which they were able to misuse the loopholes present in laws, by-laws, FTC, DOJ, or even investigations carried by the sub-divisional structure of House of Representatives.

American Digital Market has evolved rapidly in the past 3 years wherein they have given themselves several of the by-laws, regulations, committee report which isn’t confined to the digital platform but also the structures. The actions of various departments have significantly contributed in regulating the market, however much of it is needed which will legitimise these rules and regulations which can be done by

passing a concrete legislation and provide a medium which will ease the work and burden on the various sections.

2.0 European Union

The European Union has been one of the front-runners in the field of Competition law. The Union has passed a few laws and by-laws to cater to the need of regulating the market. With the understanding and studying the structure of the market which is present in the Union and the countries who are member to the same, it was essential to provide for a comprehensive law that would help in regulating the market as well as establish a single market system, which would help in increasing the clarity for both participants and the regulators.

2.1 Introduction of the treaty on the functioning of the European Union

The Competitive market in the European Union has developed over a long period with the emphasis being made on formulating a single market system. To implement the idea of developing the laws in the Union and controlling the market structure to prevent the rise of Monopoly, Section 101 of the Treaty on the functioning of the European Union(TFEU) is quintessential to emphasize and develop the idea of a Single Market System to unify and provide one market to carry out the business.

The actions were swift and effective with the bringing of Section 101 of the Treaty. The market, being unified, also was availing the best possible opportunity to provide a market for all which would make it easier for traders and industries to come in and establish their business and carry out transactions in a Free and Fair manner.

2.1 Inefficiency of TFEU on the Digital Market

The quintessential of TFEU was to mainly control the market in a systematic manner which was physical and nature was to mainly control the higher chances of the dominance taking place by any chance. The market control was more emphasizing with the pattern and structure being followed under Article 101 and Article 102 of the TFEU.

Some of the inefficiency that can be observed in handling the anti-competitive digital market trusts are as follows:

- Meeting the evidentiary burden for effects, particularly for tying cases, makes it difficult to dispense off the cases.

- The idea of treating the industries and businesses on an 'equal level field' has increased in cases of discrimination of utility of the evidence.
- With its differences from the idea of Monopoly control from the United States, the EU is known to have been protecting the competitor instead of protecting the competition.

2.2 Case of Facebook in Germany

The German Federal Cartel Office initiated the process of Monopolisation of data collection against Facebook Inc. corporation. The company was charged over being the sole proprietor of the user data collected in the country over the period. The office initiated the case in 2016 and came to a conclusion in 2019 by providing a penalty and restricting the usage of user data and retaining any such data with themselves and not to be utilized for commercial purposes. With the case being challenged at the Dusseldorf Higher Regional Court and submitted the petition of selling data to the right company and not owning malignant information. The recommendation was made by the regional court to the European Commission to take cognizance of the idea and creating a factually based idealist idea. However, the German Federal court took Suo-moto's cognizance of the case and divided the idea into four basic principles.

The Federal court laid down certain actions against the company based upon the rules and regulations of the European Commission which are as follows:

Self-preferencing - particularly by giving preference to its offers in displaying results or by exclusively pre-installing its offers

- Unfair terms - another kind of impeding measures by exclusively pre-installing its offers or hindering other companies from promoting their offers by:
- Leveraging/bundling - hindrance of competitors in a market in which the undertaking, even without being market-dominant, can rapidly expand its position, in particular by various alternatives of combining independent services.
- Data requirements - establishing barriers to market entry or hindering competitors by processing competition-relevant data, especially by:

- a. making the use of services dependent on users agreeing to the processing of data from other services of the company or a third-party provider without giving users sufficient alternatives to choose regarding this processing, or by
- b. processing competition-relevant data received from other companies as a result of providing services for these companies.
- Interoperability and data portability - hindrance of the interoperability or obstruction of the portability of data.
- Insufficient information - lack of information to companies about the scope, quality, or success of services provided
- Requesting disproportionate advantages from another undertaking - especially by:
 - a. requiring the transfer of data or rights not strictly necessary for their display, or
 - b. conditioning the quality of the display on the transfer of data or rights that are disproportionate.

2.3 Effect of the case in the European Union

The case of Facebook in the Dusseldorf court laid the establishment of a revolutionary idea towards the European Commission. The action of the court made it possible for “tipping” the market to prevent from suffering any consequence was immediately removed. The German court was also able to restrict the Cartel Office from dominating and preventing any further assertive actions to take place. European Commission took note of the case and redefined the structure of the digital market in congruence with Section 101 and Section 102 of the TFEU.

2.4 Digital Markets Act, 2020 and its effect

The European Union realized the lackadaisical authority over regulating digital market under Section 101 and Section 102 of the TFEU, and there was a need for immediate action. European Union, with the rise in the Digital market, was in dire need of defining certain elements of the market as well as shaping the structure of the market. With the coming of the Digital Markets Act, the European Union was successfully able to provide for a new form of legislation in the market. The Digital Markets Act provided to

define the Gatekeepers of the market that include core platform services, Big-tech firms along with defining the essence of the market.

The act is yet to be implemented in the market as it is scheduled for 2023 which will have an effect over the entirety of Europe.

3.0 United Kingdom

United Kingdom is known to have developed one of the fastest growing Competitive Markets with its exit from the European Union, formally known as Brexit. The Government realised that the legislation laid down for the offline competitive market is a long due process which takes longer whereas the digital market is a fast paced and needs to be solved at the earliest time without any delay or ambiguous provisions.

To provide a concrete solution to the problem of handling cases of Digital Market, the Competition and Markets Authority(CMA) laid down the guidelines for the same.

The CMA released its first Digital Market Strategy in 2019 with which it was able to redefine the market on the digital platform along with the idea of establishing grounds on which the anti-competitive agreements might come in and the intervention of the Authority is required.

3.1 Effect on the market with the introduction of the Digital Market Strategy:

The United Kingdom Competitive market has developed the digital competitive market with its well-defined structure of the Digital Market Strategy which has the following impact on the country's economy:

- The pro-competition regime structure has enabled the CMA to easily find the agreements which can have Adverse effect on the Competition in the Digital market and can issue notice faster to those companies.
- The DMS has successfully enabled the CMA to keep a check on the Big-tech firms such as Google and Facebook for their ad-revenue strategy and has helped in identifying the loopholes being used by these firms for so long.
- CMA along with Information commissioner's office has established Digital Regulation Cooperative Forum that has helped in constantly balancing the relationship between the companies and CMA.

- The Digital Market Strategy, with its refining strategy has helped in reducing the data control by the Big-Tech firms and has given success to National Data Strategy which was passed in 2020.
- With the establishment of Non-statutory Digital Markets Unit, the CMA has been able to reduce its burden and sustains by giving out the variable experience.

The Digital Market in the United Kingdom has been of a greater control which makes it more competition based strategy rather than the competitor based strategy. When looked at, a market initially provides for such circumstances wherein the physical laws become redundant and the loop holes present in those laws are misused by the companies for their gains on Digital Platform. The idea of competition based strategy was also utilised by the European Union which was previously competitor based, thus reducing the scope of improving the condition of the market as it confined just to one aspect of the market.

4.0 PEOPLE'S REPUBLIC OF CHINA AND ITS DIGITAL MARKET

With an ongoing rise in the economy in the past four decades, the Midland Asian country has become one of the front-runners of a free market. The free market as it is said, has been given a platform with which they can outgrow and become a global leader and trader. One must note that the steps initiated put forth the China made arguably the most important digital strategy decision in the history of the IT industry. It decided it would not let the giant U.S. dot-coms—especially Google, Facebook, and Amazon—just set up shop and dominate the Chinese market the way they were doing in so many other nations. Instead, it significantly limited the role of or banned U.S. firms, creating time for its own firms—especially Baidu, Alibaba, and Tencent (often called BAT)—to build similar services, or at least initially copies of U.S. services.

Together, Baidu, Alibaba, and Tencent (BAT) for years have been cast opposite Facebook, Amazon, Netflix, and Google (FANG) as China's dominant tech giants. Baidu controlled China's search engine market, Alibaba e-commerce and online advertising, and Tencent messaging and social media, while each has online streaming platforms. And BAT played a key role in Chinese innovation, provided 42 percent of China's venture capital investment in 2016, dwarfing FANG's 5 percent of U.S. venture capital.

The market giants of Asian continent have observed a steep rise and was becoming difficult to control. The market was becoming open and consisted of many participants along with the rise towards the cartelisation, both on physical as well as on virtual market.

4.1 The guidelines on Anti-monopoly practices and its effect

To counter the rising anti-competitive tactics, methods and inevitable idea of providing a safer market, the Chinese State Council in 2008 passed the Anti-monopoly laws to control the rise of actions which involve in the creation of strategies which cater to control the industries that have been putting forth the idea of cartelisation as well as predatory pricing. However, with the idea of digital market coming on the rise, there was a drastic change in the formation of the laws. The Chinese Government was in dire need

4.2 Anti-Monopoly Law, 2020 and its effects

After regular deliberations and negotiations, the State Administration for Market Regulation(SAMR) passed the Anti-Monopoly law on virtual platform with passage of the draft of Guidelines for Anti-monopoly in the Platform Economy in order to prevent and stop monopolistic behaviour in the platform economy, guide operators to operate in compliance with laws and regulations, and promote the sustainable and healthy development of the online economy.

