Uses of Information and Communication Technology (ICT) for Learning by Business Students: A Study in Sylhet Region

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Abstract:
The study aims at unearthing the overall scenario of uses of Information and Communication Technology (ICT) for learning by business students of different universities in Sylhet city. For this reason, primary data were collected by distributing a set of open-ended questionnaires from 243 business students of Sylhet city. Descriptive statistics were used to analyze the collected data by using MS Excel 2016. The overall findings of the study reveal that business students are using ICT for their learning purpose because it offers easy accessibility, low cost, time-saving, higher interaction with teachers, enhanced feedback, and includes less paperwork. But the majority of business students use ICT for their academic purposes while others focus on other aspects. The main problem stated by students is low internet speed which hinders the constant learning environment, and other problems include frequent power breakdowns, inadequate capacity/equipment, server breakdown, high cost, and lack of properly skilled teachers, etc. Based on the findings of the study some important measures are recommended to government & private authorities, educational and other institutions to improve the overall environment by overcoming the problems that are faced by students.
Key Word: *ICT, Uses, Business Students, Learning, Universities, Sylhet*

I.   Introduction

Information and communication technologies (ICT) are a broad category of technological devices and resources that are used to communicate as well as produce, transmit, preserve, and manage information (Blurton, 2002). Learning is considered a process of gaining new information, understanding, behaviors, capacities, beliefs, perspectives, and interests (*Learning - Wikipedia*, 2020). In the conventional approach of learning, students learn directly from the teacher through engagement in a face-to-face or physical environment, which includes interactive activities, socialization, making notes, getting assignments, and taking tests (*What Is Traditional Learning | IGI Global*, n.d.). On the other hand, ICT-based learning refers to any technique of providing learning content using information and communication technologies, such as the internet, computer, multimedia, and so on (*What Is ICT-Based Learning System | IGI Global*, n.d.). So, it can be said that learning by using ICT involves attaining new information, understanding, behaviors, capacities, beliefs, perspectives, and interests through using technological devices and resources that are used for communicating information. Education is considered the backbone of a nation and proper learning is necessary for every individual to be educated adequately. Nevertheless, ICT is being used for educational purposes for a long time and enables individuals to learn even if they are apart from the physical environment. Now in every country, the integration of ICT into the educational structure is common for its numerous benefits. Bangladesh is a developing country and to keep constant growth in the economy manpower of this country must be educated and skilled. Here ICT can play a vital role in educating students to become skilled in different fields to enrich their ability to contribute to the country. Information and communication technology (ICT) keeps students up-to-date on the process of learning and improves educators' capacity to actively build positive teacher-student interactions through chalk sessions, e-mail, e-learning, and web-based learning (intranet, extranet, Internet, CD-ROM, and so on) (World, 2020). ICTs can change and modernize educational structures and learning methods through greater availability and accessibility. In most developed countries ICT is integrated with the education system in such a way as to facilitate learning by making it enjoyable and easily accessible. Computer literacy is used to describe elements of technology education, which is distinct from using computer systems and other technologies to enhance learning and teaching procedures. To foster a positive learning environment, support students' creative growth, and boost their self-confidence, countries around the globe are

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depending extensively on technology in education. ICT at the time provided a solution by allowing students to take lessons online. Modern technology has made it possible for students to learn from anywhere in the world, thus access to physical education is no longer a barrier.

