

**THE ROLES OF INFORMATION AND COMMUNICATION TECHNOLOGY  
MANAGEMENT IN NATIONAL SECURITY AND SOCIO ECONMIC  
DEVELOPMENT IN NIGERIA**

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9<sup>th</sup> induction ceremony

## **1.0 BACKGROUND OF THE STUDY**

The role of information and communication technology in national security and socio economic development needs to be studied as Nigeria is seen as the giant of Africa so also she is the Africa most populated country with around 190 million people. According to IMF GDP 2017 Nigeria is the Africa's largest economy with \$376.3 billion ahead of South Africa with \$349.3 billion and all other Africa countries. The development of any nation is usually measured by the degree and extent of the socio-cultural, socio-economic, and political improvement that are brought to bear through the enterprises of science, technology and mathematics [3] Sustainable development leads to fulfillment of societal ideals considered relevant to the needs and aspirations of the society. Socio-economic development is crucial to human existence as it is the process of economic and social transformation based on cultural and environmental factors. Therefore, it can be understood as the process of social and economic development within the society. It is measured with indicators such as, gross domestic product, life expectancy, literacy and levels of employment. Social development is a process, which results in the transformation of the social institutions in a manner, which improves the capability of the society to meet the objectives. Economic development is the development of economic wealth and resources of the nations or regions for the well-being of the individuals [2] on the other hand

National security is a concept that a government, along with its parliaments, should protect the state and its citizens against all kind of "national" crises through a variety of power projections, such as political power, diplomacy, economic power, military might, and so on.

The deep scars that insecurity leaves on people and nations are often obscured by historical accounts that, more often than not, glorify conquest and ignore aggression. One major challenge been faced by Nigerians deserving for more attention as far as security, mapping and conflict management is concerned on their effect on everyday life [1]

The role of technology in police institutions and police practices has long been recognized as relevant and ambivalent [8]. Information Communication Technology (ICT) is defined as the term that includes any communication devices or any application such as radio , television, hardware and software as well as services and applications that are associated with them [5] Although ICT has no universally accepted definition because the methods, concepts and applications of ICT are constantly evolving, the concept is divided into three: Information; Communication; and Technologies. A major function of ICT is it being a tool that helps organizations, businesses, and individuals to use information in the most accessible and convenient way. ICT covers all the products or devices that can transmit or receive, manipulate or retrieve information in digital form.

It has been stated by several authors and scholars that the development of any nation depends very much on the advancement and application of science and technology. The role of science in the development of modern societies is not in dispute more so now that the influence of modern technological innovations are far reaching in every sphere of man's life. If Nigeria is to build an organized, self-reliant, and technologically compliant society, much emphasis has to be continually made on science and technology [7]. In line with the aforementioned facts, this paper intends to examine the following objectives: (1) examine the various ways in which ICT can

impact positively on National security; (2) survey of ICT and its contribution to the GDP of Nigeria.

## **2.0 CONCEPTUAL REVIEW**

### **National security**

According to the United Nations Development Programme (UNDP, 1994) human insecurity may be defined to include such chronic threats as hunger disease and repression. Security means protection from hidden and hurtful disruptions in the patterns of daily life in homes, offices or communities. Security may also be defined as the state of being or making safe or secured from danger, etc. Security may also be defined as protection against [10] something that might happen in the future or as the activities involved in protecting a country, a building or persons against threats, danger, etc. [11]

### **CONCEPT OF ICT**

This is the application of computers and telecommunications equipment to store, retrieve, transmit and manipulate data, often in the context of a business or other enterprise

### **ICT Tools for National Security**

ICT is an umbrella that includes communication device used to describe a range of technologies for gathering, storing, retrieving, processing, analyzing, and transmitting information and their applications [9]. These infrastructures are cellular phones, video camera, computer network, satellite systems and the numerous services these infrastructures render.

Closed circuit television (CCTV) cameras are installed in location where there is possibility of crime, places such as banks, shopping malls and other important public places. CCTV is useful in monitoring traffics in public highways. It is used in conjunction with facial recognition software and the criminal database to identify crime offenders thereby facilitating crime investigation.