4.3 Effect of the Anti-Monopoly practice by the State Administration for Market Regulation

- Business operators have been prohibited from implementing or assisting unfair competition on the internet, including but not limited to disrupting the order of market competition, affecting fair transactions in the market, or directly or indirectly damaging the lawful rights and interests of other operators or consumers.
- Businesses are further prohibited from confusing customers through unauthorized usage of the same or similar logos, product names, designs, etc. They are also prohibited from employing false or misleading commercial publicity on attributes such as performance, function, quality, honors, sales status and business data of the operators themselves or their products. Additionally, they cannot use the internet to

fabricate or spread false or misleading information to damage the commercial reputation and product reputation of competitors.

- Market Supervision Departments at the county level have been empowered to investigate and deal with acts of unfair online competition. Units or individuals have the right to report suspected acts of unfair online competition and industry associations have been encouraged to conduct research and analysis to guide compliance towards the regulations. For new and difficult cases, the departments may hire expert observers to assist in the investigation.

4.4 The Case of Alibaba

The dominant position of Alibaba, operator of two e-commerce platforms (Taobao and Tmall), was ascertained on the basis of its market share exceeding 50% in 2015-2019 calculated in relation to the total sales value and total revenues realized by Alibaba in the given period. By fixing commission rates, using platform rules and algorithms (for searches and pricing) Alibaba was able to significantly affect the sales of individual traders.

With the coming in of the regulation, SAMR was able to identify the loopholes through which Alibaba was able to dominate the digital platform. In April 2021, the Chinese Government was able to impose a sum of 2.6 billion US Dollars for violations of the Anti-Monopoly Laws for dominating the digital market.

4.5 The Case of Didi

China's top vehicle manufacturing company, Didi has been able to provide for a sharp boost to the economy, both on physical as well as virtual. With over 99 subsidiaries in China and other countries, the company has been able to ascertain a sum total value of 80 billion US Dollar in the month of June 2021. The hail-riding giant of the Chinese origin was charged with anti-competitive actions which has changed the structure of the market and removal of small competitors from the market. SAMR has investigated to Predatory pricing as well as Vertical agreement which is being investigated at current time by the SAMR as well as providing for the best possible understanding analysis.

This come has in light with the fact that the company has initiated its IPO in the New York Stock Exchange with a sum of 4.4 billion Dollar.

4.6 The case of Tencent

The Multi-national Corporation formed in 1998 is one of the two-great Big-tech firms that has heavily invested the field of digital technology ranging from Gaming to software developments. With the implementation of the New Anti-Monopoly Law, the multi-cognate corporation has attracted the attention of SAMR to investigate in to the matters of predatory pricing, price fixing, Vertical Agreement, Restricting the entry of other competitors in the market and taking control over the market.

The company has also been accused of misusing the technology present in the market with which they have taken to manipulate their stocks listen in the Hong Kong Stock Exchange.

Tencent also, faces penalties for not properly reporting past acquisitions and investments for antitrust reviews, an offence with a fine capped at 500,000 yuan per case, and for anticompetitive practices in some of its businesses, with music streaming in particular focus, said the sources.

In accordance to the sources from within the SAMR, “Tencent should expect a penalty of at least 10 billion yuan (\$1.54 billion), significant enough for the State Administration of Market Regulation (SAMR) to make an example of it.”

The regulation of the Chinese market has become quintessentially an important factor through which various steps and have improved drastically to prevent any further damage to the market. The SAMR is still open to the ideas and public feed back till the First of October 2021, post which they shall amend accordingly.

5.0 LESSON FOR INDIA TO IMPROVE THE DIGITAL MARKET LAWS AND BRING ABOUT A CHANGE IN THE SYSTEM

India, being one of the front-runners of establishing one of the most free and fair based digital market system, there are a few places wherein the market might be well established but not well regulated. As observed in the above cases, it is clear cut that the competition laws which intend to control the physical laws cannot be used to control or regulate the online market. There are several steps which India can take, as a result of which it can hold on to provide a freer and fairer market with which they can give a better shape to the world of developing digital market.

- ➔ Firstly, there is a dire need to provide for a definition which would define as to what constitutes of a digital market and how many different types of formation can exist which can come under the digital market. To understand the types of Digital market and their algorithm, the Ministry of Information and Technology's help can be taken.
- ➔ To form a tool for the market place wherein the barter system works and the transactions carried, and to assess price which is to be paid for quality-assessed products i.e. for a good or service in a barter transaction with a zero, or near zero monetary price.
- ➔ For cases pertaining to foreign lands affecting the Indian market, India can seek to adopt the idea of Germany's German Act against Restraints of Competition (Gesetz gegen Wettbewerbs beschränkungen – "GWB") under which the Section 19(a) provides for creating power and increasing the jurisdiction to matters pertaining to digital market influence on the economy.
- ➔ To counter the rise of Big-Tech firms on the Indian digital market, India can adopt or seek to move ahead with the Ex-ante laws which shall help in developing the laws ensuring a good level of response to digital markets, which requires nuanced understanding of the underlying technology and economics. Moreover, the system, since it will be divided, can also keep a check on a regulator's 'confirmation bias' in ex-post proceedings if a firm escapes negative decisions in ex-ante proceedings.
- ➔ There is a dire need to provide a transparency between the Businesses and the business they are catering (B2P). There have been instances of customers who were catered by restaurants to be provided with the Service neutrality platform as they were not being made aware of the process through which the websites were sending messages to the restaurants as well as the plaint on the side of sellers about the way in which their restaurant is being displayed. The Government, like the European Union, must pass guidelines which shall provide an emphatic guidelines which shall prevent the cartelisation or any collusive action.
- ➔ The requirement of burden of proof on the plaintiff/informant in the sophisticated digital market should be relaxed. If needed, the onus can be transferred to the defendant wherein they have greater knowledge and access to the relevant

information. The European Commission in its report also suggested to reduce the criminal culpability and the burden on plaintiff should move towards the defendant.

- ➔ The data collectors such as Facebook, Whatsapp and Hike are the key holders of the private information which can be misused or infringe upon the personal rights of an individual. In accordance, the legislation should move ahead with the Personal Data Protection Bill, through which the control can prevent any misuse of the data as well as keep a check on what data is being sold to further strengthen and improve the condition.
- ➔ Conducting regular investigations along the lines of creating a better and safer space for the market participants shall definitely help the Government in regulating a free and fair digital trade market. Understanding the Algorithm along with the changes brought on the marketing strategy must also be legitimised through legislations, and if needed, taking the advices of the Information and Technology Ministry.

6. CONCLUSION

With the rise of Digital market on a global level, it has become quintessentially important for countries to control their respective market before a cloud of abuse of dominance comes in to existence. The three countries/ Unions as discussed above have realised the need for separate laws to keep a check on the digital market. India, being one of the contenders on the global level, needs to bring a certain change to the table with which they will be able to provide and improve the condition as well as provide for an ideal market system. For the system to grow and become a well established system, there is a need for gradual shift than an immediate one. Much has been done but much is in need.

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CORPORATE IMAGE, REPUTATION MANAGEMENT AND ORGANISATIONAL BRANDING

Dr. Ifeanyi M. Nwokeocha and Uwem A. Akpan

ABSTRACT

The study aimed at investigating the nexus that exists between corporate image, reputation management and organisational branding. The researchers adopted explorative research method where they mainly relied on secondary sources of data, such as textbooks, book chapters, journals, online sources, etc. Various literature and concepts related to the work were reviewed. The paper relied on the social exchange and the big bang theory as its theoretical framework. The paper revealed that organisations can only succeed when there is a robust relationship between it and its various publics which must be founded upon proper management of the organisation's corporate image, reputation and careful branding. The work further showed that corporate branding and reputation management are potent tools in modern business. It recommended that organisations should adopt laid down principles that would help it communicate effectively with its various publics, public relations managers must perform their functions effectively to help their organisation have and maintain good corporate image and reputation among its various publics.

INTRODUCTION

All over the world, every business, institution, organization and everything succeeds or fail based on the interface between it and its various publics and even stakeholders. This relationship which must be robust rubs off on the corporate image and the reputation of the organization and its brand. Reputation management concerns the strategic design of communication (Waeraas & Dahle, 2020). Some meanings of corporate reputation management hint on the role of organisational leaders and spokespersons in influencing the perceptions of a firm as held by its publics (Berens, 2016).

There is no gainsaying that this image and well manage reputation influences the public, to a large extent determines how they perceives the organization and how they ultimately relates with it.

This is why corporate branding has become of the potent tools in modern business management in recent times. Its influences have been felt in various organization (large and small). Hence, the need to understand its potentials and limitations.

This, therefore, goes to confirm that there is an image every organization carries which tends to determine actions and inactions of the public towards it and even its brand.

An excellent image building practice would seek to influence public opinion, public attitude and maintain public confidence (Udeze and Onyenho, 2012).

Consequently, this paper seeks to investigate the nexus that exist between corporate image, reputation management and organizational branding.

METHODOLOGY

This study was based on explorative or qualitative research method and it relied mainly on secondary sources of data like books, articles and online sources from journals and previous researches of other scholars. This paper was an explanatory or conceptual review on the subject matter of discourse.

LITERATURE REVIEW

Image: An Overview

The concept of image has multifarious definitions and explanations based on individuals, groups, organizations, institutions and nations. Image is identifiable with personalities, groups, organizations, institutions or nations. It is embodied in the entity, and lives with it; projecting this personality to public glare. It is the branded identity of such an organization. Image perception of an entity determines how its host community and public relate with it. It exerts positive or negative influence on public attitude towards the organization and its activities. Image elicits trust Okafor (2006, p. 116) posits that:

The word “image” is similar to the term “stereotype” and is associated with “prejudice”, which in its Latin form simply means “prejudging” a matter before the evidence... It is obviously impossible to have an image of something with which one has no contact, and images about remote things are generally quite feeble and susceptible of change.

