

Digital Media, Animation & VFX, Online Gaming & Advertising





Shri Subhash Ghai,

Chairman (MESC)
Renowned Indian Film Director,
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MESSAGE FROM THE CHAIRMAN



“MESC is a new revolution & evolution to the whole education system of India with full emphasis for skill-based education rather than memory based education. It’s one of the finest initiatives by the Govt. of India and I’m proud to be associated with MESC with a serious responsibility to develop a new generation of skilled man in every field. It is especially important in our sector of Media & Entertainment, to explore & think beyond obvious. I’m humbled & thankful to everyone who has entrusted me with this great responsibility of taking the council in the right direction for the next generation and I am sure that we have a good team to achieve our targets at the earliest.”





DIGITAL MEDIA:

In 2018, digital media grew 42% to reach INR169 billion Infrastructure growth propelled digital consumption:

- Broadband subscribers increased 41% from 363 million to 512 million
- Rural internet users grew 49% to reach 197 million
- Smartphone users reached 340 million
- Smart / connected TVs crossed 10 million Indians spent 30% of their phone time on M&E
- 325 million people viewed videos online in 2018
- 245 million people consumed news online Digital ad spends grew 34% to INR154 billion – now contribute around 21% of the total ad market:
- The share of ads in local languages has increased significantly in 2018
- Four categories spent over 30% of their ad spends on digital media – BFSI, telecom, consumer durables and e-commerce
- Programmatic advertising increased from 10% of total digital spends in 2017 to around 20% in 2018 and the contribution of programmatic could continue to grow to up to 50% by 2021
- Large ad platforms claim that there are now over 300,000 digital small and medium enterprise advertisers using digital media. They expect that this number is growing and could reach 500,000 within five years



DIGITAL SUBSCRIPTION GREW 262% TO REACH INR14 BILLION:

- ☞ Paid video subscribers grew from around 7 million in 2017 to around 12-15 million in 2018
- ☞ However, the percentage of paying subscribers to total consumers is less than 5% and 1% for video and audio respectively
- ☞ Over 200 million people accessed digital content through telco data bundles
- ☞ Up to 60% of video viewership volumes were generated by telcos and the amount spent by them on acquiring content for their subscribers was INR3.5-4 billion
- ☞ 1,200 hours of fresh original content was created for OTT platforms in 2018
- ☞ Audio subscription grew around 60% in 2018 to reach INR0.8 billion with around 1 - 1.5 million paying subscribers Future outlook
- ☞ Digital will overtake film in 2019 and print by 2021 to reach INR354 billion in 2021
 - Advertising will reach INR300 billion by 2021
 - Subscription will cross INR50 billion by 2021
- ☞ Telcos will become the new MSOs
- ☞ While watch time could grow 3 to 3.5x over the next five years, resulting in a massive inventory growth, advertising revenues will grow only around 2x. CPMs will correspondingly fall during the period for non-premium inventory
- ☞ We expect 30-35 million paying OTT subscribers (and a further 350+ million subscribers accessing bundled OTT services from telco's) by 2021, however consolidation will be needed for platform profitability

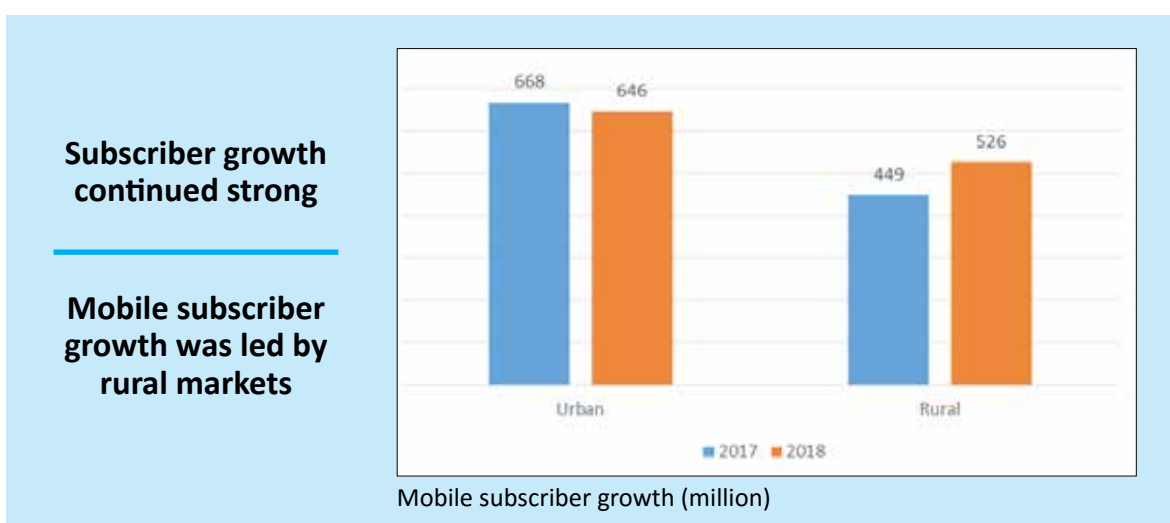
DIGITAL MEDIA GREW 42% IN 2018

Digital media continued to grow at a fast pace, across both advertising and subscription. In 2018, digital media grew 42%, with advertising growing by 34% and subscription growing 262%. The digital advertising value above does not include spends of many small and medium enterprises, which industry discussions size at INR72 billion but we are unable to verify. Subscription, which was 3.3% of the segment in 2017, increased to 8.4% in 2018.

	2017	2018	2019E	2021E
Advertising	114.9	154.4	200.4	300.9
Subscription	3.9	14.2	22.9	52.9
Total	118.8	168.6	223.3	353.8

INR billion (gross of taxes) EY analysis

DIGITAL INFRASTRUCTURE



The number of wireless subscribers grew from 1,167 million in December 2017 to 1,171 million in November 2018. This growth primarily came from rural subscribers who grew from 499 million to 526 million in the same period.

The number of active wireless subscribers grew by just 15 million from 1,015 million in December 2017 to 1,031 million in November 2018. However, there are several subscribers with dual sims, and the number of unique subscribers is estimated at 650-700 million². The tele- density number in India is now 91%.

Internet penetration was also driven by rural subscriber growth

	Dec-17	Nov-18
Total Internet Subscribers	446	570
Broadband subscribers	363	512
Narrow band subscribers	83	58
Urban internet subscribers	314	373
Rural internet subscribers	132	197

Internet subscribers grew 28 from 446 million in December 2017 to 570 million in November 2018. Hence, given that there are around 4 billion internet users in the world⁶, one in eight internet users globally is Indian. Narrowband subscribers reduced 30%, while broadband subscribers increased 41% from 363 million to 512 million.

INTERNET USERS ARE PROJECTED TO REACH OVER 700 MILLION BY 2017 BECAUSE OF THE FOLLOWING FACTORS:

01

Low cost smart phones, priced between INR1,500 and INR3,000, will expand the market

02

Improved rural internet connectivity on the back of innovation to enable the next 200 million users

03

Simplified language keyboards

04

Voice enabled utilization of the internet, mainly for entertainment, search and maps

96% of broadband subscribers were wireless users:

	Dec-17	Nov-18
Wired broadband subscribers	18	18
Wireless broadband subscribers	345	494
Total broadband subscribers	363	512

In millions

At over 500 million broadband subscribers, India has the second largest broadband subscriber base in the world. Wireless broadband comprised 96% of total broadband subscribers in India as of Nov 2018. 54% of total mobile connections were 3G and 4G. 3G and 4G networks comprised 12% and 87% of total data consumption respectively during the quarter ended September 2018.