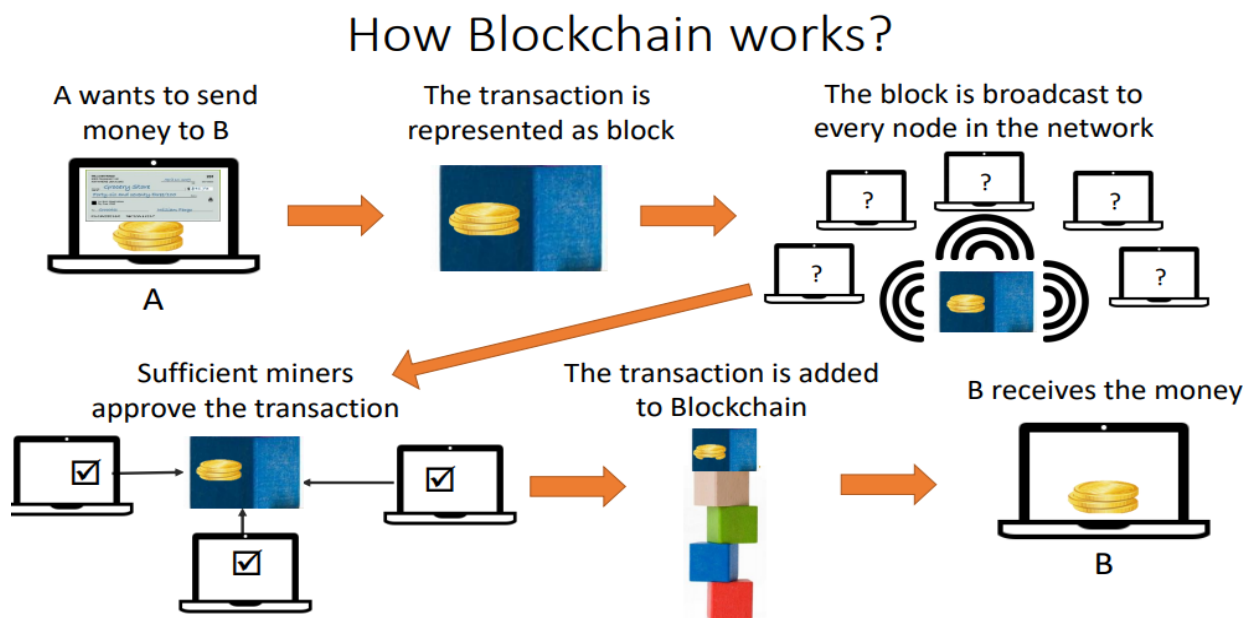
Finger print scanners serves' multiple purposes in police operations. It is used for confirming the true identity of criminal finger prints sample saved in the database and applied as protection for digital devices and files.

Voice Recognition software plays similar roles to the finger print scanner. It uniquely identifies a criminal and it is also used for protection of digital contents and devices from unauthorized access.

GPS Technology enabled devices can also help citizens signal for help when emergency situations arise. For example cell phones with Rave Guardian software, can activate a timer on their device when they would like surveillance from the police [4]

Data Mining and Database Tracking Data is growing at a phenomenal rate Users expect more sophisticated information. Data mining is used in Finding hidden information in a database. The output is fuzzy

Blockchain is a new type of database. This new type of database was developed to solve the previously unsolvable double spending problem without a middleman, opening up a range of new possibilities. In this database the data is saved in a block, which in turn is linked to other blocks in a chain creating the blockchain. To secure the blockchain a system called proof-of-work is used. It is virtually impossible to alter the blockchain afterwards. This work is done by so called miners who -when they find a block- get a small payment for their effort. What is saved in blockchain can never be removed or altered. Depending on the cause, this can either be a major advantage or disadvantage. Popular examples are Bitcoin and other Cryptocurrencies.



*Figure 1 (Source: <http://www.cs.tau.ac.il/~msagiv/courses/blockchain.html>)*

Social Networking Tools are used to reach members of the society who are connected to the Web and actively creating and sharing content in their own time. Security agencies should be turning to familiar social networking tools to share news and strategies for community security. Social networking sites like Facebook and MySpace will usually allow communities to create pages that store information about security plans, emergency procedures, and community events.

### 3.0 METHODOLOGY

In order to achieve the first objective, random sampling techniques were employed. The researcher randomly selected a sample size of 100 respondents from the five offices. Each office contributed to the sample sizes therefore, the sample size for the study was 94 respondents. Data was collected using the questionnaire which the researcher administered face to face to the respondents. Out of 100 copies of questionnaire distributed to the respondents, 94 copies were retrieved. This represented a response rate of 94%.

