LIGHTS, CAMERA, ACTION...

...THE SHOW GOES ON

December 2020
ABOUT BCG

Boston Consulting Group partners with leaders in business and society to tackle their most important challenges and capture their greatest opportunities. BCG was the pioneer in business strategy when it was founded in 1963. Today, we help clients with total transformation—inspiring complex change, enabling organizations to grow, building competitive advantage, and driving bottom-line impact.

ABOUT CII

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the development of India, partnering industry, Government and civil society, through advisory and consultative processes.

For 125 years, CII has been working on shaping India’s development journey and, this year, more than ever before, it will continue to proactively transform Indian industry’s engagement in national development.

CII is a non-government, not-for-profit, industry-led and industry-managed organization, with about 9100 members from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 300,000 enterprises from 288 national and regional sectoral industry bodies.

CII charts change by working closely with Government on policy issues, interfacing with thought leaders, and enhancing efficiency, competitiveness and business opportunities for industry through a range of specialized services and strategic global linkages. It also provides a platform for consensus-building and networking on key issues.

Extending its agenda beyond business, CII assists industry to identify and execute corporate citizenship programmes. Partnerships with civil society organizations carry forward corporate initiatives for integrated and inclusive development across diverse domains including affirmative action, livelihoods, diversity management, skill development, empowerment of women, and sustainable development, to name a few.

With the Theme for 2020-21 as Building India for a New World: Lives, Livelihood, Growth, CII will work with Government and industry to bring back growth to the economy and mitigate the enormous human cost of the pandemic by protecting jobs and livelihoods.

With 68 offices, including 10 Centres of Excellence, in India, and 8 overseas offices in Australia, Egypt, Germany, Indonesia, Singapore, UAE, UK, and USA, as well as institutional partnerships with 394 counterpart organizations in 133 countries, CII serves as a reference point for Indian industry and the international business community.
Kanchan Samtani
Managing Director and Partner,
Boston Consulting Group

Mandeep Kohli
Partner,
Boston Consulting Group
Foreword

Welcome to the 2020 edition of CII Big Picture Summit’s Knowledge Report, in partnership with BCG, on the future of the Indian Media & Entertainment industry. In line with the broader theme of this year’s event, “Big to Bigger”, the report discusses how, despite the Covid-19 pandemic and the resultant stresses, the Indian M&E industry is continuing its trajectory of strong historical growth into the foreseeable future.

During the toughest weeks of the year, our industry provided much needed succor to the country’s citizens, as seen by the massive surge in viewership during the weeks of lockdown and beyond. From a demand point of view, it is heartening that M&E consumption remained resilient. However, as was the case with other industries, this past year has been a challenging one for the M&E industry as well. There have been many operational challenges, with hurdles in content creation and distribution through conventional platforms. These challenges were made worse by the accompanying financial blow of declining ad spends across different media (digital being the notable exception). Looking back now though, we can confidently say that the most difficult times are behind us. Operations are returning to normal with best-in-class safeguards and SOPs being established, and a recovery in ad campaigns has taken place.

Covid-19 has had a major impact on how we consume content both in-home and outside and some of these will have long term implications for the industry. Going forward we expect the digital trend to intensify, OTT adoption to continue rising, and the emergence of new business models better suited to the new reality.

The Indian M&E industry, at USD ~24 bn in 2020, already has a sizeable impact on the Indian economy. However, given India’s diverse local audience base, international appeal of content, large diaspora and existing cultural influences in many parts of the world there is significant headroom for growth.

The industry faces key imperatives for the near future to ensure that it can reach its full potential. We need to build new revenue sources, deliver a better value proposition to our stakeholders (consumers and advertisers alike), focus on our human capital base to develop the requisite talent base and invest in technology to improve our productivity. Adversity is a great unifier, and this is the time for the industry to come together and deliver.

CII and BCG thank our stakeholders for their valued perspectives and support towards enriching the content of this Knowledge Report. We look forward to your continued feedback in enhancing the usefulness of this publication.
India continues its unique multimodal growth story, with digital video being the fastest growing media platform over the last 2 years. Not surprisingly, this trend is expected to continue for the foreseeable future led by the ever-increasing smartphone and data penetration on the demand side and improving consumer experience with high quality and wide variety of content, and innovative pricing models on the supply side.

During lockdown, both TV and smartphone video consumption surged as people spent more time at home. OTT continued its onward march, increasing its presence in Tier 2-4 cities. SVOD subscriptions continued to see strong growth rates on the back of high quality original and local content being created and marketed using free trial periods. Covid-19 accelerated the subscription trend as a result of out-of-home spending moving to in-home, and this is expected to be sticky due to the proliferation of platforms and content that is now available to consumers. Further, innovations in the form of India specific pricing have also helped make the proposition stronger and encouraged consumers to subscribe.
Advertising revenues saw a sharp decline as a result of the pandemic and are expected to be ~16% lower than in 2019, with ads on all media except digital expected to experience double-digit rates of decline in 2020. The recovery has been differential across sectors, compounded by a need to show higher ROI and control over advertising campaigns. This has led to higher allocations to digital media, which is expected to reach a share of ~15% in 2020, ahead of most pre-Covid projections. Though a cautious recovery seems to be underway and marquee events such as IPL have been able to grow over their 2019 levels, smaller events may continue to face pressure for some more time.

While the Indian M&E industry already has a significant impact on India’s economy, benchmarking with other countries indicates plenty of untapped potential. Most segments still have headroom for growth, while segments like OTT are growing at a steep rate and making a significant contribution. However, to achieve the industry’s true potential, there are a few areas where concerted effort needs to be made. These areas include creating more original and local language content to cater to diverse audiences, provide better data and flexibility to advertisers, create content to tap the global market, focus on up-skilling of existing talent and development of new-age talent, and investment in technology. Progress along these dimensions will ensure that, the effects of the pandemic notwithstanding, the 2020s will be extremely fruitful for the Indian M&E industry.
Overview of the report
SECTION 1
Indian M&E in 2020: The year that has been
• Consumption and advertising trends
• Impact of Covid-19
• Outlook for the near future

SECTION 2
Economic impact and growth potential of M&E
• M&E industry’s impact on GDP and employment
• Potential for further growth

SECTION 3
Key imperatives to realize potential
• Create value for consumers and advertisers
• Identify new sources of revenue
• Invest in skilling and technology
The Indian M&E industry in 2020: A snapshot of the year that has been
The Indian M&E industry in 2020: A snapshot of the year that has been
Consumption of M&E resilient during pandemic; Covid-19 accelerated trends towards subscriptions
The Indian M&E industry in 2020: A snapshot of the year that has been
Growth in India continues to be multi-modal
- Digital continues to be the fastest growing medium

Covid-19 led to a surge in consumption of both TV and OTT
- TV consumption saw initial spike, now stabilized to pre-Covid levels
- Non Prime Time viewership a major driver of growth
- OTT saw strong growth across both rural and urban areas

Covid has further accelerated the trend towards OTT subscriptions; expected to be sticky
- Subscriptions grew 55-60% for the top OTT platforms
India’s growth story continues to be multi-modal

Per capita media consumption continues to grow simultaneously across all forms

- Multi-modal growth story expected to continue for the next few years

Digital video continues to be the fastest growing medium clocking 14.5% CAGR

Print and Radio expected to remain flat

- Growth in regional newspaper readership has compensated for decrease in national dailies

### # hours/day

<table>
<thead>
<tr>
<th>Year</th>
<th>TV</th>
<th>Digital</th>
<th>Print</th>
<th>Radio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>3.66</td>
<td>2.11</td>
<td>0.73</td>
<td>1.84</td>
</tr>
<tr>
<td>2019</td>
<td>3.88</td>
<td>2.41</td>
<td>0.73</td>
<td>1.26</td>
</tr>
<tr>
<td>2020</td>
<td>4.17</td>
<td>2.95</td>
<td>0.73</td>
<td>1.25</td>
</tr>
<tr>
<td>2022 E</td>
<td>4.43</td>
<td>-</td>
<td>0.73</td>
<td>1.25</td>
</tr>
</tbody>
</table>

### 2018-20 CAGR

- TV: 6.7%
- Digital: 14.5%
- Print: 0.3%
- Radio: -0.4%

1. TV: ages 18+ who use at least once per month; includes live, DVR, and other prerecorded video (such as video downloaded from the internet but saved locally); includes all time spent watching TV, regardless of multitasking. If all population with age 18+ is considered, average hours per day is 3.2 hours.
2. Digital: ages 18+ who use at least once per month; includes all time spent with online video activities, regardless of multitasking; includes viewing via desktop/laptop computers, mobile (smartphones and tablets) and other connected devices (game consoles, connected TVs or OTT devices).
3. Print: ages 18+ who use at least once per month; includes magazines and newspapers; includes all time spent with print mediums, regardless of multitasking; offline reading only.
4. Radio: ages 18+ who use at least once per month; includes all time spent listening to radio, regardless of multitasking; excludes digital radio.
5. Circulation went down to 20-25% in Apr and May, back to 80-90% levels now.

