

The Role of Media to Enhancing Science, Technology and Innovations in a Security-Challenged Environment

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Received: 02 May 2023

Accepted: 28 August 2023

Revision: 30 July 2023

Published: 07 December 2023. Volume-4, Issue-4

Cite as: Reginal A.; Chiwoke OG.; Otaka U.(2023). The Role of Media to Enhancing Science, Technology and Innovations in a Security-Challenged Environment. *ICRRD Journal*, 4(4), 174-183.

ABSTRACT: Nigeria today is faced with enormous security challenges ranging from farmer-herder's conflict, kidnapping for ransom, unknown gun men activities, boko-haram, banditry and so on. These crimes have caused staggering human suffering and economic disability, posing significant threats to the nation's security and stability. The insecurity and its consequential impacts have created an abnormal culture which can be tackled with increased reliance on science, technology and innovations. These elements are imperative in addressing this issue of insecurity. A major strategy in controlling the problem lies heavily on the use of the media for effective communication as misinformation has the potential to aggravate and propound the problem. This study therefore, focuses on the role of the media to enhance science, technology and innovations in achieving security and stability in Nigeria. The study adopted the qualitative research method, using the agenda setting theory and the securitization theory as its theoretical foundation. The study revealed that the media is highly capable of enhancing science, technology and innovations in a challenged security environment. The study recommends that the media should use its various tools such as radio, television, the print, internet, and social media, and so on to propagate and enhance science, technology and innovations to solve the nation's security challenges.

Keywords: Media, Technology, Innovations, Security Challenge, Environment

Introduction

The growing security challenges in Nigeria today are worrisome to every Nigerian. Nigeria's National Security (NSS), notes that the range of security risks in the country has increased parallel with border definitions of security. In addition to the traditional non-state actors, international organizations, transnational companies as well as international criminal groups are now playing an ever-increasing role in security issues. Indeed, the new types of challenges and threats are multifold, less visible and less predictable. It is becoming extremely difficult to create a demarcation between external and internal risk factors. (Choi, 2021). Nwabueze and Ebeze (2013), see the state of insecurity in Nigeria as becoming more obvious by the alarming trend of anti-social acts prevalent in the nation which in the not-so-distant past were unthinkable and could not be associated with the country. Acts of terrorism

by the boko-haram Islamic sect, incidence of kidnapping in the South East and South South parts of the country, including agitations by militants in the Niger Delta have become brands of crimes that have given a negative identity to Nigeria. Udouo and Diriyai (2012), identify the following as types of terrorists activities prevalent in Nigeria; religious related terrorism, ethnicity- driven terrorism, socio-economic- driven terrorism, politically- driven terrorism and hate- driven terrorism

The national security threats identified by the National Security Strategy (NSS) in Nigeria include; global challenges, terrorism, transnational organized crimes, crude oil theft/illegal bunkering, porous borders, climate change, communal and ethno-religious conflicts, pastoralists/farmers' conflicts, politics and federalism governance issues, poverty, kidnapping, proliferation of weapons of mass destruction, illegal migration, economic challenges, financial crimes, information technology and cyber insecurity, national man-made and medical related threats, environmental security among others.

Security issues are seen as menacing, dangerous, threatening, and alarming and so on by security professionals. Security issues are not simply out there but rather must be articulated as problems by securitizing professionals like the police, intelligence services, customs, immigration services, border guards and the military. All these institutions play an important role in defining the security landscape of any nation. They operate within a field characterized by competition over the right knowledge over the threat and other risks associated as well as competition over the right solution. Although disagreements and confrontations may occur between security professionals, Bigo, Bonditti and Olsson (2010), argue that they are still guided by a set of common beliefs and practices.

In Nigeria and according to the National Security Strategy (2014), the lead agency for the conduct of internal security is the Nigerian Police Force (NPF), which has been empowered to carry out effective internal security predicated on Law Enforcement Philosophies driven by seamless technology-based intelligence. The NSS adds that in the event of a large –scale –breakdown in management of internal security challenges, the military would be called in through an invocation of statutory provisions. Thus section 215 (3) and (4) of Nigeria's 1999 Constitution (as amended), states that the Nigerian Police Force (NPF), 'shall maintain and secure public safety and public order as well as ensure public stability and prevent threats to National Security'.

Unfortunately, the persistence of insecurity in Nigeria has been claiming precious lives of citizens and government efforts to tackle the problem through various methods and approaches such as the use of police, military, local hunters and vigilante groups has yielded no success. It is therefore believed that enhancing science, technology and innovations using the media would provide the desired results.

