

# APPRENTICESHIP SYSTEM IN CROSS RIVER STATE, NIGERIA: IMPLICATION FOR JOB CREATION

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## ABSTRACT

*This study examines on-the-job training capabilities and effective mentoring scheme on job creation. Cross-sectional survey design was adopted in the study to enhance appropriate data collection. The sample size of 386 from population of 7,284 trained apprentices from Entrepreneurial Development Centre (EDC) Calabar covered South, Central and North sectorial districts in CRS. Structured questionnaire was the primary source of data. Descriptive statistics was used in summarizing data and hypotheses were tested using Exploratory Factor Analysis (Principal component Analysis) and Multiple Regression analysis. Results show that on-the-job training and mentoring scheme significantly affect job creation and employability. The study concludes that effective supervision, knowledge and skills acquisitions are sustainably derived from apprenticeship schemes for self-reliance and sufficiency. It recommends that Government and stakeholders should consider youth as productive assets of economic development and continuously engage them in vocational training in areas of ICT.*

**Keywords:** Apprenticeship, On-The-Job Training, Mentoring, Job Creation.

## INTRODUCTION

The exponential population growth in Nigeria has been the reason for nefarious and unethical activities by unemployed youths, particularly in Cross River State. The activities have caused attention among stakeholders on socioeconomic development and to harness strategies of curbing high rate of unemployment caused by absent of vocational knowledge, joblessness, illiteracy, gangsterism etc through effective apprenticeship programmes. The existence of nefarious activities in a tourism state as Cross River requires strategic awareness and readiness of stakeholders to ensure that the level of volatility, uncertainty, complexity and ambiguity (VUCA) in the environment is addressed through job creation (Udechukwu & Essien, 2020). This affirmed that over the years, human development has been accorded superiority above any infrastructural development for ease of transforming other resources to productive use (Adams et al., 2013). This requires practical knowledge through apprenticeship training as a remedial factor in labour market which facilitates employment in a society.

Across the globe, survey has empirically affirmed that the system of apprenticeship in a cross-country econometric analysis showed that “one percent point increase in apprenticeship coverage rate is linked to increase in employment rate of 0.95 percent point with, a reduction in youth unemployment rate of 0.8 percent point” (Lodovici et al., 2013). This has shown that sustainable skill acquisition has often been enabled by formal and informal apprenticeship which

guarantees effective skills to labour in an economy (Okadi et al., 2020). Environmental dynamics have made apprenticeship a veritable vehicle and a functional prerequisite for job creation and poverty alleviation which improve the wellbeing of individuals (Fajobi et al., 2017). The necessity of tackling unemployment among youth as catalyst for economic development requires empowerment scheme through apprenticeship for them to be relevant in any given profession. Today, the need for apprenticeship system in Cross River State is to enhance access to labour based on acquired skills to effectively and efficiently run a business and contribute to economic development of the state (Okafor, 2021). Unfortunately, despite the importance of promoting economic development through apprenticeship, the existence of ineffective apprenticeship system has not stimulated appropriate engagement of youth in learning, skills development and retention which is valuable in the labour market. Though, the acquisition of skills through formal and informal education are critical factors for economic, cultural, social and political development of the society, these are affected by attitude of Cross River State government in creating enabling environment for apprenticeship system in the state. Again, the rising rate of unemployment of 33.3 percent from 22.5 percent in Nigeria is alarming (National Bureau of Statistics 2021). Hence, the continuous rise in unemployment is of concern due to growing population and absent of sufficient vocational skill centers as source of job creation which significantly affect the stability of economy. It is based on this recognition that this study is set to examine how on-the-job training capabilities and effective mentoring of apprentice in ICT and agriculture enhance employability of youth in CRS, Nigeria.

### Concept of Apprenticeship System

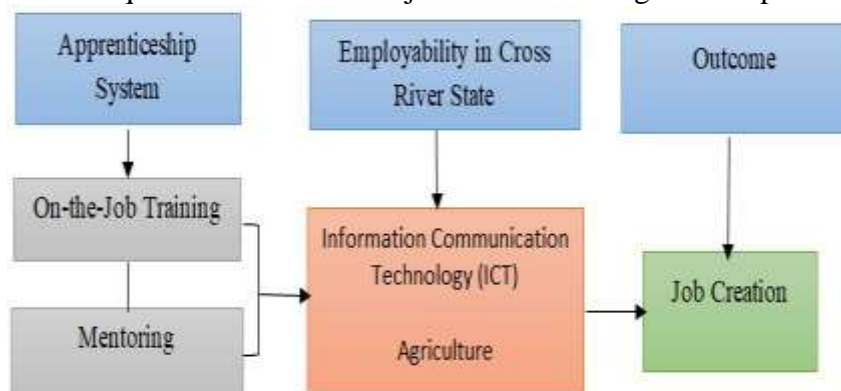
Research attention to the concept of apprenticeship is positively encouraging which indicates that solution to unemployment is a concern to many stakeholders in nation building. However, the concept of apprenticeship has evolved to represent diverse methods of skills acquisition and training system. It is conceptualized as means of acquiring knowledge about the intricacies of a particular trade to meet the need of workforce in present industries. Apprenticeship is a system of training individual a structured competency or a set of basic skills (Udu, 2015). It involves agreement on the basis of rules and regulation shared among the parties. International labour organization conceptualizes apprenticeship into traditional, informal and formal apprenticeship. While the formal apprenticeship training engages in teaching theory and integrating soft skills, the informal and traditional apprenticeship relate to practical skills (Adams et. al. 2013).