Source: eMarketer database. Estimate differs from previous versions of the report due to changes in population definition, we have only considered the population who uses the platform in question.
Consumption for TV & digital surged as India stayed indoors

TV consumption ~20% higher than pre-Covid till Sep; has been reverting to pre-Covid levels Oct onwards

Weekly viewing minutes (in billion)

- Viewership spiked at 37%; steadily reverted to pre-Covid levels
- Post-lockdown spike primarily driven by NPT (44% increase)

1. 13-Jan to 2-Feb taken for pre-Covid levels

Note: Aggregate minutes per day spent on video streaming calculated by multiplying average daily time spent on VOD for given week with number of internet users in 2020 (post-Covid) and number of internet users in 2019 (pre-Covid)

Source: BCG Analysis, [BARC Nielsen Crisis Consumption An Insights Series into TV, Smartphone & Audiences, Prime-Time: 18:00-24:00, Non-Prime Time: 06:00-18:00], Ovum
Smartphone media consumption supported by increase in time spent on video streaming

Weekly viewing minutes (in billion)

<table>
<thead>
<tr>
<th></th>
<th>Peak during lockdown (Wk of 15-Apr)</th>
<th>Stabilized post-lockdown (Wk of 15-Aug)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video Streaming</td>
<td>21</td>
<td>18</td>
</tr>
</tbody>
</table>

% increase in media consumption (Aggregate minutes per day) on smartphone vs. pre-Covid

|                  | 37%                                  | 13%                                    |

The Indian M&E industry in 2020: A snapshot of the year that has been
TV and OTT subscriptions continue to grow
OTT growing at a faster rate than TV

SVOD adoption has spiked on account of trials; consumer survey shows 50%+ new users likely to stick post-Covid...

55-60%
Growth in SVOD subscribers in 2020 over previous year

50%+
New users likely to continue subscribing to the SVOD service

...and that the growth rate of new users in tier-2/3/4 regions was 1.5x that of the growth rate in Metro & Tier 1 during Covid

Overall growth rate in new users (AVOD and SVOD)

1. [Counterpoint – Top 5 Indian metros account for more than half of the OTT video content platform user base, June 18, 2019]
2. [Among urban consumers only. Question text: “Which statement best describes your usage behavior since the Lockdown?” Question text: “You mentioned that you have started below activities since the Lockdown. How likely are you to continue below activities even after the Lockdown gets lifted” Source: BCG COVID-19 Consumer Sentiment Survey (India) August 2020 (N=3000)]
3. Growth in new users that have accessed any platform in the category at least once since the lockdown. Pre-Covid split of OTT users was ~90% in Metro/Tier 1 and ~10% in Tier 2/3/4. 4. Metro is >40 lacs, Tier 1 is 10-40 lacs, Tier 2 is 5-10 lacs, Tier 3 is 1-5 lacs, and Tier 4 is <1 lac
Source: BCG Analysis
Customer speak

<table>
<thead>
<tr>
<th>1</th>
<th>Male, 22 years old</th>
<th>College student</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was encouraged to use OTT after the new lower priced plans were introduced! I was able to get a flavor of the content on different platforms and chose the one best for me. I cannot do without my OTT subscription now!</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2</th>
<th>Female, 40 years old</th>
<th>IT professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was against the idea of paying for OTT as I already had a cable TV connection at home. However, during Covid, with the entire family at home and just one TV, it was often difficult to watch my favourite shows on TV. OTT platforms came to the rescue, offering the convenience of watching at any time on any device. In fact, I now spend more time watching OTT on my phone than TV!</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3</th>
<th>Male, 30 years old</th>
<th>Chartered Accountant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing can beat the variety of content on OTT platforms. I have been subscribing to a platform for some time now, but only recently started delving into international language offerings since I could not find fresh interesting content. Korean cinema has blown my mind! I cannot wait to explore more languages.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Industry speak: Viewer first approach key to drive explosive growth

Punit Misra  
President - Content and International Markets, Zee Entertainment Enterprises Ltd

“In today’s day and age, a healthy obsession on understanding consumers intimately, and then creating and serving content that delights them wherever and whenever they consume the content is what will differentiate winners from also ran’s. So moving away from a content or platform first thinking, and doing viewer first thinking is the key skill to develop for explosive growth. Quality supply rather than demand is the key for growth. The viewer is ready - are we is the question.”

Gaurav Gandhi  
Director and Country GM – Amazon Prime Video India

“Video streaming is increasingly playing a pivotal role in the growth of the Media & Entertainment Industry in India. With a huge base of connected customers with an insatiable appetite for entertainment; a rich pool of creative talent creating diverse and differentiated world class content; increasing disposable incomes and a discerning customer base seeking more personalised and best-in-class experiences; and a steadily improving telecom, broadband and payments infrastructure are all contributing to make India one of the most exciting streaming markets in the world.”
However, advertising has seen a decline in 2020 driven by the pandemic.
The Indian M&E industry in 2020: A snapshot of the year that has been
Ad spend took hit given Covid; digital still expected to grow in 2020

Advertising Revenues (in USD billion)

<table>
<thead>
<tr>
<th>Year</th>
<th>TV</th>
<th>Digital (video)</th>
<th>Radio</th>
<th>Print</th>
<th>OOH</th>
<th>Cinema</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>5.0</td>
<td>0.3</td>
<td>2.0</td>
<td>0.3</td>
<td>0.3</td>
<td>1.9</td>
</tr>
<tr>
<td>2019</td>
<td>9.0</td>
<td>0.5</td>
<td>2.7</td>
<td>0.3</td>
<td>0.2</td>
<td>3.4</td>
</tr>
<tr>
<td>2020</td>
<td>7.2</td>
<td>0.05-0.08</td>
<td>2.3-2.4</td>
<td>0.2-0.3</td>
<td>0.18-0.21</td>
<td>2.8-2.9</td>
</tr>
</tbody>
</table>

Source: Pitch Madison Advertising Report 2020, Expert interviews, Note: 1 USD = 75 INR
Green shoots visible and a strong bounce back expected, given the high co-relation to GDP growth

Source: MAGNA India Media Forecasts, BCG analysis
Most sectors are already increasing ad volumes on TV

Signs of recovery emerge as ad volumes on TV rise steadily post lockdown

Latest monthly ad volumes for most sectors have exceeded pre-Covid levels

Source: BARC Nielsen Crisis Consumption An Insights Series into TV, Smartphone & Audiences [Jan-11th Jan-7th Feb, Apr – 18th Apr-15th May, Aug -25th July-21st Aug]
Many sectors have more # of advertisers in Oct’20 as compared to pre-Covid

Change in # of advertisers post lockdown (Oct’20 and Jan’20)

Change in # of advertisers during lockdown (Apr’20 and Jan’20)

Recovery led by increase in number of advertisers and entry of new-to-TV advertisers

7 out of top 10 new advertisers from education & healthcare

Eg: White Hat Jr Technologies
- Using TV as a medium to target the 65% user base that lies outside top 10 cities
- 30% of total budget on TV and 70% on digital

Eg: Practo Technologies
- Campaigns on TV - #HelloDoctor, #BeingADoctor
- 500% increase in online consultations during lockdown period; 44% from non-metro cities

Marquee events surpassed 2019 levels, merits cautious optimism

Big-ticket marquee events have bounced back but smaller events may face continued pressure; there is cautious optimism that ad spending on TV is expected to recover in H2 2020

~1300 new advertisers

In Oct’20 vs. Sep’20

Source: Press Search, BARC Nielsen Crisis Consumption An Insights Series into TV, Smartphone & Audiences [Jan-11th Jan-7th Feb, Apr – 18th Apr-15th May, Aug -25th July-21st Aug], TAM AdEx
### Share of digital in ad spend increasing, however still lags consumption growth

#### 2019

<table>
<thead>
<tr>
<th>Country</th>
<th>Consumption</th>
<th>Advertising</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>18%</td>
<td>13%</td>
</tr>
<tr>
<td>China</td>
<td>25%</td>
<td>31%</td>
</tr>
<tr>
<td>US</td>
<td>31%</td>
<td>18%</td>
</tr>
</tbody>
</table>

#### 2020

<table>
<thead>
<tr>
<th>Country</th>
<th>Consumption</th>
<th>Advertising</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>China</td>
<td>27%</td>
<td>35%</td>
</tr>
<tr>
<td>US</td>
<td>34%</td>
<td>22%</td>
</tr>
</tbody>
</table>

Change from 2019 levels:
- **2020 vs. 2019**
  - **2019**: +2pp
  - **2020**: +4pp

**India**
- **2019**: 82% Digital, 87% TV
- **2020**: 80% Digital, 85% TV

**China**
- **2019**: 75% Digital, 69% TV
- **2020**: 73% Digital, 65% TV

**US**
- **2019**: 69% Digital, 82% TV
- **2020**: 66% Digital, 78% TV

**Advertising continues to lag consumption on digital**

**However, gap is narrowing on account of improved ROI and targeting**
- Improved ROI and targeting
The Indian M&E industry in 2020: A snapshot of the year that has been
Covid has accelerated shift to digital: Share of digital expected to grow to 15% almost 2 years ahead of earlier projections

With increasing budget constraints during Covid, advertisers looking for high returns, low wastage

- **Improved targeting**
  “We are rapidly increasing our allocation to digital because digital makes it easy to target customers most likely to purchase our product”

- **Real time tweaking**
  “Real time visibility can help us dynamically optimize our campaign parameters and help us get more bang for our buck”

- **Better return metrics**
  “Brand managers are scrutinizing every rupee spent on advertising campaigns, measurement of ROI from each campaign is a must given the constrained budgets”

