Comparative Survey Study on Business News Channel of Opening Bell News Capsule in Accessible and Non-Accessible Format

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ABSTRACT

Mass Media is not only a source of entertainment, but also a source of information, and education. It provides information about the outside world and exposes us to other ways of life and culture. Television News plays a vital role in dissemination of information on business activities in and around the world. Today, there are many television news channels engaged in analysis of shares, economy & stock market. These channels are widely known as business news channels. But none of this information provided by the television channels is accessible to PWD's (Person with Disability) due to their sensory impairments. There are about 2.86% of Indian population who are persons with disabilities (Government of India, 2011). Hence, they can't enjoy nor get the information provided by television as received by non-PWDs. This research study aims to demonstrate the significance of accessible and non-accessible content in Business News Channel capsule at Opening Bell in share market. In this connection, a short survey study was under taken to know the understanding ability of PWDs and non-PWDs when opening bell news capsule of Business Television News channel is screened with and without accessible formats. The results of this short survey study using a research tool developed for the purpose indicates that comprehension level of BTN increases by applying accessible format when opening bell news capsule of Business Television News channel is screened in accessible format.

Keywords: Television news, Opening Bell, Accessibility.

1. INTRODUCTION

Communication forms an integral part of any business in general. In the process of communication, it is very significant to understand a message, at same time, in the same manner as sent by sender by the receiver. Television is a mass media that aims to inform, educate and entertain masses. Digital television technology today provides the choice to the users. (RRC, Rapid Result CollegeBusiness Training, 2001). Due to advent of modern digital technology, communication in and around business organizations has changed. (Jennifer, Cathryn, Briana, & Brandon, 2012).

Business Television News (BTN) Telecast has information content that is telecast. In India, there are 18 scheduled languages (constitution of India) and a large audience as its target around the clock through various television business news channels. Persons with disabilities are also part of the society and tax payers who can actively participate in Indian economy, through investment and markets. Hence it is significant to create Business communication in digital television accessible to persons with disabilities, as viewer's ability to grasp the information and transform into right trades either through buying or selling which leads to profit or loss. In fact, investment is driven and done in stock market and in every business news about stock market affects price of stock. Every piece of information has its effect on stock. In other works, share market is business news driven. Further, India is one of the signatories of UNCRPD treaty of UN.

Indian Business Television News (BTN) Channels.

In television business communication in India, there are 7 news channels, it is growing, due to the increase in target group and need by the businessmen and 18 million investors. (source: Business Today, 2011)

Table no. 1.1:Classification of BTN Channels in India

CNBC TV 18	English
ET Now	English
Bloomberg	English
NDTV Profit	English
CNBC Awaaz	Hindi
Zee Business	Hindi
CNBC Bazaar	Gujarati

Indian population comprises of 2.86% persons with disabilities and 25% are in the geriatric (above the age of 65) (Government of India, 2011) age group, that have problems in seeing and hearing. Hence there is a need to increase accessibility of these Indian Television news channels for inclusive business communication.

Universal Design

The definition of Universal design as per Ron Mace (Accessible for all: Universal design by Ron Mace, 1988.) states that the intent of universal design is to simplify life for everyone by making products, communications, and the built environment more usable by as many people as possible at little or no extra cost. Universal design benefits people of all ages and abilities.

Universal design improves independence, affordability, marketability, and user image and identity. It is a multidimensional and interdisciplinary issue that requires change in the knowledge, strategies and procedures of designers, manufacturers, builders and marketers in all industries such as Design for All, Life Span Design, and Inclusive Design.

Captioning:

According to National Association of the Deaf (Described and captioned media program, 2009) "Captioning is the process of converting the audio content of a television broadcast, webcast, film, video, CD-ROM, DVD, live event, or other productions into text and displaying the text on a screen or monitor. Captions not only display words as the textual equivalent of spoken dialogue or narration, but they also include speaker identification, sound effects, and music description. It is important that the captions are:

i.   Synchronized and appear at approximately the same time as the audio is delivered;

ii. Equivalent and equal in content to that of the audio, including speaker identification and sound effects; and

iii. Accessible and readily available to those who need or want them.