Data charges remained consumer friendly

India remains a country where data charges are amongst the lowest in the world. Our analysis of some popular data plans indicated the lowest rate to be INR3.1 per GB (or less than US\$0.05 at current exchange rates)

Broadband market shares

Telco	12%
Jio	52.40%
Airtel	20.60%
Vodafone	10.80%
Idea	9.90%
BSNL	4.20%

Jio now has an over 50% broadband market share in India.

5G AND FIBER WILL DRIVE GROWTH

Rollout of fiber to the home and 5G services will improve connectivity from 2020 onwards. This could prove beneficial for video consumption, particularly for longer form content and sports, across cities and rural markets.

DEVICE GROWTH

Smartphone users reached 340 million in 2018



Smartphone penetration in India grew to 36% of total phones in 2018, up from 33% in 2017 and is expected to further increase to 39% in 2019¹³. By the end of 2018, there were 340 million smartphone users in India and this number was expected to reach 373 million in 2019 and 442 million by 2022¹⁴. This is around 14% of the world's smartphone market. Paradoxically, 35% of the country does not own any mobile phone yet. The average amount spent on smartphones in India has risen from INR7,700 in 2015 to INR9,960 in 2017, according to a Nielsen report on smartphone usage in India called "What handsets say about Consumers". Jio's smart feature phone, the JioPhone, continues to enable a new bunch of consumers to access the internet and is estimated to have sold around 40 million units since its launch.

Smart / Connected TVs crossed the 10 million mark

Industry estimates indicate that there were about 10-12 million smart TVs in 2018, and this is expected to increase to over 20 million TVs by 2020¹⁷. As the price of a smart TV falls to INR15,000, this number could increase manifold – leading to a growth in large screen viewing of OTT content



CONTENT CONSUMPTION

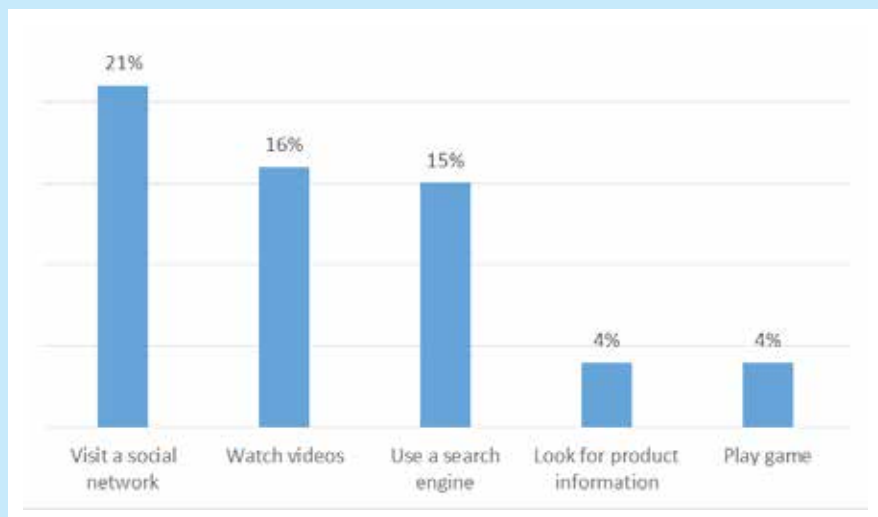
Overall consumption trends

Average data consumption doubled in 2018

The average Indian data user doubled consumption from four to eight GB per month between 2017 and 2018, and is expected to consume 10 GB per month on average in 2019. This consumption is expected to increase to 15 GB on average by 2024. Given the large growth in base, with many new users coming in from rural India, the consumption growth represents a large opportunity to telcos and media companies to serve differentiated and customized content and grow their subscribers and audiences.

Indians spent 30% of their phone time on entertainment

A study by the Omidyar Network indicates that Indians spend 30% of their time on mobile phones on entertainment, second only to social media¹⁹. However, in terms of data, they use upwards of 70% on entertainment



On apps, the most preferred activity was visiting a social network, followed by watching videos. The creative freedom that OTT services has offered content creators and talent, as well as the control and choice that consumers enjoy are a huge differentiator for the digital segment. The industry led self-regulation code of best practices will prove to be a boon for content creators and a key differentiator for VoD services in providing consumers with content they love. Personalization and creative freedom will combine in a unique way to allow lesser-told stories to be brought to screen and allow more stories to succeed because they can find their own audiences.

Indians downloaded more media apps than ever before

India is amongst the top two to three countries in the world today when it comes to digital consumption of services and second only to China on an overall basis. It stands second in the digital adoption of M&E services, having recently overtaken the USA across users and time spent.

Share of digitally active population using the following fintech services (2017)

Money transfer / payments	Financial planning	Savings / investments	Borrowing	Insurance
China	China	China	China	India
83	22	58	46	47
India	Brazil	India	India	UK
72	21	39	20	43
Brazil	India	Brazil	Brazil	China
60	20	29	15	38
Australia	US	US	US	South Africa
59	15	27	13	32
UK	Hong Kong	Hong Kong	Germany	Germany
57	13	25	12	31

Indians downloaded over 17 billion apps in 2018 and on average, a smartphone had 69 apps installed²³. Indians downloaded more media and entertainment apps in 2018 than ever before, with the highest growth rates being seen on entertainment, music and game apps.

Time spent on M&E apps increased

Increased app downloads also resulted in more time spent on apps, with the highest growth being seen in the top 20 music apps – a growth of over 42% in time spent.

Online video

Video viewers grew 25% in 2018 325 million people viewed videos online in 2018, a growth of 25% from 2017 . Overall consumption continued to increase on video OTT platforms, with regional consumers driving growth. However, streaming of long form content is still a challenge beyond the top eight to 10 cities, and this led to average time per user coming down as more growth was driven by regional consumers. More women consumed content on OTT platforms.

Indian broadband internet subscribers surveyed by Limelight Networks consumed around 8.5 hours per week of online video, far higher than the global average of 6.75 hours per week. However, 94% of those who consumed content online also subscribed to linear television services. 2018 saw a lot of improvement in data consumption efficiency. A consumer could now watch 26 hours of Netflix in 4 GB of data, soon to become 33 hours.

Consumption was led by languages

Google claims that 97% of content consumed on its YouTube platform is now in local languages and a similar trend was seen across most OTT platforms in India, all of whom claimed that over 90% of consumption on their platforms was in local languages. Hindi accounted for between 50 and 70% of total consumption of multi-lingual platforms. There is a huge appetite for local content but also high interest in TV series and films that are popular globally. Sacred Games, Ghoul and Lust Stories are popular in India but so are Bird Box, Mowgli, Black Mirror: Bandersnatch and Narcos: Mexico.

Content fragmentation will continue, as will the proliferation of platforms which segment audiences. Digital content consumption will mimic the growth of television – which started with a general channel with entertainment, films, news, etc. and then over time, each type of content across different languages created segmented products for segmented audiences. Driven by the faster growing rural internet population, as well as increased time spent by rural audiences on their phones on entertainment as compared to urban audiences³⁰, this trend will continue to be relevant in 2019 and beyond, and is expected to lead to more money being allocated to regional language content and marketing.

