CHAPTER-5

Impact of Multimedia on Entertainment Sector
5.1 GROWTH OF ENTERTAINMENT INDUSTRY:

New technologies and ideas and young and brilliant filmmakers are here to take the (Film) industry forward. A revolution has happened in the industry.¹

Entertainment industry of India is not only very old but also growing at a rapid rate. Indian Cinema, music industry, performers and broadcasters network, merging of new media technologies etc. From the backbone of Indian entertainment industry.

According to a report prepared by price water house cooper (PWC) in conjunction with FICCI (Federation of Indian Chambers of commerce and industry) the key Findings and major projection are given as under.

- The reports title “Sustaining Growth²”.
- Television segment at USD 5.65 billion, grew 18% last years, compared with 21% in 2006.
- Filmed-entertainment both Hindi and regional cinema –grew 14% to USD 2.4 billion down from 24% growth in 2006.
- Online advertising growth rate increased, but at USD 67.5 million.
- Television industry will grow at 23% this year and 22% annually through 2012.
- Filmed-entertainment 15% growth this years and 13% through 2012 (Source : PWC FICCI report).

The Comparative growth rates may look small, but in a global context they are impressive.
“This industry is going to see a lot of investment from various sources—private equity, venture capitalists the public (Rajesh Jain Director of Information communication and entertainment for KPMG India) as we more towards a brand driven society more &more advertising bucks will be placed here.”

Before analyzing, the impact of multimedia on entertainment industry, there is a need of brief review on the concept of animation. A brief overview on the concept of animation is as follows:

“Animation is derived from Latin word meaning bring to life. Rapidly changing the Images on the screen to crate the illusion of motion is called animation. It also involves the changing in lighting, camera position, orientation and even changes of rendering technique.”

Generally, the elements of animation are shape, colors and texture, persistence of vision, perception of motion is logarithmic, non linear, trajectory and key drawing etc. Animation is possible because of a biological phenomenon known as persistence of vision.

Following are the most common techniques of animation used by the professional:

- Cell Animation
- Computer Animation
- Kinematics
- Morphing etc.
Multimedia authority systems typically provide tools to simplify creating animation within the authority system. Now a days the most commonly tools for creating multimedia animations are Macro media flash 0.7, Macromedia Director, Soft Image etc.

Multi media is playing an important role in the growth and development of animation contents like films/simulation/advertisement. The merging of entertainment medias with multimedia technologies has already excited the interest of Animation Companies.

5.2 Indian Cinema and Multi Media Technology

Equipped with the latest equipment, High Definition Technology (HD), Multimedia Software and High Tech Laboratory, the Indian Cinema has entered into an age of digital cinema. Multimedia tools provide a ample facilities for the production of films. High end software, composition and morphing techniques of animation are being utilized in the cinema. During the last two decades Indian cinema industry noticed a drastic change in film production technology.

Some of the major technological advancements are in the film production as follows:

- Currently celluloid cameras are equipped with multimedia/TV kit previously they were not.
Tedious manual editing of film now has been replaced by the non-linear digital editing. It is indeed a time saving and reduces a cost of production.

For the special effect latest animation techniques are being used by the film maker in cinema with help of the high level state-of-the-art multimedia software, such as soft image, Maya, 3D Max etc.

Multimedia techniques are being used in the recording of sound and music for the production of film.

**Digital Projection System:**

Multimedia technology is bound to make film releases much faster; installing digital projection systems to show movies down loaded through satellite. The digitally mastered high resolution movie images are screened through satellite directly to the cinemas. This facilitates widespread release of any film without any additional cost in prints for content owners. According to UFO movies; it is easy, smooth and safest project technique, after receiving the no objection certificate from the concern movie producers to digitise their film in MPEG-4 format, there are then uploaded to the central server in Goregaon and later distributed online to the cinema halls equipped with the receiving systems. The whole system is safe and prevents piracy till the stage of projection.

Two type of digital systems are available three chip system for 60-foot screen and single chip system for 30 foot screen.
The mega capacity movie server could store around 10 full length films simultaneously.

Each connected theatre of country can schedule any movie out of a possible eight to 10 films at any point.

The used software is so simple even technician can operate.

Each step of digital projection process is pass word protected.

5.3 New Age of Satellite Television and Multimedia:

"Bollywood superstar Shah Rukh Khans's return to the small screen in star plus quiz show 'Kaun Banega Crore Pati-3' actress Shilpa Shetty living her life out on Britains reality show 'Celebrity Big Brother' and film director Karan Johar's decision to restart his chat show 'Koffee with Karan' all the indication that the small screen is very big now" 5.