In order to achieve objective two, published data from established regulatory bodies were used and inferences were drawn from these data. The parameters used are market share by technology, internal subscriber data, subscriber/teledensity data and the contribution of telecom to GDP of Nigeria.

#### 4.0 RESULT AND DISCUSSION

This deals with the presentation, analysis and interpretation of the data collected during the field survey of the study.

##### *(a) Characteristics of the respondents*

Table 1 presents the characteristics that express information which includes occupations of the respondents and their opinion on whether ICT can impact nations security.

Table 1

Characteristics	Frequency	Percentage
Military officers	16	17.02128
Police officers	20	21.2766
Private security	19	20.21277
Private IT Analyst	18	19.14894
NiTDA	17	18.08511
Agree	90	95.74468
Disagree	4	4.255319
Total	94	100

**Source:** Researcher's Model

Table 2 shows the impression of the respondents on various Information Technology gadget and how they can impact positively on national security. Figure 2 shows the frequency and percentage impression of the respondents on various Information Technology gadgets and how they can impact positively on national security

Table 2

Characteristics	frequency	percentage
Use of Finger print scanner	80	89
Use of voice recognition	21	23
Use of GPS Technology	88	98
Use of CCTV	89	99
Data mining and database	60	67
Social network tools	30	33

Use of Blockchain technology	12	13
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Source : Researcher Model

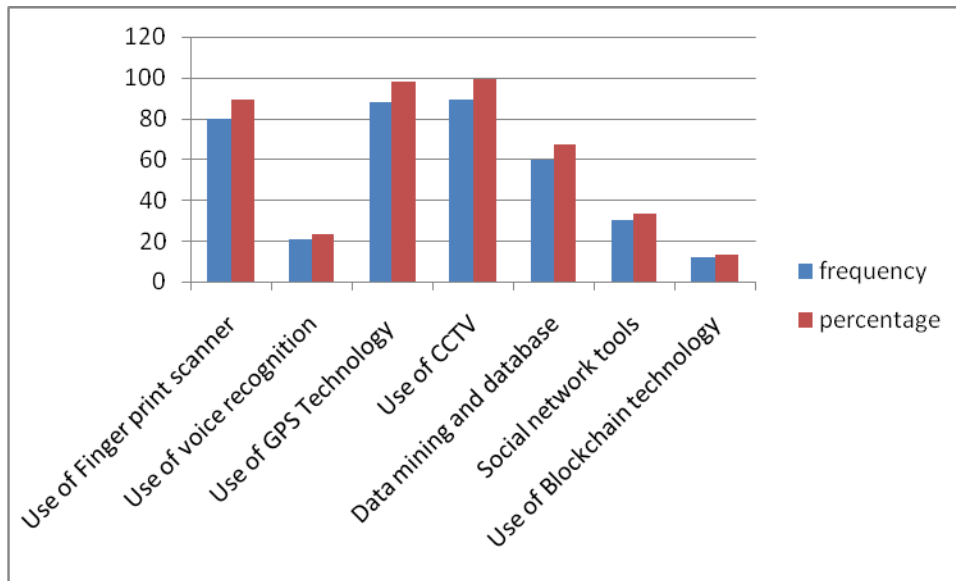


Figure 2 (Source: Researcher's Model)

It is evident from Figure 3 that the market share by technology network has been growing steadily for mobile (GSM) as at August 2019 in Nigeria and hence, we may conclude that there has been development in the socio economic status of the nation