Catch-up TV remained a favourite on OTT platforms

In 2018, catch-up TV contributed as high as 70-90% of the total content viewed on the online platforms of large broadcasters, primarily because this content was often not placed behind paywalls.

ONLINE AUDIO

Audio streaming users grew 50%

The number of consumers across online streaming apps grew 50% to reach around 150 million in 2018. However, the segment struggles with a high churn rate of over 50% and this impacts the customer lifetime value. In addition, around 250 million people watched music on YouTube .

India reached around 5 billion streams per month

Indian audio streaming apps reached around 5 billion streams per month, a growth of around 50% over the prior year. The landscape is interesting, with a mix of domestic music apps like Jio Music and Gaana, and international players like Apple and Google. The entry of Spotify in 2019 will only increase traction in this space. The competitive ecosystem augurs well for innovation and the segment's current growth is reflective of streaming music growth in international markets like the USA, which has reached 50 billion streams per month.

However, consumption per day remained low

Industry discussions indicate that average consumption per user is as low as ten minutes a session and an hour in a month. Regular subscribers account for 12-15 sessions a month. These numbers are still far lower than international averages, which can be between one to two hours per day per regular subscriber.





ONLINE NEWS

Online news audience grew to 245 million

Online news subscribers grew between December 2017 and 2018, to reach 245 million, across mobile and desktop users of news sites, portals and aggregators. This is approximately 43% of internet users at the end of 2018³⁷. The time spent per user per day on news is around eight minutes. Highest growth was seen in non-English consumers of around 40%

TELEVISION NEWS'

Online syndication paid dividends

Television news content was syndicated to online platforms - both media OTT apps as well as non-media apps. BTVI's English business news content, for example, garnered around 40,000 hours of television viewership in Jan 2019, but managed more than double that across online platforms.

The need for subscription products increased

Less than 0.25% of total online news consumers were paid subscribers. Most media houses launched subscription products, across Times, Hindu, Mint, Television18, etc. and all CEOs we met mentioned it was a priority for them. Customer lifetime value equations will not balance costs and revenues unless a viable subscription model is developed and we believe that this will require at least 10-20% of current subscribers to turn pay. Annual packs at heavy discounts could be the way forward, but will only work if quality content is kept

behind paywalls. Hence, this could work better for business news and specialty content, not as much for general news.

Reliance on Google and Facebook remained high

Most news platforms still relied on Google and Facebook for a large share of their online audiences – up to 95% in some cases⁹⁵. As more newspaper companies commence their journey around news video creation, Google and Facebook can play an important role in growing their reach and revenues.

Social media Social media penetration reached 17% in 2018

226 million Indians (16.7%) were on social media in 2018, up from 14.6% in 2017. This massive uptake reflects India's median age of 28.2 years.

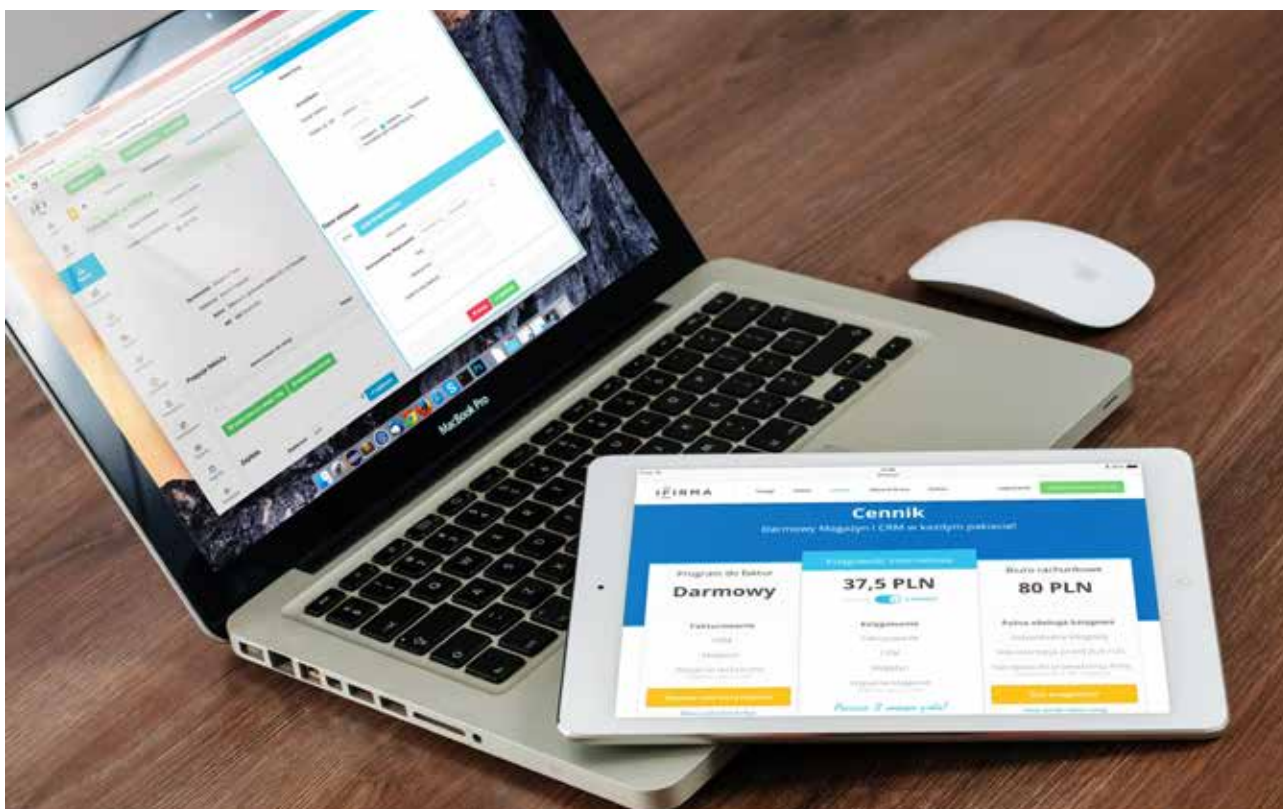
Internet users spent 40% of their time on social media

Social media comprised 40% of time spent by internet subscribers on their mobile phones and was the single largest category of use⁴³. Correspondingly, social media advertising grew by over 30%⁴⁴ and this resulted in many news publishers, OTT platforms and music streaming services using this medium to target customers.

The horizontalization of digital media began in all earnest

Earlier, the value chain was linear and simple, with content creators and advertisers providing content to broadcasters, broadcasters aggregating content for DPOs and DPOs providing it to consumers. Today, each element of the value chain has built direct-to customer (D2C) processes. Now, the content house, the advertiser, the broadcaster, the distribution platform, the telco – all are building their D2C offerings, which will increase competition for consumer time spent and eyeballs, fragment audiences, increase content cost and build enormous amounts of consumer data.





DIGITAL ADVERTISING

Digital ad spends grew 34% to comprise 21% of the total ad market!

The growth in ad spends on digital was on account of several factors:

1. Improved demonstration of return on ad investment through placement of ads closer to the point of purchase
2. Heavy digital evangelism by ad agencies, along with the “cool factor” of working on digital media and with India’s burgeoning digital start-up ecosystem
3. A large SME base, increasingly focused on performance advertising and less on brand building
4. Use of digital media by several large traditional advertisers to experiment with niche product launches and higher-priced variants.