- **Lower outlays**
  “We would never consider advertising on TV with our scale; digital helps us reach the right audience in a cost-efficient manner”

Source: MAGNA Global (Pre-Covid: Dec’19, Post-Covid: Jun’20), Expert interviews, BCG Analysis
The Indian M&E industry in 2020: A snapshot of the year that has been

Digital video to reach 2022 forecasted share of total TV & digital video ad spend in 2020

Share of digital revenues in advertising (%)

- Pre-Covid forecasts:
  - 2020: 13%
  - 2021: 14%
  - 2022: 15%

- Post-Covid forecasts:
  - 2020: 15%
  - 2021: 16%
  - 2022: 19%

15% share forecasted for 2022, to be achieved in 2020
Subscription models gaining traction
The Indian M&E industry in 2020: A snapshot of the year that has been
Strong growth in SVOD revenues as number of subscriptions rise; TV subscription revenues remains flat

Subscription revenues growing on account of growth in SVOD

Revenues (USD million)

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVOD</td>
<td>5,667</td>
<td>6,558</td>
<td>5,667</td>
</tr>
<tr>
<td>TV subscription</td>
<td>400</td>
<td>716</td>
<td>5,973</td>
</tr>
</tbody>
</table>

2-year CAGR: 72%

SVOD growth driven by significant increase in # of subscriptions

Number of subscriptions (in million)

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVOD</td>
<td>49</td>
<td>78</td>
<td>100-125</td>
</tr>
<tr>
<td>TV</td>
<td>200</td>
<td>207</td>
<td>200</td>
</tr>
</tbody>
</table>

ARPU (USD per month)

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVOD</td>
<td>$0.68</td>
<td>$0.76</td>
<td>$0.78</td>
</tr>
<tr>
<td>TV</td>
<td>$2.9</td>
<td>$2.9</td>
<td>$2.9</td>
</tr>
</tbody>
</table>

Marginal increase in TV subscriptions; however ARPU has remained flat

Also impacted by regulation changes e.g. NTO

1. Includes subscriptions that are purchased through the 100% cash back route

Source: Ampere analysis, SNL, Expert interviews, BCG Analysis
The Indian M&E industry in 2020: A snapshot of the year that has been

Growth of SVOD to give fillip to overall OTT growth
AVOD sustainable only at very large scale

SVOD contribution per user 3-4x of AVOD

Given lower realizations, AVOD successful only at large scale

AVOD sustainable only at very large scale
- Requires 3-5x the subscriber base of SVOD to break even

Achieving advertisement driven scale made challenging given the competition for digital ad spend with the likes of YouTube and Facebook

However, both AVOD and SVOD models need to co-exist
- AVOD critical to increase OTT penetration and drive awareness for SVOD

Online video viewers/ # of subscribers (in million)

<table>
<thead>
<tr>
<th></th>
<th>AVOD</th>
<th>SVOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>$0.18</td>
<td>$0.78</td>
</tr>
<tr>
<td>2020E</td>
<td>$0.23</td>
<td>$0.78</td>
</tr>
</tbody>
</table>

Average monthly realization per user

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020E</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVOD</td>
<td>$0.18</td>
<td>$0.23</td>
</tr>
<tr>
<td>SVOD</td>
<td>$0.76</td>
<td>$0.78</td>
</tr>
</tbody>
</table>

Average monthly realization per subscription 3-4x

Online video viewers/ # of subscribers (in million)

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020E</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVOD</td>
<td>291</td>
<td>340</td>
</tr>
<tr>
<td>SVOD</td>
<td>78</td>
<td>100-125</td>
</tr>
</tbody>
</table>

2019-20 growth in viewers/ subscribers

<table>
<thead>
<tr>
<th></th>
<th>AVOD</th>
<th>SVOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-20%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+50-60%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Ampere analysis, Expert interviews, BCG Analysis
SVOD subscriptions growing as out-of-home spending moves to in-home, coupled with introduction of low-ticket size plans & enhanced ease of payment

1. [Google COVID-19 Community Mobility Report, 24 Nov, Jan – 3rd Jan-6th Feb] 2. [Question text: “How do you expect your spend to change in the next 6 months across the following areas?” BCG COVID-19 Consumer Sentiment Survey (India), Aug 2020 (N=3000)], 3. [Ovum 2019; Amdocs commissioned survey, 2,102 respondents in India], 4. [National Payments Corporation of India]

Source: BCG Analysis
Pricing innovations have helped make proposition stronger
Realization of ARPU though slightly lower given bundling

Global players are now offering India specific price points
Average monthly price of global streaming services
(Netflix, Disney+, Amazon)¹

<table>
<thead>
<tr>
<th>Country</th>
<th>Average Monthly Price</th>
<th>Price Differential</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>$9.66</td>
<td>2.4x</td>
</tr>
<tr>
<td>UK</td>
<td>$8.25</td>
<td>2.1x</td>
</tr>
<tr>
<td>India</td>
<td>$4.02</td>
<td>x</td>
</tr>
</tbody>
</table>

Pricing of global services made more affordable than earlier to drive adoption

Pricing differential similar for commodity like Big Mac; suggests low scope for further price reduction

~30% % of OTT video subscriptions coming from telco-bundled partnerships

Most Telco players have OTT partners like Amazon, Netflix, Zee5, Disney+Hotstar, etc. which helps drive their subscriber base. For example:

<table>
<thead>
<tr>
<th>Telco</th>
<th>OTT partner²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jio</td>
<td>Netflix Prime video</td>
</tr>
<tr>
<td></td>
<td>Disney+ Hotstar</td>
</tr>
<tr>
<td>Airtel</td>
<td>Disney+ Hotstar</td>
</tr>
<tr>
<td></td>
<td>Prime video</td>
</tr>
<tr>
<td></td>
<td>Zee5</td>
</tr>
</tbody>
</table>

Price of streaming services as % of avg. monthly income¹

1. [Ovum 2019; Amdocs commissioned survey, 2,102 respondents in India]. 2. Zee5 bundled with Jio Fibre
Note: 1 USD = 75 INR
Source: Press Search, BCG Analysis, Economist Big Mac Index, 1. [Finder, streaming services considered – Disney+, Amazon & Netflix]
Marginal increase in TV subscription driven by increase in penetration of TV across Households; however significant headroom for growth remains

% Households with TV cable connection in each country

Source: BCG Analysis, SNL, Ovum database
TV subscription base growing as penetration of DTH increases, ARPU holds steady

TV Households (in million)

<table>
<thead>
<tr>
<th>Year</th>
<th>Free Dish</th>
<th>Cable</th>
<th>DTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>14%</td>
<td>53%</td>
<td>34%</td>
</tr>
<tr>
<td>2019</td>
<td>13%</td>
<td>52%</td>
<td>35%</td>
</tr>
<tr>
<td>2020</td>
<td>13%</td>
<td>51%</td>
<td>36%</td>
</tr>
</tbody>
</table>

DTH subscribers increased during the pandemic as people stayed indoors; ARPU remained flat

- DTH subscribers surged initially in lockdown but over time consumers started optimizing channel subscriptions due to limited fresh content
  - Subscribers expected to increase by 6-7% as fresh content has returned to TV and cable TV subscribers move to DTH
- DTH ARPU to remain flat as players launched incentives such as discounted bundles and free VAS to retain subscribers

ARPU (in USD)

<table>
<thead>
<tr>
<th>Year</th>
<th>Cable TV</th>
<th>DTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>$2.7</td>
<td>$3.1</td>
</tr>
<tr>
<td>2019</td>
<td>$2.7</td>
<td>$3.1</td>
</tr>
<tr>
<td>2020</td>
<td>$2.7</td>
<td>$3.1</td>
</tr>
</tbody>
</table>

Cable TV revenues impacted due to Covid as a set of subscribers downgraded subscription packs

- Cable subscriptions suffered due to migration of workforce outside metros and downgrading of subscription packs (FTA channels preferred)
- Muted growth in subscribers as competition from DTH intensifies

Source: BCG Analysis, SNL, Press Search
Impact of the M&E industry on India
Impact of the M&E industry on India
Indian M&E industry creates three levels of impact through both tangible and intangible means
DIRECT
TANGIBLE IMPACT THROUGH
Employment generation | Contribution to GDP

INTANGIBLE IMPACT CREATED THROUGH:
Taking Indian culture to the world | Connecting the Indian diaspora to the country

INDIRECT
TANGIBLE IMPACT ON UPSTREAM INDUSTRIES SUCH AS
ADVERTISING, EQUIPMENT MANUFACTURERS ETC.
Employment generation | Contribution to GDP

TANGIBLE IMPACT ON INDIAN TOURISM AND OTHER ALLIED
INDUSTRIES

INDUCED
JOBS, WAGES AND OUTPUT GENERATED AS A RESULT OF EMPLOYEES IN
DIRECT AND INDIRECT SPENDING WAGES IN THE COUNTRY
Indian M&E industry at $26 Bn showcasing 11% growth...