Objective of the Study.

The objective of the study is to identify the role the media could play in enhancing science, technology and innovations in Nigeria's security challenged environment.

Theoretical Framework.

The study is anchored on the agenda setting theory and the securitization theory.

The agenda setting theory postulated by McCombs and Shaw in 1972, refers to how the media's news coverage determines which issues become the focus of public attention. What the people think about is set by the media. The theory has two basic assumptions.

- (a) Media and the press filter and shape reality rather than reflect it.
- (b) When media focuses on just a few issues and subjects, the public tend to perceive those issues as more important.

The issue of agenda setting in this study relate to how the media select and tell stories about the importance of science, technology and innovations in curbing security challenges. The theory is pertinent to this study because the way the media highlight their stories on the need to enhance science, technology and innovations would sensitize the government and the policy makers to work in the proper direction.

Securitization theory as written by Clara Eroukhmanoff in 2018 shows that National Security Policy is not a natural given but carefully designated by politicians and decision makers. According to securitization theory, political issues are constituted as extreme security issues to be dealt with urgently when they have been labelled as dangerous, menacing, threatening, and alarming and so on by securitizing actors who have the social and institutional power to move the issues beyond politics. The theory is relevant to the study because the study is basically focused on security challenges and the variables that constitute the challenges. The theory is pertinent to the study as the audience collectively agree on the nature of the threat and supports taking extraordinary measures to combat the threat.

The Role of Science, Technology and Innovations in Curbing Security Challenges.

Science, technology and innovations enhance the capabilities of states and societies to obtain and transform resources necessary for their development and advancement. On the other hand, lack of scientific knowledge and access to technological innovations not only affect a country's level of development but also jeopardizes its national security. Security interdependence implies that the security of a state is closely tied to the security of other states and especially its neighbours. Since national security is interdependent, the security or insecurity of a state may have considerable impact not only on the security of its immediate neighbours but also on the security of a whole region in which it is geographically embedded (regional security).

Science, technology and innovations are cornerstones of a nation's economy. They are dominant forces in modern society and international economic development. Strengthening them can foster open, transparent and meritocratic systems of governance. Science, technology and innovations have brought tremendous advances around the world from new communication tools to approaches for delivering life-saving health care and security gadgets.

Technology as a factor affecting national security is closely related to population growth. The greater the population growth and the greater the pace of the technological development of a country, the greater the likelihood its activities and interests beyond its borders will expand. The greater the demographic growth and the less rapid the technological development of a country, the greater the likelihood it will face significant socio-economic problems and instability. (Choucri, 2002). In order words, unevenness in the interactive growth and development within and across the societies contributes to unevenness in the size, development and capabilities of such societies to differentiate capabilities among them and to competitions, conflicts and violence. (Choucri, 1984). As an engine of growth, the potentials of technology is still largely untapped in Nigeria where states not only lack adequate skilled labour and capital but also use the few existing factors less efficiently. The technological dependence of Nigeria has enhanced her vulnerability to outside interference and reduced the internal and national integration. Nigeria does not possess the capacity to effectively manage her human and natural resources which would have induced a positive rapid economic change. Socio-economic development is difficult to achieve in the absence of an adequate level of political development. Nigeria needs to strengthen her political, legal and institutional systems, adopt a performance oriented political economy and introduce an appropriate science and technology policy.

Technology as a Concept

Technology is that branch of knowledge that deals with the creation and use of technical means and their interaction with life, society and the environment, drawing upon such subjects as industrial arts, engineering, sciences and applied sciences. In this sense, technology is embedded in social, cultural, economic and political systems. With respect to development, technology is seen as an essential driver and determinant of socio-economic, cultural, environmental and political change.

Economically, technology can increase national productivity through improvement to efficiency of production and logistics while encouraging and enhancing innovation and knowledge creation. Alternatively, technology can exacerbate socio-economic differences and create uneven development within and between countries.

Culturally- technology has a profound effect on the norms and identities that help to constitute particular social group.

Environmentally- technology can contribute in significant ways to greener and more sustainable societies.