The Indian television sector, once considered the poor cousin of the glamorous world of cinema, is increasing restructuring entertainment in the country. The Indian television industry is one of the most extensive systems in the world. According to FICCI, the industry posted better financial figures than film trade in India for the first time in the year 2004. Since than it has also come out of the dominating shadow of the big silver screen, especially in terms of people's perceptions. "Terrestrial broad casting, which has been the sole preserve of the government, provides television coverage to over 90% of India's 900 million people. As the National Television Network (Doordarshan, DD) the television first came to India and the first telecast started on Sept.15, 1959 in New
Delhi second television station was established in Mumbai in 1972 and in 1975 there were five more television stations in the various part of country. Until 1982 the transmission was black and white, during Asian Games (1982) the colour television was introduced 6".

Cable TV came in to existence after the series of economic and social reforms in 1991. Foreign TV Channels like CNN, Star TV and domestic channels such as Zee and Sun TV started satellite broadcast.

Presently, T.V. in India covers more than 100 million homes giving a viewing population over one billion people through more than 100 active TV channels and total more than 350 TV channels; with the improved accessibility of various relevant technologies like Terrestrial Network, Cable and DTH.

DTH is defined as the reception of satellite T.V. programmes with a personal dish in an individual home (Direct to home) with the latest development India has four major DTH service providers.

Dish TV - A Zee TV subsidiary

Tata Sky - Marketed by Tata group

BIG TV - Reliance group

DD DTH - A total free subscription TV network provided by Prasar Bharti Nigam.
According to FICCI (Federation of Indian Chambers of Commerce and Industry) and Price Water House Coopers, "the television industry is poised to grow at 24% to Rs.427 billion, from its current size Rs.148 billion subscription revenues would be the key growth drives for the industry over the next five years. The new distribution plate forms such as DTH (presently holding 7% of there total TV network) and IPTV (Internet protocol Television) will contribute the subscription base".

Today, multimedia is used in the convergence of information and communication and broadcast technologies, involving advances in processing power and usability of information technology, enabling the storage, processing and transmission of large volumes of digitized information. The development of multi media in TV industry is surrounded by enormous possibilities.

5.4 Animation and game sector:

"Animation and gaming in India has taken off in a big way in the past 2-3 years owing to recognition of India's IT expertise and creative skills, entrepreneurial drive of companies and last but not the least recognizing this as a potential growth sector at the right time?".

India's animation industry is witnessing a major boom. Global entertainment giants like Walt Disney, Imax, Warner brothers and Sony are signing up big contracts with Indian animation companies. And cities like, Chennai, Bangalore, Mumbai, Hyderabad. Trivandrum and Indore have emerged as nations prime animation hubs. Some of the major animation
companies of India are - Toonz Animation, Crest, Communication, Maya Entertainment, Silvertone Studio, UTV Toons, Zee Institute of Creative Arts, 2NZ Studios, Pentamedia Graphics, Prasad Studios, Jadoo Works, Color chips and Heart Animation.

These animation houses have set up huge production studios, that are well equipped with state-of-the art equipment, hardware and Multimedia software like 3D Studio, 3D Max, Maya, Softimage, SFX, Smoke etc. Houses also provide various facilities like sound recording and processing, motion capture and telecine/reverse telecine facilities. Staffed with internationally trained creative professional, including thousands of animator, character designs, compositor, motion expert etc.

Electronic/Video/PC games in India:

Electronic games have been a popular pastime across the world since 1970’s. The popularity of these games has grown with the advancement in multimedia technology, mobile communication and internet in the 1990s. Games are best example of multimedia technology because they have animation, video, graphics, text image and good level of interactivity. Gaming can be classified into PC gaming, console gaming, wireless gaming, multiplayer gaming and massive multiplayer online role playing games (MMORPG).

In India, mobile gaming and console gaming tare the most popular forms of games followed by PC gaming and MMORPG. The penetration of mobile phones in India is higher when compared to personal computers;
hence more people are likely to get their first gaming experience on a mobile phone. Moreover, a large number of youth are keen to try out new games. Telecommunication service provider such as Hutch, Reliance, Idea, have capitalized on the popularity of mobile gaming in order to attract more subscriber by offering games for download through their website.