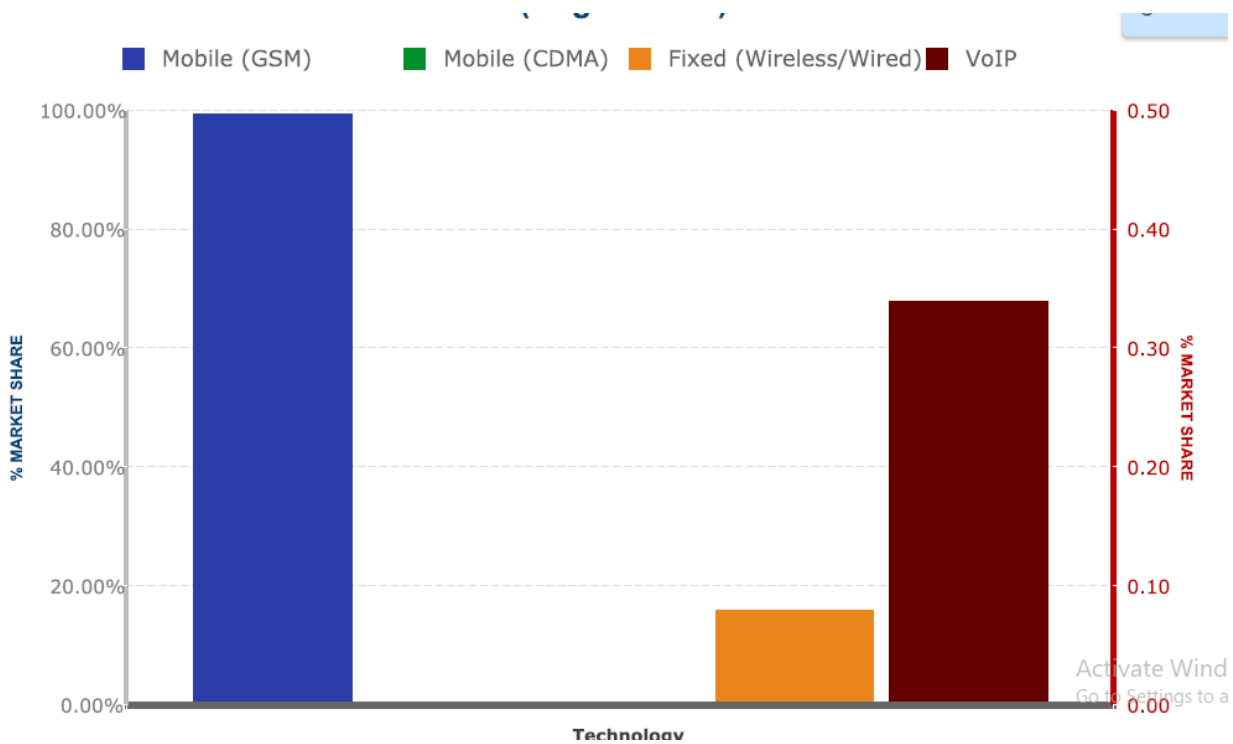


Figure 3 Market share by technology as at august 2019 ( Source:[6])

It is evident from Figure 4 that the internet subscriber data (GSM) has been growing steadily from September 2018 to August 2019 in Nigeria and hence, we may conclude that there has been development in the socio economic status of the nation.

