Anticipation & Advancement of DTH Service in Bangladesh

Israt Moriom Khan, Sabrina Quadir, and Sanjida Islam

ABSTRACT

DTH (Direct-To-Home) TV is one of the important inventions which created a revolution in the television industry by the grace of modern technology and achieving popularity day by day. The objective of the study was to analyze the advancement and to find the anticipation and impact of DTH service in Bangladesh. Primary and secondary data both were used in this research paper. The conducting period of this research was from April - August of 2021 surveying a questionnaire of 560 participants in both urban and rural areas of 8 divisions in Bangladesh. To analyze data and present the result simple statistical tools; pie-chart, bar diagram and tables were used. The findings revealed most of the users use DTH TV for its clear picture quality, payment through mobile banking & the promotional benefits of numerous HD channels. DTH providers should enhance their features and the level services with the updated technology.

Keywords: Bangladesh, DTH Service, Satellite, Technology.

Submitted : October 25, 2021

Published : November 19, 2021

ISSN: 2507-1076

DOI: 10.24018/ejbmr.2021.6.6.1150

Israt Moriom Khan

Senior Lecturer, Daffodil Institute of IT, Bangladesh.

(e-mail: isratmoriom_nu@diit.info)

Sabrina Quadir

Senior Lecturer, Daffodil Institute of IT, Bangladesh.

(e-mail: sabrina_nu@diit.info)

Sanjida Islam*

Lecturer, Daffodil Institute of IT, Bangladesh.

(e-mail: sanjida_nu@diit.info)

**Corresponding Author*

I. INTRODUCTION

DTH represents Direct-To-Home television. DTH television service is a resource where people can enjoy the satellite TV programs through the satellite with an individual dish in his/her home. On the other hand, cable TV link, only the cable promoters can accept satellite programmers and then they disseminate programmers to the homes individually. The satellites which are utilized for this ground are geostationary satellites. The satellites squeeze the signals digitally and after encoding the signals they are transmitted from highly powerful geostationary satellites. They are perceived by the dishes which are provided to the DTH users by DTH suppliers. Actually, this satellite TV programmer's technology is a direct broadcast satellite (DBS) technology. This technology was improved for providing more benefits and services over the cable TV distribution services locally ensuring higher graded satellite signals with more HD channels that is a revolution in the television industry.

In Bangladesh, most households have at least one TV and the only source of entertainment is enjoying TV programs. Globally, television is becoming the most influential media. Bangladeshis are also attracted by the television. In 2010, 83 percent of the households availed TV in metro areas. Also, people are more digitized with the influence of new technologies. They become satisfied with extra and update what they are enjoying usually. For this perspective DTH service can satisfy the people as DTH television ensures digital quality picture and sound accepting signals directly

from the satellite.

DTH service is also very popular in our sub-continent countries like India & Pakistan. India launched DTH service in 2003. In Bangladesh RealVU, a core brand name that is a joint venture between Beximco Holdings Limited and General Satellite Group AG which is operated by Beximco Communication limited. For Bangladeshi users only RealVU provides the high-class TV viewing experience through its Direct to Home (DTH) satellite television service (Akash TV). It was high time Bangladeshi people introduced this kind of service to up to date their TV watching experience.

A. Working Procedure of Cable Television and DTH Service

Fig. 1. Working procedure of cable TV.

Fig. 2. Working procedure of DTH service.

In early cable systems, antennas were installed with very long wires that connected their customers to the television sets. Since the signal from the antenna was weakened while traveling along the cable length, the amplifiers had to be inserted at regular intervals just to increase the signal strength of the suppliers and make it acceptable to view. According to Bill Wall, the technical director of the subscriber network at Scientific-Atlanta, a major manufacturer of instruments for cable television systems, said the limitations of these amplifiers were a significant problem for cable system designers over the next three decades. In a cable, you may need 30 or 40 amplifiers of the signal before reaching your house, about every 1,000 feet approximately", Wall said. Wall also said, with amplifiers, you get noise and distortion and if the amplifiers fail, you lose the image. By then, they had also developed technology that only allowed them to add more programming to the service.

Early satellite TV viewers were a kind of explorer. They invented unique programming using their expensive S-band, then CB and DISH. Provider selects programs and broadcasts them to customers as a set package. Basically, the provider's goal is to bring many channels to the customer's television. Unlike previous programming, the provider's broadcast is totally digital, which suggests its high picture and stereo sound quality. Early satellite television broadcast on C-band radio in the 3.4-GHz to 7-GHz frequency range. There are four major components involved in a direct to home (DTH) system: the dish antenna, LNBF (Low Noise Block down converter Feedhorn), coaxial cable and set top box. The building of Direct to Home service includes satellite, broadcasting center, multiplexer, modulator, encoder, and receiver (Decryption).

