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TECHNOPRENEURSHIP AND YOUTH EMPOWERMENT IN RIVERS STATE, NIGERIA

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Abstract

This work examined the relationship between technopreneurship and youth empowerment in Rivers State. Objective of the study was to examine how dimensions of technopreneurship such as cybercafé business and computer/phone maintenance services influence measures of youth empowerment such as sustainable income generation and job creation. The exploratory research design was adopted. The accessible population of the study consisted of 700 technopreneurs operating in five local governments of the State. Purposive sampling was used to obtain a sample size of 400 respondents. Structured questionnaire was used to obtain primary data after due validation, and ascertaining the reliability of the instrument at 0.75 using Pearson's Product Moment Correlation Coefficient. The researchers were able to retrieve 370 copies of the distributed questionnaire. The following four null hypotheses were tested: cybercafé business does not significantly influence sustainable income generation amongst youths in Rivers State; cybercafé business does not significantly influence job creation amongst youths in Rivers State; computer/phone maintenance services do not significantly influence sustainable income generation amongst youths in Rivers State; and computer/phone maintenance services do not significantly influence job creation amongst youths in Rivers State. SPSS Version 20.0 was used to run the analysis. Pearson Product Moment Correlation was used for the Bivariate analysis. Partial correlation was used for the moderating variable. The findings revealed that technopreneurship ventures such as cybercafé business and computer/phone maintenance services have significant positive influence on youth empowerment. The study concluded that technopreneurship activities such as cybercafé business, computer/phone maintenance services, and computers/phones/accessories vending are the bedrock of youth empowerment in Rivers State, Nigeria. The study recommended the following: Government should open skills training, business incubation centres to train youths on skills required for entrance into technopreneurship ventures; both male and female youths in Rivers State should stop waiting for government jobs, rather they should start up small scale cybercafé or typesetting centre to enable them generate income on a regular basis; male youths irrespective of their educational attainment like their female counterparts should be committed to establishing and running internet services in strategic places; male youths should open new cybercafés to enable them generate income independently.

Key words: Technopreneurship, cybercafé business, computer/phones maintenance services, youth empowerment, sustainable income generation, and job creation.

Background of Study

The term entrepreneurship in business management literature is a multi-dimensional concept that has been given different interpretations after its first identification by Richard Cantillon as a major economic driver. Baringer and Ireland (2013) defined entrepreneurship as “the process by which individuals pursue opportunities without regard to resources they currently control.” The distinguishing trait of entrepreneurs is their mental and operational readiness to engage in uncertain economic activities that do not guarantee regular profit or monthly salaries as earned by workers in public or private organizations. With the advent and proliferation of technological resources today, coupled with globalization, entrepreneurial activities are gradually shifting from economic and social activities to technology-solution services. We live and work in a knowledge economy where virtually every meaningful human activity depends reasonably on information and communication technology. Otamiri, Odu, and Mark (2019) stated that “the world more than ever before is in need of fast data processing, transmission and sharing of information, and information resource management. Abdulgani and Mantikayan (2017) noted that technopreneurship can grow if potential technopreneurs find opportunities in the environment, if environmental conditions inspire technopreneurs to take advantage of these opportunities, and if environmental conditions enhance technopreneurs' ability to start and manage a business.” Smart minds are taking advantage of data/information needs in the society and a lot of information and communication services are springing up in both rural and urban communities in Nigeria. This has ushered in a new form of entrepreneurial business known as “technopreneurship.” This work conceptualizes technopreneurship as the process of identifying the business opportunities in information and communication and providing solutions in this area using technology on commercial basis. For the purpose of this work variables such as cybercafé business computer/phone maintenance services shall be focused on. The choice of these two dimensions of technopreneurship is informed by their predominance and popular adoption as entrepreneurial ventures in Rivers State, Nigeria.

