

Role of Cyber Security in Building Smart Bangladesh by Ensuring Smart Bangladesh Vision, 2041: A Critical Analysis

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Abstract

The promise made by the Awami League in its election manifesto before the 2008 National Parliament elections to form 'Digital Bangladesh' by 2021 is now visible. This digital Bangladesh has changed the course of development progress in the country. Looking ahead to the year 2041, the new challenge is smart Bangladesh. This smart Bangladesh will make people's lives easier; everything will be at hand. Bangabandhu is the dreamer of digital Bangladesh. The fairy-tale country 'Smart Bangladesh' will come into the hands of Sheikh Hasina. Now the question is: What is smart Bangladesh? Why is it necessary? How will it be implemented? Smart Bangladesh refers to a technology-based lifestyle where everything from all types of civic services can be done smartly. Every citizen will get guaranteed rights and an excellent opportunity to fulfill duties without suffering. The Awami League government, under the leadership of Sheikh Hasina, has taken up the future action plan by dividing the outline of that smart Bangladesh into four parts. It is possible to realize the Smart Bangladesh Theory through the proper implementation of the words smart citizen, smart economy, smart government, and smart society. A step forward from digital Bangladesh, the new vision of smart Bangladesh is expressed here to further advance the services of citizen life. Special sectors have been chosen to further modernize civic and social life, such as smart citizens, smart economies, smart governments, and smart societies. In order to develop the mentioned issues in a smart way, there must be a guarantee of safe and dynamic information technology, so there is no substitute for safe technology or cyber security in building a smart Bangladesh.

Introduction

Smart Bangladesh is an initiative led by the Government of Bangladesh aiming to transform Bangladesh into a technologically advanced and sustainable society. Cyber security is the practice of defending computers, servers, mobile devices, electronic systems, networks, and data from malicious attacks. It's also known as information technology security or electronic

information security. The term applies in a variety of contexts, from business to mobile computing, and can be divided into a few common categories.¹ Building on the foundation of the [Digital Bangladesh](#) initiative, Smart Bangladesh envisions the development of [smart cities](#), smart agriculture, smart healthcare, smart education, smart energy, smart governance and smart institutions with the ultimate goal of creating a more prosperous, equitable, and sustainable future for the people of Bangladesh.² Now the question is, what will the common people understand by Smart Bangladesh and how will it be achieved, the decision has just come from the higher level of the government regarding this new action plan, so we have to wait for a few more days to know the details, when the government aims and objectives of Smart Bangladesh. And will bring out a booklet or a publication outlining the specific roadmap for implementation, then maybe there will be a clear idea in this regard, but in the event that the Prime Minister announced Smart Bangladesh, he clearly mentioned that four fundamentals have been set for the purpose of building Smart Bangladesh and these are Smart Citizen, Smart Economy, Smart Government and Smart Society, the current government is rapidly advancing the implementation of their declared Vision 2041 program and it can be assumed that the Smart Bangladesh action plan will be implemented as part of this program, but the four specific areas that the government has focused on in building Smart Bangladesh Mentioned the progress identified, it is clear that if these four sectors of the country can be developed as fully technology-based smart sectors, nothing will be left to transform into a smart Bangladesh. In short, we cannot think of a smart Bangladesh plan without cyber security

Keywords: *Bangladesh, smart, digital, cyber, education and development.*

Objectives of the Study

Since cyberspace, or the internet, is the main basis of the Smart Bangladesh plan, ensuring that cyberspace is safe is one of the main objectives of this research article.

Methodology

The paper is prepared based on secondary data, which collected from different sources like books, journals, Newspaper and the internet. Collected information has been analyzed to draw suggestion from the study and make the study informative to the concerned readers. This technique of the critical review will be demonstrated role of cyber security to building smart Bangladesh.

Background of Smart Bangladesh

Prime Minister Sheikh Hasina first talked about building a 'Smart Bangladesh' in the Chief Guest's speech at the event organized on Digital Bangladesh Day-2022 at the Bangabandhu International Conference Center (BICC) in the capital on 12th December 2022. Sheikh Hasina said, "We will make Bangladesh a developed country in the year 2041 and Bangladesh will be from Digital Bangladesh to Smart Bangladesh."³

Plan for the Smart Bangladesh

There are four foundations to build 'Smart Bangladesh'. Smart citizen, smart economy, smart government, smart society. If we proceed by identifying these four specific areas in the construction of Smart Bangladesh, there will be no remaining transition to Smart Bangladesh. All services and media will be converted to digital through smart citizens and smart government. In addition, if smart society and smart economy ensure growth, it will play a helpful role in creating an inclusive society and building a business-friendly environment.