India’s M&E Industry seeing a healthy growth rate with video industries (TV & OTT) the key drivers

Indian M&E industry market size (USD billion)

<table>
<thead>
<tr>
<th>Year</th>
<th>Market Size (USD billion)</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$16 Bn</td>
<td>46%</td>
</tr>
<tr>
<td>2019</td>
<td>$26 Bn</td>
<td>39%</td>
</tr>
<tr>
<td>2020E</td>
<td>$24 Bn</td>
<td>39%</td>
</tr>
</tbody>
</table>

1. Methodology explained in subsequent slides
2. Contribution to GDP is in nominal terms.

Note: Others includes OOH, live events

Source: MagnaGlobal, PQ Media, Ampere, SNL, Ovum, Pitch Madison, EIU, BCG analysis
…with a significant impact on India’s economy

% Contribution to India’s GDP 2020

- 1.3-1.5%
- 0.9-0.95%
- 0.8-1%

Employment generated by M&E in India, 2020 (Mn)

- 1.7-2
- 1-1.2
- 1-1.5

OTT contribution increased 3x between 2018 and 2020

50-60% new jobs created by M&E in 2020 expected to be due to OTT
However, significant headroom for growth in direct contribution to economy when benchmarked with other economies

India’s M&E industry has significant headroom for growth basis global benchmarks

M&E % Contribution to GDP, 2019

Note 1: Both M&E and GDP numbers are nominal
Note 2: M&E industry includes both consumer spends and advertisement revenues
Source: PQ Media, Magna Global, EIU, Expert interviews, BCG analysis
South Korea had the highest M&E contribution to GDP vs others in 2009, and has shown significant growth till 2019.

Initially propelled by the rise in internet penetration & the gaming wave, Korea’s M&E industry is now being driven by the global success of K-wave - enabled by government support and overall talent/infrastructure development.
S. Korea | Hallyu (K-Wave) has taken Korean culture to the world & created significant economic impact for S. Korea

Multiple elements of their culture have experienced phenomenal success on a regional and global scale

<table>
<thead>
<tr>
<th>Regional scale hit phase ('00~15)</th>
<th>Global scale hit phase ('15~'20 and future)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MUSIC</strong></td>
<td></td>
</tr>
<tr>
<td>BIG BANG, SUPER JUNIOR</td>
<td>BTS</td>
</tr>
<tr>
<td>Asia focused: “regional star”</td>
<td>Market value $5B, #1 in 90 countries: “global star”</td>
</tr>
<tr>
<td><strong>DRAMA</strong></td>
<td></td>
</tr>
<tr>
<td>DAE JANG GEUM, JU MONG</td>
<td>MR. SUNSHINE</td>
</tr>
<tr>
<td>~60 countries, ~$10M revenue</td>
<td>~190 countries, ~$100M revenue</td>
</tr>
<tr>
<td><strong>REALITY</strong></td>
<td></td>
</tr>
<tr>
<td>RUNNING MAN</td>
<td>THE MASKED SINGER</td>
</tr>
<tr>
<td>#1 Ent. show in SEA countries, licensed to Chinese cable</td>
<td>~40 countries worldwide, licensed to US and Europe</td>
</tr>
<tr>
<td><strong>MOVIE</strong></td>
<td></td>
</tr>
<tr>
<td>OLD BOY</td>
<td>PARASITE</td>
</tr>
<tr>
<td>Cannes awarded “artistic success”</td>
<td>Not only Oscar, but also “massive success”</td>
</tr>
</tbody>
</table>

Creating significant impact on the economy

**K-wave contribution to GDP**

- In 2004: $1.8 Bn (0.27%)
- In 2019: $12.3 Bn (0.75%)

Source: Invest Korea – Cultural Contents; Korean Educational Statistics Services , EIU, Press Search, Expert interviews, BCG Analysis
Impact of the M&E industry on India

S. Korea | K-Wave proactively driven by government with active private participation; originated in the late 90s, went global around 2010

**Culture direction**
The govt has been leading the strategy for development
- Ministry of Culture, Sports and Tourism
- KOFICE

**Funding**
Encouraging public-private partnerships (with funding to promote start-ups in 2015)
- KOSA
- The Korea Chamber of Commerce & Industry

**Production**
Markets concentrated with some large companies driving economic growth
- SAMSUNG
- CJ Group

**Distribution & retail**
South Korean cultural goods are distributed both physically and through digital platforms (local and international)
- LOTTE
- YouTube

**Regulation, research & promotion**
Public agencies responsible for intellectual property rights and copyrights protection
- Korean Copyright Commission
- Arts Council Korea

State-sponsored non-profit organizations and some private institutes engaged in research efforts on the creative industries

**Glocal content**
K-dramas are based on family values & have a modern approach which resonates with both SEA and western markets

**Sustained effort has led to K-wave going from regional trend to global phenomenon**
- 2004: Jewel in the palace won ‘Best Foreign Program’ at TVB Anniversary Awards; #1 show in Taiwan, Hong Kong when aired
- 2009: Wonder Girls entered US and became the 1st Korean idols on the Billboard Hot 100 chart with the song ‘Nobody’
- 2012: Psy’s Gangnam Style took 2nd place on Billboard’s Hot 100 in US and became most watched video on YouTube
- 2019: Parasite won the Oscar for Best Original Screenplay, Best International Film, Best Director, and Best Picture

Source: ‘Strengthening the creative industries for development in the Republic of Korea’, UNCTAD (2017); Press search; BCG analysis

Non exhaustive
Additionally, the M&E industry creates intangible impact on Indian culture and tourism by creating a connect with the Indian diaspora…

M&E industry can have a holistic impact on India’s economy beyond its direct reach…

…as is evidenced by multiple OTT series and shows over the years

**Man vs Wild:**
Appearance of India’s PM Narendra Modi on the show featuring an adventure trail in Jim Corbett National Park increased the popularity of the region

**In Vir Das’ Jestination Unknown**
the comedian travels to various destinations in India to understand the culture, heritage, history and of course, the local sense of humour

**Netflix’s Street Food**
successfully brought Delhi’s famous chaat to a global community of viewers

**Amazon Prime’s Bandish Bandits**
showcases Indian Classical music in its true form with an interesting pop fusion

Source: Press Search, BCG Analysis
Industry leaders believe that M&E has the potential to have a huge direct as well as indirect impact on India.

Blaise Fernandes
CEO – Indian Music Industry

Impact on GDP and employment
“M&E sector in developed markets like the United States contribute around 4% towards GDP. [With the right policies] there is no reason why we can't reach a 4% GDP contribution given our demographic dividend, a 450 million smart phone base going up to 900 million by 2029, and cheap data.”

Global connect
“The soft power of content is unquantifiable. Today brands like Nike, Levis, Apple are aspirational due to the content from US studios that have touched every corner of the world.”

Megha Tata
MD – South Asia, Discovery Networks

Skills and technology imperatives
“We need more government initiatives such as Skill India and Digital India initiative which were introduced to transform our country into a digital empowered society and knowledge economy. More importantly, the industry needs to work hand in hand with the government to upskill talent, to create employment opportunities and to provide a platform for them.”

Creating an Indian “Hallyu”
“The creation of the Hallyu wave is story of rapid growth of the South Korean soft power through a fierce discipline and focused manufacturing of talent. While there are many admirable lessons to learn, especially in the way the K-wave has been marketed across the world, what is even more important is that we truly start taking pride in the talent we have right here in our country and provide them with the right platforms and resources to develop. It is on the back of this talent that we will be in a position to craft a powerful, unique and singular national identity making it easier for the world to recognize.”
Key imperatives: Support needed to realize the potential economic impact of M&E
Key imperatives: Support needed to realize the potential economic impact of M&E
5 key pillars to grow the impact of the Indian M&E industry (I/II)

1. Continued investment in content
2. Advertiser value enhancement
3. Identifying new sources of revenue
4. Investment in skilling
5. Investment in technology

Impact of M&E industry (GDP, employment, intangible impact etc.)

Media consumption
Content monetization - advertising and subscription
5 key pillars to grow the impact of the Indian M&E industry (II/II)

**Continued investment in content**
- Create more original and local language content to cater to the tastes of diverse audiences and increase stickiness
- Create content to increase size of niche audiences

**Advertiser value creation**
- Aid campaign ideation in collaboration with advertisers
- Provide clearer ROI metrics
  - Create a high-fidelity metric that provides de-duplicated audience measurement
- Build deeper content integration models

**Identifying new sources of revenue for the industry and country**
- Broaden reach of Indian content and culture to global audiences
  - Build larger scale for content investments and create indirect value through induced sectors such as travel
- Make India the export hub for VFX, animation, post production by leveraging media, tech skills

**Investment in skilling**
- Set up aided and specialized institutions with curated curriculum for technical skills
- Tie up with tech enabled educational institutes and set up vocational training centers to broaden talent pools and upskill current workforce

**Investment in technology**
- Invest in technologies such as AI and VR that blend the physical and digital worlds and offer unique ways to interact with consumers

Key imperatives: Support needed to realize the potential economic impact of M&E
Continued investment in content
Key imperatives: Support needed to realize the potential economic impact of M&E
Vernacular & original content will be the key differentiators as competition intensifies in the OTT space

Local content consumption expected to grow further as rural internet users outgrow urban

Proliferation of platforms has intensified competition for eyeballs…

Effectively serving widely dispersed Rural audiences will require creation of content in multiple languages

Originals are the ‘hero’ content on OTT driving exclusivity for platforms

Consumers rated original & platform exclusive content as their most watched genre²

(Followed by Sports, TV shows, Movies and Originals)

