

The Role of Technology Forecasting on Unemployment: A Panacea to Insecurity in North Central Nigeria

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Abstract— The rising rate of insecurity in Nigeria is extremely detrimental to the growth and the economy of the Nation. It is therefore imperative that solutions are found to this issue. This paper posits that a direct relationship exists between unemployment and insecurity and that by tackling the issue of unemployment in Nigeria, the insecurity threatening to topple the Nigerian nation will be lessened. This study with the topic **The Role of Technology Forecasting on Unemployment; A Panacea to Insecurity in North Central Nigeria** proposes that by using Technology Forecasting to predict the future employment trends, specialized institutions or skill centers can be created that will help in preparing the youth for jobs of the future, this will have direct ramifications in reducing unemployment and will lead to a reduction in insecurity. The study sort to discover if a direct relationship exists between unemployment and crime/insecurity and the role of Technology forecasting in predicting future employment opportunities? Findings from the secondary data analyzed show that there exists a direct relationship between unemployment and insecurity. The primary data obtained through structured questionnaires from a sample population in the region of Abuja showed that there is a strong interest in enrolling in specialized institutions and skill centers that will teach specialized skills in preparation for future jobs. And thus concluded that Technology forecasting is useful in solving unemployment which will in turn resolve insecurity issues.

Index Terms— Economic, Insecurity, Technological Forecasting, Unemployment.

I. INTRODUCTION

The security architecture in Nigeria has been stretched lately. Nigeria faces a plethora of security challenges ranging from violent extremism to farmer-herder conflict, banditry, police oppression, piracy, and attacks on oil infrastructure, among others. Insecurity and terrorism continue to pose a major challenge to the Nigerian nation, her government and, her citizens. Although the government is taking steps to resolve this problem, it remains largely unresolved especially in the northern region of Nigeria. This has great ramifications for National development. The inability of the government to provide a secure and safe environment for lives, properties, and the conduct of business and economic activities has led to resentment and dissatisfaction among business investors (Okonkwo & Ndubuisi 2015). This has resulted in disrupted

businesses and economic activities, retarded economic growth and development, and a lack of investments in Nigeria. Nigeria is not attractive to both local and international investors as investors do not want to invest in an unsafe and insecure environment. The alarming level of insecurity in Nigeria continues to make the Nigerian economy unattractive to foreign investors and has slowed down the level of business activities. This has negatively impacted economic growth and development. (Okonkwo & Ndubuisi 2015)

Nigeria in recent years is also experiencing rising unemployment rates. The unemployment rate in Nigeria has averaged 13.55 percent from 2006 until 2020, reaching a record height of 33.30 percent in the fourth quarter of 2020 and was at a low of 5.10 percent in the fourth quarter of 2010 (“Nigeria Unemployment Rate 2022 Data,” 2021). This means that there are roughly about 23.2 million people that are currently without jobs. This is the highest number of people willing and able to work that are without work in Nigeria in the past 13 years. Is there a correlation between the increasing rate of unemployment and the rising insecurity issues? Will resolving the issue of unemployment help to solve some of the insecurity challenges Nigeria is currently facing? These are some of the issues that will be addressed in this study.

Technology Forecasting can be defined as the prediction of technological changes using probability in terms of future features of useful machines and systems. Simply put, technology forecasting makes an effort to predict the rate of technological developments and advances. Mostly Technology Forecasting tries to bring possible and probable future technology into attention. Researchers mostly predict technology forecasts based on experience and current technological advances and developments. Like other types of forecasts or predictions, technology forecasting can be very useful and helpful for both public and private organizations to make right and smart decisions. By studying future opportunities and threats, the forecaster can make and improve decisions to achieve maximum benefits (Quinn 2014). Technology forecasting by predicting the technological changes of the future can help to predict future employment opportunities. If future employment opportunities in Nigeria are predicted, it will enable the government to focus its efforts on training the youths for specific available jobs. Bachelor’s degree holders have one of the highest unemployment rates for Nigerian education

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levels, second only to the 1% of the labor force that has only completed A'levels (Soala, 2021). Technology Forecasting can help predict the employment trends of the future, if the government through the right policies and policy instruments encourages and advocates for short term specialized technical trainings or academies for the youth based on future employment trends rather than full four-year or more University degrees, this will help to reduce the unemployment rate which will, in turn, affect the insecurity rates.