Cybercafe business is a form of technopreneurial activity that provides online services such as browsing, uploading and downloading of materials and pictures, online registration, typesetting, printing and photocopying on commercial basis. Cybercafe business usually have internet facilities such as modem, wireless connections, broad band, Spectranet, Smile, T-link, and other web-based resources that give the operator access to the world wide web (the internet). Cybercafe operators also provide web services such as checking and printing from email, chat online, play online and offline games or for those who just want to meet friends in a casual atmosphere (Jones, 2019). Apart from cybercafé businesses, there are technopreneurs who specialize in information technology services such as computer/phone maintenance services. Technopreneurs in this line of business make money by providing solutions to clients' computer problems such as setup problems, computer crashes, software issues, networking challenges. Phone repairers help end users to rectify common mobile device problems such as broken screen, phone hanging and freezing, battery problem, slow browsing, unlocking and charging. Every household and business with a computer has the potential to need computer repair and maintenance help from someone who is knowledgeable in the field of information technology. To youths who have technical background and expert understanding of computers, peripherals, and software, establishing a technopreneurial business could be a great idea. A study done by Selladurai (2016) revealed that technopreneurs are skilled in applied creativity, thrive in response to challenge, and look for unconventional solutions; they experience challenges, create visions for solutions, build stories that explain their visions, and then act to be part of the solution. Therefore there is a vast growth opportunities in technopreneurship in the world, particularly in a developing country like Nigeria. Many youths who possess entrepreneurial spirit in

addition to digital skills provide solutions to the problems and needs people have as they continue to use information and communication technologies. Providing ICT solutions to the ever increasing number of end users is a modern day lucrative activity capable of empowering youths economically although many of our youths are yet to embrace it (Uchidah, 2015; Izibheya, 2015).

Youths constitute the largest portion of our population. The Federal Republic of Nigeria (FRN, 2004) officially placed the age bracket of youths between 16–30 years. Mohamed (2019) noted that “in Nigeria it may not be out of place to see people (especially men) of even 40-45 years of age claiming youth membership. Hence, the concept of youth is a relative one: a person is a youth if he or she believes so”. This research sees youth as a person (male or female) between the ages of eighteen (18) and forty (40) years. Youths are known to be very energetic and full of zest. This is why youth empowerment is a very important subject matter. Empowerment means assisting people to overcome obstacles which might prevent them from achieving their potentials. The need for empowerment arises from the inability of an individual or a group of people to actualize their dreams and reach their greatest potential due to artificial barriers created by individuals and other groups within the same society (Olakulein and Ojo, 2006). Semboja (2005) in Mohamed (2019) opined that “young people are empowered when they acknowledge that they have or can create choices in life, are aware of the implications of those choices, make an informed decision freely, take action based on that decision and accept responsibility for the consequences of those actions.” Operationally, this research sees youth empowerment as the level or extent to which individuals in a given society within the ages of 18 and 40 years are able to economically engage themselves. An empowered youth in this context is one who is meaningfully engaged in economic activities capable of providing them relative financial freedom. Youth empowerment within the context of this work is measured in terms of sustainable income generation, productive engagement, and employment generation for self and others.

Sustainable income generation implies that an average empowered Rivers youth makes money on regular basis. A youth in Rivers State who is not engaged in full time economic activities may not make money on a regular basis. Empowered youths have a stable source of income that provides relative financial security. Empowered youths are also engaged productively. Another characteristic of empowered youths is that they create job for their fellow youths. Young technopreneurs who are doing well employ one or more hands to work with them. As their businesses expand, they need more hands to work for them. This culminates in creation of new jobs in the informal ICT sector. It was against this background that the researchers decided to go into this study.

The Problem

The National Misery Index is now at 3.7% to 55.90, with Rivers State having the highest unemployment rate of 41.8% and a misery index of 79.87 (Brandspurng, 2019). Youths constitute the highest portion of the teeming unemployed population of Rivers State. Hashmu (2012) in Nwigbo and Imoh-Ita (2016) regretted that “Rivers State experienced higher crime rate due to large proportion of youths that are not engaged in any meaningful employment.” In line with the above assertion, the researchers’ participant observer experience has shown that most of the youths roam the streets idly and largely unengaged in lucrative activities. Thus, many of them are not in control of their economic power.

Majority of indigenous Rivers youths are yet to embrace technopreneurship opportunities, but constantly look out for white collar jobs that are not forthcoming. There is little or no acknowledged research documentation of whether involvement of Rivers youths in technopreneurship ventures can actually result in their empowerment. There lies the credence for this study.

Review of Related Literature

Theoretical Framework

This work is based on Schumpeter's Discovery and Opportunity Theory of Entrepreneurship propounded in (1949) and Knight's Risk, Uncertainty and Profit Approach of Entrepreneurship propounded in 1971.