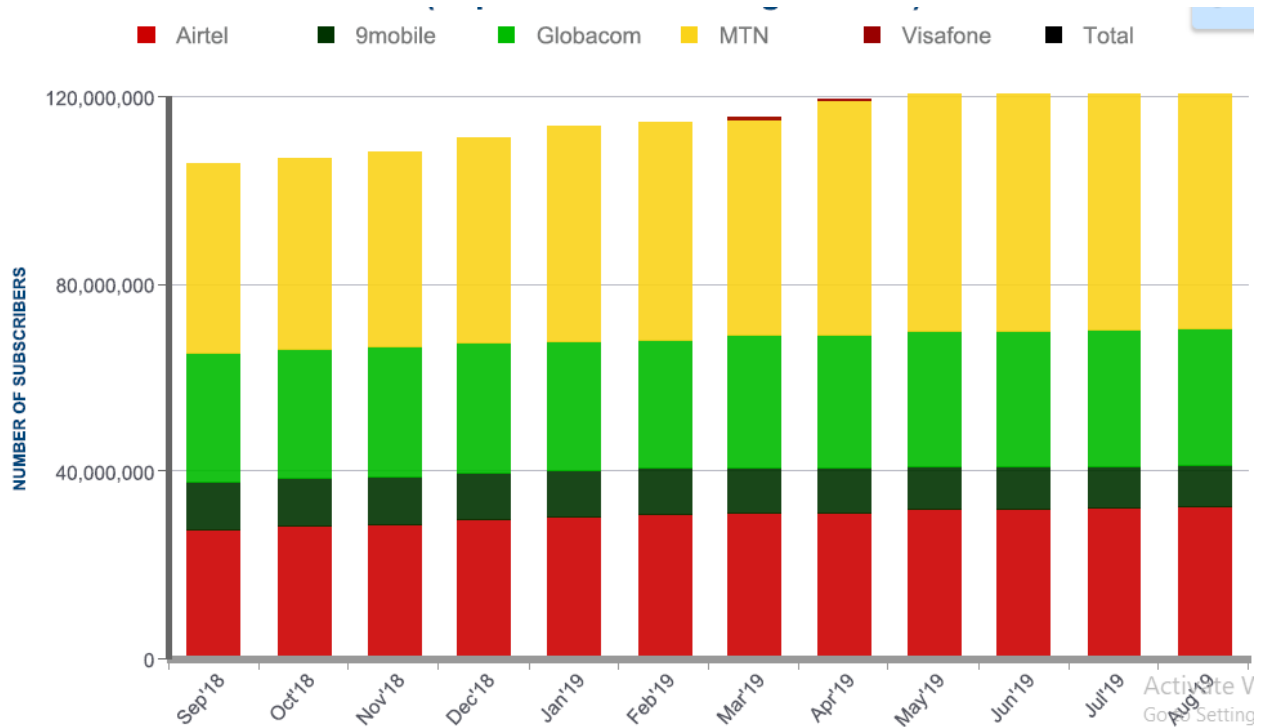


Figure 4 number of Internet Subscriber (sep.2018-august 2019) (Source: [6])

It is evident from Figure 5 that the subscriber/teledensity data has been growing steadily for mobile (GSM) as at August 2019 in Nigeria and hence, we may conclude that there has been development in the socio economic status of the nation.

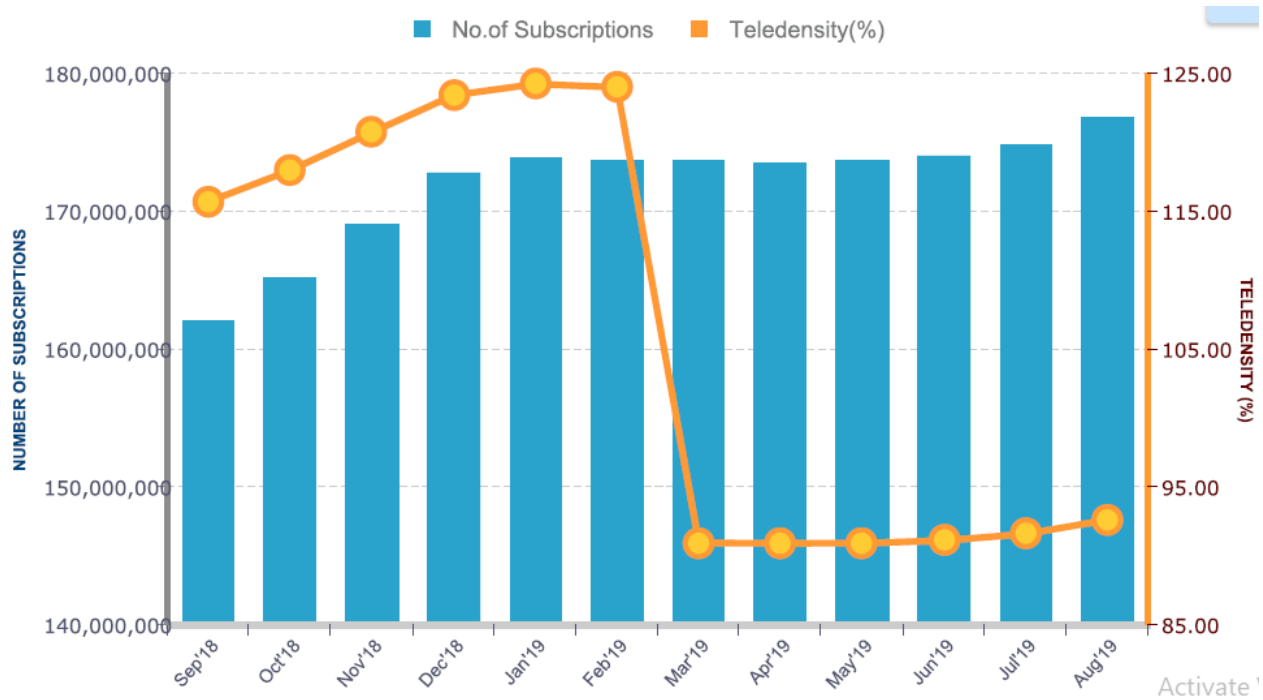


Figure5 Subscriber/Teledensity data (sep 2018- August 2019) Source: [6]