II. STATEMENT OF PROBLEM

To tackle the insecurity challenges in north-central Nigeria, there is a need to reduce the number of people, particularly youth and men without jobs. Right now, the increasing rate of insecurity (banditry, kidnapping, terrorism, robbery, etc) in north-central Nigeria is alarming. If this insecurity is left unresolved, it will lead to an increase in brain drain, decline in productivity, possible national isolation, deepening corruption on all levels, decrease in Foreign Direct Investment (FDI), and ultimately poor or stagnant economic growth.

Technological forecasting, which is the prediction of the direction, character, rate, implication, and impact of Technological advances is valuable in anticipating, recognizing, and identifying markets for new technologies and employment opportunities (Quinn 2014). Technological forecasting can help to predict future employment opportunities based on future technological trends. Specialized training can be offered to the youth in Northcentral Nigeria to prepare them for future employment opportunities, this will enable them to secure these employment opportunities, thereby reducing the unemployment rate which will in turn help in resolving insecurity.

The purpose of this study is to examine the role of Technological forecasting on employment as a panacea to insecurity in north-central Nigeria.

III. OBJECTIVES AND SCOPE OF STUDY

The main objective of this study is to examine the role of Technology forecasting on employment to resolve the insecurity challenges in north-central Nigeria with Abuja as a Case study.

The study aims to;

- Analyze the direct relationship between unemployment and crime/insecurity.
- Appraise the role of Technology forecasting in predicting future employment opportunities.
- Demonstrate how knowledge of future employment opportunities can help in resolving unemployment issues and therefore help to resolve insecurity issues.

This study will be carried out with selected unemployed persons in the north-central region of Nigeria using Abuja as

a case study. The questionnaire will be used as an instrument for data collection, it will be administered to fifty respondents and a statistical technique will be used to analyze data from the survey carried out.

IV. LITERATURE REVIEW

This study looks at the role of Technology forecasting in resolving unemployment as a panacea to insecurity in north-central Nigeria. The insecurity issue in Nigeria is reaching alarming proportions, lives are lost daily and it has become the norm to pray adversely for the safety of a loved one when he/she embarks on a journey, especially to the northern part of Nigeria. A report by the Nigeria Security Tracker (NST), a project of the Council on Foreign Relations Africa program, reports 80,542 deaths relating to insecurity issues were recorded from the period May 2011 to June 2021 alone (Onime, 2018).

The implications of this are extremely disadvantageous to the Nigerian economy. Population depletion, businesses in comatose, investments plummeting, multinationals closing shops and leaving the country, unemployment soaring, and populace in fear are some of these implications (Onime, 2018). This poses a threat to the governance and economic growth in afflicted nations. According to Stewart (2004), as cited in (Onime, 2018), apart from the direct effect of insecurity on the populace, the economic cost is enormous and very disheartening. Onime's research involved using elements of descriptive qualitative analysis and data from secondary sources to analyze the effect of insecurity on some economic aspects of a nation. His investigation showed that economic growth is affected greatly by insecurity by depleting investments, increasing unemployment, and diminishing government revenue, amongst others.

The Federal Reserve Bank of St. Louis showed in its economic data that Nigeria's business uncertainty index hit 1.07 points in the first quarter of last year, 2021. According to the data, this is the highest-level Nigeria's business uncertainty index has reached since 1954 when the rating, which measures the level of confidence in the business environment in Nigeria, was 1.19 points. It is largely believed that the cause of this is insecurity, which is fueled largely by the condition of the labor market and policy direction. When the people of a nation, especially youths do not participate in the labor market, it could indicate an increasing propensity towards criminal engagement (Iyatse, 2021).

The 2021 Global Peace Index (GPI) rates Nigeria 146 among 163 independent nations and territories according to its level of peacefulness. This moves Nigeria one step from 147 in 2020. In Africa, Nigeria is ranked eighth among the least peaceful countries after South Sudan, Somalia, the Democratic Republic of the Congo, Libya, Central African Republic, Sudan, and Mali. This shows that Nigeria has the worst credentials among the leading economies in the continent (Iyatse, 2021).

