Investment in Information Technology - Students Perspective: A study in Bangladesh

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Abstract - Education is considered as the main vehicle to eradicate poverty. Information technology (IT) facilitates education and creates global awareness. As the world become competitive, so students make them capable of competing globally, that’s why they need to access in information technology. Information Technology helps education system more students oriented. IT does not only bring change in the economic area but it also brings immense change in the education arena. In fact, IT radically changes the learning methods. Bangladesh can utilize IT facilities to create an information age. This study examines IT investment from student perspective in Bangladesh. This study also finds out usage pattern, reasons and satisfaction level of using IT from student perspective in Bangladesh. A survey is conducted on students of Bangladesh to achieve the objectives of the study. Target population answered the structured questionnaire which was developed to attain research objectives. Result shows that most of the students considered individual use are the major grounds for spending in IT, but personal and learning uses are promising reasons for IT expenditure. In IT, hardware is the key portion where students expend mostly. Moreover, students preferred foreign IT brand products while purchasing IT products.

Keywords: foreign IT brand products, global awareness, IT, information age, personal purpose.

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I. Introduction

Every nation tries to build skilled human resources, therefore, education systems are the center point to achieve this. IT surrounded our every activity of life. IT enables education systems more students oriented. IT facilitates students in various ways such as nowadays students don’t borrow books from the library as they can use library mobile phone applications to download books. Online education is possible only for IT. Students can share academic information with other students whatever their distance by using online group discussion, video and text chatting. In Bangladesh previously IT was not immensely used in the education. IT enables students to access information that makes them become a citizen of an information age. The Government of Bangladesh makes an effort to provide access to IT by all citizens of Bangladesh as well as education sector get priority to access in IT. The Government of Bangladesh has ICT policy which facilitates education systems to keep pace with modern era and try to build a nation which is surrounded by IT facilities and become a developed country. This study seeks to portrait usage pattern of IT, causes of investing in IT, the satisfaction level of using IT from the student perspective. The findings of this study help government of Bangladesh to develop IT facilities so that students can make them competitive for today’s world as well as IT related business firm can learn usage pattern of IT of students and take appropriate strategies to satisfy them.

II. Objectives of the Study

The principal aim of this research work is to present IT spending pattern from the student viewpoint. The others secondary objectives are

- To identify the reasons for using IT, IT expenditure per month, satisfaction level by using IT and frequency to adopt new technology by students in Bangladesh.

III. Literature Review

A study indicated that technology could be essential tools that enable students balancing between their busy studying, working and personal lives. Also students willingly admitted that technology is a chief enabler for them. Jefferies and Hyde suggested that technology has become a ubiquitous element for many higher education students. Students may own or access regularly multiple items of personal technology that are used interchangeably for learning and leisure, including their computers and their mp3 players (Jefferies and Hyde, 2010).

Another study conducted (Hong et al., 2003) at a university in Malaysia to investigate the success of the technology, Internet-enriched teaching and learning environment to form positive attitudes among students toward internet usage for learning purpose. Their study found that students had positive attitudes toward internet usage as a learning tool. Also students stated that their learning environment as supportive of using internet for learning.

Researchers (Caruso and Salaway, 2007) have emphasized that students were entering in higher education at the end of the first decade of 21st century, as undergraduates, have the more technological knowledge and confidence than any past intake students. Researchers also focused that these students have very high expectations of what technological might
be available to them and how they could use it to access their learning process.

For economic development and social changes ICT is considered a prime tool across the world. In many countries, the need for economic and social growth is used to justify investments in educational reform and educational ICT (Kozma, 2005).

In another study (Dogruer et al., 2011) it is stated that for communication, research and leisure tool internet has played a vital role since its emergence. Not only the internet, but the other new technologies also took places in our daily life. They surveyed students to find out the use of the internet for educational purpose and found that in general, it was clear that the majority of the students believed they could use the Internet as an educational tool. Only a few amount of participants stated that they were not able to use it for educational purposes, which is very promising for the future.