Ezenwakwelu et al. (2019); Ejo-orusa & Mpi (2019) conceptualizes it as instructional method for teaching or an acceptable way of engaging an individual to understand a given task, solve problem, and deal with complex situations. It is a vocational training through vocational education which prepares individuals to participate in occupation of any social value that is designed for effective development of skills, attitude, abilities, work habits, etc which aids individual productivity (Aghenta, 1982). Apprenticeship is a system of learning professional skills by individual through a structured and practical program of on-the-job-training (Adams et al., 2013). It is governed by counseling and guidance for individuals to acquire the needed altitude, decorum and diplomacy required for specific jobs. Ejo-Orusa & Mpi (2019) views it as initiative for training and skill development that is practiced to aid workers have occupational skills to execute task. Apprenticeship is an art, craft or trade based on agreement on condition and duration between master and trainee (Franklin & Ndidika, 2000). It involves on-the-job training and instruction which trainee learn practical skilled of a job

## Theoretical Framework

This study adopts transformational theory which explores two management interventions such as pre-training expectation and after-training follow-up on the transfer of skills from training to the work situation (Brinkerhoff & Montesino, 1995). The basic principle of this theory is that knowledge is gained when there is a transfer of skills from training programme to work situation. Montesino (2002) further modified the theory by saying that the necessity for training is based on the desire for knowledge and skills acquisition which is aimed at achieving a given set of goals. The assumption of the theory is that proper training results in satisfaction and performance of individual. A well-trained apprentice helps to increase organizational productivity and profitability. The theory states further that investment in apprenticeship improves creativity for new ideas. Therefore, effective training saves labour by reducing time spent on problem solving and saves money in the long run by producing effective and efficient workforce.

The justification of this theory to the study is that the performance of SMEs in ICT and agriculture emanates from skill and knowledge transfer. For instance, from master craft to apprentice in workplace and this result in successful job creation for the apprenticeship. Hence, training apprentice to acquire skills influences job creation through SMEs performance.



Source: Authors (2022)

**FIGURE 1**  
**CONCEPTUAL FRAMEWORK**

### On-the-Job Training Capabilities of Apprentice

Apprentice undertakes learning through on-the-job training in diverse areas such as engineering, ICT, mechanical, etc. this requires practical training and hard work to successfully learn and develop skills. However, one of the determinant factor that facilitate learning and in line with job behaviour, skills, knowledge and ability is on-the-job training which is strategic for efficient acquisition of apprentice (Falola et al., 2014). In Cross River State, on-the-job training is a requirement for enhancing apprentice capabilities, the necessity for on-the-job training is to increase capacity to accept techniques and technologies that are new; increase efficiency, invention and innovation (McNamara, 2008). The opportunity to expand knowledge based of any trade or craft is enabled through on-the-job training which also strengthened skills that need improvement. In all formal and informal sector, on-the-job training has been a learning tool capable of enhancing apprentice confidence due to appropriate understanding of the activities in any industry. Walker (2011) notes that confidence push apprentice to perform optimally with new ideas that aid them to excel.

A study by Smith et al. (2011) indicates that on-the-job training is a key resource and a pertinent obligation of employer. Irrespective of this, poor working conditions, low training wages and poor on-the-job training, have contributed to planned dropout of apprentice and this affects job security of apprentice in challenging situations. Smith et al. (2011) further states that provision for on-the-job training is a resource and obligation for employer. Though ineffective on-the-job training and difficult working conditions have been considered as factors for planned dropout by apprentices, job security has influenced apprenticeship commitment in relation to their career choice and interest (Dickie et al., 2011). Productivity and efficiency are increased when apprentice undergo on-the-job training. As a practical approach of acquiring skills and competencies, it enables the use of particular tool or equipment in a training environment or live work practice (Lamb & McKenzie, 2001). On-the-job training allows apprentice to learn a given task by doing it under the supervision of a trainer who is knowledgeable in a task. On-the-job training in ICT and agriculture make apprentice to have firsthand work procedure that they are expected to encounter. It exposes workplace equipment, skills, expectation and operation needed for successful completion of task.

Wolter & Ryan (2011) identifies best practices for on-the-job training to include one, identifying potential trainers who are willing to share the knowledge of the work. This act of identification is an incentive for employee performance with high level of capability and knowledge in the job. Two, the training process has to be structured with set plan that details the policies and procedures that apprentice need to know. Hence, the effectiveness of this depends on creating plan and list for each job. Three, automating the learning process provides access and save trainer time and also aid trainer to retain. It is effective in refreshing knowledge or practice of the task. Four, best practice on on-the-job allows trainees to practice the acquired skills, conduct assessment to ensure that apprentice has gained the required skills for the job. Five, getting feedback and improvement is necessary from both the trainer and trainee. These shows how more time is needed for improvement in training. Based on these best practices, on-the-job training becomes an enabling means of enhancing knowledge for skills acquisition which makes an individual self-sufficient in their activities.