According to the research done on identifying the effect of unemployment on crime by (Raphael, & Winter-Ebmer, 2001), the relationship between unemployment and crime

was examined using U.S. state data, the effect of unemployment on the rates of seven felony offenses was estimated. The results showed signs of positive effects of unemployment on property crime rates that were stable across all model specifications. The magnitude of the relationship between unemployment and crime rate indicated that as small as a 1 percentage point drop in the unemployment rate will yield to a decline in the property crime rate of about 1.6 percent.

Most economists have stated that Nigeria would need to turn its massive youth population into human capital to experience the sort of demographic surplus that led to the Asian Miracle. Massive youth employment, according to Dr. Biodun Adedipe of B. Adedipe Associates Limited, is an extremely necessary path to replicating the China turnaround, especially in Nigeria (Iyatse, 2021).

The inbreeding of youth restlessness has been linked to the ineptness of the unemployed persons and the under-utilization of the unemployed university graduates in the labor market. There is a need for the radical restructuring of skill acquisition centers to engage the unemployed youths in learning trades and skills that would equip them to be self-employed and employers of labor. Youths through effective policies and policy instruments must be trained efficiently for the jobs of the future. These jobs can be predicted through the use of technology forecasts.

A recent study on unemployment and poverty in Nigeria: a link to national insecurity (Nwagwu, 2014) underscored that unemployment and poverty are universal occurrences not necessarily a unique characteristic of any one segment of the society. The research revealed that unemployment and poverty have direct links to security challenges in Nigeria and establishes the direct relationship between the two. There is a need for the radical restructuring of skill acquisition centers or training academies to engage the unemployed youths in learning trades and skills that would equip them to be self-employed and employers of labor. The exact skill acquisition and development schemes can be determined through Technological forecasting as it will help in predicting the jobs of the future.

There exists an interdependent relationship between insecurity and unemployment. They are cause and effect of each other (Iyatse, 2021).

Young people often participate or are involved in violence or violent activities because membership in extremist organizations provides immediate and great economic benefits. This is because the violent acts themselves offer opportunities for economic and monetary gain through either direct payment or looting, or through conflict that promises to open up longer-term economic options, for example, through backing if "their" ethnic or religious group gets power'



Graph 1: New Zealand Unemployment Rate and Crimes per 1000 Residents (Papp & Winkelmann 1998).

In the research by (Papp & Winkelmann 1998) represented by the graph above, a direct relationship can be seen between the rate of unemployment and the rate of crime.

Empirical research to date has been able to document a strong effect of unemployment on crime and insecurity. According to (Papps, Kerry & Winkelmann, Rainer, 1998), the overall impact of unemployment on crime rates tends to be negative: because the longer an individual is unemployed, the more likely it is that the individual is going to commit a crime to maintain the same standard of living. Therefore, resolving the issue of unemployment by using Technology forecasting to predict future employment opportunities will help in addressing and lessening the issue of insecurity.

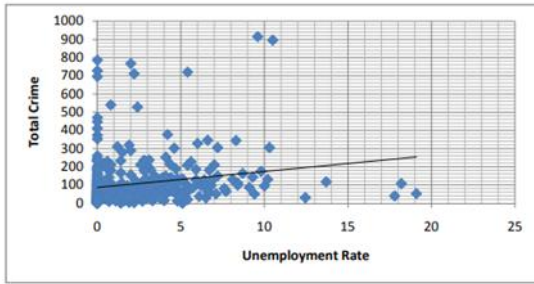
V. RESEARCH METHODS

This study is a descriptive study type and will involve the use of surveys and published secondary data. This approach is used because national data as well as views and opinions from different respondents is used to determine the current situation concerning one or more variables. The data for this study would be collected through both primary and secondary sources. Secondary Quantitative data involving the number of unemployed people and the rate of crime/insecurity in Northcentral Nigeria from the past 10 years will be collected. This secondary data will be gotten from the Nigerian National Bureau of Statistics. Primary data will be collected through the use of a structured questionnaire via survey. Selected unemployed persons in northcentral Nigeria, specifically Abuja due to safety, time, and cost concerns will be asked to fill in structured questionnaires on crime, insecurity, and future employment opportunities.

VI. ANALYSIS AND RESULTS

The secondary data is drawn from published data from the National Bureau of Statistics in addition to prior published work done on the effect of crime on unemployment done by A. A. Kilishi I and H. I. Mobolaji at the University of Ilorin in 2014.