Schumpeter (1949): The discovery and opportunity theory of entrepreneurship (equilibrium destruction theory)

Schumpeter looks at entrepreneurship as innovation and not imitation (Bula, 2012). The basic assumptions of Schumpeter's discovery and opportunity theory are as follows:

- i) An entrepreneur as an innovator is an economic and social leader who does not care much about economic profits, but his singular joy is being an innovator and being a server to his society.
- ii) The entrepreneur moves the economy out of the static equilibrium. The entrepreneur moves the economic system out of the static equilibrium by creating new products or production methods thereby rendering others obsolete. This is the process of "creative destruction"(creating uncertainty) which Schumpeter saw as the driving force behind economic development (Schumpeter, 1949 in Bula, 2012).
- iii) "The entrepreneur is not (necessarily) the one who invents new combinations but the one who identifies how these new combinations can be applied in production. This line of reasoning implies that a business owner is considered an entrepreneur only if he is carrying out new combinations."

Schumpeter's theory of entrepreneurship is relevant in explaining and predicting the relationship between technopreneurship and youth empowerment. The theory identifies and describes the technopreneur as an innovative person who is capable of creating value by servicing peoples' needs, not just primarily to make profit, but for the joy of solving peoples' problems in a given system and time. Schumpeter's technopreneur is an individual who is able to provide solutions and meet the needs of people in an information and communication technology (ICT) driven society. Thus, innovative youths in Rivers state can be self-employed, productively engaged and enjoy financial security by creatively creating ICT-solution businesses.

Knight's Approach

Knight (1971) in Bula (2012) views an entrepreneur in terms of Risk, Uncertainty and Profit. Knight recognized the distinction between risk and uncertainty. The latter is uninsurable since it relates to unique events, e.g., a shift in consumer taste. To Knight, the main function of the entrepreneur is to assume the uncertainty related to these events, thereby shielding all other stakeholders against it. i.e., the entrepreneur exercises judgment over these unique situations, the uncertainty in the economy, and functions as an insurance agent. Knight elaborated his theory in the paper; "Profits and Entrepreneurial Functions" from 1942 (Knight, 1971). Knight explicitly argues that entrepreneurs are owners of companies, i.e., residual claimants, and thus receive profits. Another assumption of Knight's theory of entrepreneurship is that "in order to earn a positive profit, the entrepreneur carries out three tasks: (1) he initiates useful changes or innovations; (2) he adapts to changes in the economic environment; and (3) he assumes the consequences of uncertainty related to the company (Bula, 2012).

This theory is relevant in interpreting and extrapolating the relationship between technopreneurship and youth empowerment in Rivers State. The theory makes us to understand that entrepreneurs whether technology-oriented or not are risk takers who engage in uncertain business enterprise. Technology-based businesses though lucrative, are fraught with uncertainty such as losses, changes in customer taste, and other market uncertainties. To succeed in maximizing positive profit, the technopreneur must acquire the prerequisite technological skills and resources as well as remain resolute and innovative as they grapple with the uncertainties of the information and knowledge society. Young technopreneurs must be ready to adapt their skills and operational capacity to changes in technological devices, software and window versions, changes and trends in IT consumers' needs and preferences to remain economically empowered.

Overview of Technopreneurship

The term technopreneurship is an offshoot of entrepreneurship. Entrepreneurship is much more than just “starting a business.” It is a process through which individuals identify opportunities, allocate resources, and create value (Okoye-Nebo, Iloanya, and Ugochukwu, 2015). This creation of value is often through the identification of unmet needs or through the identification of opportunities for change. The act of being an entrepreneur is interpreted here to mean "one who undertakes innovations with finance and business acumen in an effort to transform such innovations into economic good. Entrepreneurs see “problems” as “opportunities,” and then take action to identify the solutions to those problems and the customer pay to have those problems solved. Selladurai (2016) defines technopreneurship as “a simple entrepreneurship in a technology intensive context. It is a process of merging technology prowess and entrepreneurial talent and skills.” He also described a technopreneur as a person who destroys the existing economic order by introducing new products and services, by creating new forms of organizations and by exploiting new raw materials.

A technopreneur can be defined only with help of his or her application of technology in the business. A technopreneur is a person who sets up a business concerned with computers or similar technology. It is pertinent to point out that technopreneurship intention among youths is a function of creativity and the technological experience or engagement of individuals. Yusi, Endang, and Eko (2017) see technopreneurship intentions as the interest of people to prefer a career as an entrepreneur and start the realization of their business dreams using information and communication technologies. Such individuals are always looking for businesses and business information that are in demand. Technopreneurship promises to be a major economic development agent for both developed and developing countries of the world (Ali, 2017). Technopreneurship is operationalized in this work in terms of cybercafé business and computer/phone maintenance services.