Today, digital platforms provide household targeting with 10% wide slabs across various parameters⁴⁵ and as telcos and e-commerce platforms build their consumer data, individual targeting will – subject to data privacy concerns – enable more focused targeting.

AD VOLUME ANALYSIS

YouTube remained the largest platform for digital advertising

21% of total digital ad insertions in 2018 as web monitored by TAM AdEX were on YouTube. Other top web publishers (by number of ad insertions) are in the table below.

Rank of leading web publishers (apart from YouTube)

1	Timesofindia.indiatimes.com	6	Mensxp.com
2	Mapsofindia.com	7	Espncricinfo.com
3	Rediff.com	8	Dailythanthi.com
4	Firstpost.com	9	Indiaglitz.com
5	News18.com	10	Thehindu.com

Approximately 56% of ad insertions and value were on desktop, while 44% were on mobile. Mobile advertising share could exceed desktop in 2019 as it is expected to grow at over 40%⁴⁷. 83% of Indian consumers were accepting of or neutral to pre-roll advertising if it was relevant to them

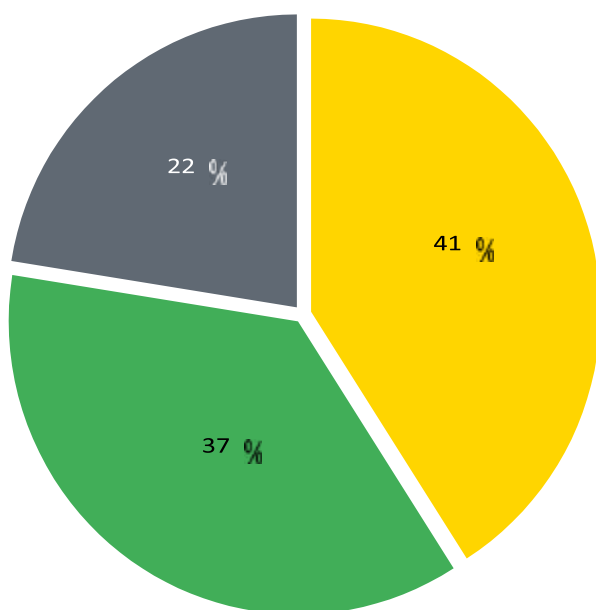
Inventory utilization fell due to volume growth

As Indian broadband subscribers increased by 41% in 2018, ad inventory grew exponentially and resulted in a glut of inventory in the digital ad market. Our industry interviews and analysis indicate that while watch time could grow 3 to 3.5x over the next five years, resulting in a massive inventory surplus, revenues will grow only around 2x. We estimate that CPMs will

correspondingly fall by up to 50% for non-premium inventory.

The key for revenue growth will therefore be innovation around new ad formats, voice search and transactions, better targeting, regional language content, focus on performance advertising, premium content, etc.

The largest advertising category (by number of ad insertions) was services, which comprised e-commerce, online shopping, media and entertainment, real estate, etc. The top five advertisers were Amazon, Ginnar Software, Google, Netflix and Flipkart. Amazon accounted for 5% of total ad insertions.



Share of local language ads increased

The share of ads in local languages has increased significantly in 2018. While small businesses always preferred local ads to reach local audiences, larger advertising brands took to local language ads in a big way in 2018. As the reach of the internet continues to be fueled by regional subscribers, we expect that the share of language advertising will reflect that of TV, i.e., eventually, only 4-5% of ads will be in English, around 50% in Hindi and the balance in local languages⁵¹. The CPM differential is limited - just 10-15% lower than English and Hindi since the primary construct remains audience based buying.

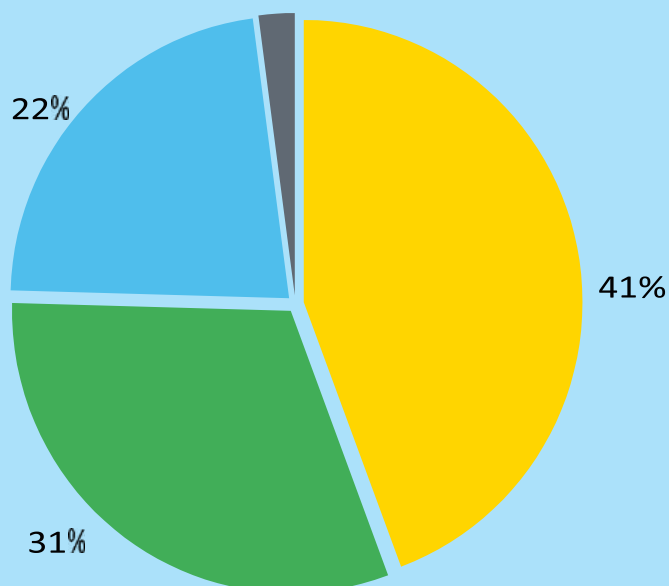
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Share of programmatic ads doubled

Our interviews have shown that programmatic increased from 10% of total digital ads in 2017 to around 20% in 2018 and the contribution of programmatic could continue to grow to around 50% by 2021⁵⁴. The CPMs also reduced by up to 20% for non-premium ad inventory during the period, while most premium ad inventory ranged from US\$2.5 to up to US\$1055. Industry discussions indicate that programmatic currently constitutes up to 30-40% of overall share of revenues for some OTT platforms.

Programmatic could also move to other traditional media over time, as the case for efficiency and performance grows. The first signs of this have been seen in more developed advertising markets.



Ad value analysis

Over 300,000 small and medium advertisers used the digital medium

Large ad platforms claim that there are now over 300,000 small and medium enterprise digital advertisers i.e., those who never or barely advertised on traditional mediums like TV and radio, or were advertisers in local print and classifieds. They expect that this number is growing significantly and could reach 500,000 advertisers within five years. Their spends are focused on performance advertising – predominantly search and classifieds, on platforms like Google, Facebook, Flipkart, Amazon, Just Dial, etc. However, we are unable to verify these ad spends, as data was not available for review. Industry discussions indicate these spends to be around INR72 billion.

DIGITAL SUBSCRIPTION

In 2018, digital subscription grew 262% Digital subscription, which includes the amount paid by telcos on behalf of their customers to content owners, grew 262% in 2018 to reach INR14 billion.

As per industry discussions, even though the percentage of paying subscribers to total consumers is less than 5% and 1% for video and audio respectively, the growth has been significant. However, it still lags behind the global trend seen in developed international markets.

	2017	2018	2019E	2021E	Three year Forward CAGR
Video	3.4	13.4	21.5	50.5	56%
Audio	0.5	0.8	1.4	2.4	43%
Total	3.9	14.2	22.9	52.9	55%

As per industry discussions, even though the percentage of paying subscribers to total consumers is less than 5% and 1% for video and audio respectively, the growth has been significant. However, it still lags behind the global trend seen in developed international markets

FUTURE OUTLOOK

Digital segment will overtake film in 2019 and print by 2021

We estimate that the segment will grow to INR354 billion by 2021, at a 28% CAGR. Advertising will grow at a 25% CAGR, while subscription will grow at 55% CAGR, on the back of 30 to 35 million paying video subscribers and 6-7 million paying audio subscribers.