Types of Captioning

The National Centre of Captioning (NCI, US, 1979) has divided captioning into 11 types. The type of captioning used in this research study is pop-on, pre-recorded captioning, as the captioning was done at a later stage with pop-on effect addition using studio pinnacle software version-14. The 11 types of captioning are as follows:

i.   Pre-recorded (off-line) captioning
ii.   Pop-on captions
iii. Centre placement pop-on captions
iv.   Roll-up captions
v.   Timed roll-up captions
vi.   Live (on-line) captioning
vii. Real-time captioning
viii. Real-time dictionary
ix.   Live-display captions
x.   Closed captions
xi.   Open captions.

The meaning of closed and open captions is similar, though slightly different, in the computer industry. In a PC environment, a closed caption is caption text that can be turned on or off and even styled by the user. An open caption is a caption that cannot be turned off—it is part of the static or dynamic image file; it is painted in the picture pixels. DVD captions for viewers who are deaf or hard of hearing may be turned on or off, and they are either called "closed captions" (decoder required) or "subtitles for the deaf and hard of hearing" (menu driven). Internet captions are generally referred to as "closed captions," and they are media player–based (e.g., QuickTime, Windows Media, Flash, Real Media).

The captioning used in Business Television News Channel is as follows:

Chart 1.1: Sample Captioning used in Opening bell news session of Bloomberg TV BTN Channel

Sign Language

Arti Thorat et al (2014) a researcher on sign language interpreted that sign Language is the well-structured code gesture; every gesture has meaning assigned to it. Sign Language is the only means of communication for deaf people. There are different categories of sign languages are there, Indian Sign Language, British Sign Language, American Sign Language etc.

Indian Sign Language

According to U. Zeshan of AYJNIHH (Ulrike Zeshan (2000). Sign Language of Indo-Pakistan: A description of a Signed Language. Philadelphia, Amsterdam: John Benjamins Publishing Co.) it is found that count of hearing impaired people in India, is more compared to other countries. Not all of them use ISL but, more than one million deaf adults and around half million deaf children use ISL as a mode of communication. Deaf people, who live in villages usually, do not have access to sign language. However, in all large towns and cities across the Indian subcontinent, deaf people use sign language which is not standard sign language. Extensive work and awareness program are being done for implementation of ISL in education systems.

There are some common wrong beliefs about sign language which is reported in ISL literature

i) Sign language is same all over the world

ii) Sign language is not a complete language. It is just a sort of pantomime or gesturing, and it has no grammar

iii) Sign language is dependent on spoken language. It is a representation of the spoken language of the hands

iv) Sign language is the language of the hands only

v) Sign language has been invented by other people to help deaf people

vi) Signed Hindi or signed English is better than Indian sign language

Keeping into mind the concept of captioning and sign language the BTN was converted into accessible format. Below is the Screenshot of Business Television News channel. We can see that in far right a person is doing news anchoring in ISL. ISL unable hearing impaired people to understand language. Further, we can see scroll

at the bottom of the screen. A person who is hard of hearing can read these rates of shares and can do analysis of share market as per his knowledge.

Chart no 1.2: Screenshot of CNBC TV 18 news channel with ISL.

Disability in India

Census (Government of India, 2011) has revealed that over 2.21 million people in India as suffering from one or the other kind of disability. This is equivalent to 2.21% of the population. Among the total disabled in the country, 12.6 million are males and 9.3 million are females.

The table below shows the percentage of Persons with Disabilities:

Table no.1.2 Percentage population of persons with Disability in India, 2011

Residence	Persons	Males	Females
Total	2.21	2.41	2.01
Rural	2.24	2.43	2.03
Urban	2.17	2.34	1.98

Source: C-Series, Table C-20, Census of India 2001 and 2011

The total population of persons with disabilities in Maharashtra is 2,96,33,92 out of which Mumbai comprises of 3, 40,420. These statistics highlights the need for dissemination on prevention of dieses causing disability, early identification, rehabilitation, education and economic independence of persons with disabilities. Percentage of disabled persons in India has increased both in rural and urban areas during the last decade.

In line with the goals of universal design, making TV accessible can improve share market literacy, knowledge of economy. (Not only for persons with disabilities but for the non-educated women and other marginalized groups). While, the data of investment done by PWDs (Persons with Disabilities) in share market India is still unknown, it is believed that PWDs also invest in share market at large. So, if the format of Business television news channel is in universal design, then not only PWDs will benefit from but also TRP (Television Rating Point) or viewership will also increase. Further, India is one of the signatories of UNCRPD treaty of UN.

2. REVIEW OF LITERATURE

Accessibility is often used to focus on persons with disabilities or special needs and their right of access to entities, often through use of Assistive technology or Access Services. Accessibility is strongly related to Universal Design, when the approach involves 'direct access' (Peter Olaf Looms, 2011) Accessibility also means - The degree to which a product, device, service, or environment is available to as many people as possible.