Dimensions of Technopreneurship

Technopreneurship as an emerging form of entrepreneurship venture exist in different forms. However, for the purpose of this work which is domiciled in Nigeria where digitalization is still very low, technopreneurship is operationalized as cybercafé business and computer/phones maintenance services.

Cybercafé Business

The term cybercafé business refers to business outlets that provide internet services such as online registration, creation of e-mail accounts and accessing/sending of electronic mails, typesetting, photocopying and reprographic services (Ameh, 2016; Michael, 2017; and Philip, 2015). Given the low digital literacy and low digital access of most of the people living within Rivers State (Odu, 2019), smart minds establish cybercafés on campuses and strategic streets especially urban areas. They are usually equipped with desktop computer systems, laptops, large or giant photocopiers, laminating machines, and internet facilities. Students, lecturers, business men, and private individuals visit these business centres often to type handwritten manuscripts, browse and download papers, upload works, and conduct other online services. Cybercafes also known as small scale secretarial businesses (SSBs) provide clerical and online assistance services for people (Odu, 2018). Individuals who can browse on their own are charged based on the number of minutes or hours they spend on the system. Cybercafés also provide basic computer appreciation training services (Gabriel, 2014). Some cybercafés also undertake graphic designs services (designing and printing of cards and programme of events) for social functions such as weddings, burials, and corporate events (Obanya, 2008). Recent observations also show that some cybercafé operators are beginning to incorporate passport snapping/printing services to generate more income. Cybercafe businesses provide regular income and serve as one of the employers of youths especially secondary school leavers in Rivers State.

Computers/Phones Maintenance Services: Computer/phone maintenance services consist of business activities geared towards repairing and fixing technical problems end users usually experience with their personal computer systems and handsets. There are electronic mechanics today who specialize in maintaining “modern electronic products such as pocket personal computer (PC), personal digital assistant (PDA), MP3 players, digital cameras, digital camcorders, mobile phones, digital dictionaries and digital translators, compact disc (CD) players, digital versatile disc (DVD) players, liquid crystal display (LCD) television, DVD home theatre sound systems, laptop computers and the likes, make use of ICs extensively.” (Chikwuedu and Nwachukwu, 2014). Amongst the digital electronic appliances used in Nigeria, mobile phone is apparently the most widely used appliance by Nigerians. This may be due to its value and necessity, hence the need for competent maintenance technicians to carry out repairs in mobile phones at their downtime. Interchangeably used, mobile phones or cell phones or cellular phones are low powered transceiver that provide voice telephone service to mobile users, and are of three bands –single, dual and tri bands (Daniel, 2005). Mobile phones are electronic devices with inbuilt software. These devices have lots of electronic parts such as integrated circuits (ICs), resistors, capacitors, coils, relay, diodes and transistors. Since these appliances must attain a level of down-time (the period devices, components or appliances are not working because of breakdown of faults), it is therefore necessary to carry out maintenance on such digital facilities. Maintenance is the total attention and care given to an appliance or a system in order to continue functioning well, both at its up-time and down time. It is simply the action taken to restore or keep an item in good functional order.

Concept of Youth Empowerment: It is pertinent to first establish what youth is before discussing in detail the concept of youth empowerment. The period of youth is between the end of childhood and the entry into the world of work. Chronologically, it is estimated to be between 13-30 years

(Tonimiro and Lawal, 1998 in Nnodim, 2014). Within this age bracket, both boys and girls are filled with energy, very resilient and resourceful even under the most challenging situations. These features, when positively utilized, especially in productive ventures, would make our youths assets for national development rather than liabilities (Torimior, 2006). Youth in this context can be seen as young men and women who are no longer children, but not yet adults. Others have gone ahead to give a definitive age bracket to youths as those within the age range of 15-30 years (Uriah, Daniel, and Olulube, 2015). Youth empowerment is an attitudinal, structural, and cultural process whereby young people gain the ability, authority, and capacity to make decisions and implement change in their own lives and the lives of other people, including youths and adults (Vavrus and Fletcher, 2006). Narayan (2005) defined empowerment as “the expansion of choice and action to shape one's life. It implies control over resources and decisions.” Empowered youths are known for being able to generate income on a sustainable basis in addition to creating jobs for themselves and others. They are also productively engaged. There are different parameters that could be used to determine or measure youth empowerment. However, given the social realities in Rivers State, Nigeria where this work is domiciled, youth empowerment is measured in terms of sustainable income generation and job creation.