Telcos will become the new MSOs

The propensity to consume bundled content will appeal to the mass Indian consumer and telcos will play a more important role in providing such bundles – and unified search – to end consumers. Rollout of fiber to the home and 5G networks will aid this growth, particularly in smaller towns and for long form content. While 60% of total consumption today is through telco bundles, we estimate that to grow to over 75% by 2021 and cater to over 375 million subscribers.

Expect to see disproportionate consumption from e-Sports, AR/VR, online gaming and fantasy sports

The digital segment will benefit from the growing popularity of e-Sports, AR / VR technologies, online gaming and fantasy sports, all of which are “Generation Z” products, and which have been covered in relevant sections of this report. These will provide increased impetus to telcos to sell data packs and correspondingly, will increase time spent on M&E content.

Consolidation is needed for profitability

While several OTT platforms have launched, profitability is difficult for most of them. One of the main reasons for this is fragmentation of audiences and high content costs. Till suchtime

as consolidation does not take place, contest costs will remain high as each platform produces or acquires content to meet its needs. In addition, customer acquisition costs will also remain high due to need for increased marketing and retention.

Our industry interviews and analysis indicate that while time spent could grow 3 to 3.5x over the next five years, resulting in massive advertising inventory growth, revenues will grow only around 2x. We estimate that CPMs will correspondingly fall by up to 50% for non-premium inventory.

GLOBAL TRENDS

Mobile phones drove digital video consumption



Digital video viewing – already one of the top digital activities worldwide – will continue to grow, driven by expanding mobile usage and improving broadband connections. In 2018, over 2.3 billion people watched streaming or downloaded digital video content via any device at least

once per month. Mobile phones are a key channel for consumption: 78% of digital video viewers worldwide regularly used one to watch content.

Cultural shift away from content ownership

There is a clear cultural shift from content ownership to content access encompassed with convenience and personalization, which is further empowering consumers to experiment more and make their own decisions for film, TV and music content.

OTT services invested huge amounts in high quality original programming

OTT streaming services are competing head-on with incumbents as they seek to build and retain audiences. Content, especially original content, is one of the main weapons in their arsenal - they are spending huge amounts for high-quality, original programming and licensing deals. In the six years since 2012, the number of scripted original series for online services has grown by over 950%

OTT sports rights drove content inflation

Globally, OTT delivery has become the main driver of sports media rights inflation, as digital platforms are becoming increasingly aggressive for sports content. This has opened new opportunities for rights-holders while adding new layers of complexity to negotiations and deals.



ANIMATION & VFX

KEY MESSAGES

The Animation and VFX segment grew to support increased content production. The total animation, VFX and post-production segment grew 18% in 2018 to reach INR78.9 billion

- 📊 By 2021, it is estimated that India's animation, VFX and postproduction segment will reach INR127.6 billion
- 📊 At the start of 2018, India had around 300 animation, 40 VFX and 250 game development studios

Animation grew 10% in 2018 to reach INR18.8 billion

- ☞ By 2021, the animation segment is expected to reach a size of INR24.4 billion
- ☞ Animation for domestic broadcasting is growing at a healthy rate of around 30%, and now accounts for 30-35% of revenues generated in Indian animation segment
- ☞ Using production houses in India for animation can result in savings of up to 50% vis a vis international markets. With development of animation quality and cost-effectiveness in the country, global media companies are increasingly utilizing services of Indian animation studios

VFX grew 27% in 2018 to reach INR39.6 billion

- ☞ By 2021, the VFX segment is expected to reach a size of INR75.5 billion
- ☞ Several Indian companies are providing VFX services to international clients, including larger international studios
- ☞ Indian producers, earlier willing to spend only 5-10% of content budget on VFX, have now expanded their spending to 15-20% of the budget, resulting in better visual effects for domestic content

Post production grew 12% to reach INR20.5 billion

- ☞ By 2021, the post-production segment is expected to reach INR27.8 billion
- ☞ Domestic demand from digital, film and television is driving growth
- ☞ Indian companies are looking to acquire global postproduction houses to gain direct international client relationships Future outlook
- ☞ The next phase of growth for the space is expected to be driven by the digital push – by not only OTT players but traditional broadcasters looking to enter the digital space
- ☞ Government incentives and schemes (both at central and individual state level) will be important for Indian companies to remain competitive with international counterparts
- ☞ Increased investments into building talent base (skills like storytelling for animated content) will be seen

ANIMATION FOR INTERNATIONAL MARKETS

Indian animation and VFX services continued to gain traction among international production houses. They provide a cost efficiency of up to 50% compared with other countries¹⁷. With improvement in animation quality over the last few years and the cost advantage, international studios and animation houses are increasingly utilizing services from India. During the last few years, Indian animation studios have worked with major international players such as Disney, Warner Brothers, DreamWorks, Sony, Viacom/Nick, BBC, Cartoon Network, Fox, Ubisoft and Zynga, among others. Technicolor India has worked on animation movies such as Penguins of Madagascar, Kung Fu Panda: Legends of Awesomeness, Mickey and the Roadster Racers, Alvin and the Chipmunks, All Hail Kind Julian, Wallykazam, Fanboy and Chumchum and Puss in Boots, among others.

VFX GREW 27% IN 2018 TO REACH INR 39.6 BILLION

India's international footprint grew

There are several Indian companies providing VFX services to international clients. Red Chillies Entertainment has worked for multiple Hollywood blockbusters such as Sin City. Prime Focus World, which merged with Double Negative in 2014 has worked on movies such as Pacific Rim Uprising and Avengers: Infinity War. Further, the intricately created dragons in the series Game of Thrones were also designed by an India-based Prana Studios. Multiple Hollywood movies have used Indian VFX studios including the last two Harry Potter movies, Pirates of the Caribbean, Percy Jackson, Life of Pi, Skyfall, Prometheus, The Jungle Book and Blade Runner. The trend is coming to the forefront as larger studios have expanded their pipelines and proprietary software to India.

Indian movies invested more in VFX

India has grown significantly in VFX space with movies such as Bahubali and 2.0. Indian producers, earlier willing to spend only 5-10% of the entire budget on VFX have now increased their spending to 15-20% of the production budget, resulting in better visual effects for audiences – a move required to ensure Indians keep visiting cinema halls amidst the growth of online alternatives and hometheatre systems. Movies such as Thugs of Hindostan, 2.0, Kedarnath, Zero and Simmba have used multiple visual effects. For these reasons, domestic VFX is slated to grow at a healthy rate of 40% over the next few years.

- ☞ Randamoozham, a Mahabharata adaptation is expected to be created with a budget of INR10 billion, twice the combined budget of Bahubali 1 and 2 (INR4.3 billion). The movie is expected to be made with world class VFX
- ☞ 2.0 has spent over INR1 billion solely on the special effects of its lead characters Chitti and the villain played by Akshay Kumar
- ☞ Bahubali 2 appointed 30 VFX studios from around the world. With an overall budget of INR3 billion, INR0.8 billion was spent on VFX for the movie

Post-production grew 12% in 2018 to reach INR20.5 billion

Domestic demand from digital, films and television spurred growth. In 2018, about 70% of post-production work done was for the domestic market. This number is expected to grow at a rate of 15% year-on-year. The boom in number of local TV channels and digital content is primarily responsible for this growth. Digital content budgets are higher than those for television by up to 10x on average and the spend on quality post-production is consequently higher.