The Person with Disability Act (1995), Government of India

Purpose of this act is to give effect to the Proclamation on the Full Participation and Equality of the People with Disabilities in the Asian and Pacific Region which was ratified by the government of India after signing the UNCRPD has helped little in the dissemination of information to the masses.

Though the journalists have some idea and knowledge of disability rights which they acquire from government sources yet the issues and "real" problems of the disabled people remain a silent affair or if reported the disability is highlighted more than the actual problem. Gusfield (1981) argues that a component of this culture of public problems is attributed to the mass media.

Accessible India Campaign

Department of Empowerment of Persons with Disabilities (DEPWD) has launched Accessible India Campaign (Sugamya Bharat Abhiyan) as a nation-wide Campaign for achieving universal accessibility for Persons with Disabilities (PWDs).

Chart no. 2.1 – Screen shot of accessible India campaign official website.
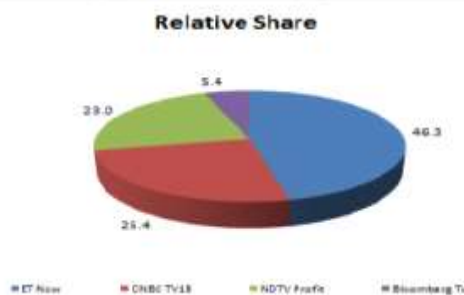
Indian Television

As per the TAM (Television Audience Measurement) Annual Universe Update - 2010, India now has over 134 million households (out of 223 million) with television sets, of which over 103 million have access to Cable TV or Satellite TV, including 20 million households which are DTH subscribers. In Urban India, 85% of households have a TV and over 70% of all households have access to Satellite, Cable or DTH services. With increase in number of channels there is increase in no of television business channel also. Under the umbrella of news and current affairs, the genre of business in the only niche one which has managed to develop a market of its own.

Relative Market Share of Business News Channels: (Source: TAM weekly viewership data)

Chart no 2.2. Classification of Market Share in terms of BTN in India.

Channel Name	Week 14, 2013	Week 15, 2013	Gain/Loss
ET Now	36.3	46.3	10
CNBC TV18	35.4	25.4	-10.1
NDTV Profit	24.1	23	-1.1
Bloomberg TV	4.2	5.4	1.2

Relative Share

Television technology has advanced at a rapid pace but accessibility of TV in India has been a persistent problem. Even after four metro cities in India are digitised for telecast of news and TRAI regulation for STB's made mandatory. Person with disabilities are not direct beneficiaries of this digitations by government of India. Except for the television news for Indian Sign Language (ISL) on DD News, no other private news channels providing news in accessible format. However, subtitles remove language barrier to many of the television shows.

3. Research Design

Aim

Aim of this research study is to demonstrate the significance of accessible and non-accessible content in the Business News Channel CNBC TV 18 Opening Bell news capsule.

Objectives

a) The objective of study is to demonstrate opening bell news capsule of two minutes of business news channel in universal design.

b) The objective of this study is to see how far this universal designed news capsule of opening bell of business television news channel is understandable for persons with and without disabilities

Research Questions

a) What is the significance of close captioning in CNBC TV 18 business news channel with reference to opening bell?

b) What is the significance of Indian Sign Language in CNBC TV 18 business news channel with reference to opening bell?

Hypothesis

a) Usage of close captioning in CNBC TV 18 BTN with references to opening bell increases the understanding among PWD.

b) Usage of ISL in CNBC TV 18 BTN with references to opening bell increases the understanding among PWD.

Limitations

a) For this research study purpose, only business television news channel will be selected.

b) For this research study purpose only English language business television news channel will be selected - CNBC TV 18 BTN.

c) For this research study purpose only opening bell of English business television news channel will be selected.

d) For this research study purpose only two minutes news capsule of English business television news channel will be selected.

Methodology

a) In order to find the answers to research questions and to test the hypothesis a research tool was developed for research study.

b) To develop a research tool a video consisting of 120 seconds of opening bell of CNBC TV 18 was collected from news tracking agency.

c) Video of opening bell of CNBC TV 18 was converted into accessible format by using ISL.

d) The same was tested for its validation through a pilot study suggestions and feedback was collected from professionals working with persons with disabilities such as rehabilitation professionals, psychologists, media professionals to validate the research tool.

e) The research tool thus developed was administered to thirty-four persons with disability and thirty-four persons without disabilities. Their feedback was taken on paper and results was analysed. The data gathered using research survey tool was fed into SPSS software (v.16) and analyzed using Independent t-test and correlation.