Fig. 3. Basic architecture of DTH technology system.

Fig. 4. Components of DTH system.

II. LITERATURE REVIEW

The popularity and demands of DTH is expanding day by day among the consumers of television. One of the researches in 2010 showed that 46 percent of families have a television, with 76 percent of urban dwellers and 32 percent of rural ones. Compared to the figures of a media survey in 1995, the television ownership rate has been growing over the past fourteen years, with overall ownership of TVs around six times from 8 percent to 46 per cent. Most of them are using cable television. There are very few opportunities in Bangladesh to use the DTH service. According to Alom (2016) Beximco Communications Limited is the first DTH service provider in Bangladesh. It has also been making an effort to multiply the customer satisfaction grade and better modes of entertainment by providing up to date and demanding service to the customers.

As DTH service is a newly used service in the market, a small number of people are also using this service. Very few researchers have done the work. Among the few research papers some have shown the comparison between Cable Television and DTH service and customer satisfaction of DTH service. Manivannan & Rajan (2018) described in their study that most of the consumers prefer DTH service and are pleased with their DTH service suppliers which are parental control, EPG etc. All DTH companies are giving customer care service and most of them are providing this service in different languages. Soni & Mehta (2019) showed in his study that in comparison to Cable promoters, the DTH issues better advantages and more adaptability to the customers in terms of the number of channels they are watching willingly or not. Dheeraj Gandla (2013) depicted HDTV's higher resolution that produces clear sound and picture than previous formats. HDTV also gives the opportunity of a higher quality digital audio signal than SDTV and assists up to six audio channels than the two channels supported previously.

Hamir & Korant (2019) depicted that the DTH industry is the most rapidly developing industry in India. There is a huge prosperity for a potential business in the DTH industry to grab this potential market and to keep growth sustainable due to the vigorous and advancing nature of the DTH industry. It should provide quality services to the people of the semi-urban and rural areas specially. Jayashree (2013) said that nowadays DTH service is one of the forms of entertainment conveying television. There are a number of available brands in DTH services used in the market. Different levels of

customers are consuming the DTH services for uninterrupted networking. So, just for some instinctive and particular characteristics of DTH, it is an alternative to Cable Television which has made a revolutionary change in the source of entertainment through digitalization of TV.

III. OBJECTIVES OF THE STUDY

- The study was conducted all over the country, Bangladesh, with one objective after another:
- To analyze the advancement of DTH service in the context of Bangladesh.
- To find the anticipation and impact of DTH service in the market of Bangladesh.

IV. METHODOLOGY OF THE STUDY

Both primary and secondary information are analyzed in this study. Due to the lack of adequate published studies about DTH services, most of the studies have been based on preliminary data. A well-structured questionnaire was designed which contained some information about DTH service, Gender, Age, demographic coverage, Monthly income, Family size, Education level, Technological Advancement, promotional offers, and financial benefits of DTH service. Questionnaire link was sent to respondents using 'Google form' through Email, Whatsapp and Facebook messenger. A total of 560 participants sends complete information regarding this survey. Some simple statistical tools such as pie-chart, bar diagram and some tables have been used to analyze and present the result of collected data.

Bangladesh is a land of 8 divisions with 64 districts. In our study we have focused on each division, but we can collect data through our respondents from 41 districts and also from the outside of our main land (Chitmahal).

TABLE I: RESPONDENTS SELECTION

Division	Study Area	Number of Respondents
Dhaka (146)	Dhaka	87
	Narayanganj	16
	Kishoreganj	4
	Madaripur	3
	Tangail	9
	Munshiganj	7
	Faridpur	2
	Gazipur	18
Chattogram (124)	Chattogram	30
	Cumilla	21
	Chandpur	15
	Noakhali	19
	Brahmanbaria	9
Hill District {	Bandarban	12
	Rangamati	11
	Khagrachari	7
	Rajshahi	24
Rajshahi (82)	Sirajganj	15
	Naogaon	9
	Bogura	11
	Pabna	12
	Natore	11
	Khulna	21
Khulna (77)	Jashore	14
	Narail	11

Barishal (47)	Kushtia	17
	Meherpur	14
	Barishal	23
	Barguna	7
	Patuakhali	9
Sylhet (42)	Pirojpur	8
	Sylhet	20
	Habiganj	14
Rangpur (23)	Sunamganj	8
	Rangpur	11
	Panchagarh	3
	Dinajpur	5
Mymensingh (14)	Thakurgaon	4
	Mymensingh	8
	Jamalpur	3
Others (Outside of border/Chitmahal)	Netrokona	3
Total	5	560

Source: Field survey.

V. RESULTS AND DISCUSSIONS

A. Gender

Most of the people of Bangladesh have used cable TV connection. We have got only 560 respondents who have used DTH service among them 230 respondents are male which is 41.1%; 310 respondents are female which is 55.4% and 20 respondents do not want to reveal their gender which is 3.6%.