Sustainable Income Generation: The International Webster's Comprehensive Dictionary of English Language (2013) defines income as “(1) money, or other benefit, periodically received; the amount so received (2) the gain derived from capital, or labour, or both, inclusive of profit gained through sales or conversion of capital asset”. The compound word ‘income generation’ underscores the extent to which a youth or individual is able to make reasonable amount of money needed to meet their basic needs (Gabriel, 2014). Thus, sustainable income generation describes the ability or a personal economic status where an individual is able to create wealth on a regular and consistent basis. Small scale technology-related businesses have the capacity to create opportunities for young people to generate personal financial resources continuously as long as they keep doing the business. Sustainable income generation as coined by the researchers refers to the extent to which youths living within Rivers State are capable of accessing reasonable amount of money legally at regular interval to the point that they do not depend on others to meet basic financial needs.

Job Creation: Another indicator of youth empowerment is the level of gainful engagement of the youths. The extent to which job opportunities existed and are secured or securable by youths is a measure of youths empowerment. One of the features or characteristics of an empowered youth is that he or she is economically engaged in a lawful activity that pays him regularly and reasonably (Gabriel, 2014). This work defines generation of job employment as the ability of a youth to establish a business that engages him economically, pays him and empowers fellow youth(s) by hiring and paying them. An employed youth is economically and socially deemed responsible because he is meaningfully engaged and utilizes his time well. Adversely, unemployed youths are led to crime because of their relative deprivation and acute sense of want. The social environment of the jobless often leads to crime. Fajana (2000) conceptualizes employment generation as a situation where inhabitants who are willing and capable of working are able to find suitable paid job. The more youths in Rivers State are employed, the better and more independent they become. Thus, employment is an indicator of youth empowerment.

Procedure

The study adopted exploratory research design. The population of this study consisted of young people within the ages of eighteen (18) and forty (40) years who were engaged in technopreneurship activities such as cybercafé business, computer and phone maintenance services, and

computer/phone/accessories vending in the headquarters of five (5) local government areas in Rivers State (Obio-Akpor LGA, Port Harcourt City LGA, Ahoada East LGA, Khana LGA, and Ogba/Egbema/Ndoni LGA). For accessibility, those operating any of the businesses mentioned above in the computer villages or centres and tertiary institutions located within these LGAs constituted the accessible population of this study. The accessible population of the study was 700. Purposive sampling was used to obtain a sample size of 400 respondents. The study was predicated on the conceptual framework presented below:

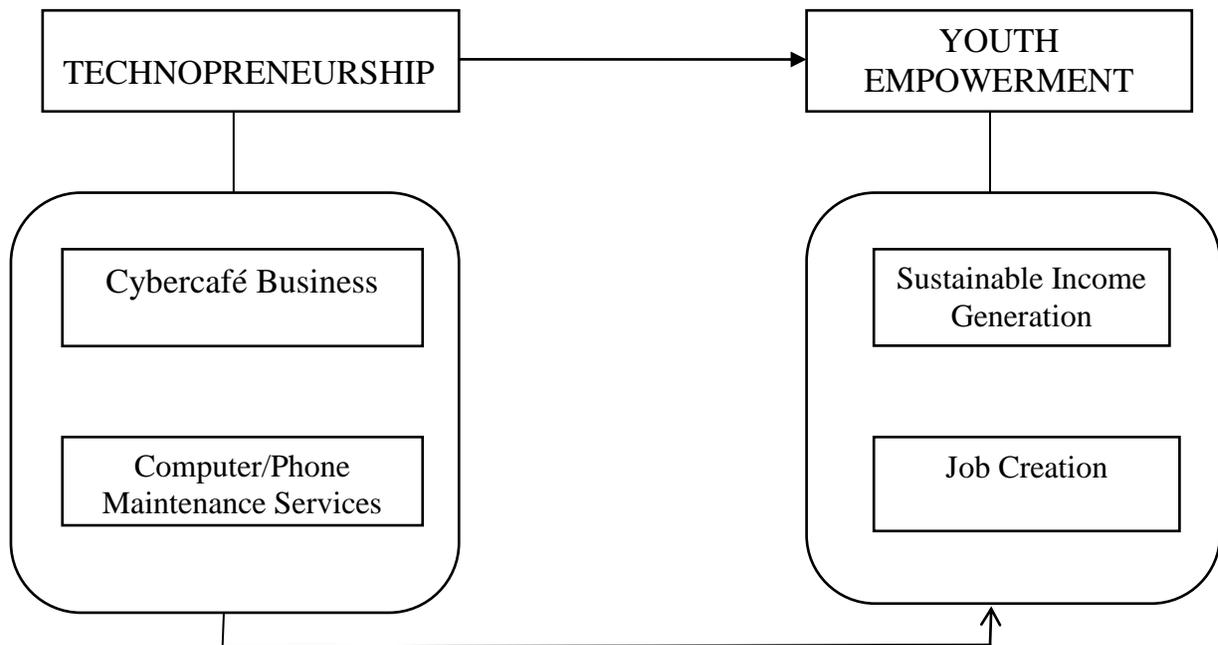


Fig. 1.1: Conceptual Framework Showing Relationship between Technopreneurship and Youth Empowerment.

Source: Researchers' Conceptualization, 2019.

In order to establish the empirical relationship between technopreneurship and youth empowerment, four (4) null hypotheses were tested which were stated thus:

- Ho₁: Cybercafé business does not significantly influence sustainable income generation amongst youths in Rivers State.
- Ho₂: Cybercafé business does not significantly influence job creation amongst youths in Rivers State.
- Ho₃: Computer/phone maintenance services do not significantly influence sustainable income generation amongst youths in Rivers State.
- Ho₄: Computer/phone maintenance services do not significantly influence job creation amongst youths in Rivers State.

A structured questionnaire titled “Technopreneurship and Youth Empowerment Index (T-YEI)”. The questionnaire was designed in five point likert rating scale format with the following response options: Very High Extent (VHE) 5, High Extent (HE) 4, Moderate Extent (ME) 3, Low Extent (LE)

2, and No Extent (NE) 1. After validation and test-retest which yielded a reliability coefficient 0.75 using Pearson's Product Moment Correlation Coefficient. The researchers was able to retrieve 370 copies of the distributed questionnaire. SPSS Version 20.0 was used to run the analysis. Mean and standard deviation and tables were used for the univariate analysis while Pearson Product Moment Correlation was used for the Bivariate analysis.

Results

Ho₁: Cybercafé business does not significantly influence sustainable income generation amongst youths in Rivers State.

Table 1: Cybercafe business and sustainable income generation

| | | | |
|------------------------------------|------------------------|--------|--------------|
| N= 370 | Coefficient | Sig. | |
| | 0.86** | 0.00 | |
| Pearson Product Moment Correlation | | | |
| | | Gender | |
| | t-score | Sig. | Mean |
| t-test (2 tailed) | 0.72** | 0.02 | |
| | Female | | 20.7 |
| | Male | | 9.28 |
| | Educational Attainment | | |
| Multivariate Analysis | ANOVA | Sig | |
| | 0.675 | 0.00 | |
| | FLSC | SSCE | First Degree |
| Mean | 1.35 | 15.4 | 10.2 |

Source: SPSS Data Output, 2019.

Table 1 above reveals Pearson correlation coefficient of 0.86 with a significant value of 0.00. Since the significant value 0.00 is less than 0.05 alpha level, the null hypothesis was rejected and the alternate accepted. This implies that there is a significant positive relationship between cybercafe business and sustainable income generation by Rivers youths. Further treatment of the demographic data (gender) using t-test yielded a significant value of 0.02 which is less than the 0.05 alpha level. This indicates that there is a significant difference between male and female Rivers youths in their taking to cybercafé business. The mean score for female technopreneurs (20.7) which is higher than the mean score (9.28) for male technopreneurs indicates that female Rivers youths are more proactively involved in cybercafe business than their male counterpart. This also implies that female Rivers youths generate income sustainably from cybercafé business than their male counterpart. Further treatment of educational attainment as one of the demographic variables using Multivariate Analysis (ANOVA) yielded a significant value of 0.00 which is less than the alpha level of 0.05. This

implies that there is a significant variation in the extent to which Rivers youths' engagement in cybercafe business influences their income generation due to differences in educational attainment. The highest mean score 15.4 for SSCE indicates that those with SSCE certificates are more gainfully involved in cybercafe business and therefore generate more income than those with other educational qualifications. Thus, the more Rivers youths engage in cybercafe business the more they generate income sustainably.

Ho₂: Cybercafé business does not significantly influence job creation amongst youths in Rivers State.