¹ <https://www.kaspersky.com/resource-center/definitions/what-is-cyber-security>

² "[Smart Bangladesh Vision 2041](#)". *a2i.gov.bd*. Retrieved 20 February 2023.

³ "Smart Bangladesh to be built by 2041: PM". Prothom-alo Collection date 2023-01-19.

'Smart Bangladesh will be cost-effective, sustainable, knowledge-based, intelligent and innovative. In short, everything will be smart. Such as ensuring smart healthcare, smart transport, smart utilities, urban administration, public safety, agriculture, internet connectivity and disaster management for implementation of smart cities and smart villages. One student, one laptop, one dream initiative has been proposed to ensure online participation of students. Under this, all digital services will be brought under a centrally integrated cloud. The Bangladesh government has already changed the name of the Digital Bangladesh Task Force to 'Smart Bangladesh Task Force'.

Formation of Smart Bangladesh Task Force⁴

The task force has been constituted as follows:

SL	Name of Members	Position
01	The Prime Minister	Chairperson
02	Minister, The Ministry of Finance	Member
03	Minister, The Ministry of Education	Member
04	Minister, The Ministry of Planning	Member
05	Minister, The Ministry of Commerce	Member
06	Minister, Ministry of Posts, Telecommunications and Information Technology	Member
07	State Minister, Information & Communication Technology Division	Member
08	Cabinet Secretary, Cabinet Division	Member
09	Principal Secretary to the Prime Minister	Member
10	Secretary, The Ministry of Commerce	Member
11	Secretary, Office of the Prime Minister	Member
12	Secretary, Technical and Madrasha Education Division	Member
13	Secretary, Secondary and Higher Secondary Education Division	Member
14	Secretary, Posts, Telecommunications and Information Technology Division	Member
15	Chairman, BTRC	Member
16	Director in General, NTMC	Member
17	Executive Director, BCC	Member
18	Managing Director, Bangladesh High Tech Park Authority	Member
19	Managing Director, Startup Bangladesh Ltd.	Member
20	Head, Department CSE, Bangladesh University of Engineering and Technology	Member
21	Head, Department of CSE, Dhaka University	Member
22	Head, Department of CSE, Shahjalal University of Science and Technology, Sylhet	Member
23	President, FBCCI	Member
24	President, BASIS	Member
25	President, Bangladesh Association for Call Center and Outsourcing (BACCO)	Member
26	President, Bangladesh Computer Summit (BCS)	Member
27	President, E-commerce Association of Bangladesh (E-CAB)	Member
28	President, ISPAB	Member
29	Mr. Anir Chowdhury, Consultant, a2I Program.	Member
30	Secretary, Information & Communication Technology Division	Member

Smart Bangladesh Vs Cyber Crimes

With the four basic areas of the Smart Bangladesh Plan announced by the Honorable Prime Minister, namely, Smart Citizen, Smart Government, Smart Economy and Smart Society, Bangladesh is witnessing a massive increase in cyber crime.

1. Cyber crime vs. smart citizens

⁴ <https://ictd.gov.bd/site/notices/278ada73-d144-4f0f-bc80-5f74499faf29>

A digitally literate person that takes advantage of technology in order to engage in a Smart City environment, address local issues and take part in decision-making⁵. When a smart citizen goes online to do his daily life communication, financial transactions, office work etc., he faces fatal problems like Facebook hack, credit card fraud and Gmail hack. Implementation of smart citizens is almost impossible without ensuring security.