4. Findings & Observations

For the purpose of research and to get accurate results BTN video was converted into accessible format. This video has shown to PWD as well as non-PWD people for conducting a survey. The survey was taken careful that each one should watch the video carefully without any interruptions to get the

accurate response from them. For getting the accurate results, researcher has showed the non-accessible video first and later UD video to the respective people and based on that the questionnaire has been given to them to get the answers after watching the video.

Table No 4.1: Classification of BTN Viewers in terms of disability

Type of Disability	Frequency	Percent
HEARING IMPAIRMENT	15	22.05882
MULTIPLE DISABILITIES	4	5.882353
VISUAL IMPAIRMENT	15	22.05882
NOT APPLICABLE	34	50
Total	68	100

Chart No 4.1: Classification of BTN Viewers in terms of disability
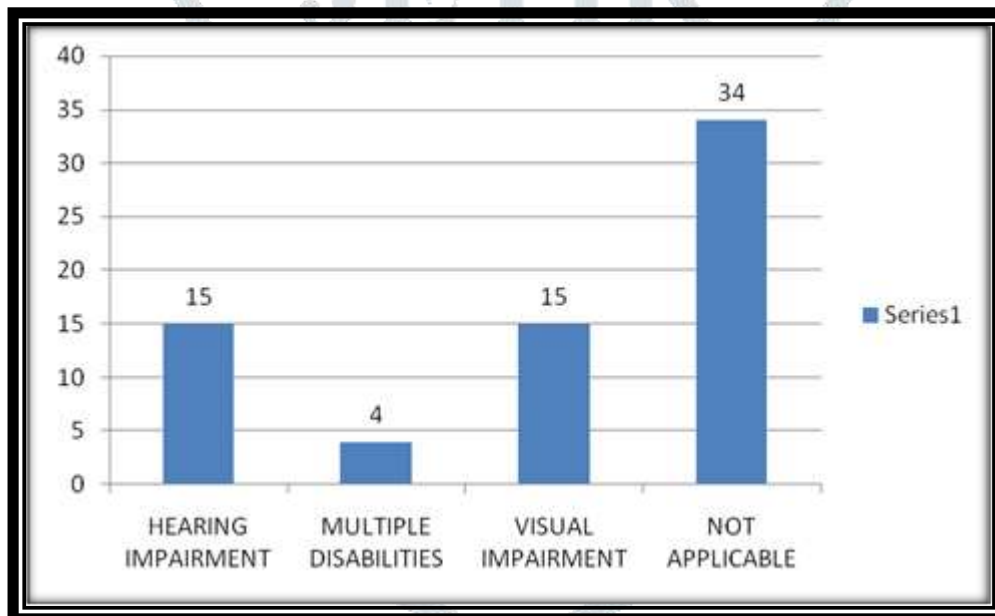
In the above chart no. 4.1 it may be noted that the total number of viewers was 68. Out of the total number 22% of the respondents were hearing impaired while 5 % were with multiple disabilities, 22 % were visually impaired and the rest 34 are non- PWD.

Chart No 4.2: Significance of close captioning in Business TV News Channel with reference to opening bell
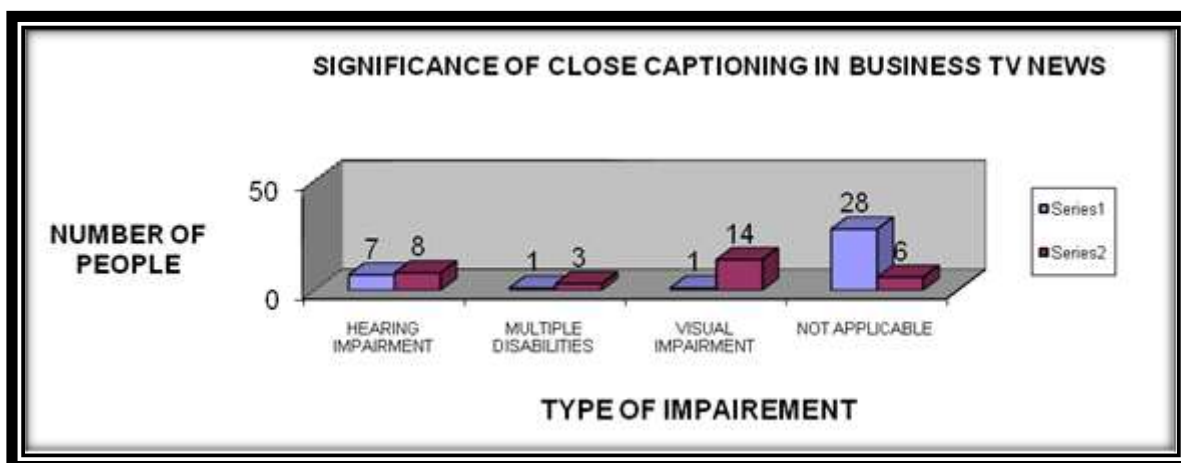