Another research work (Caruso and Kvavik, 2004) conducted a survey and they asked students about the applications they used on their electronic device. They reported that they use technology primarily for educational purpose, secondarily for communication and lastly for presentation. 99.5 percent participants stated that they use computers for writing task and sending mail, surfing the internet for pleasure (97.2%) and classroom activities (96.4%).

IV. RESEARCH METHODOLOGY

This is quantitative research which is conducted using survey method. Both primary and secondary data have been collected to carry out this investigate. Primary data have collected through the survey. As a data collection instrument, a structured questionnaire distributed among the target populations. The survey designed into two parts. The First part includes students’ particulars and the second part includes main issues. Secondary data have collected from different journals, articles, books and internet sources. The target population of this study is students’ enrolled undergraduate and postgraduate program. Stratified random sampling technique has been used to conduct this research. Here public universities, private universities, medical colleges, engineering & technology universities and national universities were taken as strata and selected 40 respondents randomly from each division. Total participants in the study were 200 students. The collected data have analyzed by using statistical software SPSS 20.

V. RESULTS AND DISCUSSION

Respondents were asked some demographic questions concerning age, gender, earnings and income range. The demographic profile of survey respondents shown in Table 1.

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>54%</td>
</tr>
<tr>
<td>Age Range (20-25)</td>
<td>48%</td>
</tr>
<tr>
<td>Earning (Yes)</td>
<td>51%</td>
</tr>
<tr>
<td>Income Range (3100-5000) Per Month</td>
<td>36%</td>
</tr>
</tbody>
</table>

In this research, proportionate of male and female respondents were almost equal. Age of vast majority respondents was twenty to twenty-five and 51 percent respondents have earnings. Among the respondents who have said that they had income, 36 percent of the study sample income range was 3100 to 5000 per month.
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Educational purpose includes use computers or digital technologies for writing documents, creating a presentation, doing assignments, performing classroom activities, communicating with academia, sending email, surfing the internet for downloading e-books, articles and study materials, etc. Personal purpose encompasses downloading or listening music/videos, chatting with friends or acquaintances using instant messaging, personal communication, playing computer games, surfing the internet for online purchasing or individual pleasure, etc. Regarding the purpose of IT investment by students, majority study samples (37%) mentioned personal use as their major reason to invest in IT, both educational and personal cause (33%) and only for the educational intention (10%). Only 5 percent respondents said as my friend has so I need IT devices.

Concerning to the IT expenditure per month by respondents, the majority of the study samples (51%) said their IT-related expenditure range from BDT 3600 to BDT 5000 per month.

From the following figure, it is observed that they invest mostly in hardware portion, secondly invest in IT relate accessories and lastly in software segment.

![Purpose of IT Investment](image)

**Figure 1:** Purpose of IT investment

In addition to that, the target respondents stated that they had changed IT products after every 18 months (43%) whereas only 2% respondent said they changed after every six months and 40% of the study sample alter their IT products after every 12 months.

To choose IT products participant firstly prefer foreign IT brand products (58%). Their least preferred brand was local IT brand products (12%). However, 30% respondents favored both foreign and home IT brand products. This study also attempts to measure students’ satisfaction level regarding to their IT expenditure, which was measured using Likert 5 scale (strongly dissatisfied, dissatisfied, neutral, satisfied and strongly satisfied). The survey result shows that 34% subjects of the study were satisfied, 30% respondents were dissatisfied, and 28% respondents were neutral regarding their satisfaction level of IT investment. This study seeks opinions about the price of the IT products from students. The results show that value of IT products is reasonable (40%), slightly high cost (38%), highly priced (13%).
VI. **Conclusion and Recommendation**

The most significant aim of the study is to explore IT investment from students’ perspective, and the aim has been met by identifying reasons behind IT investment, frequent change of IT products, preferred IT products and which IT portion invested mostly by students, etc. Though the survey result of this paper is just a snapshot in time, the valuable findings can help education sector, ICT policy maker and IT-related business firm to learn IT usage pattern of students. Education institution should build an IT-oriented atmosphere, therefore, students can use IT especially for the educational purpose. The Government of Bangladesh should think about the price of IT so that students can afford IT facilities without much difficulty and they can make themselves competitive for the future world.

**References Références Referencias**