Data regarding unemployment for 10 years were compared and analyzed against data of reported crime. The paper studied the effect of unemployment on total crime in Nigeria, State panel data was used to this. Various estimation techniques were then used to measure the models. The results presented that unemployment is a significant determinant of total crime as seen in graph 2 (Kilishi & Mobolaji, 2014)



Graph 2. Correlation between unemployment and total crime

Primary data was obtained by the use of a questionnaire designed for the purposes of the study.

60 respondents filled out the questionnaire, the majority, 55% were female, while the males made up 45%. Of the 60 respondents that filled out the questionnaire, the majority, 80% are in the 18 – 28 age brackets, 16.7% are in the 29-38 age bracket, and while 2 of the respondents (3.3 %) were in the 39 – 48 age brackets.

70% of the respondents had attained their Bachelor’s certificates, 1.6% of the respondents had completed a Higher National Diploma, 5% of the respondents had a National Diploma, and 10% of the respondents had only attained a Secondary School Leaving Certificate.

Table 1. Length of Unemployment

Period of Unemployment	Percent of Respondents
Less than a year	63.3
1 year - 3 years	23.3
3 years - 5 years	10
Above 5 years	3.4

In responding to the questions indicating whether respondents have felt pressured to make money and have thought or participated in illegal activities to provide income. The majority of the respondents responded that they feel discouraged about not having a job and feel pressured to make money.

98.3% of the respondents indicated that they will be interested in undergoing specialized training for future employment opportunities as indicated by Technology forecasting.

The analysis of this data showed that Nigerian youths are very interested in specialized academies or institutions that will teach the skills needed for future jobs opportunities.

VII. SUMMARY

This study posits that to tackle the insecurity challenges in the north-central region of Nigeria, there is a need to lessen the number of unemployed people, particularly the unemployed youth. This can be done through the use of Technology forecasting to predict future employment.

Technological forecasting is an instrument that can be effective in reducing the unemployment rates of the future. By predicting future employment opportunities, specialized Academies or Colleges can be set up that will help to imbibe the skill set needed for the future. These Institutions or Academies will help to prepare youth for future jobs in a shorter time as they are more specialized as opposed to the traditional 4-year Universities that take much longer and are not as effective in securing jobs for the graduates. The skills learned at these specialized institutions will enable the Youth to be better prepared to secure these employment opportunities, thereby reducing the unemployment of the youth in Northcentral Nigeria which would in turn help in resolving insecurity.

Due to time and money constraints as well as safety concerns, this study was conducted with selected unemployed persons in the north-central region of Nigeria using Abuja as a case study. Both primary and secondary data were employed in the study. The study was conducted using the quantitative method of data collection. Data was collected from both primary and secondary sources. The results from analyzing the secondary data demonstrated the direct relationship between unemployment and crime/insecurity although the analysis of the primary data did not effectively show this.

The analysis of the primary data showed that Nigerian youths are very interested in specialized academies or institutions that will teach the skills needed for future jobs opportunities. This effectively demonstrates that knowledge of future employment opportunities can help in resolving unemployment issues and therefore help to resolve insecurity issues. If the youths are encouraged to attend these specialized academies as opposed to the traditional Universities, they will be a reduction in the number of unemployed graduates.

VIII. CONCLUSION

The findings of this study are significant at it can help to encourage the Nigerian government to invest in Specialized institutions that will train for jobs for the future. It is useful in helping to support the preparation of policy and policy instruments that will encourage specialized academies that will train for jobs of the future.

If there is a reduction in unemployment in North-central Nigeria, there will be a reduction in the insecurity challenges facing the nation as this study has demonstrated that there exists a direct relationship between unemployment and insecurity. If insecurity is lessened, it will reduce the brain drain Nigeria is currently experiencing. It will also lead to an increase in productivity, reduce the possibility of national isolation, reduce corruption, and increase Foreign Direct Investment (FDI), which will lead to economic growth.

IX. RECOMMENDATION

Some recommendations for further study are to study the impact of the proposed specialized institutions on helping the Youth to gain employment. This can be done by measuring

the number of graduates from these institutions or programs that become employed and how quickly they can find employment.

Work can also be done in comparing if the number of dependents of an individual has any effect on their propensity for crime. The educational and environmental background of those inclined to criminal activities can also be analyzed.

The length of unemployment of an individual in relation to their propensity to commit crime is also another factor that can be further studied and analyzed.

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