…however disproportionate share of viewership garnered by top 3 platforms⁵

Source: 1. [IRS Jan’19-Mar’19, Jan’20-Mar’20, Nielsen- Internet users defined as individuals aged 12 years & above who have accessed internet in last one month], 2. [MoMagic Survey conducted Jan-Aug 2019 (N=7500), Question “What do you watch the most on online streaming platforms like AmazonPrime, Hotstar, Netflix, Voot, SonyLiv, Zee5, etc.?”], 3. App Annie 4. [Average calculated using Nielsen data on numbers of apps per user assuming users install at most 4 video streaming apps], 5. [Share of urban internet connected smartphone android users that use video streaming applications], 6. Census 2011 for # of rural/urban units.
Major OTT players continue increasing investment in original and regional content to drive consumption

Explosive growth of original content in the last 2 years

Number of hours of original content

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Netflix</th>
<th>Disney+ Hotstar</th>
<th>Prime Video</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>-</td>
<td>90</td>
<td>N/A</td>
<td>110</td>
</tr>
<tr>
<td>2019</td>
<td>600+</td>
<td>80</td>
<td>70</td>
<td>100</td>
</tr>
<tr>
<td>2018</td>
<td>300+</td>
<td>30</td>
<td>07</td>
<td>90</td>
</tr>
</tbody>
</table>

Investment in regional content through producing & acquiring content

Consumption from local languages on OTT

ZEE5
2 Originals per month
In Tamil, Telugu, Marathi, Bengali & Kannada for premium customers

MX Player
Hoichoi, SunNXT partnerships
Partnership with regional OTT players to gain access to vast content library

Sony Liv
15-20 Originals in 2019
In Tamil & Telugu, along with acquiring TV content & dubbing Hindi shows

Prime Video
Acquired content in 3 new languages to reach a total of 10 languages
Malayalam, Punjabi, Marathi added in 2019, with over 7 languages already present

11. For 2020 # of episodes calculated by multiplying the number of originals with the average number of episodes per original in 2019. [Zee Annual Report 2019-20]
Source: Press Search, Expert interviews, BCG Analysis
Niche players focused on few markets have also gained good traction

**SUN NXT**

- Languages on platform: Tamil, Telugu, Kannada, Malayalam, Bengali

- 50,000+ hours of content including live TV, movies, originals, kids’ content, music

- Main draws for the platform have been:
  - Large library of ready content made for TV & movies in southern languages
  - Premiering new content on platform like trailer of a song from Tamil film Sarkar

- Launched a Bengali TV channel, content from which also features on the platform

**HOICHOI**

- Languages on platform: Bengali

- 50+ original shows, 500+ movies, 1000+ songs

- Main draws for the platform have been:
  - Series featuring prominent Bengali actors such as Raima Sen (Hello!) and Anirban Bhattacharya (Byomkesh)
  - Retelling of classic stories from prominent writers such as Rabindranath Tagore (Laboratory)

- Launched in Bangladesh to capture the large Bengali-speaking market in the country

Source: Press search, BCG Analysis, [Indian OTT Platforms Report 2019, Communication Crafts]
Increasing content partnerships among players as they diversify their offerings whilst managing costs

### Benefits from partnerships

- **Growth in subscriber/viewer base**
  
  Subscription for both players has potential to see uptick due to increased content diversity

- **Decreased cost pressure**
  
  High cost of content (Rs. 50 lakh- Rs. 2 crore per episode) shared by players, thereby improving profitability

### Multiple types of partnerships seen in the market

<table>
<thead>
<tr>
<th>Type of partnership</th>
<th>Example</th>
</tr>
</thead>
</table>
| **Exclusive content creation** | Netflix | Dharmatic Entertainment  
Long-term partnership to create a broad range of new fiction and non-fiction series and films exclusively |
|                      | Netflix | Viacom 18  
3 new original series in partnership with Tipping Point, ranging from thriller to romance to drama |
| **Content co-creation** | ZEE5 | ALT Balaji  
Co-creation of 60+ Original content series available exclusively to SVOD subscribers of both platforms |
| **Content licensing** | Disney+ Hotstar | HBO | Sony LIV  
Embedded content in app offering viewers access to content from HBO (in case of Disney+ Hotstar) and Lionsgate (in case of Sony Liv) |

Source: Press Search, BCG Analysis
Advertiser value enhancement
Key imperatives: Support needed to realize the potential economic impact of M&E
Re-imagine value proposition for advertisers, evolve selling models to build strategic partnerships

- Move from tactical inventory selling to participating in media planning phase with advertisers
- Drive N=1 marketing through Big Data and Advanced Analytics instead of Big Data and analytics
- Provide real-time visibility to advertisers & media planners to fine tune their campaigns
Enablers for effective implementation:

1. Single currency for measurement across TV & OTT

2. Standardizing measurement metrics across digital platforms

3. Leveraging ad-tech platforms
Move from tactical selling to thought partnerships with advertisers

1. Provide bundled solutions across all platforms
   Excerpt from industry players implementing a combined solution

   **Disney+ Hotstar**
   Bundled advertising deals for IPL - “With digital platforms, viewers have become seamless in viewing content on TV and also indulge in private viewing on small screens so the business models need to dramatically evolve in line with it”
   – Uday Shankar (President, Walt Disney Company Asia Pacific, Chairman, Star and Disney India)

2. Invest in data & technology to offer better targeting capabilities

   **Comcast**
   Nielsen’s DMP to provide data & insights to help advertisers target and optimize campaigns in real time

   **Roku**
   Adobe DMP customers can target the more than 32 million Roku households using their own first-party data

3. Build trust by ensuring transparency & offering real-time solutions helping create long-term engagement with clients

Source: Press search, BCG Analysis, IAB OTT Streaming Video Playbook for Advanced Marketers 2019
Push for standardized measurement metrics to facilitate performance measurement across devices and platforms

Challenges currently faced by advertisers

- Measuring combined ROI across platforms
- Removing duplication in cross-device measurement
- Limited transparency on metrics and their definitions

Rating agencies & TV networks globally trying to create a solution

- NBCU collaborated with Nielsen, comScore and Moat to create a composite “score” to standardize linear and digital viewership across its properties
- BARB launched a 3-phase program for multiple-screen audience reporting in 2018. In 2020, the agency has started to release multiple screen reach & time spent viewing
- In Jan-2019, IMDA launched new release of SG-TA system touted to measure unduplicated TV viewership stats across digital platforms

Way forward for the Indian media industry

1. Develop consensus on standard measurement process
2. Drive collaboration between players to create a unified currency for cross-platform advertising
3. Quick execution & adoption to facilitate growth of digital advertising

Key imperatives: Support needed to realize the potential economic impact of M&E
Identifying new sources of revenue: Globalize Indian culture and content
Key imperatives: Support needed to realize the potential economic impact of M&E
Increasing acceptance of Indian content among global audiences, including but not limited to Indian diaspora

Large Indian diaspora of 32+ Mn spread across multiple countries and consuming Indian content

1. Based on App Annie data for ATL Balaji, ErosNow, Hungama, Zee5;
2. Based on Google trends data for Sacred Games, Mirzapur, Delhi Crime, Lust Stories, Inside Edge;

Source: Ministry of External Affairs, Govt. of India, Expert interviews, Press Search, BCG Analysis
Thereby creating global demand for India-based content

No. of active users of Indian OTT apps 2019 (‘000)³

<table>
<thead>
<tr>
<th>Country</th>
<th>Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>UAE</td>
<td>164</td>
</tr>
<tr>
<td>Australia</td>
<td>51</td>
</tr>
<tr>
<td>UK</td>
<td>21</td>
</tr>
<tr>
<td>Canada</td>
<td>14</td>
</tr>
</tbody>
</table>

Size of Indian diaspora (million)

- UAE: ~3
- Australia: ~0.5
- UK: ~1.5
- Canada: ~1

Global YouTube search volume for Indian originals - Indexed with 100 being the max & 0 being lowest²

<table>
<thead>
<tr>
<th>Country</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>99</td>
</tr>
<tr>
<td>Pakistan</td>
<td>65</td>
</tr>
<tr>
<td>UAE</td>
<td>24</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>21</td>
</tr>
<tr>
<td>Canada</td>
<td>14</td>
</tr>
<tr>
<td>New Zealand</td>
<td>8</td>
</tr>
<tr>
<td>Nepal</td>
<td>7</td>
</tr>
<tr>
<td>Australia</td>
<td>6</td>
</tr>
<tr>
<td>UK</td>
<td>6</td>
</tr>
<tr>
<td>Singapore</td>
<td>5</td>
</tr>
<tr>
<td>USA</td>
<td>3</td>
</tr>
</tbody>
</table>

Indian OTT apps are indicative of increasing popularity of Indian content.
Globalization of Indian content enabled by OTT platforms through their global reach and high-quality content

OTT platforms offering high-quality original content with international distribution...