Politically- technology has democratizing effects (example, the Facebook revolutions in the Middle East) or it can facilitate enhanced forms of repression or surveillance by state authorities. (Hanska, 2016)

It has been suggested that development and security are interrelated. It has been shown that there is close relationship between development sectors and security sectors in the sense that the absence or presence of development in a particular sector impacts security and vice versa. For example, political development is related to political security while economic development is related to economic security. Therefore, lack of political development has the potential of enhancing political insecurity. (Stivachtis, 2011). Yet as in the case of security, problems in one development sector may affect other development sectors. For example, political underdevelopment may affect economic development and therefore a state's economic security. This means that security and development can to a great extent be operationalized in the same way. (Mittleman, 1988). Yet it has been argued that national security becomes inextricably connected to national development. This means that neither development can be achieved without security nor security without development.

Relationship between Technology and Development.

It is commonly said that technology and development are strongly related with development driven by technology and technology serving as key indicator to national development. In reality, however, technological change is often high, problematic with respect to its socio-economic and environmental implications as it may exacerbate inequality, uneven development, ecological degradation and or social exclusion. (Murphy, 2017) A crucial understanding of the drivers, dynamics, implications and geographically uneven distributions of technology and technological change is thus an important component of development studies and practice. (Murphy, 2017).

Science and technology are key drivers of development. This is because technological and scientific revolutions and innovations underpin economic advances and contribute to improvements in health systems, education and infrastructure. Thus development in science and technology has profound effects on economic and social development. Apart from constituting a salient issue, access to and application to technology are critical to a country's development. Example, access to high quality education is essential for the creation of scientific knowledge. Therefore science and technology are the

differentiating factors among countries separating those that are capable to tackle poverty effectively by growing and developing economies and those that are not. The level of a country's economic development depends to a large extent on its ability to grasp and apply insights from science and technology and use them creatively.

Role of Science and Technology in Combatting Crime in Nigeria.

Science and technology strengthen crime control particularly policing work by improving the ability of security officers to identify and monitor offenders as well as facilitate and identify places and conditions that contribute disproportionately to crime.

Speeding the detection and response to crime

Enhancing evidence collection

Improving security personnel's' deployment and strategies

Creating organizational efficiency and enhancing communication between security personnel and citizens.

Strengthening the ability of law enforcement to deal with technologically sophisticated forms of crime. (Example, cybercrime and terrorism).

Enhancing technological advancement in automobiles, protective gear, weapons and surveillance capabilities in reducing injuries and deaths to officers, suspects and bystanders.

Federal Government's preparedness embracing Science, Technology and Innovations.

Successive governments recognize science, technology and innovations as key drivers of development and have put in place various measures to enhance its application. The major focus has been in the areas of developing institutional capacity, infrastructure, and human capital as well as intensifying research activities. (Choji, 2021).

As stated in the National Security Strategy (NSS);

‘The National Security Strategy (NSS) , envisions a science, technology and innovations system that will drive our national goals (for security and external influence), for economic well-being, national development, physical security and external influence’.

To achieve this goal, federal and state governments have established various universities of technology, polytechnics complimented by various research institutions The National Policy on Science, Technology and Innovations (2012), was formulated to mainstream science, technology and innovations in economic planning and development process. The process is also intended to strengthen structures for the coordination, promotion and management of interaction within the system. It also aims at enhancing collaboration in research agenda to national priorities and reduce the time- to-market of commercialization of research out-puts.

The Policy established the National Research and Innovation Council (NRIC). The NRIC among other functions is to set national priorities and direction on Research and Development as well as facilitate fund-raising activities to support need and priorities. It is important to note that the National Policy on Science, Technology and Innovations clearly outlines the areas of defense and security research and development including emerging technologies such as ICT, Biotechnology, Energy and Space Technology as specific areas of interest.

Challenges in the use of Science, Technology and Innovations in the fight against insecurity in Nigeria.

The challenges include.

High cost of acquisition, maintenance, vandalization and sabotage as well as low level of infrastructure and low capacity, problem of science, technology and innovations and low level of Geographic Information Systems (GIS), dearth of research and development capacity for research (Choji, 2021)

The Media's Role in Enhancing Science, Technology and Innovations in a Security Challenged Environment.

Media is one of the important tools of development in today's world. With having the largest and widest audience, it is one of the main means of communication in achieving development goals. Media has high social and cultural impact on society and can also play an effective role in bringing about positive change in society. (Nasir, 2013). With the growth and development of the media, media technologies also spread rapidly. New communication and media technologies such as the internet play a major role in enhancing science, technology and innovations for security challenges. Media has increased the penetration of knowledge throughout the country and have positive impacts on sustainability. Development of the internet is associated with security threats, creating social responsibility for security activities. As people become aware of the state of events in their environment through the media, they become conscious and proactive in making decisions for safety. Social media platforms such as Twitter, Facebook, Instagram and others have given the opportunity for people to share opinions and engage with the issues of insecurity like never before. Information sharing through social media can raise awareness and encourage more environmentally friendly behaviour of people. (Cunningham et al, 2015).