This, consequently, provides a platform for this study on the premise that no one can prejudge an institution or organization he/she does not have contact with or connection to. However, Okoro, Udeze and Agbo (1999, p. 125), agree with Nzeribe (1996, p. 17), that image is the totality of impressions people have about a company, an individual, an organization or country. According to Nzeribe, it is the personality of an organization as perceived by its various publics. Jefkins (1998, p 1), on his part, sees image as being only what is in people's minds. According to him, this can be favourable or unfavourable. It can be positive or negative as well. Okafor (2006, p. 114), however, looking at it from corporate angle offers that corporate image is a mental conception held in common by members of a group and being symbolic of a basic attitude and orientation towards something (as a person, class, racial type, political philosophy or nationality). She goes further to posit that the word "corporate" would refer to the group holding the image in common rather than to the object of the thinking. Olukolade (2005, p. 7), in his own analysis of the concept posits that:

Image being the impression, view or opinion held about a person, organization or institution invariably represents the true or false picture of the organization concerned. Often the image is derived from the idea established over a period of time through knowledge of experience which could sometimes be biased or simply based on prejudice. False and parodied sentiments could be the sources for building impression or image. This is the basis for the indispensability of good public relations input for organizations to prevent or combat negative reporting or information on its activities.

According to Claude Robinson and Walter Barlow, writing in September 1959 edition of *Public Relations Journals*, quoted in Okafor (2006, Pp. 114-116), corporate image is a convenient and helpful way to visualize people's ideas about companies. The scholars went further to argue that corporate image lends itself to measurement and analysis. A corporate image situation can be diagnosed, programs can be worked out to deal with it, and results can be measured. Or, in other words, the concept of the corporate image first very practically into the working day world of operations.

However, Robinson and Barlow go further to advance that corporate image means simply the mental pictures that people have in their heads about companies and

corporations. These mental pictures, they posit, may come from direct or indirect experience. They may be rational or irrational, depending on evidence or hearsay, appear in an infinite number of patterns. This position, however, tends to point clearly at two different but competing variances-a corporation or institution and the tendency or ability of the host community to hold an image of it corporately.

Image project, according to Okoro, Udeze and Agbo (1999), suggests that no individual or organization can survive without public support or at least public sufferance. This attitude of an institution towards its publics determines how they relate with it and this goes to a large extent to determine the success or failure level the institution attains at each period of its existence.

Based on the arguments advanced far, it is quite convincing that image is not tangible, or a feeling, but an impression registered in the sub-consciousness of the public based on how the activities of the organization and the behavioural pattern of its staff or community affect its publics.

CLASSIFICATION OF IMAGE

According to Olukolade (2005, p. 9), it is this endeavour to respond or adjust to the identified image types that is referred to as reputation management. Image types, therefore, could be classified into the following:

- a. **Current Image:** This refers to the prevailing impression held by the general public or average people about an organization based on their knowledge and experience about the organization based on their knowledge and experience about the organization and its activities which informed their attitude in relating to its members and the establishment. This is based on the understanding of the philosophy behind the policies of the organization and how the management endeavours to market such policies to its publics.
- b. **Mirror Image:** The mirror image, also referred to as patriotic image is often unrealistic and incorrect positive impression which the management or leaders of an organization and others within usually believe that its outside publics have of it. Most times, this hinges on over-estimation of an organization before its publics, although with adherent dangers.

- c. **The Wish Image:** This is the impression that the general members and management of an organization desire to achieve over a period of time. Consequently, the management sets a target image (which is at times, embedded or woven in their vision, mission or objective), and works towards achieving it.
- d. **Corporate Image and Identity:** Corporate image and corporate identity are so intimately related that their differentiation by experts and professionals has posed some difficulties. Nwosu (1996, p. 126), argues that corporate image tends to be associated more with mental, thought, intangible, invisible things or impressions while corporate identity tends to link with visible things or impressions while corporate identity tends to link with visible symbols. Corporate image is based on the totality of the inputs and outputs of management of any company or organization. Similarly, corporate identity is the impression conveyed through peculiar symbols, insignia and visual representation of the organization's location and environment, property and equipment through which it makes physical contact with its external publics.
- e. **Multiple Image:** There can be as many images as there can be different departments of an organization; all working towards fulfilling the uniform or corporate image thereof. This may arise as a result of the different ways of implementing the same organizational policies by the different departments or branches of the organization, more so when such branches are far-flung from each other in different cities or regions.
- f. **Social Image:** This is the impression formed by others who have had dealings or contact with the services of the organization, relating the effect on their own lives and society at large. Social image emanates from the social relationship between the organization and its publics or on its community relations.
- g. **Stereotypic Image:** This is the image of an organization based on existing stereotypes held by the public about it. Such image is usually wrong, negative and unrepresentative. Stereotypic image has a way of persisting and determining the way people see or perceive the organization. This type of image creates corporate organizational problems and does not apply to the generality of the entity.

Image could however be good or bad, favourable or unfavourable, negative or positive sustained or damages based on the situational contingencies of the organization or institution. It is the duty of the public relations executive of any organization, therefore, to ascertain the image of the organization per time, and strive towards making it better. A better image has to be earned by putting right the causes of bad image-whether they are faulty behaviours of the staff or faulty information. It is calamitous to attempt to falsify the image of the organization at any point in time. Image is not static. It is fragile and dynamic; thereby needs careful handling.

Image is everything an organization needs to succeed in the contemporary business world. George Baker, quoted in Okoye (1980, p. 290), once told a reporter “it’s none of the public’s business what I do”, while J. P. Morgan, told another reporter “I owe the public nothing.” William H. Vanderbilt, in the same vein, exclaimed to a reporter who spoke to him insistently of the public interest “the public be damned!” These people refused to understand that to damn the public is to damn the public sufferance and by extension, undermining the corporate image of the organizations they represented. Corporate image is everything to place the organization where it should rightly belong.

Importance of Corporate Image

One of the most important tasks of public relations is to influence the formation of good corporate image. Kotler (1988) said that the only way to compel a manto speak well of you is to do well. Just as there are no successful companies without some kind of image, good, bad or indifferent, so there are no successful companies without a good image. The importance of good corporate image is highlighted below:

1. A corporate image creates confidence in any product that bears a company’s name (identity).
2. It helps assure acceptance of a new product in advance.
3. A corporate image gives a company an edge in attracting good clients.
4. It helps attract capital to company at favourable terms.
5. It gives a company an edge with dependable sources of supply, helps it secure efficient profitable distribution.

6. It helps a community understand a company and accept it as a good neighbor.
7. Corporate image can open minds as well as doors hold decisions until your story is heard (Chukwu, 2005).

Image Building Process

Building and sustaining corporate image is expensive and time consuming. Many times, people use to associate image with brand. Contrary to this widely held (although erroneous) belief, the image of an organization is not built on logo, colour or slogan. It is the totality of the customer/clientele experience from the interactive interface with the organization from the security man at the gate up to the highest executive officer. This stems from their behaviour within and outside the organization's premises- the way they speak to their publics, the work environment, the speed and efficiency of the service delivery, the product(s) they market, the value they create, the promises they make and keep, even the way they behave and dress.

Image building, is not a-one-day effort. It takes a longer time to build a sustainable and enduring image. This, however, has a lot to do with corporate public relations, otherwise called image protection public relations.

According to Akande (1999), quoted in Okafor (2006, p.119), all the activities under corporate public relations are targeted towards the projection of a good and appreciable corporate image. This stems from the impression created and maintained in the public mind that the organisation is a good corporate partner, dependable, law abiding, and major contributor to the activities of its community. Corporate public relations, therefore, hinges on all the efforts of corporate image in building a corporate identity.

Okafor further advances the recommendations of the April 1958 study by Opinion Research Corporation which could form the fundamentals for building a lasting corporate image. These recommendations include:

1. Map out the strengths and weaknesses of the corporation's existing image.
2. Consciously plan and write out a definition of the corporate image which it wished to project. Questions such as "who are we?" "What do we stand for?" "In what ways are we distinctive?" And "How would we wish to be thought of?" Are in order.

3. Create selling themes for projecting this image to the publics.
4. Utilize all means of contact to build an image- advertising, employees, salesman, letterheads, product, slogans (shipping cases, everything possible).

Image building process entails not attempting to create illusions in the minds of the public, as many organizations and institutions do, by pretending to be good and responsible through the sponsorship of some major activities in their respective communities. They may want to project a fantastic image to their publics while they face quantum of crises within. They may wish to believe or assume that in as much as these publics see them as community friendly; they may perceive their image as being on the positive side. This, however, has been the undoing of many organizations.

In building a good image, Latimore, Baskin, Heiman, Toth and Leuven (2004, p. 235) advice that the organization must take precautionary measures viz:

- a. Do no harm. Efforts to building image should not be injurious to the institution or the host community.
- b. Communicate with the recipient. All efforts towards image making should be in close partnership with the recipient of the gesture.
- c. Target contributions toward specific areas.
- d. Make contributions according to statements of corporate policy.
- e. Plan within the budget.
- f. Inform all persons concerned
- g. Do a later follow up
- h. Remember that more than money may be needed.

Reputation: What it is

Oxford current English Dictionary, (1990) defines reputation as, “what s generally said or believed about a person or thing”, and also as “the state of being well thought of”.