Increasing original hours of India-based content

<table>
<thead>
<tr>
<th>Year</th>
<th>500-600</th>
<th>1,000-1,200</th>
<th>1,400-1,800</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Availability of high-quality content

- International Emmy Nominations for Sacred Games, Inside Edge, Made in Heaven, Delhi Crime & Four More Shots Please!, Inside Edge
- IMDB top 50 most popular web series include Kota Factory, Made in Heaven, Flames, Yeh Meri Family, TVF Tripling, Little Things & Permanent Roommates

Extensive global reach of OTT players

<table>
<thead>
<tr>
<th>Player</th>
<th>Amazon Prime</th>
<th>Netflix</th>
<th>ErosNow</th>
<th>MX Player</th>
</tr>
</thead>
<tbody>
<tr>
<td>#Countries</td>
<td>&gt;200</td>
<td>&gt;190</td>
<td>135</td>
<td>8</td>
</tr>
</tbody>
</table>

...are increasingly enabling local Indian content to reach global audiences

Sacred Games, an India-based Netflix web series
- Gained traction in Latin America, US and Europe
- 2/3 viewers for Season 1 from outside India
- Overseas viewership mainly non-resident Indians and people of Indian origin

Amazon Primes’ original Made in Heaven
- % of viewers from outside India higher than usual 20% observed for other series

Mighty Little Bheem
A Netflix animated series viewed by ~27 Mn households outside India

Other Shows
Such as Delhi Crime, Paatal Lok, Mirzapur, Four More Shots Please!, Inside Edge, etc have received global viewership

Source: Expert interviews, Press Search, IMDB rankings (as of September 2020), BCG analysis
Additionally, globalization of content can create a trickle-down effect to boost the Indian tourism ecosystem as evidenced by the ‘Netflix Effect’

South Korea
Hallyu tourism estimated at ~$16 Bn
Multiple tours offer visits to sites where Netflix’s Crash Landing on You was shot
Korea Tourism Organization released a tourism promotional video ‘Explore Korea’, made in collaboration with Netflix

Turkey
Netflix | The Protector
Tourism grew after declining for two years

Columbia
Netflix | Narcos
Former crime capital and stronghold of Pablo Escobar, Medellin witnessed a steady increase in tourism by nearly 25% in recent years

Spain
Money Heist
Fans visiting filming locations such as Consejo Superior de Investigaciones Científicas (CSIC)
Money Heist Experience in Madrid, escape room offering a jewel heist with full costumes

Mexico
Mexico City: Angel of Independence was featured in the opening scene of Narcos

India’s rich cultural heritage and scenic beauty offers diverse offering to content creators
Growth of India-based OTT content will aid in export of Indian culture and in the process boost industries such as tourism

Source: Press search, BCG analysis
Case study: Global success of Spanish content enabled by Madrid Content City through its end-to-end production ecosystem

Overview: Madrid Content City

Poised to become Europe’s 2nd largest production space by 2021, providing upscale content for the Spanish speaking world and beyond

Content:
- Money Heist, La Templanza, White Lines, 30 coins: by Netflix, Amazon & HBO
- Netflix, Viacom, Columbia production units, 40-50 international films shot annually

Infrastructure:
- Complete 140,000 m² ecosystem with offices, postproduction services, warehouses, leisure and sports facilities
- Netflix’s first European Hub at Tres Cantos’ Secuoya Studios (22,000 m² campus)
- Other major players like Mediapro Studio, Mediaset España, Viacom International Studios, Dynamo, Beta Film and Federation Entertainment

Intellectual Capital:
- Innovative university campus with capacity for >7,000 students to be managed by Grupo Planeta; UG & PG with specialization in audiovisual creation, management and production

Incentives (Financial):
- Most expensive shows cost ~$1.5M/episode vs. $3-4M in US for TV shows (avg. cable drama)
- 30% tax rebates for international shoots’ first $1.1 million spend, and cap a shoot’s total tax deduction at $10.8 million

Cast, crew and extras working on Netflix originals

<table>
<thead>
<tr>
<th>Year</th>
<th>Cast</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>13k</td>
</tr>
<tr>
<td>2019</td>
<td>25k</td>
</tr>
</tbody>
</table>

Economic Output (% contribution to GDP)

<table>
<thead>
<tr>
<th>Year</th>
<th>Contribution to GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>0.03%</td>
</tr>
<tr>
<td>2018</td>
<td>0.04%</td>
</tr>
</tbody>
</table>
High potential to take Indian content and culture to global audiences

**India can cater to international demand...**

Target the ~20 million strong Indian diaspora

Target markets that have language similarity with India (eg. Bangladesh, Sri Lanka, other South-East Asian countries)

Create presence in the global market - original content with focus on ‘glocal’ stories

...by creating an end-to-end production ecosystem

Some initiatives around these already underway

**Business and production-friendliness:**
- Improve EoDB rank from 63 currently (vs. 8th for the UK)
- Create efficient logistical processes – simpler access permits to shooting locations, easier incentive claims, etc.
- Enable ease of movement

**Infrastructural Development:**
- Creation of end-to-end production ecosystems through creation of content cities

**Talent Building:**
- Specialized training to create skilled workforce to handle high-end projects from international production houses
- Exposure to foreign studios, production work, domestic industry through training, internship opportunities for students

**Production ecosystem will:**
- Encourage foreign producers to create content in India
- Make India a major content exporter
- Boost ancillary industries like tourism

And hence, Enable Indian content to reach audiences across the globe

Source: United Nations; World Bank; BCG analysis
Identifying new sources of revenue: Case study
Key imperatives: Support needed to realize the potential economic impact of M&E
Importance of post-production activities such as VFX rising in value chain; presents opportunity for Indian M&E industry

1. Budget >USD 100 million


DEVELOPMENT
- Planning and conceptualization of script

PRE-PRODUCTION
- Finalize cast, crew, financing and budget, shooting location, logistics
- Hiring for production management for creating schedule, managing budget
- Get necessary approvals

PRODUCTION
- On site shoots and all operations related to production of the content
DEVELOPMENT

PRE-PRODUCTION

POST-PRODUCTION

• On site shoots and all operations related to production of the content

• Distribution through traditional or new media to enable the content to reach audiences

• Review and editing of footage

• Music recording, sound design and mixing

• Addition of Animation, Visual Effects

  Detailed in this report

Budget allocation to VFX in High Budget films expected to rise to 30-35% by 2023 from 25-30% currently^1

DISTRIBUTION

Key imperatives: Support needed to realize the potential economic impact of M&E
India has <10% of the global market share in VFX and Animation

**Potential to scale this up to 20-25% through structural interventions**

Indian VFX & animation experts cost ~1/5th the cost of western counterparts

However, other global hubs have emerged offering highly skilled intellectual capital and incentives of upto 40%

- Montreal, Canada grew at 27% CAGR between 2009-16
- UK has emerged as the primary VFX hub in Europe

VFX & animation can be the next IT-BPM boom for India and play a fundamental role in India becoming a $100 Bn M&E country by 2030

By 2025, India can aspire to capture 20-25% market share

If India can capture 20-25% share of global VFX and Animation market it can create 75-120k jobs by 2025

**Market Share: <10%**

- VFX & Post Production
- Animation

1. Indirect & Induced Employment Coefficient for Other Services, Impact of Investments in the Housing Sector on GDP and Employment in the Indian Economy, NCAER, 2014; Extrapolation based on revenue to jobs ratio in India’s film industry, MESC Skills Gap Report 2014, Industry Reports

Source: Montreal International, Quebec Film and Television Council, SODEC, Expert Interviews, Press Search, BCG Analysis
Potential job creation and economic activity in next 5 years

Direct & indirect jobs:

- 45-60k New jobs created by 2025
- 75-120k Additional contribution by 2025

Direct contribution to GDP:

- 0.05% in 2019
- 0.06-0.08% Additional contribution by 2025

Key imperatives: Support needed to realize the potential economic impact of M&E
Growing trend of globalization of VFX & animation studios - despite cost disadvantage, countries have attracted work due to tech/talent capabilities

Global footprint of VFX & Animation Studios:

**Prime Studio:** India (7,000), UK (1,000), Canada (600), US (~100), Australia

**Framestore:** India, UK, Canada, USA

**Industrial Light and Magic:** USA, Canada, Singapore, UK, Australia

Sources: Annual Reports, Press Search, BCG Analysis
India is not far behind…

Increasing trend of globalization of studios – foreign players are expanding to other geographies to take advantage of lower costs & ensure 24*7 employee availability

India must leverage its advantages:
- Competitively priced talent
- Strong technology skills
- Lower language barriers

India must explore talent and tech capability development to not only attract more work, but also to move up the value chain
States like Karnataka, Telangana and Maharashtra are already working towards improving India’s AVGC industry

<table>
<thead>
<tr>
<th>Strong push for AVGC sector by Central &amp; State Govt.</th>
<th>Karnataka</th>
<th>Telangana</th>
<th>Maharashtra</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Central Govt.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Recognized as Champion Sector (2018)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Plan to expand SIES Incentive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Plan to open FDI, Budget 2019</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>State Govt.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Maharashtra, Haryana, Karnataka, Telangana, Assam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>have curated policies to promote AVGC sector</td>
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</tr>
</tbody>
</table>

**Karnataka**

- Events: Bengaluru GAFx, Karnataka AVGC Summit, Digital Art Symposium (DAS) & International Trade Meets organized
- 2017-22 policy aiming to stimulate growth of 100 KAVGC companies, create 15k jobs, talent building through 120+ training institutes and push for 75% of total revenue from exports

**Telangana**

- IMAGE Centre of Excellence (CoE), 2020
- IMAGE Policy 2016
  - Aiming to provide infrastructure, initiate talent building, bring in fiscal incentives and promote SC/ST and women entrepreneurs

**Maharashtra**

- 2015 IT/ITES Policy:
  - Establishment of Private AVGC Park in Maharashtra
  - Establishment of Fine Art School / College i.e. Digital Art Centre
  - Set up of a Venture Capital Fund
  - Fiscal Incentives & Concessions for AVGC units

---

“AVGC is a promising and fast-growing sector that India has great opportunity to develop. Like Bollywood, music, and IT, this is soft power that can emerge as a major revenue generator.”