II. Literature Review

In a simple sense, ICT refers to the technologies used to generate, accumulate, communicate, exchange, or transmit information. According to Mohamed et al. 2018, ICT influences learners by inspiring them to learn, co-constructing knowledge, enhancing cognitive capacities, and promoting independent learning. Bangladesh Open University (BOU) is the only institution that offers distance learning through Information and Communication Technology (ICT) (*Distance Education - Banglapedia*, 2021). During the COVID-19 epidemic, BOU tutors used accessible information and communication technology like mobile phones, Zoom, Google Meet, WhatsApp, and Messengers to reach students of remote areas and maintain a close relationship with them to deliver regular courses and provide psychological support (Begum et al. 2022). However, there are 43 public universities and 103 private universities in Bangladesh. Private universities are focusing on implementing ICT in their educational system but public universities seem very slow in this progress. The ICT facilities of private institutions have a substantial impact on the efficacy of university students' learning processes. If the administrators of Bangladesh's private universities focused on enhancing the aspects that impact the learning process using ICT, the total learning process of the students will be more beneficial, perhaps leading to greater academic success (Islam et al., 2017). At present, there are 90 EdTech startups in Bangladesh and according to expert opinion by 2025, the market will reach 700 million USD (Iqbal, 2022). This mainly indicates that there is an increasing demand for ICT-based education in Bangladesh. Information and communication technology has the potential to revolutionize pedagogical approaches, provide access to excellent education, and enhance educational system administration (World Bank Report, 2002). By using Information and Communication Technology students' attention would be maintained and concepts would be concretized by utilizing various resources that inspire each student, at the same time the Instructional technique would help both slow and quick learners because the procedure may be repeated numerous times to match the student's unique peculiarities (Akpan et al., 2010). To engage effectively and equally in an increasingly technologically rich and knowledge-driven society, business education must be well-equipped to anticipate and react to possibilities provided by ICTs (Onu, 2012). According to Reynoldson et al. (2006), ICT-enabled learning offers the attributes of flexibility, customization, feasible lifelong learning, borderless learning, visualization and encouragement, business-in-the-classroom, and linkage between theory and practice. ICT-based education invariably enables learners toward being aware of emerging trends and technologies, as well as the flexibility and ease of using these technological tools, introduce new dimensions to the student, where the significance of the learning is subject to the content of the e-learning element and its appropriate organization, while ICT-based teaching methods offer greater knowledge of the subject to the learners in an explanatory manner (Srivastava et al., 2020). Bakaul (2020), in his study, states that, in Bangladesh, there is a dearth of understanding and usage of ICT-based facilities such as cloud storage for data, Google classroom for interactive sessions between professors and students, Google hangout for live lessons, enrolling in online courses for professional certification, and so on. The National Education Policy 2010 advocates for greater utilization of ICT as a teaching-learning instrument (Kamal, 2019). Students' access to information is greatly influenced by information and communication technologies (Khan et al., 2015). Business education is an integral component of the overall educational system and in the current technology-based globalized world, the business represents an enormous perspective in the nation's economic growth against the background of the market economy (*Business Education - Banglapedia*, 2021). As so, the overall scenario of the uses of ICT by business students is a matter of study to find out the problems for possible future solutions.

III. Objectives of the Study

Primary objective: The primary objective of this study is to get an insight into the overall scenario of the uses of ICT by business students of different universities in Sylhet city.

Secondary objective: The secondary objectives of the study include:
- To know the kind of technologies used by business students for educational purposes.
- To find out the benefits of using ICT for learning.
- To know the reasons for using ICT by business students in their learning process.
- To detect the problems faced by business students while using ICT.
- To recommend possible solutions for the problems.

IV. Data Collection and Methodology

Types of Research Questionnaire and Sample Size

For unearthing the overall scenario of uses of ICT by business students of Sylhet, Bangladesh, primary data were collected by distributing a set of open-ended questionnaires from 243 business students of Sylhet city.

Tools of Data Analysis

The collected data were analyzed by Excel 2016 using descriptive statistics.

Information of Respondents:

Table 1: Demographic information of respondents

Total Number of Respondents	Particulars		Frequency	Percentage
	Age	Below 25	187	76.95%
		25 or above	56	23.05%
243	**Gender**	Male	179	73.66%
		Female	64	26.34%
	Work Experience	Student	243	100.00%
		Others	0	0.00%

Table 1 illustrate the demographic information of respondents. From the table, it is apparent that 100% of the respondents of this study is the student and among them 73.66% are male and 26.34% are female. Although, 76.95% of the respondents are below 25 years old whereas 23.05% are 25 years or 25 years old. However, to maintain confidentiality all the information regarding respondents is not disclosed properly.