And Merriam – Webster dictionary defines it as “overall quality or character as seen or judged by people in general... a place in public esteem or regard; good name”.

The above dictionary definitions, focused on individuals, and give strong indications of the elements that are relevant in organizations.

However, in the corporate world, reputation is seen as a major elements of an organization's provenance alongside and included in financial performance and innovations. According to Paul and Bob cited in Agenti and Druckemilter, 2004, p. 369) it is a 'collective representation of multiple constituencies' images of a company built up over time. It is also linked to the organization's identity, performance and the way others respond to its behavior. It is not a self-promoted image but a collective representation of images and perception. It involves a relationship with all the stakeholders, gained maintained and enhanced or detracted maintained and enhanced or detracted from time to time.

Components of Reputation

According to Whecter (2011, Pp. 9-10) the six (6) components are:

- **Be obsessed with your Product or Service:** Nothing comes close to superior product quality in influencing the way people feel about your organization.
- **Deserve Confidence:** Lead from the front and engender trust from employees and customers.
- **Be Available:** Don't hide behind a wall of middle managers and advisers. Build relationships with customers, employees and suppliers.
- **Admit mistake:** If mistakes are made, admit them and respond rapidly.
- **Engage Peoples interest:** For CEOs and companies, taking up a public cause separate you or your comoany from the rest. Get all staff involved.
- **Have something to say:** Most people think business is boring, so make it interesting and human. CEOs can use their own and the business's personality to communicate with impact and colour.

Difference between Corporate Reputation and Corporate Image

	Corporate Reputation	Corporate Image
Definition	The beliefs and opinions that	Visual, emotional and

	customers, employees, partners, regulators and communities hold about a firm	conceptual impressions that the public hold about a firm
Focused on	Regulators, partners, media, customers, employees and communities	Customers and media
Scope	Beliefs, opinions and ideas	Visuals, symbols, emotional, impressions, concepts, beliefs, opinion, ideas

Reputation Management: What it is

The question of the validity of the term ‘reputation management’ is also the core of this paper. All organizations have reputation, be it good, neutral or bad. But, how well can this be manage, controlled or directed?

According to David Finn in Hutton et al (2001, p. 249), reputation and ‘image’, are not generally directly as they are always there as a results of the individual or the organization’s behavior. But experts believes that losing reputation is a far greater for an organization than losing money. So we see questions about the validity of reputation management balanced against the reality of the importance of reputation for business.

Fombrun (1996) believes that reputation is build in a planned manner by organization taking necessary notice of the environment in which they operate. Here organization must build their reputation by developing practices which integrate social and economic considerations into their competitive strategies. They not only do things right – they do the right things. They act like good citizens.

Public relations are very essential for good reputation management enhancement since it is about the image of an organization. This is because the concept of public relations is firm on art and science of creating and maintaining mutual understanding and acceptance between humans, individuals, groups, organizations, companies, etc. (Ajaca,2005).

The acceptance of an organization is based on the reputation or image that such an organization is known for, as no one wants to identify with failures.

That is why Nnamani (2016) quoted Harlow(1977) who defined public relations as a distinctive management function which of communication, acceptance and cooperation between an organization and its public, involves the management of problems or issues, helps management to keep informed on and responsive to public opinion, defines and emphasizes the responsibilities of management to serve the public interest. All these are aimed that maintain a favorable image/reputation of the organization concerned.

That is why public relation professionals are to be proactive and not reactive. They should not allow issues get out of hand before handling them; they work with the media to ensure that any situations that can tarnish the images/reputation of the organization are nibbled at the bud. They do not wait until crisis escalates before they try to launder the image. This they also do by constantly getting the opinions of the public about their organization. They also organize special events aimed at informing the public about the activities of the organizations, especially programmes that would directly benefit members of the public. They more often engage in activities that would protect their organization as the best (Ogbemi, 2014). What happens is that public relation strategists work with top executives in the organization to craft an overview of how the company wants.

Again, the UK's Chartered Institute of Public Relations places reputation at the forefront of its definition of public relation, when it stated that "public relation is about their reputation, the result of what you do, what you say, and what others say about you".

This means that public relation is reputation management and further explains why crisis management is an integral part of public relations (Akakwandal, 2014).

Crisis management entails managing public relation problems, with a view to maintaining acceptable image/reputation with the public's. This accounts for why there are different strategies by different public relation practitioners for handling crisis/conflict situations. When there is a crisis situation, organizations, companies worry about what is at stake (reputation) and the future of organization. Reputation, like beauty, is in the eyes of the beholders, so, organizations ensure that they put

everything in place to present their image/reputation the way they want to be perceived in the eyes of the public (Barnett and Pollock, 2012).

Furthermore, Hon.(2008) argues that the goal of public relation was to communicate the image of organization, and reputation was one of the independent variables of public relation effectiveness.

This presupposes that all public relation effort are aimed at making sure that the reputation of the organization is protected and whole accepted without which, the whole essence of public relations practice must have been defeated.

No doubt, hospitality outfit particularly hotels; have engage the service of public relation professionals to manage their reputations, as their duties include offering hospitality services to different kinds of publics.

However, the paradigm of reputation management is that the organization's reputation is dependent on its behaviour as a corporate citizen part of the societies in which it operate. Reputation considerations are embedded in policy and actions, not just bolted on when convenient. (Fombrun, 2002 and Hutton, et al (2001).

The Concept of Branding

The concept of brands emerged from the domain of consumer products and was originally considered more or less synonymous with that category. Over the years, marketing scholars have differentiated brand concept and widened meanings to include corporate as well as, product brands and recognize the fundamental differences between these levels.

Corporate branding entails a different perspective and management approach. It involves largely focused factors within the organization. The concept of corporate branding has been defined by many scholars in different ways and the strategy taken into consideration towards branding a corporation from different perspectives to customers.

According to Balmer (2001) corporate branding is a term, name, sign, design, symbol, or a combination of these elements intended to identify and differentiate a company's service or product from those of the competitors in the minds of the customers.

Corporate branding goes beyond, product branding by ignoring product features and focuses on well-defined set of values. Which suggest that, corporate brands differ from product brands with a higher strategic focus, internal and external targets and incorporate corporate strategy to derive set goals of the organization (Aakar and Joachimsthaler, 2000).

Hatch and Schultz (2008) defined corporate branding as the process of maintaining alignment among corporate brand perceptions from the three main perspectives of strategic vision' organizational "culture", and stakeholder image', on the basis of organizational identity". In this definition, alignment between different stakeholder perspectives is central.

Thus, among the most widely used definitions is the concept of corporate brand as an organizational identity type, expressions of brand promise and sustaining alignment among various types of organizational identity and stakeholder perceptions upon the corporate brand. Therefore, corporate brand is constantly negotiated between internal and external stakeholder perceptions that are reciprocally influential (Urde, 2003).

Much corporate branding research has been done to date on the stakeholder's bases which are in some ways directly related to the marketing discipline or constituents, from customers. Among the different stakeholders group that deserve research attention, the employee's base is still comparatively under research on the subject of corporate branding especially in the light of the crucial role of employees in the formation and success of the corporate brand (Maxwell and Knox, 2009).

Corporate branding is a systematically planned and implemented process of creating and maintaining a favorable reputation of the company with it's constituent elements, by sending signals to stakeholders using the corporate brand (Riel, 2017 cited in Einwiller and Will, 2002:101).

Corporate branding according to Balmer (2001) is seen as a conscious decision by senior management to install or make known the attributes of the organizations identity to form a clearly defined branding proposition. This proposition underpins organizational efforts to communicate, differentiate, and enhance the brand key stakeholder group and networks.

Also, Urde (2003), defined corporate branding as maintaining alignment between core values of the corporate brand, added values, (values appreciated by external stakeholders) and organizational values (internal values through employees attributes and behaviors, and products or services). This implies that, values need to be constantly used as external values and internal values are adapted equally. In this conception, however, customers values are somewhat, prioritized over other stakeholders values.

Through corporate branding conceptual scopes and functional responsibilities were also broadened, in brief, the focus on consumers extended to become a focus on multiple stakeholders, the ultimate responsibility for the corporate branding became that of the chief executive that of instead of marketing managers. It became everyone's obligation to contribute to the corporate brand not just marketing staff; marketing communication was replaced by total corporate communication. And, functional disciplines associated with corporate branding were redefined, to be cross-disciplinary rather than, marketing only (Balmer and Gray, 2003).

Through corporate branding, a company or an organization has need to establish an effective two-way communication flow to reduce for adverse effect on the organization and the public. The reason is that it bridges the gap for misunderstanding and disharmony, unnecessary tension between an organizations and its internal (employees) and the external bodies (customers). The lack of two-way communication could lead to voluntary resignation of experienced key personnel of organization. The result of the effect is not only tarnishing the public image and patronage perception but can also ruin the entire organizational activities.

Organizations also need to pay more attention to brand team, aware of their strength and weaknesses. The increasing heterogeneity of brand teams under corporate branding should enhance the resources of the brand team to arrive at a congruent brand perception by the customers.

Despite the concept of corporate branding, there is need to establish feedback mechanism which will help the corporate branding effort in the communication between the organization (banks) and its publics.

Relevance of Corporate Branding

The following are the relevance or importance of corporate branding to an organization or company.