– Union I&B minister Prakash Javadekar

“The government is looking to act as a facilitator, not regulator in the AVGC sector since the area is creative and largely private-led.”

– Amit Khare, secretary, I&B ministry

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Source: Expert interviews, Secondary Research, BCG Analysis
India should focus on developing infrastructure, lucrative incentive structure, and building intellectual capital to boost its VFX & animation industry.

**Infrastructure**
- Develop state-of-the-art facilities:
  - Physical infra: studios, universities
  - Technical infra & capabilities
- Key enablers:
  - Foreign investment
  - International partnerships
  - Non-monetary aid

**Incentives (Financial)**
- Necessary to retain competitive advantage of low cost over other countries

**Intellectual Capital**
- Setup universities / courses:
  - UG & PG courses
  - R&D, especially with foreign studios and universities
  - Industry exposure: internship, exchange
  - Business courses to promote entrepreneurship

**Index for EoDB**
- Overall production friendliness
- Organizations that promote overall industry globally
- Regular events to display domestic capability and to provide a platform for networking
The industry needs to nurture specialized technical and soft skills to build the required intellectual capital to compete with other global hubs.

**Non exhaustive**

- **VXF ARTIST**
  - **Technical Skills:** JavaScript, Adobe Creative Suite, UI design, Linux/Unix, Houdini, MAYA, Realflow, Nuke-X 3D modelling, Prototyping, Photoshop, Microsoft Office packages
  - **Soft Skills:**
    - Creativity to envision scenarios that will be translated to content
    - Attention to detail to add nuances that make content more realistic
    - Good visual awareness to understand relevance of spaces, distances and coloring
    - Team player as work is mostly collaborative
    - Organization skills to manage deadlines, communications & documentation effectively

- **ANIMATOR**
  - **Technical Skills:** Adobe Photoshop, Adobe InDesign, Graphic design, Adobe Illustrator, Adobe AfterEffects, User experience wireframing, Interaction design, Motion graphics, Prototyping
  - **Soft Skills:**
    - Creativity to develop new ideas, unique characters and styles
    - Art of storyboarding to create unique stories
    - Attention to detail to understand details like light movement to improve the impact
    - Emotive communication to evoke emotions with content & create connect with audience
    - Organization skills to manage deadlines, communications & documentation effectively

**Budgeting, planning, conceptualization, designing & editing, coordination & collaboration with all stakeholders are the daily tasks of a VFX artist.**

**Animators use software to create 2-D/3-D animation for websites, film, video, gaming, and mobile media.**

Sources: Expert interviews, Secondary Research, BCG analysis
Key imperatives: Support needed to realize the potential economic impact of M&E
Investment in skilling
Key imperatives: Support needed to realize the potential economic impact of M&E
Future trends in M&E driving upskilling for traditional roles and creating demand for new-age talent

**Key Imperatives**

- Continued investment in content
- Create advertiser value
- Identify new sources of revenue for industry and country

**Trends driving upskilling of traditional roles**

- Demand for original and regional content
- Increasing diversity of content across languages, forms, and formats
- Moving from tactical to strategic selling - solution selling, bundling
- Performance measurement across TV and OTT
- Creating stories for global audiences
- Integration of AR/VR to create immersive content & streamline production process

**Trends creating demand for new-age roles**

- Increasing use of technology to drive content curation and discovery
- Monetizing niche audiences
- Increasing use of ad-tech platforms
- Hyper-segmentation of audiences for improved targeting
- Global export hub for VFX and Animation, moving up the value chain

90 CII Big Picture
Upskill workforce across content creation & monetization to facilitate growth in consumption & advertising

Revamp production process with new technologies enabled by upskilling employees

<table>
<thead>
<tr>
<th>Role</th>
<th>Key skills required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>• Knowledge of planning and budgeting software to increase process efficiency</td>
</tr>
<tr>
<td>Screenplay</td>
<td>• Integration of immersive media such as VR into content • Streamlining workflow using AI technology</td>
</tr>
<tr>
<td>Cinematography</td>
<td>• Leveraging advanced camera technologies (4K/8K video, VR, autonomous drone cameras)</td>
</tr>
<tr>
<td>Post-production</td>
<td>• AI &amp; analytics-based software for video curation, editing &amp; sound engineering</td>
</tr>
</tbody>
</table>

Re-skill sales workforce to become problem-solvers & leverage ad-tech platforms

- **Soft skills**
  - Consulting approach to client problems instead of transactional support
  - Specialized agents with in-depth knowledge of client business

- **Technology upskilling**
  1. Increase familiarity and expertise in programmatic advertising
  2. Drive insights from data driven hyper-segmentation of consumers
  3. Working knowledge of analytics and AI to communicate business needs to technology teams
Build talent pool for new age roles in technology & analytics by enhancing value proposition of the M&E industry to attract top talent

M&E ranks low on preferred jobs by analytics professionals

- <10% Analytics roles in India come from M&E industry
- Sectors such as BFSI, IT, Fintech high on the preference list because:
  - Early adopters of analytics, clear career path defined
  - Skilled peer group offering opportunity for learning (<10% analytics roles in India from M&E²)
  - 20-40% higher monetary compensation in sectors like BFSI, Telecom, Pharma

Attract best-in-class talent by providing value proposition in line with other industries

Key needs from job profile

- Compensation: Benchmark monetary compensation with sectors attracting best talent like BFSI, Telecom
- Growth opportunities: Revamp organization structure with a specialized analytics function to offer leadership roles in career trajectory
- Learning: Bridge the gap with legacy sectors such as BFSI through on-the-job training, global mentorship programs

Source:
1. [Data Science Recruitment Survey 2020 by Analytics India Magazine & AnalytixLabs],
2. [Analytics & Data Science Jobs in India 2019, AIM & Great Learning],
3. [Analytics India. Salary Study 2020, AIM & Jigsaw Academy, figures mentioned indicate median salary]
New tech-based roles require specific profiles with specialized skills in analytics & relevant experience

### Business Analyst
- **Relative importance of skills**
  - Technology
  - Operational
  - Leadership
  - Business sense

- **Skills needed**
  - MBA
  - 2-6 years of experience
  - Working knowledge of technologies such as SAS, SQL, Oracle, SAP
  - Stakeholder management, skills to influence and command
  - Expertise in process, business model, or industry domain & strong analytical skills
  - Presentation skills, attention to detail, strong business documentation skills

### Data Scientist
- **Relative importance of skills**
  - Technology
  - Operational
  - Leadership
  - Business sense

- **Skills needed**
  - B.Tech (Engg.)
  - 2-6 years of experience
  - Hands-on exp. on latest tech. like SQL, NoSQL, R, C, Java, SAS, Hadoop, Pig
  - Stakeholder management, team management
  - Ability to convert business problems to analytical problems and converting output to business solutions
  - Expertise in handling large quantum of data, data mining, analytical/statistical techniques & solution design

### Data Technologist
- **Relative importance of skills**
  - Technology
  - Operational
  - Leadership
  - Business sense

- **Skills needed**
  - B.Tech (Engg.)
  - 2-6 years of experience
  - Exp. deploying technologies like SQL, NoSQL, R, C, Java, SAS, Hadoop, Pig
  - Collaborate with data scientist, BUs, and third parties requiring data
  - Translate analytical problems into questions concerning technology and data platform, align big data systems with business
  - Expertise in Big Data Analytics systems and arch., knowledge of DB management etc.

Source: BCG Analysis

Key imperatives: Support needed to realize the potential economic impact of M&E
There are concrete steps that stakeholders can take to ensure creation of a robust talent pipeline

**M&E industry bodies**
- Online skilling building platforms can be created
- Mentorship and skill dev. program for SMEs by industry bodies
- Industry focused skill development programs designed in liaison with industries by IEEE, NIIT etc.

**Government of India**
- Industry bodies along with the corporates can set up training centres and/or vocational courses
  - E.g. UK has a Screen Skills – industry-led skills body for the UK’s screen-based creative industries – animation, film, games, television including children’s TV and high-end drama, VFX and immersive technology
  - VFX and immersive technology investment in captive training centres

**Large media houses**
- Set up government aided specialized institutes for media and entertainment education
- Customized training programs for faculties and students
- Specialized programs in liaison with industry e.g. proposed summer internship program
Industry-academia partnerships should also be leveraged for upskilling

**Classroom learning**
- Short duration courses focused on new skills required formulated with industry inputs
- Collaborate with top universities to build M&E focused courses within curriculum

**On-the-job training**
- Trainings & workshops by seasoned professionals
- Short-term assignments to acquire new skills
- Cross-functional exposure for deep understanding of business as well as tech

**Global mentorship**
- Collaborate with international companies to offer projects and apprenticeships with leading professionals
- Foreign exchange opportunities with leading universities in the world for development of specialized skills

**Up-skilling in traditional roles**

**Building a talent pool for new-age roles**

Key imperatives: Support needed to realize the potential economic impact of M&E
Industry speak: An industry driven initiative needed for developing high quality talent

**Punit Misra**
President - Content and International Markets, Zee Entertainment Enterprises Ltd

“Given explosive demand for quality video content, a key focus area has to be talent - writers, directors, production houses, animation artists et-al. An industry driven initiative to bring high quality talent through organized, scaled up initiatives is the need of the hour.”