V. Data Analysis

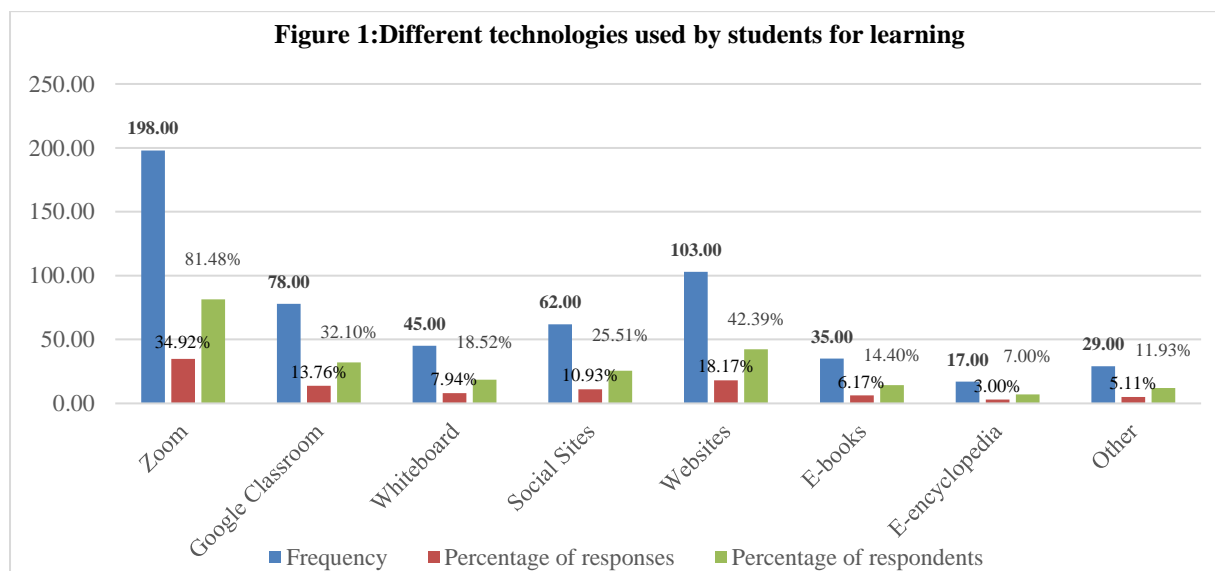**Figure 1: Different technologies used by students for learning**

Figure 1 illustrates different communication technologies used by students for their learning. The overall figure highlights that about 81.48% of students use the Zoom application for their regular classes and learning process. However, 42.39% of students use different websites for learning. Although 32.10% of business students use google classroom, 25.51% of students use different social sites, and 18.52% of students use the whiteboard for their learning. At the same time, 14.40% of students use e-books, and 7.00% e-encyclopedia. 11.93% use other information and communication technologies for their learning process.

Table 2: Benefits of using ICT for learning

Particulars	Frequency	Percentage of Responses	Percentage of Respondents
Easy access	183	33.83%	75.31%
Low cost	91	16.82%	37.45%
Time-saving	88	16.27%	36.21%
Higher interaction with teachers	37	6.84%	15.23%
Enhanced feedback	31	5.73%	12.76%
Less paperwork	111	20.52%	45.68%

Table 2 describes several benefits of using ICT for learning. From the table, it is clear that easy accessibility is the main benefit that students get by using ICT for their learning as most of the students, around 75.31% mention easy access as the benefit of learning by using ICT. However, 37.45% of respondents mention low cost as the benefit of learning by ICT. For time-saving, higher interaction with teachers, enhanced feedback, and less paperwork the rate is about 36.21%, 15.23%, 12.76%, and 45.68% respectively.

Figure 2: Reason for using ICT for learning
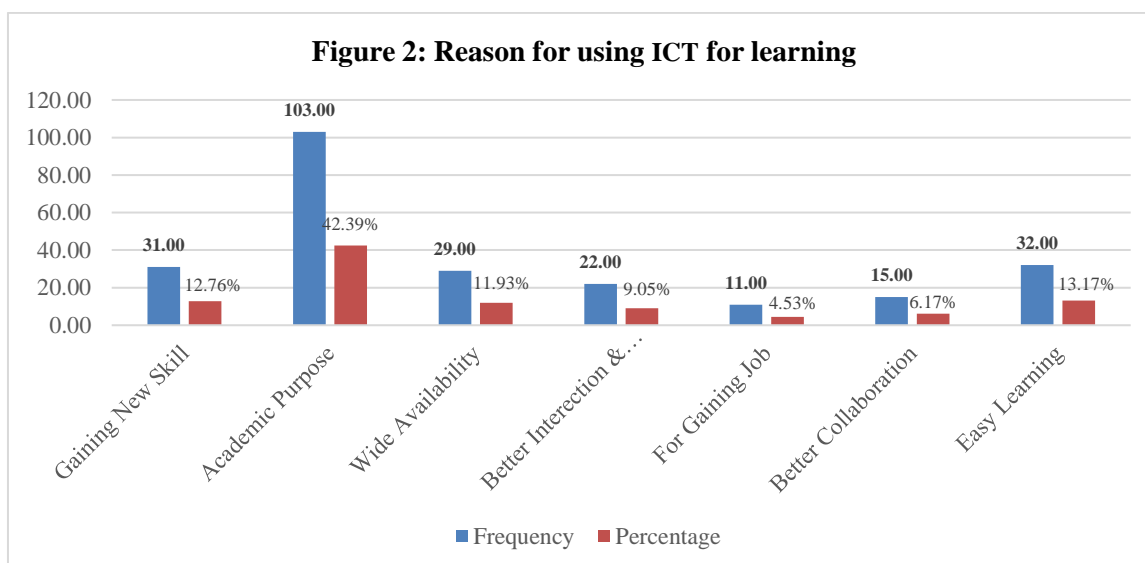
From the above figure, it is clear that about 42.39% of business students use ICT in their learning process for academic purposes. However, 13.17% of students find it a way of learning easily. About 12.76% of students use ICT for gaining new skills and 11.93% of students use it because it is widely available. 9.05% of students believe that better interaction and communication is possible through using ICT. However, for 6.17% of students better collaboration is possible in the learning process by using ICT and 4.53% use it for enlarging their knowledge and skills for gaining a job in the job market.