1. Corporate Branding is considered a dynamic process linking corporate identity and corporate image. This deals with gradual changes in its essence to identify the corporate image of an organization and the establishment of favorable reputation with/between an organization and its publics (Rode, 2004).
2. Corporate branding is relevant because it represents the company's internal part of a corporate brand. A strong corporate brand is developed only if; corporate identity and corporate image are consistent (Hatch and Schultz, 2001).
3. Corporate branding is the conceptualization of the sum of corporate culture, corporate design, corporate identity, corporate behavior, and corporate communication. It links between vision and organizational culture (Hatch and Schultz, 2001).
4. It brings the marketing ability to use vision, and culture of company explicitly as part of its unique selling proposition (Balmer, 2001).
5. It is also important so as to know the behavior and the organizational culture of the organization. To this end, corporate branding is relevant because it provides room to broaden the partners and investors knowledge on the behavioral pattern of company's and the vision or culture of the company to its respective publics which gives them outstanding features (Wilson, 2001).

Importance of Branding in an Organization

Organizational branding offers an abundance of advantages which include:

- **Recognition:** Consumers are more likely to support a business or organization they are familiar with no matter how minimal the recognition is. They keep coming back and also making referrals.
- **Focus:** Branding helps you to concentrate on goals and avoid being distracted by efforts that don't support your strategy.

- **Cutting through the Clutter:** Consumers are busy and have short attention spans. You have limited opportunities to get your attention. Your brand must be powerful and compelling to arrest their attention and help them to remember.
- **Standing Out:** Competition is fierce on the global market place. Consumers have many options, so your brand should help to distinguish your business from others.
- **Clarify for your Core Audience:** Branding helps those who matter most to you – employers, customers, etc – know who you are, your value and expectations. (Kaitlyn P. (2021).

What makes Organizational Branding Successful

Several elements makes an organizational branding successful, and strong, such as:

- **Uniqueness:** Effective branding helps distinguish your brand from others in the space.
- **Authenticity:** Powerful branding is genuine. Tells your audience about you and reinforces it.
- **Relevance:** Your branding should communicate how it adds value to the lives of your customers.
- **Consistency:** Strong branding evolves to meet the needs of its audience and changing times. But, it does change, you need to bring a relationship.
- **Audacity:** Compelling brands are not afraid to make decisions and be who they are. They take risk occasionally to gain the competitive edge. (Kaitlyn, Partington, 2001)

Components of Corporate Branding in an Organization

- **Corporate Communication:** Corporate communication is a complex issue associated with the manner in which the organization communicates with it's various stakeholders. Corporate communication can both be controlled and uncontrolled in nature (Bhattacharya and Sen. 2003).

Management communication is perceived as being the most important, of these methods as it involves expression of organizational goals directly to internal stakeholders (Melewar and Woodridger, 2001).

Furthermore, through communication directed at the external stakeholders management communication plays a fundamental role in developing the desired corporate image and creating a strong competitive advantage (Kirikiakidou and Millward, 2000).

- **Corporate Culture:** The organizational core values, behavior and beliefs are reflected in its corporate culture. However, this view is a little misleading. Commentators have embraced a different perspective, viewing the organization as an amalgamation of subcultures (Melewar, 2003).
- **Corporate Strategy:** Corporate strategy is the blueprint of the firm's fundamental objectives and strategies for competing in their market. As a component of corporate identity corporate strategy, as a systematically planned and implemented process, is implemented to create and maintain a favorable reputation (Kirikiakidou and Millward, 2000).

Corporate Branding Strategies

Van Riel and Bruggen (2002) see corporate branding as a systematically planned and implemented process of creating and Howeve maintaining a favorable reputation. Corporate strategy, business model, organizational culture, pace of innovation, added-value, level, resources and brand visions are factors that should be taken into account when choosing a branding strategy (Kapferer, 2008).

Corporate branding is one type of brand architecture, a chosen strategy by companies on how they want to create their brand presence in the market. It is associating the name of the company with the individual name, a specific brand strategy using the name of the company for all the company's products or service. This means that only the mother brand is used, and all products carry its name more precisely, when the corporation itself is branded, not the individual product (De Mooij, 2010).

Several authors have studied branding strategy and identified them which are:

- **Individual product and corporate branding:** Individual branding or individual product branding is a branding strategy in which products are given brand names that are newly given or created and connected to a generally existing brand by the

company. While corporate branding is the process of maintaining a favorable reputation of the company.

- Endorsement branding strategy is a version of double branding it makes the product name more significant and the corporate brand name is relegated to a lesser status. It is only mentioned as an endorsement to the product brand at large, the brand seeks to stand on its own (Laforet and Saunders, 1999).
- Muzllec and Lambkin (2008) identified two types of branding strategies which are; integration (ascending brand extension) and separation (descending brand extension). They proposed three types of branding strategy within the brand architecture: trade name, business brand and holistic corporate brand.

Most companies employ mixed strategy but this work briefly characterizes the two extremes: corporate brand strategy is the process whereby a company identifies which brand elements are necessary to create the appropriate and feasible brand proposition to the target group while product brand strategy is how a product interacts with its consumer audience through design, logo, and messaging, etc.

REVIEW OF EMPIRICAL STUDIES

The following studies were reviewed hereunder

Omale, J. Adejo (2007). Public Relations and the Corporate Image: A Study of United Bank for Africa and Intercontinental Bank PLC. A Research Project Written in Partial, Fulfillment for the Award of Master of Science, (M.SC) Degree in Public Relations. Department of Marketing, Faculty of Business Administration, University of Nigeria, Enugu Campus. www.fiste.org

This study was embarked upon with the view of exposing the gains of good public relations practices in organizations and what they stand to benefit from a good corporate image. The objectives of the study were to: appraise the effectiveness of public relations and the corporate image in establishing and sustaining customer loyalty in the banking sector; identify and appraise various public relations practices /activities embarked upon by organizations to achieve a good corporate image; analyze the objectives of these public relations practices/ activities and its importance; identify, the various public

relations programmes and/or strategies crucial to achieving a good corporate image; identify public relations strategies that are crucial to achieving corporate goals and objectives; know how public relations strategies refine and put premium on the attitudes and corporate image of organizations.

In carrying out the study, the survey research method was adopted with the use of questionnaire as the major data gathering instrument. The study had a sample size of 196.

Findings of the study revealed that: corporate public relations strategies are significantly effective in building a good corporate image; good public relations strategies/practices and good corporate image contribute to the attainment/accomplishment of organizational goals; public relations strategies (advertorials, news, articles, features, posters/photographs) and a good corporate image contribute to the establishment and substances of customers' loyalty to brands and organization; propaganda is not a good strategy in achieving a good corporate image in Nigeria; the mass media is effective in Nigeria in information dissemination and mobilization for public relations and corporate image policies of organization.

The study concluded that public relations strategies are efficient tools for building corporate image for an organization.

The study recommended that: first, it must be acknowledged that insofar as organizations want to sell the products and /or services, the public must be accorded an effective two-way communication. Hence, the indispensable role of public relations and good corporate image in attaining corporate objectives; to be able to effectively apply public relations strategies in organizations, management must engage the services of public relations practitioner(s) and/or consultants. The experts would thenceforth commence the work of packaging the organization based on a sound analysis of the Strengths, Weaknesses, Opportunities and Threats (SWOT) of the organization. Again, public relations practitioners must be particularly versed in ethical soundness because, ethical bankruptcy is damaging in terms of public relations.

In relation to this paper, the reviewed study shared resemblance with the present study in such ways that both studies were concentrated on discovering the significant effects

of building the corporate image, reputation management and its implications on organizational branding.

Masum, H. S. (2011) the effectiveness of corporate branding as a strategic decision in an organization. Australian Journal of Business and Management

Conducted the study on the effectiveness of corporate branding strategy as a strategic decision in an organization. Multiple stakeholder's reliance on financial value and strategic position are the triple dimension model for the assessment. Furthermore, he studied that information are obtained from literature review and structural interview with specialists in strategic management and marketing and some multi-business company's managers.

This study focuses on strategies adapted to give effective corporate branding in a company and it also gets to apply to this study on corporate branding where the focuses are dealt on corporate branding strategies in products and services offered by firms to its customers. This study relates to the paper on preliminary issues such as corporate branding strategies, reputation management and corporate identity.

THEORETICAL FRAMEWORK

The following theoretical underfindings were discussed herein:

- The Presentation Self-Theory
- Social Exchange Theory
- The Big Bang Theory

THE PRESENTATIONAL SELF-THEORY

The presentational self-theory was propounded Erving Goffman in 1959. The theory argues that everyday setting are viewed as a stage, and people are considered actor who use performances to make an impression on an audience (Akakwandu, 2014).

According to the theory, the activities of public relation officers as well as staffs of an organization obviously make an impression in the minds of the public. It is this impression that is known as image that consequently determined the attitude/opinion of the target publics of the organizations

Explaining further, Akakwandu (2014) notes that every members of the organizations should carry out their duty creditably so as to leave appositve impression in the mind of target publics, this means that every employee of an organization should behave well within and outside the organization so as to create a good impression of the organization in the mind of the external publics. This validates public relation as a team work, not the exclusive responsibility of the public relation man.

Lending support to this, Nwosu (2009) emphasized that public relations involves doing right and taking about it. It is building goodwill through good deeds. This presupposes that the actions and, behaviors of the staff of organization, in addition on the public relation efforts of such organization are equally needed for the image building or enhancement of the reputation of the organization.

This perhaps explains why public relation executives often engage the employees to the organization they work for in the image building/reputation enhancement efforts.