Table No 4.2: Significance of close captioning in Business TV News Channel with reference to opening bell

TYPE OF DISABLITY	Captioning		Total
	YES	NO	
HEARING IMPAIRMENT	7	8	15
MULTIPLE DISABILITIES	1	3	4
VISUAL IMPAIRMENT	1	14	15
NOT APPLICABLE	28	6	34
Total	37	31	68

In the above table number 3 and chart number 3 it may be seen that there is a significant difference between understandability of the PWD viewers and understandability of non- PWD viewers with regards to close captioning. As the 'p' – value = 0.322. However, it may be noted that persons without disability has highest understandability of close captioning (82.352 %). While hearing impaired people, the second highest understandability about close captioning is 46.666%.

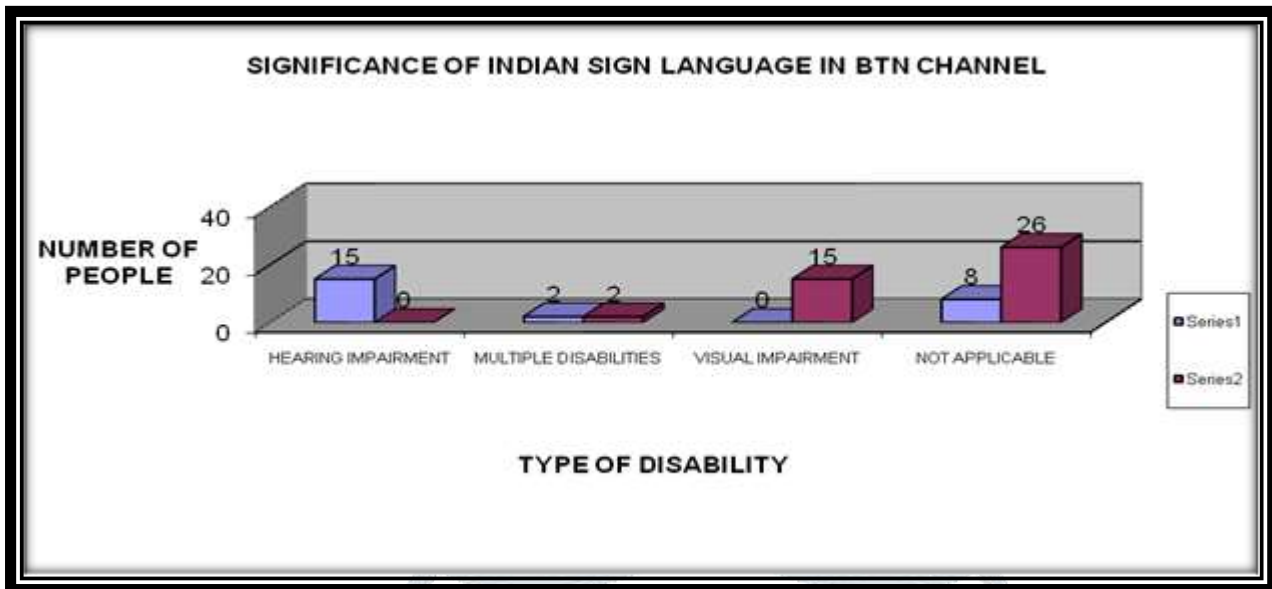**Chart No 4.3: Significance of Indian Sign language in Business TV news Channel with reference to opening bell**

Table No 4.3: Significance of Indian Sign language in Business TV news Channel with reference to opening bell

TYPE OF DISABLITY	USE OF ISL		Total
	YES	NO	
HEARING IMPAIRMENT	15	0	15
MULTIPLE DISABILITIES	2	2	4
VISUAL IMPAIRMENT	0	15	15
NOT APPLICABLE	8	26	34
Total	25	43	68

In the above table number 4.3 and chart number 4.3 it may be seen that there is a significant difference between understandability of the PWD viewers and understandability of non- PWD viewers with regards to Indian sign language. As the 'p' – value = 1.000. However, it may be noted that persons with hearing impairments has highest understandability of ISL (100%). While, visual impaired people has lowest understandability about ISL. (0%).

