



Information Technology and Development: Bangladesh Perspective

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Introduction:
TODAY, Information Technology (IT) is considered the most buzzing word not only in Bangladesh but also in other parts of the globe. It is so because modern way of life can't imagine without the touch of IT. It is firmly believed that the IT has transformed world into a global village where inter or intra-connectivity remains a click away.

Bangladesh has relatively long experience in the use of computers. It is reported that the first "second generation" computer was installed in 1964 in Dhaka and very soon some of the large banks and industrial units as well as utility companies started using computers. Unfortunately, the financial crisis that the country faced immediately after its independence in 1971 did not permit the very sustenance of this early lead and consequently lack of maintenance forced the closure of most of these installations. Since emergence as a new country, the IT-related activities were categorically vested to Bangladesh Telegraph and Telephone Board (BTTB). But in a major step, in 1996, the then government decided to allow private companies to act as Internet Service Providers (ISPs) using Very Small Aperture Terminals (VSATs). And also the permission of introducing cellular phone services by the private organizations has added a new dimension in the IT sector.

Since then IT-users have been increasing remarkably. And the wings of IT are started spreading in every field (e.g. Education, Health, Business, Communication, Agriculture etc.) of the country. Realizing this fact, the present government turns her keen eyes on further development of this sector. As IT is free from the international geopolitics and other geographical barriers, the government has recognized it as one of the thrust sectors in the country's export policy. It is to be mentioned here that the role of IT in the country's overall development has left no contention.

Status of IT in Bangladesh:

Virtually, an assessment of IT resources of Bangladesh has been an acute demand of time. Any sector, particularly the IT sector, can't go ahead without proper database of its resources. And obviously, the recent survey on IT resources of the country will meet the required demand and side by side will play a substantial role for further development of this sector.

However, the total number of IT organizations surveyed was 1836, which are involved in IT related activities. The activities are found to spread over varied dimensions, such as, office automation, desktop publishing (DTP), hardware and software development and marketing, IT training etc. So, the major findings of the survey are the following:

IT organizations:

Types of organizations	Percentage (%)
Hardware/software marketing	10.9
Data processing services	6.2
Human Resources Development (HRD)	41.3
Users (govt. offices, banks, NGOs, private & personal)	26.3
Others	15.2

IT professionals:

The distribution of countrywide IT-personnel on functional basis is

computed from the surveyed data as:

Name of the profession	Percentage (%)
Teacher	16.4
Database Management	13.9
System analyst	2.6
Database Expert	4.6
Network Expert	4.6
Programmer	6.5
Hardware Engineer	5.2
DTP Operator	4.2
Data Entry Operator	44.7
Others	0.7

Division-wise involvement in IT activities:

Name of the division	% of involvement
Dhaka	72.76
Chittagong	11.14
Rajshahi	7.93
Khulna	4.0
Sylhet	2.8
Barisal	1.30

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2002. The transmission systems of BTTB are mainly composed of microwave, UHF and VHF radio links. The use of optical fibre is presently limited within some city areas for interconnecting local exchange and Remote Switching Units (RSUs) in multi exchange network.

According to the World Fact Book, there were zero mobile phones, fax machines, and personal computers (PCs) per 1,000 people in 1997. It was so because of its infancy during that period. As one can see from the table below, it was in that year when Bangladesh's cellular telephone companies first became active:

Cellular companies in Bangladesh	Network status
TM Int'l (Bangladesh) Ltd.	Live August 1997
Sheba Telecom (PVT) Ltd.	Live September 1998
GrameenPhone Ltd.	Live April 1997
Pacific Telecom Ltd.- City cell	Live 1996

However, the number of cellular phone users is remarkably increasing day by day throughout the country. It is also reported that the number of cellular telephones is estimated to be more than 10 lac. So, the tele-density is estimated to be 5 per 1,000 people in the country.

Telecom networks in Bangladesh are being modernized. Data networks. (LAN, MAN, WAN) are emerging. Digital switches capable of services such as Integrated Services Digital Network (ISDN) are being installed all over the country.

Scope of IT education in Bangladesh:

Generally, we can categorize the scope of IT education in the following way:-

Secondary and Higher Secondary Level:

Computer science education has been launched as an optional subject for the SSC and HSC level students from the beginning of 1994. So, accordingly, nearly fifty colleges introduced Computer Science course in the first quarter of the same year and with the reduction of price of computer hardware, this number is sharply increasing.

Computer Science subject has been introduced at Secondary level in vocational training institutes of the country in 1995 and the education has been gradually extended to Higher Secondary vocational training institutes.

Diploma and Training Institutes Level:

Twenty Polytechnic institutes of the country are offering three year Diploma course for SSC passed students in Engineering subjects. Three of them have launched three years Diploma in Computer Engineering in 1994.

Recently, Bangladesh Open University (BOU) is offering three semester Diploma in Computer Applications (DCA). Also, the Ministry of Youth has established 69 computer training institutes over the country under a project for self employment generation of

Steps taken by the government for the development of IT sector:

1. At the 2nd convocation BIT, Dhaka, the Prime Minister said she has fare will for the development of IT sector and also added the government is planning introduction of Prime Minister's Scholarship for the meritorious female students to facilitate ITC education offer them. She further added that "of the total budget allocated for education sector (TK.6810crore), an amount of Tk. 100 crore has categorically earmarked for the ICT sector". (Source: The Bangladesh Observer, 30/08/2002)

2. In major development in the country's telecommunications and ICT sectors Bangladesh signed an agreement in Bali of Indonesia to join a much-awaited submarine cable network. The network, linking Southeast Asia, the Middle East and Western Europe (SEA-ME-WE), will cover 12 countries: Indonesia, Singapore, Malaysia, Bangladesh, India, Srilanka, Pakistan, United Arab Emirates, Saudi Arabia, Egypt, Italy and France.

The cable project, which is expected to be ready for service in 2004, will bring a revolution in the ICT sector by increasing the speed of data transfer through Internet. It will be built using DWDM (Dense Wavelength Division Multiplexing) technology, with a proposed capacity of 1.28 terabits per second (Tbps) speed. (Source: The BO, 5/09/2002).

3. In order to enable the young entrepreneurs in the IT field, a special fund has been created by the government to provide working capital loan without any collaterals.

4. The banking procedures are also being amended and simplified to reflect the different nature of software transactions.

5. A large number of Bangladeshis are now working in the IT field in different companies in USA and are gradually moving up the organizational hierarchy. The government is trying to get the assistance of these non-resident Bangladeshis (NRBs) in IT development, particularly by giving them incentives to set up software companies in Bangladesh.

6. The University Grant Commission is setting up BERNET (Bangladesh Educational and Research Network) establishing linkage among the University and providing access to the Internet.

7. The government is planning to set up public kiosks with internet facilities all over the country.

8. In a recent step, the government exempted the Internet subscribers from the Multi-metering System (MMS).

9. In the Jatiya Sangsad, the Prime Minister Begum Khaleda Zia said, "the government had established three Science and Technology Universities in Dinajpur, Patuakhali and Tangail while four existing BITs would soon be elevated to Technical Universities". She further added, "as many as 25,000 computer sets would be supplied to the country's educational institutions over the next four years to help turn the present education system more technical". (Source: Web site of NFB).

10. For widespread use of IT, the present government has already exempted tax, VAT and duties from the import of software, computer hardware and other relevant goods, resulting in a reduction of the price of these commodities.

University/Institute	No	Students Per Year
Public University	7	297
Private University	12	795
National University	1	600
Bit	4	240
Total		1932