"India is fast emerging destination for game development and creation. In 2006 Indian game producing companies established the Indian Games Industry and Trade Association (IGITA). Today in USA game industry is a USD 10 billion. The market for gaming development in India was estimated at USD 30 million in 2005 it is expected to witness a CAGR of 78% and reach USD 300 million by 2009 8°. According to the IGITA in India mobile offers a great scope for game development industry. Some interesting findings of IGITA report on game industry as follows:

- Top ten games comprise of cricket, holly wood and action based game.
- 40% of all mobile gamers belong to 22-35 years of age.
- Airtel has the largest share in games followed by Vodafone and Reliance.
- Nokia handsets are loved by gamers - top 10 handsets belong to Nokia.
Gujrat is the top GSM circle followed by Mumbai and Karnataka.

Mobile gaming contributes 58% of the total revenue.

"On line gaming sector in India is being driven by the increasing numbers of internet users, the online gaming industry in India is worth Rs.210 million."

Recently, NASSCOM released the annual report on the animation and gaming Industry in India - 2007. According to this report an expected CAGR for Indian animation industry at 25% over 2006-2010 and a CAGR of 72% over 2006-2010 for gaming. In addition to most inherent factors like creative skills, innovation aspiration and human resources availability and cost advantage, other external factors like growing maturity of animation studios, improved infrastructure, increase in number of co-production ventures and the fascinating domestic market opportunity have immensely supported to this industry's growth.

"As estimated by National Association of software and services companies (NASSCOM) that the global animation market was at USD59 billion in 2006, now it is predicted to reach USD80 Billion by 2010; Global market for animated content and related services is estimated at USD 25-26 billion and is forecast to cross USD 34 billion by 2010. The worldwide gaming market stood at USD 21 billion; and is expected to reach USD 42 billion by 2010. Worldwide gaming content market was estimated at nearly USD 7 billion in 2006 and is expected to cross USD 13 billion by 2010"
The Indian animation industry is forecast to reach USD 8.69 million by 2010 representing a CAGR of 25% over 2006-2010.

The Indian gaming industry was estimated at nearly USD 48 million in 2006; and is expected to cross USD 424 million by 2010, representing a CAGR of 72 percent over 2005-2010.

Presently more than 300 animation companies employ approximately 12,000 people in India. Industry is also combining the services of more than 3000 freelancers.

5.5 Status of Entertainment Sector in M.P.

M.P. is always considered as one of the under developed state of country. But the growth of entertainment sector is remarkable in Madhya Pradesh. Despite of well equipped cinema hall, Multiplexes and Digital projection systems, the multimedia products like, DVD player, CD player, I-Pad, Multimedia computer, PC games, On line game, MP-3 player and multimedia mobile phones are popular among the public. As mentioned in the report prepared by NASSCOM on the growth of entertainment industry. The state has doing well in the field of animation and gaming sector.

Convergence is a world wide phenomenon (From a technological point of view) and it is going to happen in India at a rapid pace. Broad and wireless network are opening a lot of opportunities for multimedia technology based content. For example we are watching movies on cell phones. This is a totally new dimension of entertainment.
Media and entertainment is one of age booming sectors of Indian economy. Filmed-entertainment, television, radio and live events are the main segment of Indian entertainment Industry. With the advent of online entertainment on internet, the biggest changes are expected in the internet, television distribution video games and concerning segment.

It is one of the major revolutions in the cinema industry; conventional film projection system has been replaced by the new satellite projection system. Today, theatre, cinema hall, multiplexes, PVRS are linked with satellite and subscribe by the distributor film is screened at a time in all the theater of the country.

5.6 Impact of multimedia on entertainment sector

Present study designed a particular section of questionnaire (item no.53, 54, 55, 56, 57) attempt to assess attitude towards impact of multimedia technology on entertainment sector. The key objective of this section is to know utilization of multimedia technology in cinema, television, animation films and PC game industry, and its impact on whole entertainment sector in the sense of quality content and presentation.
Item No.53 Tools of multimedia (Graphics, special effects animation etc.) have been extensively utilized in the entertainment.

Table No. 5.1 Indicator of Entertainment

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Attitude</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agree</td>
<td>389</td>
<td>74.08</td>
</tr>
<tr>
<td>2</td>
<td>Undecided</td>
<td>88</td>
<td>16.76</td>
</tr>
<tr>
<td>3</td>
<td>Disagree</td>
<td>48</td>
<td>9.16</td>
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<tr>
<td>Total</td>
<td></td>
<td>525</td>
<td>100.00</td>
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</tbody>
</table>

Fig. No. 5.1 Utilization of Multimedia in Entertainment

As shown in table 5.1, a very large percentage (74%) agreed with the statement. While above (16%) of the total multimedia users were "undecided" and only (9%) of the total multimedia users were disagreed.