SOCIAL EXCHANGE THEORY

As cited in Anaeto, Onabajo and Osifeso (2008), the theory was propounded by Thibault and Kelley in 1952 with following assumptions:

- ❖ Every interaction involves an exchange- goods or services.
- ❖ People try to get from others as much as they have given to them. Social exchange theory explains how we feel about a relationship with another person, depending on our perception of the balances between what we put into the relationship and what get out of it; the kind of relationship we deserve, the chances of having a better relationship with some one else (www.socialexchangetheory.com). The social exchange theory encourages explicit acknowledgement of the costs and benefits of actions to be promoted in a campaign, and efforts to minimize costs and maximize the benefits.

In practice, to persuade someone to take part in an exchange, the person must believe that the benefits of adopting preventative behaviours outweighs the costs of purchase/adoption (Anaeto, Onabajo and Osifeso, 2008). Folarin (2002), however,

contends that the rewards are devalued when the exchange becomes too frequent or too obvious.

Social exchange theory views exchange as a social behavior that may result in both economic and social outcomes (Lambe, Wittmann&Spekman, 2001). Social Exchange Theory has been generally analyzed by comparing human interactions with the marketplace. The study of the theory from the microeconomics perspective is attributed to Blau (Cook & Rice, 1978). Under his perspective every individual is trying to maximize his wins.

Blau (1964) stated that once this concept is understood, it is possible to observe social exchanges everywhere, not only in market relations, but also in other social relations like friendship (Burns, 1973).

Social exchange process brings satisfaction when people receive fair returns for their expenditures. The major difference between social and economic exchange is the nature of the exchange between parties. Neoclassic economic theory views the actor as dealing not with another actor but with a market and environmental parameters, such as market price (Cook & Richard, 1987). Unlike economic exchange, the elements of social exchange are quite varied and cannot be reduced to a single quantitative exchange rate (Encyclopedia of Public Relations, 2015). According to Stafford, social exchanges involve a connection with another person; involve trust and not legal obligations; are more flexible; and rarely involve explicit bargaining (Stafford, 2008).

Self-interest and interdependence are central properties of social exchange (Lawler & Thye 1999). These are the basic forms of interaction when two or more actors have something of value to each other, and they have to decide whether to exchange and in what amounts (Lawler, 2001). Homans (1961) uses the concepts of individualism to explain exchange processes. To him, the meaning of individual self-interest is a combination of economic and psychological needs. Fulfilling self-interest is often common within the economic realm of the social exchange theory where competition and greed can be common (McDonell, Strom-Gottfried, Burton Yaffe, 2006).

Social exchange, self-interest is not a negative thing; rather, when self-interest is recognized, it will act as the guiding force of interpersonal relationships for the

advancement of both parties' self-interest (Rolloff, 1981) Thibaut and Kelley see the mutual interdependence of persons, as the central problem for the study of social behavior. They developed a theoretical framework based on the interdependence of actors. They also highlighted social implications of different forms of interdependence such as reciprocal control (Jones, 1976). According to their interdependence definition, outcomes are based on a combination of parties' efforts and mutual and complementary arrangements (Cook & Rice, 1978). However, the relevance of this theory to the study lies in the fact that the theory is based on the exchange of rewards and costs to quantify the values of outcomes from different situations for an individual. People strive to minimize costs maximize rewards and then base the likeness of developing a relationship with someone on the perceived possible outcomes. And also the viability of social exchange rests on the assumption that human beings recognize each other's needs, and in some ways are likely to engage in reciprocity a condition in which a response is correlated to the worth of the original message. In other words, humans act with other humans in full recognition that their acts will be noticed and in some way reciprocated; for example, that they will receive a return on their communicative investment. Therefore social exchange theory helps to create and maintain mutual understanding between a corporate organization and its publics.

BIG BANG THEORY

Propounded by Friedmann in 1992, Lamastre 1927. Robertson, and Walker jahekhar, (1994) argues that apart from social sponsorship, there is the mass media, which is one of the most effective ways of communicating image. Argenti (1994) and Hooghiemstra, (2000) see the mass media as the main means of communicating with a company's publics. Big Bang's theory (a communication theory that purports that the media, especially radio and television has tremendous effect on its audience) of communication proves that media, especially TV and radio, have massive audience. It has become naturally the most accessible way of getting to all these take holders of the company at the same time. The need to create and maintain a good image before the stakeholders has grown. Hooghiemstra (2000) argues that to properly communicate this image, there must be use of proper language to echo the positive work being done by the firm. Because the Big Bang theory has been tested and has proven that the media still has a

lot of impact on the public, the use of the media and annual reports by firms are the best means to communicate their personality. When a company fails to tell the stakeholders what benefit their existence is to the environment, this "lack of communication may give the impression of passiveness and thus a bad image for companies that may be working hard for the environment."

McDonald (1991) argues that very few companies have actually conducted any research to find out the impact of a good image on its sales, but most companies are still holding to the opinion that their survival in the market depends on what the stakeholders perceive of them. Companies are working hard to maintain a good image in the minds of their stakeholders in order to keep their customers, attract and keep shareholders, attract outstanding employees, gain competitive advantage, look beneficial in the immediate environment in which they find themselves, gain approval and favors.

According to Preece, (1995), mission statements and social sponsorship are the main means used by firms to promote their image or reputation. Besides these factors, there must be the use of proper communication. Communicating company's activities is the only means of bonding with the stakeholders and petting them to see the company, as management would like them to. Failure to communicate may spell speculation, leave the public with no knowledge of what to expect of the offers made by the company, and may gradually lead to its failure. Grey & Balmer (1998) presents the media as the greatest threat to all works done by a company to get a positive picture. According to them, companies need to work hand in glove with the media in order to communicate their activities and gain the media's approval. While other actions like good product quality could communicate a good name on its own, companies need to communicate their social sponsorship activities, their financial statements, and their plans of action in order to get favorable ratings from the stakeholders.

The relevance of the theory to this study lies in the fact that the theory explains the need to use the mass media as another agent of image building, as that is another form of public relations.

DISCUSSION

The major thrust of this paper was to nexus that exist between corporate image, reputation management and organizational branding.

There is no gainsaying that an organization can only manage its positive image when its various publics remained well informed and properly communicated with better positioned to sustain it.

The inter-relationship between an organization and its various stakeholders is seen to be one of the major indices that can help to build a virile organization. Findings show that this interface is a necessity that should be ignored.

Findings also revealed that organizations plan public relation programmes strategically when they identify strategic publics and use communication programmes to build stable, open and trusting relationship with them.

Thus, the quality of these relationship is an important indicator of the long-term contribution that public relations make to organizational effectiveness.

The study revealed that corporate image are the collective visuals, emotional and cognitive associations that the public holds about an organization and whereas corporate reputation are the collective ideas that the public holds about an organization which is mostly focused on marketing and it includes factors such as brand recognition and the feeling associated with your customer experience. It tells about ideas and more about visual and emotional appeal.

Findings showed that in some cases, customers may be less influenced by reputation factors such as financial stability that image factors such as a stylish design. Also, an organization reputation for corporate governance and financial stability may impact on its cost of capital and even ability to attract partners. Good reputations paves the organizational path to acceptance and approval by stakeholders. Even organizations operating in difficult ethnical environment – perhaps self-created – need to sustain a positive reputation where possible.

Finally, the study reveals that good organizational image and reputation does not occur by chance. It relates to leadership, management and organizational operations; the

quality of products and services; and-crucially-relationship with stakeholders. This equally is connected to good communication activities feedback mechanisms.

SUMMARY

Any successful business organization, in any society begins with the public perception and exists by public approval, hence, the public perception need for proper communication and management of information. No individual organization can survive without public support or at least public sufferance. This attitude of an organization determines how they relate with it and also influences to a large extent the success or failure level the organization attains at each period of its existence.

Through effective public relations, an organization will be able to win public acceptance. Public relation which is a management function becomes handy in facilitation effective communication of organizational goals and objectives.

CONCLUSION

Overtime, the business environment across the world has overtime continued to witness increasing improvement in terms of technology development, human resources and even in production. One is not surprised therefore, to see the environment being dominated by unprecedented changes vis-à-vis the taste of the customers, the business “pull and push”, (i.e. the competitive force), and also the agitation among customers, who ask for the satisfaction of their wants. Hence, this study was very vital as it was aimed at determining the benefits organizations stands to derive using appropriate public relations and marketing tools (integrated marketing communication devices) in the conduct of their businesses. Findings from this study has shown that every single day, organizations rise and fall due to their public acceptance or sufferance. Some face challenges which leave them stabilized or otherwise. This, to a large extent, has some level of influence on their image and public perception and the ability to overcome them helps in the sustenance of their overall corporate image, reputation and enhances the organization brand.

Image makes an organization and no corporate organization can grow beyond its image. This is why an organization develops and the society evolves, there is the need for periodic image appraisal among its various publics.

Hence corporate image and reputation has increased and is increasing in importance; the key influencers on reputation are – despite some creates – customers, employees and then the CEO. A good corporate reputation precedes and helps businesses grow internationally and in preparing the ground in new markets among key constituencies. The responsibility for managing reputation is a key management responsibility and-led by the CEO-it must be managed in an integrated manner.

Finally, it is imperative to note that the uses of public relations' strategies are particularly useful in changing attitudes, opinions and behaviour of the publics. It is one of the best way to build corporate image, manage reputation and the organization's brand at all times for optional growth and productivity.