Table 2: Cybercafé business and job creation

| | | | | |
|---|------------------------|--------|--------------|--|
| Pearson Product Moment Correlation (2 tailed) | Coefficient | Sig. | | |
| | 0.84** | 0.00 | | |
| | | Gender | | |
| | t-score | Sig. | | |
| t-test (2 tailed) | 0.68** | 0.00 | | |
| | Mean | Male | Female | |
| | | 31.17 | 38.53 | |
| Multivariate Analysis (ANOVA) | Educational Attainment | Sig. | | |
| | FLSC | SSCE | First Degree | |
| Mean | 10.7 | 20.3 | 14.8 | |
| N = 370 | | | | |

Source: SPSS Data Output, 2019.

Table 2 above reveals Pearson correlation coefficient of 0.84 with a significant value of 0.00. Since the significant value 0.00 is less than 0.05 alpha level, the null hypothesis was rejected and the alternate accepted. This implies that there is a significant positive relationship between cybercafé business and job creation by Rivers youths. This implies that opening of cybercafé business has created more jobs for Rivers youths. Further treatment of gender as a demographic variable using t-test yielded a significant value of 0.00 which is less than the 0.05 alpha level. This indicates that there is a significant difference between male and female Rivers youths on how cybercafé business has led to the emergence of employment opportunities. The mean score of 38.53 for female which is greater than 31.17 for male indicates that cybercafé business has created more jobs for female youths than their male counterparts. Further treatment of educational attainment as one of the demographic variables using ANOVA yielded a significant value of 0.00 which is less than the alpha level of 0.05. This implies that there is a significant variation in the influence of cybercafé business on youths' ability to create jobs along various educational divides. The mean score of 20.3 for SSCE which is the highest mean score implies that youths who have a minimum SSCE certificate engage more in cybercafé business thereby creating and securing more job opportunities than those with other educational qualifications. Results show that the more Rivers youths engaged in cybercafé business, the more they create and secure job opportunities.

Ho₃: Computer/phone maintenance services do not significantly influence sustainable income generation amongst youths in Rivers State.

Table 3: Computer/phone maintenance services and sustainable income generation

| | | |
|---|---------------------|------------------------|
| Pearson Product Moment Correlation (2 tailed) | Coefficient 0.23 | Sig. .69 |
| | | Gender |
| t-test (2 tailed) | t-score 0.31 | Sig. 0.73 |
| Multivariate Analysis (ANOVA) | | Educational Attainment |
| | Sig. | .62 |
| N. = 370 | | |

Source: SPSS Data Output, 2019.

Table 3 above reveals Pearson correlation coefficient of 0.23 with a significant value of .69. Since the significant value .69 is greater than 0.05 alpha level, the null hypothesis was accepted. This implies that computer/phone maintenance services do not have any significant influence on sustainable income generation by Rivers youths. Further treatment of gender and status as demographic variables using t-test yielded a significant value of 0.73 and 0.75 respectively which is greater than the 0.05 alpha level. This indicates that there no significant difference between male and female in how their income generation is affected by their capacity to render computer/phone maintenance services. This implies that computer/phone maintenance services did not have any significant positive influence on male and female technopreneurs' ability to generate income sustainably. Further treatment of educational attainment as one of the demographic variables using ANOVA yielded a significant value of 0.62 which is greater than the alpha level of 0.05. This implies that there is no significant variation amongst technopreneurs in how computer/phone maintenance services influences their capacity to generate income sustainably. Results show that engagement of Rivers technopreneurs in computer/phone maintenance services has not yielded any significant positive influence on their income generation in terms of sustainability.

Ho₄: Computer/phone maintenance services do not significantly influence job creation amongst youths in Rivers State.

Table 4: Computer/phone maintenance services and job creation

| | | |
|---|----------------------|------------------------|
| Pearson Product Moment Correlation (2 tailed) | Coefficient .88** | Sig. .00 |
| | | Gender |
| t-test (2 tailed) | t-score 0.83** | Sig. 0.00 |
| | Female | Male |
| | Mean 20.4 | 28.6 |
| Multivariate Analysis (ANOVA) | | Educational Attainment |
| | Sig. | .72 |
| N. = 370 | | |

Source: SPSS Data Output, 2019.