**Megha Tata**
MD – South Asia, Discovery Networks

“With the increasing demand for production and post-production work, I believe it would benefit us if we, as a country, invest in creating formal educational courses focusing on technical aspects of media and entertainment. At the moment, production, VFX, animation are taught largely by private schools and firms. With the increasing demand, we should look at providing these subjects as vocational training topics to young people to explore. And investment in skilling the youth will go a long way in helping India achieve this goal.”
Investment in technology
Key imperatives: Support needed to realize the potential economic impact of M&E
Multiple technology-driven use cases emerging basis the key imperatives fueling the need for investments in technology

**Continued investment in content**
- Audience insight generation, churn reduction
- Hyper-personalized content recommendation engines
  - Video & image annotation and search
  - Content analytics
  - Customer segmentation
- Content greenlighting
- Video engineering for fluency and definition optimization across multiple devices
- Using VR to enhance spectator engagement in live sports
- User acquisition and conversion from AVOD to SVOD

**Advertiser value creation**
- Hyper-segmentation for targeted advertising
  - Ad personalization
  - Campaign performance management by providing real-time visibility and user targeting
- Programmatic advertising
- Data enrichment to drive targeted campaigns
- Standardized impact measurement across platforms
- Enabling consumers to experience content/products advertised through immersion of VR/AR

**Build newer sources of revenue for the industry**
- Content production
  - Topic monitoring & recommendation basis diverse needs of user base
  - Automated video editing & sound engineering
  - Content generator
- AI curated content supply – identifying potential ‘hero’ content
  - Content acquisition
  - Intelligent document recognition
Major players investing in hyper-personalized content recommendations to increase engagement on OTT platforms

Netflix

- Several billion ratings by members for over 13,000+ titles
- Usage statistics and granular level preferences for 159 million viewers
- Metadata related to titles in their catalog like genre, director, actor, rating, etc.
- External sources like box office information, performance and critic reviews

Personalized recommendations for each user

“Based on your interest in…”

80%

Percentage of shows watched due to content recommendation

Spotify

- Custom playlists like “Discover Weekly” and “Daily Mix” by identifying your taste profile and finding similar songs you haven’t listened to

31%

Share of ML based playlists in overall listening activity

YouTube

- “Up-next” videos recommended based on previous viewing history, demographics, time, location, etc.

70%

Percentage of videos viewed due to recommendations

Building advertising solutions at scale with N=1 marketing efficacy key to raising the bar on advertiser value proposition

Endless opportunities for data collection to improve targeting with digital platforms

Offer data-driven solutions to marketers to drive better monetization opportunities

**SKY** AdSmart | Sky’s leading Addressable TV advertising solution unified with NBCU 2019

1. **Campaign targets** can be defined based on Sky’s own customer data and information from consumer profile experts

   - **Advertisers**
   - **1.8k**

2. **STB build-in dynamic ad server technology** pulls ad campaign creatives and overlays based on individual household data (audience attributes)

   - **Advertisers return rate**
   - **70%**

3. **Live insertion** of targeted ads during linear ad-break of 100+ AdSmartable channels in UK

   - **Companies**
   - **>1k**
   - have used TV for first time because of AdSmart

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1. [Data Science Recruitment Survey 2020 by Analytics India Magazine & AnalytixLabs]
2. [Analytics & Data Science Jobs in India 2019, AIM & Great Learning]
3. [Analytics India Salary Study 2020, AIM & Jigsaw Academy, figures mentioned indicate median salary]

**Source:** Expert Interviews, Secondary Research, BCG analysis
Creation of immersive user experiences revolutionizing content consumption & monetization

**Key imperatives: Support needed to realize the potential economic impact of M&E**

**TV/Video**
- Movies and broadcasts can be watched in holographic view
  - Intel
  - NFL
  - Pyeongchang 2018 Olympic

**Advertising**
- VR/AR enable consumers to experience content/products advertised
  - Samsung
  - Renault
  - Google
  - Qantas
  - Jaguar
  - Honda

**Enhanced spectator engagement in live sports using VR by Intel**
- Olympics 2018
- PGA Tour
- National Football League
- Major League Baseball
- National Basketball Association

> “True VR enables fans to experience the story of the game. In VR, fans feel like they’re actually part of the action.”

**Facebook improves the performance of its digital ads through augmented reality**
- Michael Kors
  - Leather/Clothes
- Sephora
  - Make up
- Pottery Barn
  - Home Decor
- NYX
  - Make up

- Newsfeed and messenger ads include a “tap-to-try” and buy option on mobile
- Brands using AR ads claim 30% to 80% improvement in engagement rates

Key imperatives: Support needed to realize the potential economic impact of M&E
Imperatives for media companies
Key imperatives: Support needed to realize the potential economic impact of M&E.
Imperatives for media companies

- Support content diversity with personalized recommendations for consumers by leveraging advanced analytics.

- Create a unified viewing experience for consumers by aggregating share of consumption across TV & digital video platforms.

- Integrate different formats such as gaming, music, short-form video into one unified platform to drive engagement.

- Invest in strategic content partnerships to ease monetization pressure, drive content diversity.
Engage with advertisers as strategic partners selling integrated solutions rather than just inventory selling.

Enhance value proposition for advertisers through bundled selling across platforms, hyper-personalized user segmentation & real-time performance tracking.

Invest in ad-tech to build data & analytics capabilities and automating ad-buying process.
### Appendix: Sources used in the report

- Ampere analysis
- Analytics India Magazine
- Analytics India Salary Study 2020
- Analytics & Data Science Jobs in India 2019
- Annual reports of publicly listed companies
- App Annie
- BARC Nielsen Crisis Consumption An Insights Series into TV Smartphone & Audiences
- BusinessofApps, 2020
- Data Science Recruitment Survey 2020
- Economist Big Mac Index
- EIU
- eMarketer database
- FICCI Report, 2019
- Finder
- Google COVID-19 Community Mobility Report
- IAB OTT Streaming Video Playbook for Advanced Marketers 2019
- IMDB
- Indian OTT Platforms Report 2019
- Invest Korea – Cultural Contents; Korean Educational Statistics Services
- IRS (Indian Readership Survey)
- MAGNA Global
- MAGNA India Media Forecasts
- MoMagic Survey
- Montreal International
- NCAER
- Ovum
- Pitch Madison Advertising Report 2020
- PQ Media
- Quebec Film and Television Council
- SNL
- SODEC
- Spotify Technology, S. A, March 2018 IPO Prospectus
- TAM AdEx
- Technicolor Capital Markets Report Feb 2020
- UNCTAD (2017)
- United Nations
- World Bank
Appendix: Methodology for employment calculations

Economic Impact of M&E industry has 3 different components: Direct, Indirect & Induced

**Direct Employment:**
Jobs created in the core M&E industry ecosystem including both formal and informal sector

**Indirect Employment and Multiplier:**
Jobs created in industries like communication, electronic equipment, electricity, financial services, infrastructure, transportation etc. due to the M&E industry; multiplier used to evaluate number of indirect + direct jobs annually

**Induced Employment and Multiplier:**
Jobs created as a result of spending done by the workforce that is directly and indirectly serving the M&E industry; multiplier used to evaluate number of induced + indirect + direct jobs created annually

Methodology to calculate employment multipliers

Employment multipliers are calculated using:

### National Input-Output matrix/ Supply-use table:

Describes the inter-industry trade relationships based on which the multiplier effect is calculated; dependency of one sector on every other sector as a supplier and as a consumer are quantified

### Calculation of Leontief Matrix

Input-Output matrix is converted to Leontief matrix to convert absolute monetary terms to relative outputs; this enables isolation of relative impact created by increasing output in any industry

### Direct, Indirect and Induced Employment in M&E

Direct employment impact is estimated at a sub-sectoral level which is then extrapolated using indirect and induced employment multipliers

Source: Impact of Investments in the Housing Sector on GDP and Employment in the Indian Economy, NCAER, 2014
For Further Reading

Boston Consulting Group publishes reports on related topics that may be of interest to senior executives. Recent examples include:

**Winning the Media Subscription Battle**
A report by Boston Consulting Group, September 2019

**Pay TV still has room to grow**
An article by Boston Consulting Group, September 2019

**Winning in Media in the Digital Era**
An article by Boston Consulting Group, February 2019

**One Consumer, Many interactions**
A report by Boston Consulting Group, December 2018

**Entertainment Goes Online**
An article by Boston Consulting Group, November 2018

**The Digital Revolution Is Disrupting the TV Industry**
An article by Boston Consulting Group, March 2016

**Digital Consumer Spending: A $100 Bn Opportunity**
A report by Boston Consulting Group, February 2018

**The New Indian: The Many Facets of a Changing Consumer**
An article by Boston Consulting Group, March 2017

**Television’s $30 Billion Battlefield**
An article by Boston Consulting Group, August 2018

**Convergence: The New Multiplier for India Media & Entertainment’s @100 Billion Vision**
A report by Boston Consulting Group, October 2016

**Powering Up Smart Machines in Media**
A report by Boston Consulting Group, December 2017
Note to the Reader

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