Indian companies are looking to acquire global post-production houses

Margins in this business are often low and profits are primarily driven by volumes. Many companies in the space have either expanded their service offerings, or are planning to grow inorganically through acquisitions, both domestically as well as internationally. Another

advantage of international acquisitions in countries like Canada, France, Spain, Ireland, etc. would be the tax incentives that these countries offer their companies in order to remain globally competitive.

Challenges faced by the segment

While India has most of the ingredients to make it an animation, VFX and post-production back-office for the globe, there are certain aspects that could come in the way and need to be addressed by policy intervention, regulatory changes and innovation.

Opportunity to create original characters with global appeal

Indian animation segment relies heavily on storylines around mythological concepts and characters. The share of original characters created and owned by Indian studios is significantly lesser compared to western countries where original characters are created such as Spiderman and Batman, which have a global appeal and are monetized, consequently, at a global level.

Budget limitations

Budgets for Hollywood movies using VFX are generally six to 10 times those of Indian films, resulting in difference in the quality of VFX³⁶. In the case of animated films, too, the budget of global studios would average 20-30 times the budget for a typical Indian product. Due to this, even a movie such as “The Jungle Book,” which is India-based, is created by foreign animation houses as they have the budget required for carrying out the required level of animation.

Higher cost compared to live action shows

According to research, the average cost for producing 2D or 3D animated content is around INR1-2 million or more for a show of 11-22 minutes. The cost further depends on the number of characters, backgrounds, quality of animation, etc. Shows that attain higher viewership usually cost between INR3-5 million. If the content is produced for international markets, the investment can go up to INR10 million. This is significantly higher compared to INR0.7-0.9 million required for one live action episode of comparable size on a GEC channel. This prompts broadcasters to invest more in live action content as opposed to animated content.

Need for more government incentives



An animation content creator needs multiple government incentives to produce a series. In India, such incentives are often lacking. Working with foreign companies doesn't entail tax in India but local production is charged with GST of 15%. In addition, there is a withholding tax on payments. Countries such as Singapore provide incentives amounting to 25% and Malaysia has created a fund for animation producers. Such initiatives are also required in India to strengthen animation and VFX sector and make it more competitive globally.

Skilling the workforce to international storytelling standards

The animation segment requires scriptwriters who can adapt storytelling from live action to animated content. India needs creators and writers who can create characters which have international appeal. For this to happen, India's writers need to be exposed to or trained in animation specific storytelling methods. There is need for talent in this space, and is an area large Indian studios need to invest in.

VFX and animation segments are labor-intensive. However, due to the complexity of jobs and lack of adequately skilled workforce, the segment faces a significant challenge. Although freelance talent thrives in the segment, a dedicated pool of workers is required to have a reliable pool of resources for stakeholders.

Some studios have initiated their own training programs to engage and up-skill local talent in collaboration with institutes like Whistling Woods, etc. Prime Focus Studio, in collaboration with Media and Entertainment Skills Council (MESC), operating under Ministry of Skill Development and Entrepreneurship (MSDE), launched Prime Focus Academy of Media and Entertainment Studies (PFAMES), a specialized division providing training in areas such as rotoscoping, digital paint and rotomation and matchmove, among others.

FUTURE OUTLOOK

The next phase of growth for the segment is expected to be driven by the global digital push

Netflix is expected to spend US\$1.1 billion on animated content worldwide in 2018 and Amazon is projected to spend US\$300 million⁴⁰. This translates into roughly 10% of total content budget for these companies. This number is expected to go up to about 15% of their total content budget in 2021.

In addition to OTT platforms, traditional broadcasters are getting into the animated content space. Most national broadcasters like Viacom, Sony, Disney and Discovery have increased their focus on animated content in India, with other national and some local broadcasters also gearing up to launch original animated content.

Government incentives and schemes (both at central and individual state level) will be important for Indian companies to remain competitive

In February 2018, the Union Cabinet identified animation, under the audio-visual category, as one of the 12 champion sectors. As part of the champion sector categorization, the government has allocated a dedicated fund of INR50 billion for development of the 12 sectors.

Increased investments into building talent base will be seen

While Indian animators and post-production artists are technically at par with the best in the world, there are areas of specialization where there is room for improvement. Going forward, skills like storyboarding and storytelling for animated content and understanding the tone and complexities of characters for the global audience will become an important point of differentiation. If the segment can identify the right talent and train them appropriately, India could become a preferred destination for a lot of content creators. While Indian companies can continue to acquire foreign talent for these specialized services in the short term, institutes like Whistling Woods, etc. can design specialized courses to address the long-term requirements.



ONLINE GAMING

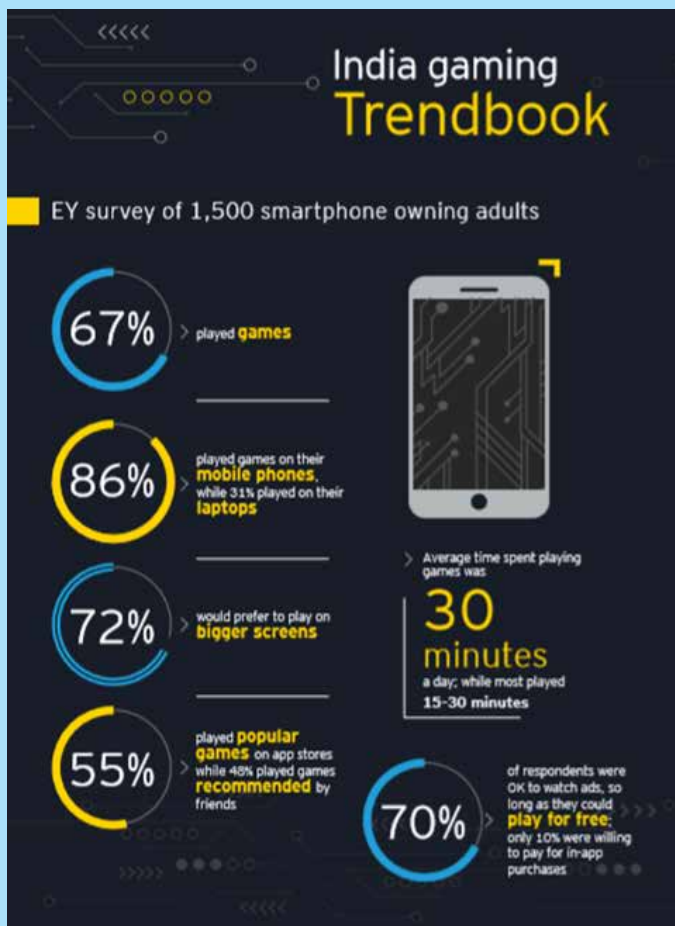
Key messages

Online gamers in India grew 52% to 278 million in 2018

- ☞ 5 billion game apps were downloaded in 2018, which accounted for 71% of total entertainment app downloads
- ☞ Time spent on gaming increased to over five hours per month on average
- ☞ India is now one of the top five markets for mobile gaming globally
- ☞ It has over 250 game development companies
- ☞ Overseas online gaming companies grew their presence in India

Both casual and real money gaming grew, resulting in the segment growing 59% to reach INR49 billion