RECOMMENDATIONS

The following recommendations were made in this paper:

- 1) The thriving of any organization in any environment begins with public perception and exists by public approval. Hence, every organization showed always inform its publics of its activities, policies and products/services. To accomplish tis task, Noel GRIESE's six principles cited in Cutlip, Centre and Brown (2000, Pp. 127-128) are adopted and recommended thus:
 - Tell the truth;
 - Prove it with action;
 - Listen to the public;
 - Manage for tomorrow;
 - Conduct PR as if the whole information's life depends on it; and
 - Remain calm, patient and good humoured.
- 2) Every organization must understand that public relations (integrated marketing communication ix) has high level of impact on customer's expectations (their satisfaction) and even on service delivery (corporate images) if well handled and matched, will lead to a closer relationship between them.

- 3) To build good and sustainable corporate image, enhance reportation and develop a brand, managers and PR department should be able to influence its publics through its messages, create high level customer satisfaction and service delivery and provide many benefits to the customer's expectations.
- 4) Organization should continue to strive higher in implementing more public relations strategies to help promote the organizations set goals.
- 5) For public relations to contribute to a better quality of the organization's business results, change of attitude of managers about public relation strategy and proper finding would certainly lead to a greater increase in output of the organization.
- 6) Sustainable corporate image, enhanced reputation and proper branding is a major index for organizational growth. Any organization that ignores it is bound to fail.

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THE EFFECTS OF MOTIVATION IN EDUCATION

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ABSTRACT

"Powering people to attain exceptional heights of appearance and conquer fence in position to adjust" is the following description of incentive. The motivational factor behind self-event organization, systematization, and willpower. What strengthens social behaviour? What motivates such actions or approaches to be confidently followed? What is better: to continue as usual? It's known as an idea. Due to this, studies have revealed that employees with high employment compulsion exhibit improved assurance in their jobs; yet, employees who feel more assured even when things aren't going according to plan lessen the likelihood of this problem.

Keywords: Motivation; Education; Act.

1. INTRODUCTION

In recent decades, the incentive has been the topic of the great quantity leader who is alone in a mature, decision-making organization. Even yet, it would be difficult to avoid a study magazine, the field of decision-making act, evolved psychology, or the public sphere of society without applying at least a fraction of it to the issue of labor encouragement.

Motivation

For the first time, Incentive was certain of the Latin term "Move," and it is an English word. Inducement is a force that causes a population to present itself in a significant way, and from the perspective of society, the goal of creating fervor in the workforce is to have a process that results in the greatest harm to society. Although motivation researchers are focusing on how presentations strengthen and how they lead to specific objectives, learning about inducement is a study of "occasion states" that provide

presentations strength and direction. Whenever, if we believe a time state, we go into the state of inducement for a strong and direct presentation. Motivation is the source of authority for rationale gathering.

What is certain and must be acceptable to the obvious person dissimilarity is that public has unlike object, so earlier than theater on the motivation they have need of to be known the eccentricity in their profound armed services which can be more simply well-known. By and large passion is the driver of command, have command over and perseverance in human being being.

In other words, what makes an employee's presentation stronger? What directs such actions in a certain direction? 3. What could be done to improve the situation? The pressing question that needs to be answered as part of the encouraging training is, "Why do I start a behaviour, maintain it, and stop it?" And whose military creates the heinousness of minute acts?

According to research on the meaning of inducement, employees with above-average job inducement show improved assurance to their work; on the other hand, individuals who feel more assure even when their assets are not progressing in line with the process have less of this problem.

MOTIVATION CONCEPTS

Intrinsic and Extrinsic Motivation

The term "inherent inspiration" describes an awareness or joy in the work itself that is self-contained by the person rather than depending on any outside force. Since the early 1970s, cooperative and helpful psychologists have calculated inherent constraint. Students are more likely to be fundamentally provoked if they: believe they can manage in achieving preferred objective (i.e., the results are not determined by luck); are paying attention to mastering a theme, rather than just rote-learning to achieve high-quality grade; and are excellence their educational penalty to issue under their own run (e.g., the effort expended). Extrinsic incitation originates from outside of the being. Common extrinsic incentives include things like money, grades, pressure, and the threat of punishment.

Extrinsic reward can lead to an overuse of beneficial underlying principles and a subsequent decline in central inducement, according to common psychological research. According to one study's findings, families who were pleased with their group and bullion star for movie pictures spent less time with the film capital in the following explanation than families who had an extraordinary refund situation and families who had no knowledge of extra money. According to autonomy theory, external desire can be internalised by a person if the work fits with their standards and demeanour and as a result helps them to fulfil their basic mental needs.

Self-Control

A person may be extremely gifted according to another traditional title (as determined by numerous cleverness tests), but apathetic to present this skill to a specific everyday occupation. This is due to the self-rule of incentive, which is becoming more and more ingrained as a means of separating moving intellect.

Force and needs can be defined as a deficiency or need that activates a presentation with a specific goal or motivating factor in mind. These are decisions that people make together, so they cannot depend on outside motivation to ensure the routine. Basic restraints can be sparked by scarcity, such as a lack of food, which motivates a person to look for food. Quieter restraints can come from a person's need for approval and pats on the back, which gives them the confidence to act in a way that would please others. In contrast, training flora and fauna by kind individuals who extravagances when they carry out a trick correctly can be seen as an example of the task of extrinsic plunder and incentive.

History of Motivation

This viewpoint was acknowledged by Aristotle, Plato's pupil, by modifying the Applying criteria related to motion. Aristotle believed that physical contact and motion were motivating factors that could be used to create swelling, physiological amusement, and sensory information, such as pleasure and tenderness (moving). Together, these two fractions served as the foundation for a military that was endowed with impulsive and

flawed motivation. All lucid parts of character and linked kindness that were of intellectual quality make up the usual fraction.

The first hypothetical motive for the anticipated act has been made worse by these three gears (which are spiritually ordered in a hierarchical manner), according to the earliest Greeks. Wishing for death, joy, suffering, and dedication to doing good.

According to Rene Descartes' new theory, the goal would be the active manager, with the leftovers serving no purpose as an allurements during the active and inactive phases of onward motion. According to his perspective, the corpse is entirely in the physical world as expected, the groceries were provoked, and from part to plan the sanity, his manifestation and structure will act in response to the exterior environment and use second-hand physiological therapy to recognise the bodily inducement.

Be aware of the under fire enticements if they so choose. They'll accept the demand. Like his forerunner, he postulates that a person's motivation can be persuaded by their body or their desire. For instance, during a ritual, the fire stirs up desire and bodily interest but not resolve. Therefore, the motivating control that the might of intellect begin development is eternal, and he was tightening it.

Putting aside the question of where motivation originates, approach initially had to decide where the power of the mind was moving. And for the philosopher, the mix scenario took shape. As a result, modern psychology is less mysterious and more device, inspiring the main attitude set up in search. After that, the hard work that had been done at the approach and in the background of structural and environmental science did not stop.

CONTROLLING MOTIVATION

Employee Motivation

In any relationship, partners must be exceptional to keep them on their toes. The workforce constituent's returns from the predominance era are sufficient for him or her to continue the operation for unification. However, occasionally waiting for employees at a company only for the money is insufficient. To motivate a coworker to work for a client or a friend, one must provoke them. If there is no motivation for an employee's

colleague, the quality of that employee's work or all services provided globally will decline.

You can employ a global motivational strategy or a specific motivational petition while inspiring a crowd. A general motivational strategy includes both natural type and soft sale in addition to hard sell. The springy sell strategy includes common requests, captivating appeals, allusions, and respect. Trade, outnumbering, burden, and scenario are all part of the hard sale technique. Additionally, you might build your plan on the personality of your audience. A thorough call to action centres on verifiable data, movement in the right direction, right and wrong, viewer theft, and spectator threats.

4-2. Education

Because of the crucial role that induction plays in academic familiarity, informed psychologists utilise it as a concentration-testing tool. However, the precise kind of passion that is assessed in the tutoring setting differs qualitatively from the more general kind of passion that psychologists envision in other settings.

Motivation in the classroom can influence how students learn and behave toward the subject matter in a number of ways. It can be immediately routine in order to rigorous aspiration, lead to better try and command, increase the start of, and fortitude in, deeds, advance cognitive stipend, close what sentence are strengthened, and lead to better appearance. Students need a located incentive because they are not being provoked in any way at this time, which is established in the ecological condition that the teacher has created.

The finest aspect of new academic area evaluation is that it is unmatched at universities and academies, and it can be seen in the fact that scholars' needs should be suspicious in their attempts to fill the gaps in their higher knowledge. Whyte's investigation in 1986 increased counsellors' and educators' awareness of this perspective. Cassandra B. Whyte's research report was reproduced by the national Orientation Directors Association in 2007, enabling readers to assess advancements made in addressing students' precise requirements more than a century later to support academic success. Motivation comes in two flavours:

When people are internally motivated to do improbable things because they find them enjoyable, because they feel it is urgent, or because they believe that what they are learning is important, this is known as intrinsic motivation. It is well known that from scores 3 to 9, the intrinsic motivation to learn decreases, albeit the precise cause is unknown. Additionally, it has been discovered in younger scholars that contextualising materials that would otherwise exist in a conceptual method expands the necessary impulsion of these beginner.

When a student is motivated to perform inexplicably or in a way that is influenced by something inside of them, this is when extrinsic motivation begins to link in leisure (like money or good grades). The approach in which students manage their transition to an additional contained by locus of run is more wisely successful, encouraging core national curriculum and disorder maturity with incentive presumption.