### **Mentoring Scheme in Apprenticeship**

The rate of youth unemployment and restiveness is successfully addressed through effective mentoring of apprentice which is aimed at contributing to entrepreneurship economic development (Oguz & Aydin, 2012). In today's dynamic environment, entrepreneurship skills acquisition is through apprenticeship, counseling and training. The act of mentoring is continuous processes that facilitate entrepreneurship skills for performance in workplace. The importance of mentoring towards job creation is that it promotes problem solving through training and retraining of apprentice. It is used in updating competencies in the areas of workers' attitude, knowledge and skills (Okoye, 2016). This indicates that mentoring is used to create insight in relation to contemporary work practice through awareness of diverse issue that needs to be exploited for understanding by apprentice. Gabadeen & Raimi (2012) supports that mentors have the task of supervising, guiding and directing apprentice positively in any given entrepreneur activities. Hence, mentoring scheme has the benefits of enhancing apprentice's efficiency and professional growth, through effective coaching, leadership and communication skills. Mentoring improves skills acquisition, competencies which help in repositioning the society productively through job creation to the youth.

Mentoring scheme has significant implication for job creation and this depend on mentoring style either by equipping or empowering. Oguejiofor & Umeh (2017) reveals that mentors that equipped apprentice are teachers that offers detailed directive to apprentice on what to do. This type of mentoring style is domineering and does not make room for apprentice to exercise his/her initiative, and it is however slow in enhancing growth. Mentor with empowering style is one that is non-directive in approach, where directive on what to do is given to apprentice thereby allowing them to utilize their initiative to proffer solution to issues. Oguejiofor & Umeh (2017) opines that this approach makes apprentice to be more reliant and independent in performing assigned task. Mentoring scheme is considered as workplace opportunity which helps to support and motivate, guide and build confidence of apprentice in developing potentials in handling a given task. This is driven by voluntary participation of both the mentees and mentors. It is a training and development scheme that improve individual's potentials to undertake responsibility (Ismail et al., 2009; Ehrich, 2006).

Apprenticeship success allows application of theory and understanding in workplace. Gabadeen & Raimi (2012) views mentors as individuals that shares their inspirations and experiences, and enthusiasm towards successful performance of tasks by apprentice. This justifies that an apprentice is able to gain significant insight from numerous mentors through apprenticeship. A study by Onuoha & Uhunoma (2019) supports that mentoring helps to provide access to wider array of ideas, values and thoughts. Hence, mentoring an apprentice lies in identifying mentors early, promoting continuous engagement of mentors, and effective involvement of mentors in collective planning and implementation of training/learning towards achievement of apprenticeship goals. Okadi et al. (2020) suggests that both on-the-job and off-the-job training requires planning and have to be structured to meet the learning needs of apprentice based on the earlier need assessment. To sustain training, there is need for close facilitation and support to ensure effective application of theory in workplace for improved performance of apprentice.

In apprenticeship, mentoring involves relationship between mentor and mentee and this enhance high rate of retention of apprentice after completion of apprenticeship. Mentoring programme helps to increase apprentice opportunity to acquire the needed skills. Adeyeye et al. (2015) notes that effective mentoring scheme offers the opportunity for apprentice to learn and grow under the guidance of the mentor and have creative ideas through experimenting, problem solving skills and supportive environment to be efficient and effective in a chosen task. In a given training, it is important for mentors to break down a particular skill or method of working for it to be understood by apprentice. This will enable deep understanding of working practices on the way things are done, and why work is automated. The importance of the analysis enables apprentice to be adapted with efficiency and improvement. Mentoring enables the provision of support to individuals sharing similar experience. A mentor serves as guide to apprentice and provide them relevant advice on their future career.

Ehrich (2006) stresses that mentoring may be formal or informal programme. A formal mentoring has structured and coordinated relationship based on time frame, norm, plan of action, standard objectives (Ehrich et al., 2003). The importance of mentoring apprentice for job creation are based on characteristics such as high level of knowledge and experience by mentor and less level of knowledge by mentee. Mentors are teachers, encouragers, sponsors etc. who helps to increase new positive attitudes, knowledge and skills in mentees. This affirms that a mentor has the duty of encouraging a mentee within a defined period of time. The informal perspective of mentoring in carried out to complement formal mentoring programme (Goldstein

& Ford, 2002). The mentee has the choice of choosing whom to work with and effective implementation of this programme leads to achievement of goals between them (Friday & Friday, 2002).

Career development and psychosocial support of apprentice have been subjected to consideration when designing formal and informal mentoring programme (Allen et al., 2005). The importance of acquiring skills and experience through career development is to increase apprentice ability and skills on task performance, while the psychosocial support is aimed at confident building in apprentice, overcoming strains and pressures, providing or sharing feedback, and establishing awareness that will contribute to the relationship for productivity.

### **Formal and Informal Apprenticeship Programme**

This programme enables learner to acquire trade/craft skills and promotes acquisition of occupational skills and achievement of career success. It requires apprentice to undergo productive work to earn salary, have a work-based learning by a trained supervisor, and necessary academic instruction in line with the apprenticeship occupation, acquire certification at completion of the apprenticeship (Safford et al., 2013). This indicates that graduate participation in formal apprenticeship programme is able to secure permanent job with higher pay and high status. The formal apprenticeship is a deliberately structured training which alternates learning/training in an institution and in workplace. It enables learning and working at the same time which aid learner to acquire skills for trade or craft through an experienced craftsman. Both secondary and post-secondary education serve as source of formal apprenticeship which enables student the opportunity of engaging in supervised workplace practice in any industry (Mieschbuehler & Hodey, 2016). Benefits of formal apprenticeship programme identified are that in skill learning, the cognitive ability is important to integrate theory and practice; there is need to have correspondence between content of skills and the actual performance; high employment rate of youths, and effective and better transition in school-to-work which provides the opportunity for individuals to interface and interact constructively with mentors, teachers and on-the-job-supervisors (Okadi et al., 2020).