- ☞ Casual gaming grew 40% to reach INR22 billion



- Real money gaming grew 82% to reach INR26 billion
- 80% and 95% of revenues were driven by advertisement and subscription for casual games and real money games respectively
- 8-12% of gamers paid to play real money games i.e., subscription or in-app purchases

The segment has proactively created self-regulating industry bodies like the AIGF and IFSG

Future outlook

- The segment is expected to grow at 35% CAGR to reach INR120 billion by 2021
- Fantasy sports can cross 100 million players within two years
- Multi-player gaming will continue to grow significantly, following the uptake of PUBG in 2018, subject to the quality of the IP created
- While the Chinese market is showing signs of saturation and regulator control, India will become the next key market for gaming companies and investors
- AR and VR gaming in India has the potential to drive growth of physical gaming zones in malls and common areas, but will remain a niche market product for now. India can become the AR / VR and casual game development factory of the world, if talent is nurtured and infrastructure is built
- 2019 will see the creation of large national gaming brand

2018 saw large investments in gaming hardware and software

Hardware makers are incorporating more features to enable a technologically enhanced experience in gaming. Acer is witnessing 20% growth y-o-y attributable to its gaming laptops and PCs. Asus, which currently occupies 22% share in the gaming PC market is also working towards offering high-tech devices to increase its market share in India⁹. Currently VR as a technology is picking up in outdoor entertainment areas in the form of VR rides in malls and VR lounges. It is believed that uptake of VR for mobile gaming will grow with a reduction in hardware cost.

India now has over 250 game development companies

Gaming companies are increasingly investing in cutting-edge technologies such as VR, AR, AI and block chain. AR games such as Pokémon Go have garnered significant positive response in India. India has progressed from being a back-end support for game development to developing high-quality games. The segment is on the rise with over 250 game development companies, up from 25 in 2010. And once again, this provides India with the opportunity to become a key game development center of the world, which can generate US\$2 billion by 2021¹⁰, if supported with adequate incentives and policy support.

The segment has proactively created self-regulating industry bodies

While the Indian government is yet to define regulations for online gaming, the industry is proactively forming self-regulatory bodies. Multiple gaming federations like the All India Gaming Federation (AIGF), The Rummy Federation (TRF) and the Indian Federation of Sports Gaming (IFSG) were formed with the goal to protect the interests of both operators and consumers in real money games. They provide a platform for operators to address key issues and present a unified front.

Federations have defined or are in the process of defining self-regulatory frameworks, laying down industry specific guidelines and adopting international best practices around fair play, responsible gaming, ethical advertising, online security and privacy, software integrity, user verification and complaint redressals.

To bring more credibility to the industry, the federations have started conducting third-party audits to ensure that operators follow the set guidelines.

FUTURE OUTLOOK

Fantasy sports can cross 100 million players within two years

Sports, particularly cricket, will drive the growth of fantasy gaming which can cross 100 million players within two years. Fantasy wrestling and kabaddi would see increased focus as platforms try to broad-base their appeal.

Multi-player gaming will continue to grow

Multi-player gaming will continue to grow significantly, following the uptake of PUBG in 2018, subject to the quality of the IP created. Higher per-user revenues can be realized with fiber based internet and streaming games.

Investor interest in Indian gaming will increase

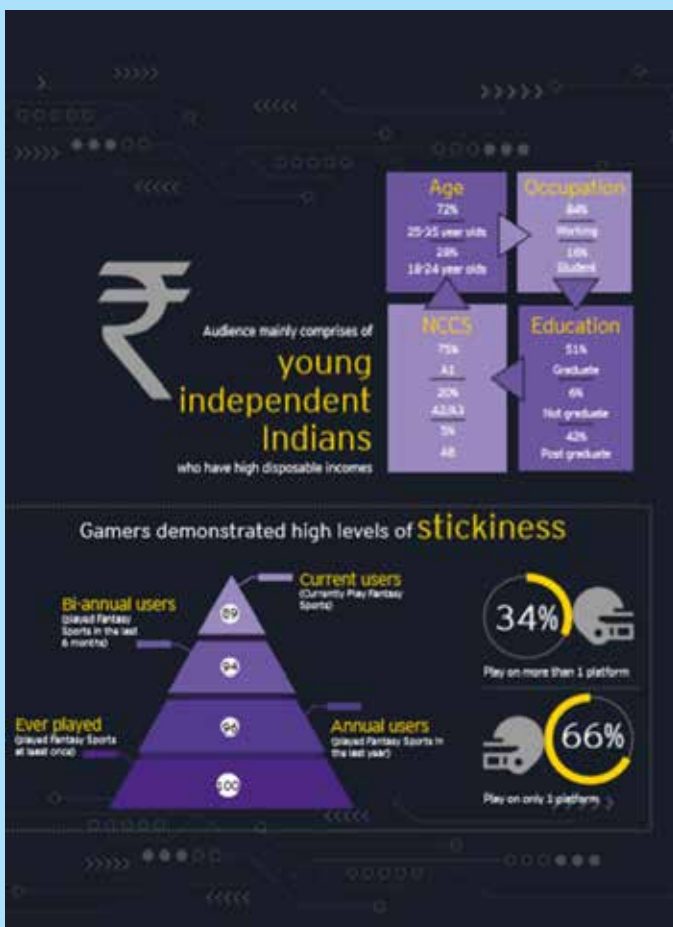
While the Chinese market is showing signs of slowing down and regulator control, India will become the next key market for investors, given the growth factors mentioned in this section. Indian gaming companies have already begun to attract investments.

AR and VR gaming can drive growth of physical gaming zones

AR and VR gaming in India has the potential to drive growth of physical gaming zones in malls and common areas, but will remain a niche market product for now. India can become the global AR and VR game development factory of the world, if talent and infrastructure is nurtured.

2019 will see the creation of large national gaming brands

Gaming companies are now set to establish brands to consolidate gamers who presently have a plethora of options to choose from in each game format. Each company wants to differentiate its product and market its unique selling point. New companies are investing towards marketing while majority of the existing online gaming companies we interviewed expected to spend higher amounts towards marketing.





ADVERTISING

Advertising landscape in India

Digital content consumption, convergence of technology platforms and direct to customer relationships are impacting the advertising agency landscape in India, giving birth to new revenue streams and competition from consulting technology companies. The focus is back on what agencies do best viz, create stories and communicate them effectively, which is driving the creative and media teams to work in tandem. While data provides an insight into consumer trends, creative skills are required to understand consumer sentiment and transform that into high-quality, immersive story-telling.

Majority of marketers were increasing their ad spends

The clamour for a cross-platform measurement metric increased

Audiences, globally and in India, are consuming content seamlessly across screens and media. While theoretically the only relevant cross-platform measurement metric would be ad impressions and the CPM for impressions would be determined by the sharpness of targeting, quality of platform, exclusivity of content, closeness to purchase point, etc. it has not been possible to implement cross-platform measures at an industry level yet.

Our survey with marketers showed that better measurement – and improved ROI on their marketing spends – was the most important priority in 2019, followed by the ability to interact directly with consumers.

The key reasons, however, for not being able to implement a common cross-platform metric include the preponderance of multiple measurement agencies – no single source of truth, lack of a consensus on what to measure and how to measure it, implementation challenges due to platform fragmentation, etc.