UNICEF has five broad guidelines to keep children safe in this age of technological advancement – coordinating global, regional and national action, protecting children's privacy, empowering children online by creating opportunities for digital learning and its more equitable use, harnessing the unique role of the private sector and Increase investment in evidence behind children's online access, opportunities and risks.⁶

2. Cyber crime vs. Smart Economy

Smart Economy is an economy based on technological innovation, resource efficiency, sustainability, and high social welfare. Smart Economy adopts innovations, new entrepreneurial initiatives, increases productivity and competitiveness, with the overall goal of improving the quality of life of all citizens.⁷

A secure economy is key to a nation's development. An unsafe financial transaction leads to financial crime and can turn the state into a bottomless basket. Smart transactions are the prerequisite of smart economy but nowadays various digital and online financial transactions are insecure and risky. As we mean by smart economy cashless financial transactions and internet based activities, they need a secure cyber space to implement smart economy. Debit and credit card fraud and crimes such as stealing debit and credit card information while shopping online, hacking bank accounts and extorting money. Technology expert Kazi Minhar Mohsin says debit and credit cards can be cloned by installing a special machine in the ATM machine, which is also called card skimming. It has reduced a lot now. However, Mr Mohsin says the most vulnerable now are debit and credit card details when shopping online. "The biggest risk right now is the theft of debit and credit card information when shopping online. When you give your information to buy something, it's there. These sites can be hacked very easily, and if they're hacked, your information is still there." You may see that after you buy a product from someone, after a few days a big bill may appear in your name, which you did not buy.⁸

Now digital transactions mean cards, internet banking, apps and MFS. However, not all of MFS has gone digital. To deposit money, most people still take cash and deposit it with agents. Cash withdrawals are also almost the same amount. In January, more than 1 lakh crore rupees were traded in MFS, but digital transactions were 7500 crore BDT . MFS shopping, mobile recharge, service bill payment are all done digitally.

Similarly, the country's debit and credit card transactions were Tk 39,757 crore in January, but actual digital transactions were Tk 3,800 crore. Because more cash is

⁵ <https://www.igi-global.com/dictionary/smart-city--smart-citizen--smart-economy/87777>

⁶ <https://www.shomoyeralo.com/details.php?id=162057>

⁷ <https://www.google.com/search?client=firefox-b-d&q=definition+of+smart+economy>

⁸ <https://www.bbc.com/bengali/news-47546645>

withdrawn from the ATM booth with the card. Purchases made at point of sales and e-commerce are real digital transactions.

Meanwhile, customers of the bank are transacting 33 thousand 925 crore BDT per month using internet banking services and apps. About 100 crore BDT are being deposited every month through agent banking services.

So much news of small transactions. About 62 thousand crore taka are being transacted every month through electronic fund transfer. EFT is being used in various institutional transactions including government salary allowances, sending money from one account to multiple accounts. The money is going to the customer as per the click. It has brought transparency as government and private.

Meanwhile, through real-time gross settlement (RTGS), 4 lakh 93 thousand crore BDT are being transacted every month. It is a special type of transaction where a lot of money is transferred from one bank to another bank in Bangladesh. The minimum amount for RTGS transaction is one lakh BDT.⁹

3. Cyber crime vs. Smart Government

[IGI Global](#) defines Smart Governance or smart e-governance as the “use of technology and innovation to facilitate and support enhanced decision-making and planning within governing bodies”. It is often associated with improving the democratic processes and transforming the ways that public services are delivered.¹⁰

Various online devices, internet and various technologies are used to deliver all the services of the government online or through information technology to the doorstep of the people. If there are unsafe devices or cyber space, then deadly incidents like Bangladesh Bank locker fraud, credit card fraud will continue to happen.

The scope of work of the executive committee of the task force also states that this committee will adopt short, medium and long term plans for the implementation of 'Smart Bangladesh' and take necessary measures for its implementation, create legal and technical infrastructure and give steps and directions for its implementation at all stages.

Apart from this, formulation and implementation of a time-bound action plan to transform education, health, agriculture and financial sector activities into a smart system, formulation of information technology regulations in the economic, social, commercial and scientific spheres with the aim of building a smart and omnipresent government, 'Made in Bangladesh' to achieve the desired export target. This committee will take measures to formulate policies and set time-bound targets, to implement digitization of the financial sector. The task of this committee will also be to give necessary advice and guidance to implement the decisions taken by the 'Smart Bangladesh Task Force' formed under the leadership of the Prime Minister.¹¹

⁹ <https://www.prothomalo.com/business/bank/hm6q9tpooc>

¹⁰ <https://www.igi-global.com/dictionary/smart-homes-as-a-solution-for-sustainable-and-more-inclusive-retrofitting-of-existing-buildings/45119>

¹¹ <https://www.prothomalo.com/bangladesh/v27t3tjbea>

4. Cyber crime vs. Smart Society

The smart society is a global movement that is highlighted in line with digital technology advances. Most studies of the smart society focus on the use of technology to aid human activities, especially in urban areas.¹² [Another study referred to the definition of a smart society](#) *A smart society successfully harnesses the potential of digital technology and connected devices and the use of digital networks to improve people's lives.*¹³

In order to move a society forward, all its activities must be done smartly, but in the modern times, cyber crime has become so deadly that teenagers, youth and students are being affected. Pornography, video games and social media scandals have emerged as social ills. If the cyber world cannot be made socially safe at present, the implementation of Smart Bangladesh plan will be uncertain.