On the other hand, informal apprenticeship scheme is an institution that has proffered skills training in private sector and catalysts for skills transfer in the economy. Apprenticeship is commonly adopted as measure for knowledge transfer, capacity building, and training in an informal setting (Haan, 2006; Ainley & Rsinbird, 2014). This affirmed that informal apprenticeship is used to transfer business secret, skills and empowerment to trainees and it is an effective tool for enhancing business social network and nurturing apprenticeship in any business life cycle. The informal apprenticeship involves learning or acquiring skills through the process of enlistment by master craftsman where apprentice under goes education in a given profession and he/she is taught skills of a vocation for a given period and allowed to start his/her business at completion of the vocation. While the traditional and informal apprenticeship has no formal procedure or curriculum for acquiring skills, it is however characterized with lack of certification, longer duration of time and low payment for training. Hence, they are self-financing and regulating and the success is determined by the level of skilled acquired. It is characterized based on cost effectiveness and flexibility in transfer of skills and it absorb greater number of youth compared to formal apprenticeship.

Informal apprenticeship accounts for 85 percent of skills acquired and also serve as powerhouse developing economies through the acquisition of the skills (Ariyo, 2001). For instance, informal apprenticeship is a form of education and training which contribute to

employment and empowerment of youth and has reduce restiveness among youth and enhance employability and productivity. Adams et al. (2013) notes that informal apprenticeship relates to private sector where the owner of the informal enterprise train apprentice for a fee over a set period or years. These training are in the areas of metal work, carpentry, sewing, etc and this traditional training is an effective means of training apprentice. A study by Breyer (2006) reveals that informal apprenticeship serves as alternation to formal education since they cannot afford formal education such as secondary or technical education. This indicates that informal apprenticeship enhances skills acquisition which makes them employable. Apprenticeship programme is a means of earning income when apprentice complete the programme (Onokala & Banwo, 2015). This has resulted to job creation which has caused rural-urban migration in CRS and has been a significant contributor to supply of apprentices in urban as migrant are made to undergo apprenticeship training

### **Job Creation in ICT and Agriculture for Youth Employability**

The concept of job creation is diverse and difficult to measure because job creation exists if job created has not displace other economic activities or if jobs created were as a result of specific economic policy. In Nigeria, various interventions measure for job creation by government have been put in place based on policy framework (Onuoha & Uhunoma, 2019). For instance, the private sector led growth strategy put in place for job creation include:

- I. National Economic Empowerment Development Strategy (NEEDS) which was adopted in 2003 and has been overtaken by another policy known as Vision 20:20 which serves as successive inspiration to National Development Plans and Transformation Agenda of 2011-2015. This policy was geared toward job creation. Other programmes managed with the purpose of promoting job creation was the Subsidy Re-investment and Empowerment Programme (SURE-P), which covers Community Service Scheme and Graduate Internship Scheme, and Youth Enterprise with Innovation in Nigeria (YouWIN) programme, which comprised the Conditional Cash Transfer (CCT) vocational training, Public Work, and Science and Technology (Onuoha & Uhunoma, 2019).
- II. Other area of job creation effort by government is the Social Investment Programme commonly known as Npower programme. In this programme, graduates are exposed to resources and materials that aid them to develop skills and build competencies that would aid them operate in labour market. This programme has aid in improving employability or entrepreneurial skill set of each volunteer. They are able to access content from variety of sources to build life such as entrepreneurship, employability and work readiness, financial literacy and management skills (Alemu, 2015).

The panacea to unemployment in CRS, Nigeria is linked to apprenticeship training where individuals are able to acquire relevant skills and knowledge on diverse occupation and become successfully engaged. A study by Ijbas (2019) identifies government as the greatest employer of labour. In addition, government is expected to provide the required training to youth and provide them with employment (Federal Republic of Nigeria, 2004). Gayus et al. (2008) stresses that government has failed in this responsibility due to the rise in wage bill. This justifies the reason for high rate of unemployed graduates as government has the responsibility of generating employment for youths in Nigeria. Manabete (2015) also identifies private sector as stakeholder in job creation for the youth as government alone cannot bear the costs of education and employment. Hence, private sector participation in training is below anticipated standard. Therefore, the absent of SMEs which supposed to serve as source of employment are incapacitated due to continuous increase of unemployment. This indicates that the concerted efforts by youth is to engage in apprenticeship training in order to find themselves employment based on the skills and knowledge acquired. In the area of ICT, on-the-job training and mentoring are expected to equipped an apprentice with ICT skills and knowledge to enable them

operate effectively with the ICT facility. The training in ICT is expected to provide individual with adequate knowledge which has to be examined to ascertain the level of productivity of the individual. The globalized nature of ICT requires high level of compliance and literacy (Imoko & Usman, 2006). This indicates that high responsibility is placed on apprenticeship training where apprentice can be equipped to achieve set objective of the training (Nwabueze, 2005). Therefore, when an individual undertakes functional training in ICT, there is wider horizon for self-employment. Individual at this point can establish a private ICT business such as cyber cafes for recreation and research. For instance, massive training of individuals on diverse areas of ICT, office technology management, computer scientist, computer operators, computer engineers etc are now employable in diverse public and private organizations in CRS.