Fig. 5. Gender of respondents.

B. Age

Fig. 6 showed that 32.14% respondents (180 respondents) are in the age range of 25 and below which indicates that the age below 25 are focused on the innovation of modern technology.

Fig. 6. Age of respondents.

C. Occupation

Most of the users of DTH are service holders which is 32.15% and only 19.64% of the respondents are home makers as well as businessmen and the rest are students (28.57%) who have used DTH service.

Fig. 7. Occupation of respondents.

D. Education Level

Study showed that among the users of DTH service, about 39.29% of the respondents are graduates and only 3.57% of the respondents are below secondary level which indicates that DTH service is more popular among users who have completed higher education (Higher secondary and above).

Fig. 8. Education level.

E. Monthly Income

Most of the respondents who have used DTH service are in the income level of below 20000 tk which is 30.36%.

Fig. 9. Monthly Income.

F. Family Size

Study showed that the family size of most of the DTH service users consist of 3 to 4 members which is 51.79% and only 1.79% users of DTH service consist of more than 10 members in their family.

Fig. 10. Family Size.

G. Coverage of Area

Fig. 11 showed that 55.36% users of DTH service are from urban area; 22.32% users are from rural area; 16.07% users are from semi-rural area; 5.36% users are from hill district and only 0.89% users are from outside of the mainland of Bangladesh (Chitmahal).

Fig. 11. Coverage of area.

H. Types of TV to Be Used

Study showed that 50% of the users (280 respondents) of DTH service have used Smart or android TV because by using the smart and android TV, users have got the best picture quality of DTH service which encourage them to use or buy smart and android TV for DTH connection.

Fig. 12. Types of TV to be used.

I. Technological Advancement over Cable Operator

Studies showed that about 77% of respondents prefer the technological advancement of clear picture quality rather than other technological advancements.

Fig. 13. Technological advancement over cable operator.

J. Opinion about Financial Benefits of DTH over Cable Operator

In this study we can see that 64% of respondents prefer the feature of payment through mobile banking rather than the other features of financial benefits.

Fig. 14. Opinion about Financial Benefits of DTH over Cable operator.

K. Opinion about Promotional Benefits of DTH over Cable Operator

Fig. 15 showed that most of the users of DTH service (84%) prefer the promotional benefits of numerous HD channels.

Fig. 15. Opinion about promotional benefits of DTH over cable operator.

VI. RECOMMENDATIONS & CONCLUSIONS

Now the television viewers use the modern technology by which they can enjoy the numerous higher definition channels by using satellite signals with a dish on their own house. The dish is set up on the balcony or roof top of the DTH users house paired with a set up box to decode the signals from satellites. DTH has become more popular for high definition (HD) channels and the choice of consumers for selecting their favourite channels and paying only for those channels which they have subscribed to.

We conclude that the DTH industry is the fastest growing developed industry in Bangladesh. Due to the dynamic and developing nature of the DTH industry, there is a special opportunity for new entrepreneurs in the DTH industry to introduce the modern technology to the television users of Bangladesh and confront this newly developed technology and maintain stable growth, especially to provide better services to the semi-urban and rural customers. According to Hamir & Korant (2019), with the existing anticipation in the area, companies need to differentiate not only in the price level but also the quality of service. Customers expected better services so DTH (direct to home) providers must provide the best services. Today in a highly competitive market, companies have to differentiate their products not only in the price level but also in some technological and financial context. DTH service providers are introducing a new era in payment mode where customers are paying their subscription not only in cash but also through mobile banking or debit and credit card. By owning a DTH the customer not only gets clear picture quality, huge number of channels and sound clearance but also, they avail live pause, live record, scheduled record, and protection from thunderstorms. Many more facilities are coming in the upcoming future. So, to exist in the minds of existing and potential users, DTH providers should not only enhance their features but also enhance their level of advancement to contend with updated technology.

CONFLICT OF INTEREST

Authors declare that they do not have any conflict of interest.

REFERENCES

- Benzie, P., Watson, J., Surman, P., Rakkolainen, I., Hopf, K., Urey, H., Sainov, V., & Von Kopylow, C. (2007). A survey of 3DTV displays: Techniques and technologies. *IEEE Transactions on Circuits and Systems for Video Technology*, 17(11), 1647-1658. <https://doi.org/10.1109/tcsvt.2007.905377>
- Chowdhury, N. H. (2016). DTH service in the context of Bangladeshi market. BRAC University. http://dspace.bracu.ac.bd/xmlui/bitstream/handle/10361/8439/11104030_BBA.pdf?sequence=1&isAllowed=y.
- Daljeet S Kohli, Indian DTH Industry, Sector Report, March 4, 2011, p. 4.
- Dheeraj Girhotra, (2012). Indian DTH Industry: A Strategic Analysis, *International Journal of Marketing, Financial Services and Management Research*, 1(3), 38-52.
- Dheeraj Gandla (2013), Study of recent developments in DTH (Direct-To-Home) technology, *International Journal of Engineering Research and Applications*, 3(5), 628-635.
- Directbroadcast satellite television. (n.d.). Wikipedia, the free encyclopedia. Retrieved September 15, 2021, from https://en.wikipedia.org/wiki/Directbroadcast_satellite_television.
- DTH, A. (n.d.). AKASH DTH. <https://akashdth.com/>.
- Go Direkt training module Essel group overview group. (n.d.).