Women's empowerment and women's work environment must be ensured in building a smart society, but at present the online behavior and work environment for women is under threat. Some information from previous years is mentioned According to police cyber support data, the majority of harassed women (43 percent) were blackmailed or harassed through fake IDs. Apart from this, according to the calculations of the Cyber and Special Crime Division (North) of the Police Intelligence Branch (DB), a total of 171 cases related to cyber crime have been registered in 2022. Of these, 20.46 per cent cases were for pornography and online harassment and 29.23 per cent cases were for online cheating. On the other hand, Action Aid's research on six districts of the country shows that only 14.91 percent of women file complaints against online harassment. Most of the complainants filed complaints through social media (44.12 percent) and least number (5.88 percent) through Cyber Crime Investigation Division, CTTC and DMP. According to research by this organization, most women report anonymously online for fear of exposure to society and their identity.

If we analyze the effects of cybercrime, we see a direr situation. According to Action Aid data, the most serious impact on women's lives due to online harassment and violence is trauma, depression and anxiety. In this, 65.07 percent and 25.33 percent of women suffer from trauma or trauma. Especially girls below 18 years are more victims of harassment. Analyzing these data, we can easily say that women are less digitally literate and aware than men; This uneven digital divide creates opportunities for women to be vulnerable in the digital world in various ways. In addition, the lack of gender perspective in cyber defense strategies often deters women from seeking protection.¹⁴

¹² <https://iopscience.iop.org/article/10.1088/1755-1315/447/1/012016>

¹³ <https://medium.com/project-2030/what-is-a-smart-society-92e4a256e852>

¹⁴ <https://www.kalerkantho.com/print-edition/sub-editorial/2023/02/23/1254658>

Recommendation:

Since Smart Bangladesh is a technology-based concept and the Internet is its main accessory, the implementation of the concept is unthinkable without safe and beautiful technology. We recommend the following recommendations to implement the Smart Bangladesh vision announced by the Hon'ble Prime Minister:

- A special task force can be constituted to investigate the cyber activities of women and children only and submit a monthly or annual report to the task force constituted for Smart Bangladesh.
- Internet-based technology is one of the main means of smart and modern economy where sales and purchases, money exchange, payment of various official dues, government payments, tenders and foreign transactions are done. Therefore, for these issues separately under the concerned department, the supervisory authority should be created, which authority directly responsible to the Smart Bangladesh Taskforce.
- Establishing a service center under the government in every village to provide all government services at the village level.
- Social awareness is essential for building a smart society and lessons on cyber awareness can be incorporated in the curriculum.
- To provide special training to those working in the smart planning sector in Bangladesh to make their work dynamic and transparent and to verify their qualification standards as per the departmental system.
- Reducing the cost of mobile or internet data and ensuring seamless connectivity to spread the benefits of the Smart Bangladesh project to everyone.
- To take rapid campaign to spread the positive aspects of the Smart Bangladesh Master Plan among all.

Conclusion:

'Smart Bangladesh: ICT Master plan 2041' has been prepared by examining the best practices of the world's leading countries in information technology, which focuses on artificial intelligence, machine learning, Internet of Things (IoT), robotics, block chain, nanotechnology, 3D printing in the future. Through the use of modern and new technologies such as energy, health, communication, agriculture, education, healthcare, trade, transport, environment, energy and resources, infrastructure, economy, trade, governance, financial transactions, supply chain, security, entrepreneurship, community, etc.¹⁸ The sector will be managed with greater efficiency. 40 mega projects have been proposed in this ICT master plan, one of the objectives of which is to ensure that the contribution of the ICT sector to the national economy is at least 20 percent by 2041. Integrating Digital Bangladesh initiatives with Smart Bangladesh initiatives to adopt fourth Industrial Revolution and Smart Bangladesh friendly plans, policies and strategies.

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