Job creation in agriculture entails farming as traditional means of alleviating unemployment and poverty (Alfred, 2014). Agricultural produce such as cereal (peas, beans, and cow pea) root and tubers (potatoes, yam, cassava, cocoyam), and tree crops (oil seed, ground nut, soya beans, oil palm), and animal (such as goats, cattle, sheep), and rearing (such as poultry and fish production), are major employers of labour which require adequate training (Usman & Inedu, 2004). Apprenticeship needs to be carried out to equip individuals with relevant agricultural skills to effectively venture into agriculture for food production and value creation. For instance, youth engagement in agriculture will substantially reduce unemployment. This will be successful with effective training and techniques on how to increase crop yield and to sustained production. Though, there is need for farm input, extension service, fertilizer, capital, spray, water pump etc, loan and subsidies on farm input need to be provided by government to sustain job creation to the youth. Government also has the duty of opening large farms and dairy centre for individuals that have acquired the necessary skills and knowledge through apprenticeship. Hence, agricultural production will be increased through proper supervision of the activities in the farm. This in a way have provided job for the youth in the society. Based on agriculture in Cross River State, it is envisaged that apprenticeship promotes acquisition of skills and trade through training which a roadmap for future self-employment development and sustainability is. To successfully create employment, apprenticeship education and training has been a philosophy of creating new cultural and productive environment, self-reliance, and promoting new set of culture and attitude to handle future challenges. Hence, the process of development in a country such as Nigeria is based on the production forces around the economy. This is why the development of industry in CRS, Nigeria is dependent on private sector where apprenticeship becomes a tool for entrepreneurship

## METHODOLOGY

Cross-sectional survey design was adopted in the study to enhance appropriate data collection. The population of the study covered South, Central and North sectorial districts in CRS with a total of 7,284 apprentices from Entrepreneurial Development Centre Calabar. The sample size of 386 was determined scientifically using Taro Yamane sampling formular. Structured questionnaire was the primary source of data and was administered to respondents with the relevant knowledge on apprenticeship. 386 questionnaire copies were distributed but the research was able to recover 371 copies. This represents 96 percent response rate. Descriptive statistics was used in summarizing data and hypotheses were tested using Exploratory Factor Analysis (Principal component Analysis) and Multiple Regression analysis. This was done with the aid of SPSS version 23.



## Demographic Attributes of Respondents

Table 1 shows the gender, age, marital status, educational qualification, training period and area of training. As seen from the table, 203 (54.7%) respondents were male while 168 (45.3%) respondents were female. This implies that the male took active part in the survey than the female. The responses on the age range of the respondents' shows that 84 (22.6%) respondents were within the age range of 20 to 25 years, 119 (32.1%) respondents were within the age range of 26 to 30 years. In addition, the table further shows that 108 (29.1%) respondents were within the age range of 31 to 40 years, while 60 (16.2%) respondents were 41 years and above. This shows that most apprentices in CRS are young and vibrant. The table also shows the academic qualification of the respondents, 120 (32.3%) respondents were holders of the OND/NCE certificate, 168 (45.3%) respondents were holders of B.Sc/HND certificate, while 83 (22.4%) respondents were holders of M.Sc/MBA/MA certificate. Furthermore, the table shows that 120 (32.3%) respondents were single, 203 (54.7%) respondents were married while 48 (12.9%) respondents were divorced as the time of this survey. The table further shows the training period of the respondents. 192 (51.8%) respondents were apprentice for just 6 months, 95 (25.6%) respondents were apprentice within the period of 1 to 2 years, while 84 (22.6%) respondents were apprentice for 3 years and above as at the time of this survey. Lastly, the table showed the various areas of training of the apprentice. 168 (45.3%) respondents were apprentice in the ICT sector while 203 (54.7%) respondents were apprentice in the agricultural sector.

<b>Table 1</b>		
<b>DEMOGRAPHIC REPRESENTATION OF THE RESPONDENTS</b>		
<b>Demographic</b>	<b>Total</b>	<b>Percent (%)</b>
<b>Gender</b>		
Male	203	54.7
Female	168	45.3
Total	371	100.0
<b>Age</b>		
20-25 years	84	22.6
26-30 years	119	22.1
3 -40 years	108	29.1
41 years and above	60	16.2
Total	371	100.0
<b>Academic qualification</b>		
OND/NCE	120	32.3
B.Sc/HND	168	45.3
M.Sc/MBA/MA	83	22.4
Total	371	100.0
<b>Marital status</b>		
Single	120	32.3
Married	203	54.7
Divorced	48	12.9
Total	371	100.0
<b>Training period</b>		
6 month	192	51.8
1-2 years	95	25.6
3 years and above	84	22.6
Total	371	100.0
<b>Area of training</b>		

ICT	168	45.3
Agriculture	203	54.7
Total	371	100.0
Source: Fieldwork, 2022		

## Descriptive Statistics of Variables

Table 2 presents descriptive statistics on the responses on apprenticeship system in CRS, Nigeria. The report covers data obtained from 371 respondents. Apprenticeship system was measured by on-the-job training and mentoring scheme. Six constructs were designed to measure on-the-job training product as capture in table 2 below. The mean of all the constructs were above 2.5 which indicate a positive response to the questions. The standard deviations of four of the constructs were below 1. This shows that up to 68 percent of the spread of the values are clustered around the mean, while the standard deviation of apprentice who undertakes learning through on-the-job training and best practices for on-the-job training consists of identifying potential trainers, were above 1. This means that up to 95 percent of the spread of the values are clustered around the mean. The variances indicate the spread of data is adequate.