Chart No.4.4 Classification of Viewers in terms of Understanding of BTN in Non-Accessible Format

Classification of Viewers in terms of Understanding of BTN in Non-Accessible Format
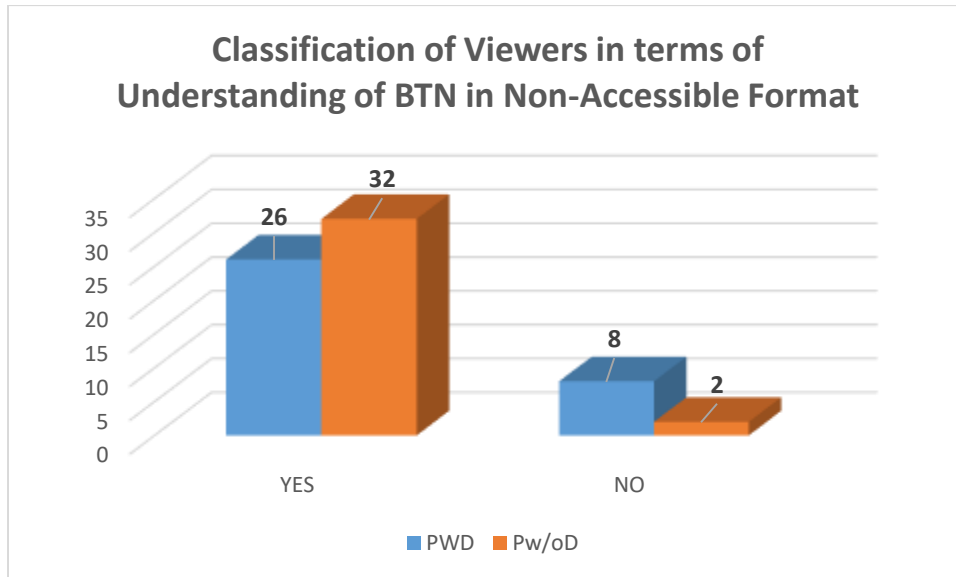
(p.value=0.40)

Table No 4.4: Classification of Viewers in terms of Understanding of BTN in Non-Accessible Format

UNDERSTANDABILITY BEFORE ACCESSIBLE FORMAT			
	YES	NO	Total
PWD	26	8	34
Pw/oD	32	2	34
Total	58	10	68

In the above chart and table no.4.4 it may be seen that there were 8 persons who did not understand the BTN. There were 2 persons without disability who also could not understand the news screen but could understand once it was made in accessible format. Therefore, it is evident that accessible screen not only aids person with disability but Everyone.

5. Conclusion

In the short comparative study on business news channel of opening bell news capsule in accessible and non-accessible format and its comprehension level on PWD and non-PWD. It may be noted that several aspects of accessibility and modalities had diverse perspectives of the viewers. The study did demonstrate the effectiveness of accessible and non-accessible media content of Business television news channel with PWD and non-PWD.

The first hypothesis states that close captioning in business news channel with reference to opening bell is important. The first hypothesis proved true. It may be seen that there is a significant difference between understandability of the PWD viewers and understandability of non- PWD viewers with regards to close captioning. However, it may be noted that persons without disability has highest understandability of close captioning (82.352 %). While hearing impaired people second highest understandability about close captioning is 46.666%.

The second hypothesis states that Indian Sign Language in business news channel with reference to opening bell is important. The second hypothesis is also proved true. It may be seen that there is a significant difference

between understandability of the PWD viewers and understandability of non- PWD viewers with regards to Indian sign language. However, it may be noted that persons with hearing impairments has highest understandability of ISL (100%). While, visual impaired people has lowest understandability about ISL. (0%).

Scope for further research

The short study was done by selecting a BTN channel CNBC TV 18 which was for a short duration and therefore the same research can be done by selecting some other channel and making it into accessible format. The viewers selected for the research study were from Mumbai city. Rural area population can be studied. The language of channel can of different, according to the need of the population.

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