As one of the most important institutions for the promotion of democratic values, the media have been playing very important roles in building the culture of peace in the country. It is acknowledged that security of life and property is a prerequisite for progress in any nation. Emergency Response Agency which include the Police, Federal Road Safety Commission (FRSC), the Nigerian Security and Civil Defense Corps (NSCDC), National Emergency Management Agency (NEMA), and so on was provided by the Emergency Communication Centre (ECC), to enable members of the public access help by dialing 112 which is Nigeria's Emergency Assistance Number from any network. According to the Executive Vice Chairman of the Nigerian Communication Commission, Umar GarbaDanbatta, the Commission aims at constantly upgrading and modernizing the ECC infrastructure across the country to improve the efficiency of the facility in meeting the needs and expectations of Nigerians in time of emergency. Media should give reasonable coverage of their news contents to science and technology development.

The media through its agenda setting function should propagate the need to promote technological advances which demand investment in quality education for youths, continuous skills training for workers and managers in ensuring that knowledge is shared as widely as possible across the society. This does not only constitute a policy question but also a question of quality priorities which are tied to the country's political development and capacity building. Media should promote the use of ICT devices such as computers, internet, mobile phones, close circuit television (CCTV), surveillance cameras, social network analysis, data mining, satellite imagery and IP devices. These devices would go a long way to produce positive results in the fight against insecurity in the country.

Research has shown that the United States of America (USA) and other countries in Europe, Asia, Middle East and even some African countries are taking proactive steps at checkmating threats to their national security by latching onto revolutions in ICT. According to This Day of September 12, 2013, 'Nigerians watched in amazement how America deployed its security system to track down the April 13, 2013 Boston Marathon Bombers. Similarly in less than 5 minutes, the images of the two men who hacked down a brave soldier in London on May 22, 2013, appeared on television screen around the world. These scenarios are no guess works If other nations can achieve this, why can our country not do the same thing and save its citizens from these many cases of unresolved high profile crimes in the country. The role of ICT in tackling crimes in modern times cannot be overlooked going by the modern tactics deployed by developed nations in tackling crimes.

Media should continuously make public the state of science and technology in Nigeria, its significance, global comparison and how science and technology should be given priority to contribute to development.

Media should create a science programmed which should be carried by all media channels in the country since the role of the media is critical in educating the public on the importance of science and technology in the society.

Media can assess our position, point out our deficiencies and lead the nation towards the destination of progress and prosperity through the path of science and technology.

Media should promote campaigns for the various disciplines of science and technology through scholarly debates, discussions and analysis as re-enforcers of recognized national priorities.

Media should create motivation and spirit for enhancement of science and technology.

Media should provide sources for valuable information about science and technology development as in providing guidance and advice to various sectors of the economy like education, health, agriculture, and so on, to promote the concept of development communication.

Media as functional actors are paramount since they help frame storylines about the existentially need of science, technology and innovations and what could be achieved by enhancing them in a threatening nature of crises environment. As the fourth estate of the realm, the media significantly influence the opinions of both governments and citizens alike.

Conclusion.

Science, technology and innovations are closely associated with our lives. The studies and developments in both science and technology are essential for the overall progress of mankind. Science research comprises a wide variety of fields ranging from the study of different branches of science to relatively advanced fields. It is important for the progress of mankind particularly for a nation like Nigeria that is lagging in terms of technology, innovations and scientific accomplishments. Science, technology and innovations are dominant forces in modern society. They are the cornerstones of a nation's socio-economic, cultural and political development. The solution to the nation's security challenges lies in the proactive adoption of science, technology and innovations mechanisms. And this should be the message the media should propagate all the time using its various communication tools.

Recommendation

There are tools in the hands of the media through which they can promote an environment suitable for the advancement of science, technology and innovations. These include;

Radio, television, print, internet, social media, documentaries as well as social advocacy through seminars and conferences. The study recommends that these media tools be used to enhance science, technology and innovations at allocated, dedicated prime-times.

Declarations

The manuscript has not been submitted in any other journal or conference.

Conflicts of Interest

There are no conflicts to declare.

Funding: The study received no funding from any source.

Acknowledgment: The authors extend their sincere appreciation to the editor and the anonymous reviewers for providing valuable feedback that significantly contributed to the improvement of this paper.

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