Mentoring scheme was measured through six constructs. The mean of all the constructs were above 2.5 which indicate a positive response to the questions. The standard deviations of five of the constructs were below 1, showing that up to 68 percent of the spread of the values are clustered around the mean. While the standard deviation of career development and psychosocial support of apprentice, enhance ability and skills on task performance was above 1, showing that up to 95 percent of the spread of the values are clustered around the mean. The variances indicate the spread of data is adequate. Finally, six constructs were designed as measures of job creation and employability. The mean of all the constructs were above 2.5, which indicates a positive response to the questions. The standard deviation which is below 1 show that up to 68 percent of the spread of the values are clustered around the mean. The variances indicate the spread of data is adequate.

<b>Table 2</b> <b>DESCRIPTIVE STATISTICS OF APPRENTICESHIP SYSTEM IN CRS, NIGERIA</b>				
<b>Item</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Variance</b>
On-the-job training				
Apprentice undertakes learning through on-the-job training, which requires practical training and hard work to successfully learn and develop skills.	371	4.19	1.062	1.128
On-the-job training increase capacity to accept techniques and technologies that are new increase efficiency, invention and innovation.	371	3.84	0.956	0.914
Ineffective on-the-job training and difficult working conditions contribute to planned dropout by apprentices.	371	4.00	0.882	0.778
Productivity and efficiency are increased when apprentice under goes on-the-job training.	371	3.81	0.893	0.797
Workplace equipment, skills, expectation and operation needed for successful completion of task in ICT and agriculture are through on-the-job training	371	3.77	0.975	0.950
Best practices for on-the-job training consists of identifying potential trainers, structured training process and automating the learning process provide access for task performance	371	3.91	1.056	1.116
Mentoring scheme				
Unemployment is successfully addressed through effective mentoring of apprentice which contributes to economic development	371	4.26	0.760	0.577
Mentor have the task of supervising, guiding and directing apprentice positively in ICT and agriculture	371	4.23	0.605	0.366

Mentors that equips and empowers apprentice offers detailed directive to apprentice on what to do to achieve successful result	371	4.32	0.896	0.803
Mentors who share their inspiration, experience and enthusiasm contributes towards successful performance of task by apprentice	371	4.16	0.848	0.720
Effective mentoring scheme promotes creative ideas through experimenting, problem solving skills and supportive environment to be efficient and effective in a chosen task	371	3.94	0.951	0.904
Career development and psychosocial support of apprentice enhance ability and skills on task performance, confident building, provide feedback, and establish awareness that contribute to productivity.	371	3.93	1.164	1.355
Job creation and employability				
Npower programme is an avenue of job creation where youth are trained and exposed to resources and materials to develop skills and competencies for assigned task	371	3.96	0.934	0.872
SMEs by private sector serves as job creation for the youth as government alone cannot bear the costs of education and employment.	371	4.06	0.984	0.969
On-the-job training and mentoring equipped apprentices with ICT skills and knowledge to enable them operate effectively with the ICT facility.	371	4.03	0.697	0.485
Functional training in ICT, gives apprentice wider horizon for self-employment.in areas such as office technology management, computer scientist, computer operators, computer engine	371	4.23	0.707	0.607
Agriculture as major employer of labour require adequate training to reduce unemployment	371	4.22	0.607	0.369
Apprenticeship programme promotes acquisition of skills and trade through agriculture training in areas of food production	371	4.45	0.498	0.248
Source: SPSS Output, 2022				

### Factor Analysis on Apprenticeship System in CRS

Using principal component analysis (PCA), the constructs designed to measure apprenticeship system in CRS, Nigeria were extracted under four components based on Eigenvalues greater than 1 and Varimax with Kaiser Normalization rotation method. The Communalities were extracted for each construct and they all had values greater than acceptable level of 0.5. The extractions each had factor loadings of 0.5 and above as seen in Table 3. This satisfies the Rule of Thumb which states that average loading for each construct should be 0.5 and above. The initial Eigenvalues showed that each of the components explains 29.801% of the total variance. The table also shows that Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) is greater than 0.5, thus indicating that the sampling is adequate and there is no problem with normality. Bartlett's Test of Sphericity is significant (.000) thus indicating that the variables are suitable for structure detection. Hence, the constructs are valid measures of apprenticeship system in CRS, Nigeria.

Table 3 VARIMAX- ROTATED FACTOR LOADINGS FOR APPRENTICESHIP SYSTEM IN CRS		
Constructs	Component	
	1	2
Apprentice undertakes learning	0.773	
On-the-job training increase capacity	0.925	
Difficult working conditions contribute to planned dropout by apprentices	0.841	
Productivity and efficiency are increased when apprentice under goes on-the-job training	0.646	

Workplace equipment, skills, expectation and operation needed for successful completion of task	0.738	
Best practices for on-the-job training consists of identifying potential trainers	0.774	
Unemployment is successfully addressed through effective mentoring of apprentice		0.666
Mentor have the task of supervising		0.672
Mentors that equips and empowers apprentice offers detailed directive to apprentice		0.620
Mentors share their inspiration		0.666
Effective mentoring scheme promotes creative ideas		0.732
Career development and psychosocial support of apprentice enhance ability and skills on task performance		0.768
Variance explained=71.843		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy=0.687		
Bartlett's Test of Sphericity/Approx. Chi-Square=500.056		
df=66		
Sig=0.000		
Extraction Method: Principal Component Analysis.		
Rotation Method: Varimax with Kaiser Normalization.		
Source: Authors analysis using SPSS, 2022		

## RESULTS

The regression results reveal an R-value of.671, R-square of.450 and adjusted R-square of.447. All these estimates indicate goodness of fit of the data to the model ( $p < 0.05$ ;  $F = 150.766$ ). The value of adjusted R-square (0.447) implies that the variables (on the job training and mentoring scheme) accounted for 44.7 percent of job creation and employability. 55.3 percent of job creation and employability were not accounted for by the variables. The coefficients values show that the two variable (on-the-job training and mentoring scheme) have significant positive effect on job creation and employability ( $p < 0.05$ ;  $t = 12.746$  and  $7.113$  respectively). Hence, the results of the multiple regression analysis indicate that on-the-job training and mentoring scheme significantly affect job creation and employability.