Table 4 overleaf reveals Pearson correlation coefficient of 0.88 with a significant value of 0.00. Since the significant value 0.00 is less than 0.05 alpha level, the null hypothesis was rejected and the alternate accepted. This implies that computer/phone maintenance services have significant positive influence on job creation for Rivers youths. Further treatment of gender and status as demographic variables using t-test yielded a significant value of 0.00 which is less than the 0.05 alpha level. This indicates that there is a significant difference between male and female in terms of how computer/phone maintenance services have affected their ability to create job for themselves. The mean score of 28.6 for male which is greater than a mean score of 20.4 for female implies that male Rivers youths have succeeded in creating more jobs for themselves through their involvement in computer/phone maintenance services than their female counterpart. Further treatment of educational attainment as one of the demographic variables using ANOVA yielded a significant value of 0.72 which is greater than the alpha level of 0.05. This implies that there is no significant variation amongst Rivers youths based on differences in educational attainments.

Summary of Findings

Based on the analyses of data, the following findings were made:

1. Involvement in cybercafé business enhances Rivers youths' ability to generate income sustainably.
2. Involvement in cybercafé business empowers youths in Rivers State to create jobs especially by female technopreneurs and those with SSCE certificate.
3. Rendering computer/phone maintenance services does not enhance sustainable income generation by youths in Rivers State.
4. Rendering computer/phone maintenance services increases the number of jobs created by youths in Rivers State especially by the males irrespective of educational attainment.

Discussion of Findings

The analyses of data revealed that technopreneurial ventures such as cybercafé business and phone/computer maintenance services have significant positive effect on the empowerment of youths in Rivers State in terms of income generation and job creation. This finding is in consonance with the findings of Otamiri, Odu, and Mark (2019), Okoye-Nebo, Iloanya, and Ugochukwu (2015), Lucas, AlakA, Odozi (2014) that hardware/software maintenance services, computer consultancy services (cybercafé businesses), and phone/phone call/recharge card business have significantly and positively influenced socio-economic emancipation of the Niger Delta in terms of income generation and job creation. The hardware and software maintenance services bring about job creation and reduction in crime and youth restiveness in the Niger Delta Region (which Rivers State is a part of). Information and communication facilities develop faults on a regular basis: smart phones hang or their screens get broken etc. There is always a technical problem the skilled ICT-technicians can solve on commercial basis. These technicians have two or more apprentices or students on internship who assist them in repairing these devices. By so doing, computer/phone maintenance services enhance sustainable income generation and job opportunities for the teaming Rivers youths. They also make money from selling stationeries, laminating documents, spiral binding, and other typesetting and word processing services (Mewewe, 2017).

However, these findings negate the findings of Agufor (2013) that inspite of entrepreneurship and other empowerment programmes, youth empowerment has remained a major malady plaguing the Nigerian state. The presence of computer/phone maintenance service businesses has not made any significant reduction in the level of unemployment in Rivers State. At the end of the third quarter of 2017, only 1.91 million out of 4.3 million people in Rivers State's labour force were engaged full time.

Conclusions

Based on the analyses of data and discussion of findings, the study concluded that technopreneurship activities such as cybercafé business and computer/phone maintenance services are the bedrock of youth empowerment in Rivers State, Nigeria. Male youths in Rivers State are more involved in technopreneurship than their female counterparts and this resulted to higher level of economic empowerment among males than their female counterparts. Moderate educational attainment (O'level) is the only basic requirement for successful technopreneurship engagement and empowerment. Rivers youths who neglect technopreneurship face the risk of impoverishment, economic dependency, and unemployment.

Recommendations

Based on the results and conclusions, the following recommendations were made:

1. Both male and female youths in Rivers State should stop waiting for government jobs rather they should start up small scale cybercafé or typesetting centres to enable them generate income on a regular basis.
2. Male youths irrespective of their educational attainment like their female counterparts should be committed to establishing and running internet services in strategic places.
3. Irrespective of their educational attainment, male youths in Rivers State should emulate their female counterpart in opening new cybercafés or applying to work in the existing ones.
4. Female youths should acquire necessary ICT-maintenance skills and collaborate with successful male technicians to start making best use of their time in productive computer/phone maintenance services engagement.
5. Regular quality computer/phone maintenance training should be provided for Rivers youths with special encouragement for female participation to increase their expertise and entrepreneurship consciousness in this area.
6. Government should establish ICT-Skills Incubation Centres, Entrepreneurship Centres, Training Centres to enable Rivers youths avail themselves of technopreneurial opportunities. Such centres should be enhanced with some financial and material support from Government as a form of encouragement and motivation to the youths towards technopreneurship ventures.

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