The interpretation has been done at two levels. Firstly the trend shows the maximum utilization of multimedia technology in the entertainment sector (Cinema, TV and Game, VR). Secondly, the indirect
effect comes from the change in the technology of production of cinema, television broadcasting and game on line/off line etc. Thus, it is indicated that the technical quality of the cinema, television broadcasting internet has been improved remarkably.

The key objective of this section is to understand the utilization.

Item No. 54 Trend of special effects based on animation, graphics and virtual reality is taking pace in Indian cinema and television industry.

Table No. 5.2 : Indicator of Entertainment

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Attitude</th>
<th>No. of responses</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agree</td>
<td>419</td>
<td>79.81</td>
</tr>
<tr>
<td>2</td>
<td>Undecided</td>
<td>73</td>
<td>13.90</td>
</tr>
<tr>
<td>3</td>
<td>Disagree</td>
<td>33</td>
<td>6.28</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>525</td>
<td>100.0</td>
</tr>
</tbody>
</table>

As shown in table 5.2, a very large percentage (80%) of the multimedia users were agreed with the statement and (14%) were undecided while only slightly above 6% of the total multimedia users were disagreed with the statement. It suggests the positive growth trend of multimedia technology.

Item No.55 Now a days of animation films based on mythology has been increased in Indian cinema industry.

Table No. 5.3 Indicator of Entertainment

<table>
<thead>
<tr>
<th>S. No</th>
<th>Attitude</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agree</td>
<td>433</td>
<td>82.47</td>
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<tr>
<td>2</td>
<td>Undecided</td>
<td>63</td>
<td>12.0</td>
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<tr>
<td>3</td>
<td>Disagree</td>
<td>29</td>
<td>5.52</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>525</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Chapter-5

Impact of Multimedia on Entertainment Sector

As shown in table 5.3, almost 83% of the total multimedia users were agreed with statement and 12% were undecided while only 5.5% users were disagreed with the statement. It is easy as well as exciting to create myth character through multimedia shows that why the production of mythology based animation films has been increasing.

**Item No.56 Opportunity of employment is increased due to excessive demand of animation films, graphics material and multimedia based product like game and VR machine.**

**Table No. 5.4 Indicator of Entertainment**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Attitude</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agree</td>
<td>439</td>
<td>83.62</td>
</tr>
<tr>
<td>2</td>
<td>Undecided</td>
<td>61</td>
<td>11.62</td>
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<tr>
<td>3</td>
<td>Disagree</td>
<td>25</td>
<td>4.66</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>525</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Fig. No. 5.2 Opportunity of employment**

- 83%
- 12%
- 5%
- Agree
- Undecided
- Disagree

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As mentioned in table 5.4, almost 84% of the total multimedia users were agreed with the statement and only above 11% were undecided while below than 5% of the total multimedia users disagreed with the statement. These responses clearly show the economic impact of multimedia in terms of growth in employment, growth in all multimedia related industries.

**Item No.57 Budget of films and programme has been increased due to the application of multimedia technology in Indian cinema and TV industry.**

**Table No. 5.5 : Indicator of Entertainment**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Attitude</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agree</td>
<td>451</td>
<td>85.90</td>
</tr>
<tr>
<td>2</td>
<td>Undecided</td>
<td>48</td>
<td>9.14</td>
</tr>
<tr>
<td>3</td>
<td>Disagree</td>
<td>26</td>
<td>4.95</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>525</td>
<td>100.00</td>
</tr>
</tbody>
</table>

As mentioned in table 5.5, almost 86% of the total multimedia users were agreed with the statement and below than 10% were undecided whereas only 5% were disagreed with the statement.

On the above responses it is safely interpreted that the multimedia technology is costly for production of films and TV shows.

In summary, the study indicates that new generation products of multimedia improve the quality and luxury of entertainment (Cinema, TV, Animation films, Video game etc.). Moreover, emerging wireless
multimedia services and technologies have been providing wide coverage and exciting entertainment options.

It is evident from the study that the computer graphics, animation technique, advanced cinematic, digital cinema, special effects, morphing, compositing etc. are heavily used in the movies, television and video game. Multimedia has the power to change the way of presentation style and infect whole trend of entertainment sectors. Television medium is the best example of trend setting. Television always remarked as 'idiot box' (Budhu box) now look like a window of computer; it has scroll, dynamic text, date icon, digital watch and scope of interactivities through SMS, phone calls, and e-mails.

Recently, the production of animation films, both (ad and feature films) have been increased in India. Specifically, the huge number of mythology based animation films can be seen in those days.

Development and growth of multimedia technologies in India generate enormous opportunity, job work and employment.
References:


3. Jain Rajesh (Director ICT & Entertainment) for KPMG India.