Table 4 SUMMARY OF RESULTS OF MULTIPLE REGRESSION ANALYSIS						
Parameters for the regression model estimate						
R=0.671	Std. Error of the Estimate=0.417					
R <sup>2</sup> =0.450	F-Test = 150.766					
Adjusted R <sup>2</sup> = 0.447	Sig=0.000					
Variable	Standardized $\beta$ coefficient	T	Sig	Tolerance	VIF	Significance/Decision
On-the-job training	0.520	12.746	0.000	0.898	1.113	Significant
Mentoring scheme	0.290	7.113	0.000	0.898	1.113	Significant
a. Dependent Variable: Job creation and employability						
b. Predictors: (Constant), on-the-job training, and mentoring scheme.						
Significant @ $P \leq 0.05$						
Source: Extracted from SPSS						

## RECOMMENDATIONS

Recommendations for youth employability are as follows:

1. Government and stakeholders should consider the youth as productive assets of economic development and continuously engage them in vocational training in areas of ICT to operate effectively with the ICT facility for employment as office technology managers, computer scientists, computer operators, computer engineers both in public and private organizations in CRS, Nigeria.
2. On-the-job training and mentoring in agriculture should be a priority of government in combating food insecurity by engaging the youth and providing the necessary financial and material support to utilized the necessary skills and knowledge acquired for productivity in CRS, Nigeria.
3. Government should adopt the use of formal and non-formal apprenticeship training as source of knowledge transfer and capacity building to equip graduates and non-graduate for occupational skills and success in areas of their interest to boost productivity in CRS, Nigeria.
4. Mentors, teachers and on-the-job-supervisors should continuously be empowered as vital resource to ensure that content of skills and actual performance, effective and better transition of skills and knowledge into entrepreneurial practices are sustained to create high employment rate to youths in CRS, Nigeria.

## CONCLUSION

Effective supervision, knowledge and skills acquisitions are sustainably derived from apprenticeship schemes for self-reliance and sufficiency. Employability through job creation in areas of ICT and agriculture has significantly tamed unemployment and restiveness among youth. Therefore, policy framework on apprenticeship needs to be reviewed to accommodate diversity in apprenticeship training in CRS.

## REFERENCES

- Adams, A.V., de Silva, S.J., & Razmara, S. (2013). *Improving skills development in the informal sector: Strategies for Sub-Saharan Africa*. World Bank Publications.
- Adeyeye, J.O., Falola, H.O., Waribo, J.Y. & Akinbode, J.O. (2015), The effects of apprenticeship system on skill development of employees in the printing industry in Lagos State, Nigeria. *British Journal of Economics, Finance and Management Sciences*, 10(2), 16-32.
- Aghenta, J.A. (1982), Strategies for the return of vocational educational in Nigeria. *Education and Development*, 2(1), 1-13.
- Ainley, P., & Rainbird, H. (2014). *Apprenticeship: Towards a new paradigm of learning*. Routledge.
- Alfred, S.B. (2014), "Vocational training of rural women: A strategic option for engineering household food security in Nigeria". *Nigeria Vocational Association Journal*, 19(1), 208-216.
- Alemu, Z.G. (2015), The challenge of job creation in Nigeria. *African Development Bank Group*, 6(8) 1-16.
- Allen, T.D., Day, R., & Lentz, E. (2005). The role of interpersonal comfort in mentoring relationships. *Journal of career Development*, 31(3), 155-169.
- Ariyo, D. (2001). The future lost: The economic and social consequences of child abuse in Africa. *Africa Economic Analysis*, 2(6), 37-51.
- Breyer, J. (2006). Financial arrangement in the informal apprenticeships: Determinants and effects. *International Journal of Business and Marketing Management*, 1(3), 18-26.
- Brinkerhoff, R.O., & Montesino, M.U. (1995). Partnerships for training transfer: Lessons from a corporate study. *Human resource development quarterly*, 6(3), 263-274.
- Dickie, M., McDonald, R.P. & Pedic, F. (2011), A fair deal: Apprentices and their employers. *Journal of Applied Psychology*, 86(4), 23-37.
- Ehrich, L. (2006), The effect of group mentoring on organizational change. *Group and Organizational Management*, 21(2) 5-12.
- Ehrich, L.C., Hansford, B., & Tennent, L. (2003). Educational mentoring: Is it worth the effort? *Education Research and Perspectives*, 30(1), 42-75.