It is evident from Figure 6 that the telecoms industry as at August 2019 in Nigeria contributed to country's GDP growth. According to the report, the ICT sector contributed 13.85 per cent to total



nominal GDP in the second quarter of 2019, which is much higher than the 11.22 per cent contributed in the same period in 2018.

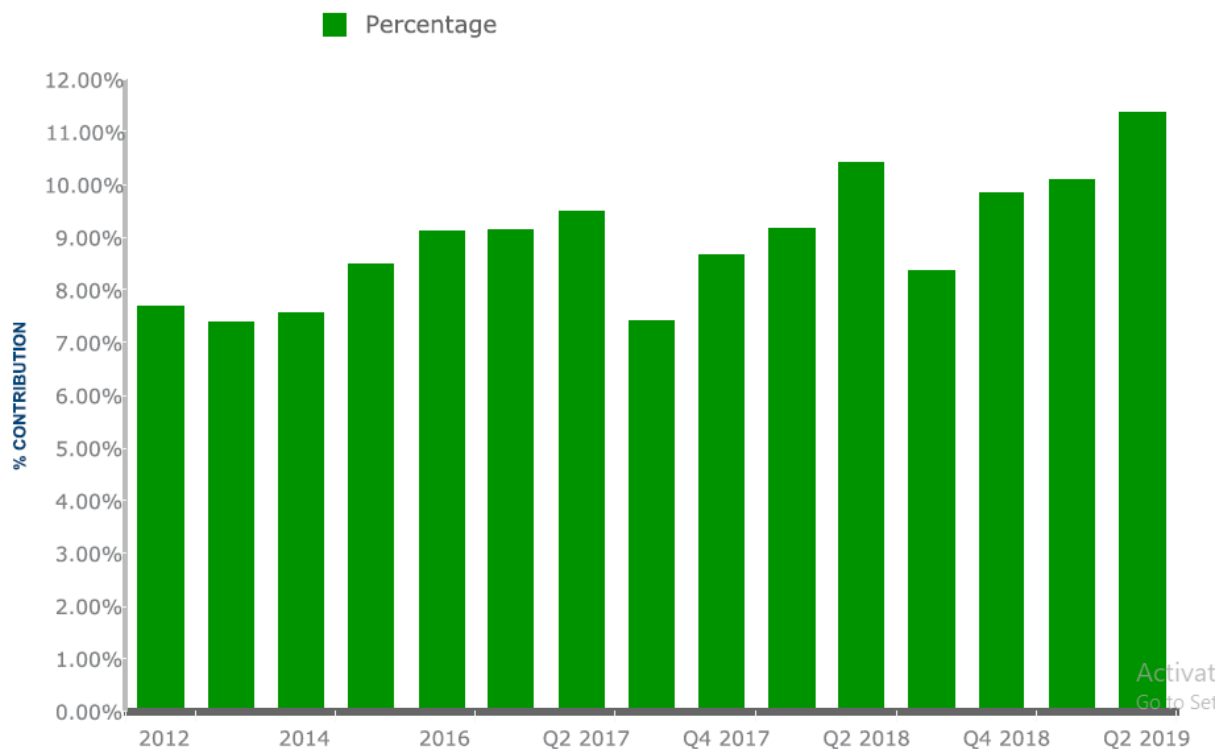


Figure 6 Percentage Contribution of Telecommunications Industry to GDP (2012 – June 2019) Source: [6]

## 5.0 CONCLUSION

This study has revealed very clearly that the ICT is a very important tool to the nation security and socio economic growth of Nigeria because it has different gadgets that assist to detect and combat crime. It also contributes greatly to the GDP and leads to the development of the country. It is therefore recommended that ICT awareness should be increased and ICT infrastructures should be greatly invested on because a maximum growth can only be achieved when the ICT infrastructures in place are standard and latest. It is also important that ICT be inculcated in all sectors of the security and economy units of the nation.

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