CONCLUSION

Motivation is the organization's justification and strategy for getting regular individuals to engage in particular actions. As the effort to contract of ability is becoming concerned, incentive wants may be cautious. A combination in some ways ensured that recital is an element of presentation.

Motivation is not a single passion, a behaviour, or an ambiguous concept; it can be frank and practical. Explain that the purpose recital or routine that is erudite concert in which wellbeing and power is bushed is one of the two types of act that are specified with the idea of enticement.

In other words, the presentation is provoked when we can receive it. When a presentation is exacerbated to further a specific goal or When the frequency, seriousness, and frontage authority diverge from the previous location, Drive therefore refers to two dissimilar difficulties. What kind of people turn you on? Additionally, how will other actions' performance be managed?

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TO STUDY THE IMPACT OF COVID - 19 PANDEMIC ON THE MEANTAL HEALTH OF POLICE OFFICIALS

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ABSTRACT

Be the rich or poor residing on this planet Earth, for each one of us Covid-19 pandemic lead to social transformation of societal norms and social convulsion. The impact of Covid-19 have been intense and profound on the fundamental responders. Legal officers working at the forefront have been serving tremendously by extending huge support throughout the pandemic. They were expected to promote social distancing, implementing shutdowns and to mandate stay at home measures among the people with under-staff as well as in less payment. This has adversely impacted their health. Their mental health has suffered due to increased stress. Policing is viewed as the occupation which invokes mental taxing. It is subjected to long hours of work with rotating shifts, hyper vigilance. The policing was legally enforced by officers during the Covid-19 pandemic is regarded as a gigantic stressors for officials which is compounded by the hierarchical pressure hatched to their occupation. The research paper suggests some avenues for providing officer support which are highlighted and suggestions for the phenomenon of the research. The study is based on secondary data, which includes already published journals, books, magazines, newspaper articles, etc.

Keywords: Policing, Mental health, Covid-19, Legal enforcement.

INTRODUCTION

The Western country in America witnessed abrupt hilry-bulry due to the emergence of Covid-19 pandemic. This was the situation which had adversely impacted the mental health of legal police officers, the situation when their presence was very much needed by their society. They were as common human beings which lacked immune from the stress and depression outpouring from this dreadful disease. On the contrary they were

the major environmental components like the general public to get affected, but their role was so very crucial and essential that they had to serve the society at the forefront keeping aside their health and families security. The legal enforcement officers were expected to continue working and respond to the needs for providing service to the society while others sought for shelter at their home to secure one's health. Due to the exposure to virus, the legal enforcement officers were facing the risk of getting infected by the virus. During the stay-at-home compliance of ordinance they became the first receivers, which welcomed increased mental stress. This compliance of ordinance introduced many transformations in etiquette's, behaviour and protocols. To ensure the safety of common public health the first responders to Covid-19 pandemic the legal enforcement officers not only exposed to risk their lives but as the lives of their family members.

Covid-19 Pandemic Impact on Officer Stress: Generalized through Historical Context

The pandemic was an outcome of a fiction virus which led to an infectious disease. This vicious infection came into light when it touched Wuhan, a city in China during the month of December 2019. The disease was responsible to lead acute respiratory infections, which made it difficult for the infected person to breathe. The infected patient carrying the pathogens of Corona virus symbolized respiratory symptoms like coughing, congestion and breathing issues. The illness resulted in hypothermia, exhaustion and further his health exaggerated to diabetes, cardiomyopathy and hypertension. The novelty corona virus had infected around six million people across the globe. According to WHO, 2020 the number includes 1.7 million from USA. The virus spread through respiratory droplets and contaminated surfaces hence it was inter personally transmitted. Hence many judicial protocols such as stay-at-home, only essential functions and social distancing were enacted and executed. The extending difficulties and compounding risks had a direct adverse affect on the police officials. The transforming protocols under went numerous changes, the police officials was required to wear Personal Protection Equipment (PPE). These equipment's ensured health safety but were difficulty to carry and too hot to bear temperature. This further increased mental health issues. The patrolling routines were also altered, the working

hours were extended which became the cause of mental health issues. In addition to these transformations the shift schedules of police officials were also subjected to changes. The police officials which were already suffering from mental health issues, their fear aggravated. They faced the fear of getting infected, economic uncertainty and isolation.

Policing Occupational Stressors during COVID-19 Pandemic

The ubiquitous reactions of law enforcement community led to indulge efforts for procurement and utilization of PPE kits and enforce social distancing. According to the magnitude of the agency and the resource availability, the police department officers were allotted spots off briefing rooms at 6 feet away from one another. By executing such measures it was assumed that virus was not likely to spread. Along with the encumbrance of execution of new legal reforms Covid-19 presented fresh and exacerbated stressors. The traffic police had to take the burden of carrying the striven colleagues. The execution of social distancing and stay-at-home reforms were legal, economic and social challenges. The police officials were expected to get adapted to harsh practices of “virus reality.” In order to ensure that the officers remained healthy to serve the common man, community and offender programs, service call responses, and patrol practices had to be adapted. In certain situations officers avoided serving the public or making minor arrests helped to limit their own exposure to corona virus. Such adaptations enabled the officials to focus on limiting interpersonal contact which may have caused cognitive dissonance. Unquestionably the availability of Personal Protection Equipments, Masks, Gloves, Sanitizers and other essential supplies were lacking in the agencies. The lack of above essentials would be required by general public which further contributed to stress among officers. According to the extension of the logic of a general resource shortage, the lack of these resources was more problematic in economically disadvantaged rural areas. The COVID-19 pandemic was a terrible event in and of itself, putting officers in constant danger of being hurt and forcing them to be more aware of their surroundings. They may not have been able to use effective coping mechanisms because of the daily stress, safety measures, and social distancing policies. It is evident that legal enforcement officers were subjected to harsh working conditions and traumatic and post-traumatic environment hence many of them

suffered from mental health issues. The agency culture was presumably inconsistent of duration this was also another factor to suffer depression.

REVIEW LITERATURE

1. Ménard, K.S. and Arter, M.L. (2013), attempted to examine the relationship between critical incidents, negative coping, and social stressors, as well as officer problematic alcohol use and post traumatic stress symptoms, using self-report online survey data. Hierarchical OLS regressions showed a positive correlation between alcohol use and PTSD symptoms and critical incidents. Coping was both directly and indirectly linked to PTSD symptoms and mediates the link between alcohol use and a critical incident. Findings revealed that alcohol use was not associated with the social stressors that officers reported, but alcohol use, negative coping, PTSD symptoms beyond critical incidents, and other model variables.

2. McCraty, R. and Atkinson, M. (2012), investigated police officials physiological, psychological, and behavioral effects and symptoms at work place. Officials working under extreme or persistent pressure were probably more serious gamble of blunder, mishaps, and over compensations that thought twice about execution, risk public well being, and posture critical responsibility expenses for the association. As a result, police officers underwent Coherence Advantage resilience and performance enhancement training by a group of Santa Clara County, California, , to study the nature and extent of the physiological activation officers typically experienced on the job.

3. Collins, P. A., & Gibbs, A. C. (2003), examined the sources of police officers' stress-related symptoms and measured the prevalence of significant mental health problems associated with them. The study confirmed previous findings that officer stress was primarily caused by workload and organizational culture. Severity of symptoms appeared to be getting worse. In the police community, additional research indicates that female officers might be more susceptible.

4. Bowler, R. M., et al., (2010), examined those who responded to the World Trade Center (WTC) disaster in 2001 had a higher prevalence of probable post traumatic stress disorder (PTSD). Female police officers had a higher probable PTSD prevalence. This

finding contrasts with other studies of PTSD, WTC rescue and recovery workers, and police before 9/11, despite being consistent with civilian populations.

OBJECTIVES

1. To pivot lenses on the mental health on police officials during Covid-19.
2. To study the challenges faced by legal officers during Covid-19.

RESEARCH METHODOLOGY

The study is based on secondary data which includes already published research journals, magazines, research articles, books etc.

CONCLUSION

The study highlights the challenges faced by police officials during Covid-19. This information should be used to modify and create new training protocols to assist first responders and police officers, in addition to researching the impact of COVID-19 on officer well being. Right after this extraordinary circumstance, almost certainly, numerous organizations were gotten caught off guard for the psychological pressure that their officials would insight. Although it is impossible to completely remove stress from situations like these, officers should be able to deal with the stress they do face without developing unhealthy behaviors like alcoholism, burnout, or poor mental health by receiving training on effective coping mechanisms.

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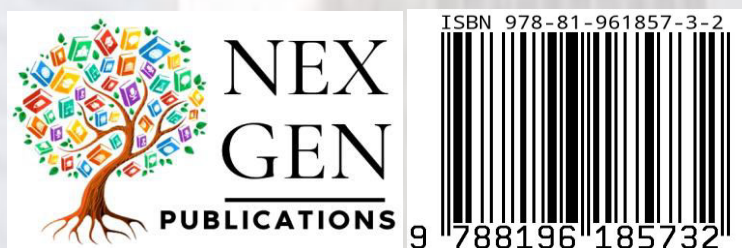
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ABOUT THE BOOK

This book is an International, Multidisciplinary guide on the key areas of academic interest in the diverse fields of Arts, Humanities, Medicine, Sociology, Education and Engineering etc...A new approach to Multidisciplinary area which will appeal to educators, researchers and students involved in all disciplines, the book encourages investigators for a better research impact and output. This edited book on Current Researches in the Multidisciplinary Arena tries to integrate the Multidisciplinary perspectives and tries to illuminate various topics of research.



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