- Ejo-orusa, H. & Mpi, D.L. (2019), Reinventing the nwaboi apprenticeship system: A platform for entrepreneurship promotion in Nigeria. *International Journal of Advance Research in Management and Social Sciences*, 8(9), 98-132.
- Ezenwakwelu, C.A., Egbosionu, N.A. & Okwo, H.U. (2019), Apprenticeship training effects on entrepreneurship development in developing economies. *Academy of Entrepreneurship Journal*, 25(1), 1-25
- Fajobi, T.A., Olatujoye, O.O., Amusa, O.I., & Adedoyin, A. (2017). Challenges of apprenticeship development and youths unemployment in Nigeria. *Sociology and Criminology*, 5(2), 1-8.
- Falola, H.O., Osibanjo, A.O., & Ojo, S.I. (2014) Effectiveness of training and development on employees' performance and organization competitiveness in the Nigerian Banking Industry. *Bulletin of the Transilvania University of Brasov. Economic Sciences. Series V*, 7(1), 161.
- Franklin, O. & Ndiduka, E (2000), Repositioning apprenticeship training for self-reliance. *West African Journal of Education*, 2(10), 10-15.
- Friday, E., & Friday, S. S. (2002). Formal mentoring: is there a strategic fit?. *Management Decision.*, 40(2), 152-157.
- Gabadeen, W.O., & Raimi, L. (2012). Management of entrepreneurship education in Nigerian higher institutions: Issues, challenges and way forward. *Abuja International Journal of Education and Management Sciences*, 2(1), 1-26.
- Gayus, R.N., Manbete, S.S, ZadayuG. J. & Disa, A.A. (2008). Graduate unemployment: A re-tertiary institution to be blamed. *Knowledge Review*, 17(3), 111-115.
- Goldstein, I. L., & Ford, J.K. (2002). *Training in organizations*. Wadsworth: Thomson Learning.
- Haan, H. (2006). Training for work in the informal micro-enterprise sector: Fresh evidence from Sub-Sahara Africa. *The Academy of Management Perspective*, 3(6), 17-28.
- Ijbas I. (2019). *Technical and vocational education and training for job creation in Nigeria*.
- Ismail, A., Abdullah, M.M., & Francis, S.K. (2009). Mentoring program and its impact on individuals' advancement in the Malaysian context. *Journal of Industrial Engineering and Management*, 2(3), 592-615.
- Imoko, B.I., & Usman, K.O. (2006). Information Technology (ICT): A vital tool for population education. *Benue State University of Education*, 1, 168-172.
- Lamb, S., & McKenzie, P. (2001). Patterns of Success and Failure in the Transition from School to Work in Australia. Research Report.
- Lodovici, M.S., Comi, S., Origo, F., Patrizio, M., Torchio, N., Speckesser, S., & Montalt, J.V.B. (2013). The effectiveness and costs-benefits of apprenticeships: Results of the quantitative analysis.
- Manabete, S.S., & Umar, B. (2015). Emerging careers and professions and their implications for technical and vocational education and training in the 21st century. *Donnish Journal of Educational Research and Reviews*, 2(4), 53-60.
- McNamara, C. (2008). *Employee training and development: Reasons and benefits*. New York: Authenticity Consulting.
- Mieschbuehler, R., & Hooley, T. (2016). World-class apprenticeship standards: report and recommendations.
- Montesino, M.U. (2002). Strategic alignment of training, transfer-enhancing behaviors, and training usage: A posttraining study. *Human resource development quarterly*, 13(1), 89-108.
- Nwabueze, C. (2005). ICTs and Social marketing A Critical Appraisal. *African Council for Communication Education, Benue State University, Makurdi, Nigeria*.
- Okadi, A.O., Onah, F.C., Ekenta, L.U., & Abeya, E.I. (2020). Promoting Apprenticeship as Panacea for Sustainable Skill Acquisition and Industries in Nigeria. *Vocational and Technical Education Journal*, 2(1).
- Oguejiofor, C.S., & Umeh, U.F. (2018). Mentoring in entrepreneurship: Imperative for Nigeria's economic development. *Nigerian Journal of Business Education (NIGJBED)*, 4(1), 223-231.
- Oguz, A., & Aydin, U. (2012). Education system in knowledge society and model of innovative entrepreneur. *Procedia-Social and Behavioral Sciences*, 47, 619-623.
- Okoye, A.C. (2016). Business education as a tool for socio-economic growth in Nigeria. Challenges and a way forward. *Global Journal of Applied Management and Social Sciences*, 11(1), 212-216.
- Onuoha, P.O. & Uhunoma, W. (2019). Job creation strategies for Nigeria. *Journal of Advances in Economic and Finance*, 4(1), 1-17.
- Onokala, U., & Banwo, A. (2015). Informal sector in Nigeria through the lens of apprenticeship, education and unemployment. *American Advanced Research in Management*, 1(1), 13-22.
- Safford, K., Cooper, D., Wolfenden, F., & Chitsulo, J. (2013). Give courage to the ladies: Expansive apprenticeship for women in rural Malawi. *Journal of Vocational Education & Training*, 65(2), 193-207.

- Smith, E., Walker, A., & Kemmis, R.B. (2011). *Understanding the psychological contract in apprenticeships and traineeships to improve retention*. NCVER.
- Udechukwu, J., & Essien, E.J. (2020). Strategies For Improving Apprenticeship Training Programme In Port Harcourt Metropolis, Rivers State Of Nigeria.
- Udu, A.A. (2015). Apprenticeship orientation and performance of microbusinesses in Ebonyi State, Nigeria. *European Journal of Biology and Medical Science Research*, 3(6), 1-11.
- Usman, M. & Inedu, S. A. (2004), *The appropriate methods of food storage*.
- Walker, J. L. (2011). *The Impact of Technology on Training in the Print Industry in Ohio* (Doctoral dissertation, Bowling Green State University).
- Wolter, S.C., & Ryan, P. (2011). Apprenticeship. *In Handbook of the Economics of Education*, 3, 521-576.

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