Table 3: Problems of learning through ICT

Particulars	Frequency	Percentage
Frequent power breakdown	71	29.22%
Low internet speed	83	34.16%
High cost	17	7.00%
Lack of trained teachers	13	5.35%
Inadequate capacity/equipment	23	9.47%
Server breakdown	19	7.82%
Require time to adapt	17	7.00%
Total	**243**	**100%**

Table 3 identifies the problems that students face in the learning process by using ICT. The majority of the students identify low internet speed as the main problem in the learning process because 34.16% of students identified it as a problem. For 29.22% of students, frequent power breakdown is considered a problem. However, 9.47% of students do not have adequate capacity/equipment to grab the whole facilities offered by ICT in the learning process. Server breakdown is identified as a problem by 7.82% of students. Both 7.00% of total respondents agree that it involves high cost and requires time to adapt to the process. Lastly, 5.35% of students believe that still there is a lack of properly trained teachers for teaching through ICT.

VI. Findings
From the overall analysis, it is clear that business students of graduates and postgraduates level are taking the help of ICT for their academic education and other purposes. Despite having several benefits of ICT in the learning process but students are still facing different problems like low internet speed, frequent power breakdowns, inadequate capacity/equipment, server breakdown, high cost, and lack of properly skilled teachers, etc.

VII. Recommendations

From the overall analysis and findings of the study the followings are the recommendatory measures to improve the situation of the current scenario:

- As it is a process of learning through electronic media government should focus on providing a constant power supply throughout the country for ensuring that students are getting the benefits of using ICT for learning.
- Bangladesh is considered as developing country but still in this 21st century the overall internet speed in the country is very slow compared to others and this is working as a major barrier to using ICT for education. Government should consider this situation closely and must take necessary measures for this concern.
- Some of the private institutions are pricing their online courses too high and at the same time, the price of internet bundles is increasing day by day which hinders students from getting the benefits of ICT. Here a collaborative effort by government and private institutions is needed whether by adapting strict policies & regulations or by mutually agreed policies.
- Both the government and educational institutions should focus on providing training for their current workforce to make the teachers well-equipped and knowledgeable about using ICT.
- Some students still suffer because they cannot afford the proper equipment necessary for using ICT. Government can help them by providing the actual needy with the needed equipment.
- The software, hardware, or websites that are now being used for providing education are still lacking in operational efficiency. Here the concerned authorities have to work further to ensure a constant learning process.
- Each method of teaching and learning by using ICT should have the characteristics of ease of use and to reduce complexity user guidelines can be provided.

VIII. Conclusion

Information and Communication Technology (ICT) is considered one of the greatest media for providing education all over the world because it supports, enhances, and optimizes the flow of information. It provides numerous benefits that help the learning process. Instead of having several benefits students are facing different problems in integrating ICT into their learning process. These problems may vary from country to country depending on their economy and infrastructure. As Bangladesh is a developing country and moving toward 4th industrial revolution, it requires well-educated and skilled manpower in the future to cope with the changing world. As so, ICT can provide tremendous benefits to create the required manpower for the country. However, the study identifies why business students are using ICT for their educational purpose both the benefits and problems of using ICT for the learning of business students. Government and private intervention are strongly required in this area to overcome the barriers and let the students learn and be prepared for the future for contributing to the country.

IX. Limitations of the Study

Alike other research studies, this study also has some limitations. The study is conducted by focusing on only the Sylhet region and the sample size of the study may be relatively small compared to the whole population. This may hinder the quality of generalization of the results of this study.

X. Further Research Direction

As this study is focusing on only the Sylhet region, the scope of research can be broadened by focusing on other regions or by focusing on the whole country to understand the overall scenario of the uses of Information and Communication Technology (ICT) for learning by business students or students of other disciplines.

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