SlideToDoc.com - one of the largest repository of presentations.
<https://slidetodoc.com/go-direkt-training-module-essel-group-overview-group/>.

- Hamir, G. J., & Korant, H. M. (2019). A Study of Customer Satisfaction of Selected DTH Services with Special Reference to Rajkot district, *Journal of Emerging Technologies and Innovative Research (JETIR)*, 6(3), 588-598. <https://www.jetir.org/papers/JETIR1903F80.pdf>.
- How cable television works. (2000, September 13). HowStuffWorks. <https://electronics.howstuffworks.com/cable-tv.htm>.
- Jain, N. (2020, September 7). DTH technology - Architecture, how it works, advantages, disadvantages. [electricalfundablog.com. https://electricalfundablog.com/dth-technology-direct-to-home/](https://electricalfundablog.com/dth-technology-direct-to-home/).
- Jain, R. (1993). Review of the policy changes in the Indian telecom sector. *Journal of Global Information Management*, 1(3), 33-44. <https://doi.org/10.4018/jgim.1993070103>.
- J. Jayashree, J. (2013). A study on customer perception towards DTH services in Coimbatore City. *IOSR Journal of Business and Management*, 8(1), 10-14. <https://doi.org/10.9790/487x-0811014>.
- Manivannan, N., & Rajan, R. B. (2018). An impact of service quality, trust and customer satisfaction about DTH services in Thanjavur district-Tamilnadu. *International Journal of Pure and Applied Mathematics*, 119(7), 973-982. <https://ijpam.eu/>.
- Muley Krutika, DTH TV – Its usage, benefits and limitations, *Mass Communicator*, 3(4).
- Raychaudhuri, Dipankar, *et al.* (1992). An HDTV compression system. U.S. Patent No. 5,122,875.
- RealVU. (2016, August 13). <https://realvubd.com>.
- Saint Girons, R., Savatier, T., Ng, S., Raychaudhuri, D., Siracusa, R., & Zdepski, J. (n.d.). Mpeg++-a robust compression and transport system for digital HDTV. [Proceedings] *1992 IEEE International Symposium on Circuits and Systems*. <https://doi.org/10.1109/iscas.1992.229914>.
- Senthilnathan, C. R., Backiam, M. M., & Vasumathi, P. (2019). Impact of Direct-To-Home (DTH) on Indian Television Viewers. *International Journal of Recent Technology and Engineering*, 8(2S11), 3064–3068. <https://doi.org/10.35940/ijrte.b1397.0982s1119>.
- Soni, A. A., & Mehta, A. (2019). Overview of DTH (Direct to Home) In India. *International Journal of Research and Analytical Reviews*, 6(2), 693-696. http://ijrar.com/upload_issue/ijrar_issue_20543601.

Israt Moriom Khan was from Mirpur in Dhaka, Bangladesh and was born on March 16, 1984. She is an academic with an MBA in marketing from Daffodil International University and a BBA with a major in marketing from National University. She has more than a decade of experience in teaching, research, and academic administration. Moreover, several of her research papers have been published in various international journals. She is interested in research areas that are particularly relevant to information & communication technology, educational advancement & adaptation, innovation, tourism, marketing, management, and women empowerment.

Sabrina Quadir is an academican successfully accomplished MPhil. Part-1 (English Language from Jahangirnagar University and MA & BA (Hons in English from Islamic University. She has more than one decade of experience in teaching, research and academic administration. Moreover, she has published several papers in different journals. She is interested in research areas that are related more specifically to humanities, innovation & development, marketing, management and different social issues.

Sanjida Islam was born in Dhaka, Bangladesh, and obtained MBA & BBA from Jagannath University with major in Accounting & Information System. She is working as a Lecturer at the Department of BBA, Daffodil Institute of IT in Bangladesh and gathered more than six years of teaching experience. She has carried out several pieces of research and publication in different areas of Accounting & Information Technology, Corporate Governance, Practice of E-Commerce, Education Sectors, Technological Advancement, Monetary Integration and Corporate Finance. In addition, the teaching area she has mastered includes Cost & Managerial Accounting, Adaptation of Taxation, E-Commerce and Auditing.