The Demand Gen 2018 Marketing Measurement and Attribution Benchmark Survey showed that the 87% of respondents felt that marketing measurement and reporting were a growing priority for their organization, while 58% stated that their current ability to measure and analyse marketing performance needed improvement. This is an increase of almost 10% compared to 2017.

Spends moved increasingly towards media with direct consumer connect

Advertising growth was led by digital, OTT platforms, online gaming and events – all of which are media where advertisers have a direct connect with consumers. As our forecasts show, we expect this trend to drive advertising investments going forward as well.

There was a move towards project based engagement

The agency-on-record concept has long been at risk and this year the move to project-based procurement of services increased further, particularly for creative agencies. The retainer-model was a way to save money on an annual budgeted spend and agencies used it to dedicate appropriate hours, strategies and assets to specific projects.

With procurement teams getting actively involved in pitch review and decision-making, marketing agencies are increasingly seeing the need to present proposals to two audiences – the brand marketing teams on effectiveness, creativity and brand objective and procurement teams on detailed cost break-ups, potential savings and cost improvement. According to data from Ubiquity, out of the 100 pitches it conducted last year, 54% of clients said the top criterion used was cost improvement, and 34% said it was “strategic vision and expertise”.

Processes were centralized

Given the consolidation in ad agencies across larger groups, 2018 saw increased efforts towards centralizing processes across group agencies – not just support processes but also mainline media buying and monitoring processes. We expect this trend to continue, and India can become a global back office for large agency groups.

DIGITAL ADVERTISING

Globally, digital advertising was led by technology and consulting companies

Accenture Interactive and PWC Digital Services lead the digital advertising agency business, combining media services with consulting, as clients demand more digital transformation services, of which digital advertising forms a portion.

In 2017, for the first time, four consultancies featured in Ad Age’s ranking of the ten largest agency companies in the world. With combined revenues of US\$13.2 billion, the marketing services units of Accenture, PwC, IBM iX and Deloitte sit just below WPP, Omnicom, Publicis Groupe, Interpublic and Dentsu. In 2016, only two consultancies— Accenture Interactive and IBM iX—made the top 10.



We expect to see similar trends in India as well, with clients increasing their focus on interacting with consumers before, during and after the sales process, which requires changes to internal processes and systems, marketing automation, advertising, customer data management, after sales service, loyalty programs and more.

Ad fraud mattered more

According to industry analyst firm Forrester, budget lost from fraudulent online ads globally is expected to reach US\$10.9 billion by 2021.

Common fraud types include generation of fake impressions, ads that do not get viewed while they play or the user scrolls, ads not viewed completely, incorrect audience profiling, specialized click farms, bot-based traffic, etc.

Our survey of marketers in early 2019 indicated that almost 80% were concerned about it while a third of them would spend more on digital advertising if ad fraud was appropriately managed.

The Financial Times recently warned advertisers of “jaw dropping” levels of fraud. It found display ad space on FT.com fraudulently offered by 300 accounts on 10 separate ad exchanges and video ads on 15 exchanges. The publisher claimed that it didn’t sell video ads programmatically and only used two platforms to sell its space.

Programmatic advertising made it possible to buy digital ad inventory across millions of websites with targeted placements and pricing based on demand and supply. eMarketer expects programmatic digital display ad spending to reach US\$45.94 billion by 2019. However, with rising ad fraud, use of ad-blockers and brand safety concerns, advertisers are asking agencies to give brand safety the utmost importance during campaign execution and are moving to performance-based metrics to evaluate digital campaigns.

In-housing the digital media buying function has begun

The growth of digital advertising and access to advertising platforms and the analytics they provide has prompted some clients to start in-housing their media buying processes.

17% of marketers surveyed by EY in early 2019 had in-housed some portion of digital media buying, while another 31% were considering it. While in-housing can lead to savings in agency commissions, particularly for smaller advertisers who are more focused on performance advertising, it may preclude access to leading practices and volume advantages that can be provided by larger agencies. This clearly augurs the need for agencies to redefine their digital media strategy and approach to managing digital spends. We expect more agencies to provide or partner to provide a consulting layer on their service offerings, blurring the line between advertising, consulting and technology. According to the In-House Agency Forum (IHAF) and Forrester Research, who co-fielded the new study, “State of In-House Agencies” for the American market, there is a 52% increase in penetration of internal agencies in the past decade. Some of the key reasons holding ground for continued agency engagement are:

- Agencies have deeper insights while in-house teams can observe only their own brand
- Agencies can drive collaborations and cross-pollination of learnings driving value exchange across their advertisers and partners
- Investments in agencies’ technological capabilities and tech platforms helps reduce advertisers’ need on buying third-party solutions in piecemeal



MESC CORPORATE MEMBERSHIP APPLICATION FORM

Facilities available to MESC members

- Access to certified skilled manpower
- Training and Certification of existing/new manpower
- Design of training programmes as per the requirements of the industry
- Networking Opportunities
- Newsletter/Journal
- Conferences and events of the MESC Sector Skill Council
- Role in designing the National Occupational Standards of the Sector
- Publication of member articles in MESC's publications circulated across the industry
- Policy Advocacy

Annual Membership Fees Rs 1,000/-

MEMBERSHIP FORM

1. Name of the Organization _____
2. Type ☐ Media House ☐ Animation/ VFX Studio ☐ TV, Film & Production ☐ Education ☐ Gaming ☐ Other (Pls specify)
3. Segment ☐ Small ☐ Medium ☐ Large ☐ Other (Pls specify)
4. Address for Communication _____
5. Phone No _____ Email Id: _____
6. Website (If any) _____

Single Point of Contact (for Organizations)

- Name _____
- Designation _____ Landline No _____
- Mobile No _____ Email Id: _____
7. Segment of interest ☐ Instrumentation ☐ Automation ☐ Surveillance ☐ Communication (Broadcast)
8. Mode of Payment ☐ NEFT ☐ Cheque ☐ Cash

Signature

Name of the Bank: UNITED BANK OF INDIA
Bank Account Name: MESC
Bank Account Number: 359018039336
Contact: +91 11 49048335 | 49048336

Branch IFS Code: UTBI0TNM709



PMKVY

प्रधानमंत्री कौशल विकास योजना

**“Let’s make India the
Skill Capital of the World”**

- Shri Narendra Modi
Honourable Prime Minister

PMKVY(Pradhan Mantri Kaushal Vikas Yojna) is one of the biggest project led by MSDE(Ministry of Skill Development and Entrepreneurship). The goal is to skill a huge number of Indian youth by providing industr related skill training so that they can achieve a better livelihood. The Short Term Training imparted at PMKVY Training Centres (TCs) is expected to benefit candidates of Indian nationality who are either school/college dropouts or unemployed. Apart from providing training according to the National Skills Qualification Framework (NSQF), trainings for soft skills, entrepreneurship etc is also being on the list. Individuals with prior learning experience or skills shall be assessed and certified under the Recognition of Prior Learning (RPL) component of the Scheme. RPL aims to align the competencies of the unregulated workforce of the country to the NSQF.

JOB ROLES offered by MESC
under PMKVY (Pradhan Mantri Kaushal Vikas Yojna)



EDITOR

ANIMATOR

ROTO ARTIST

HAIRDRESSER

SOUND EDITOR

MODELLER

MAKE-UP ARTIST

CHARACTER DESIGNER



Leading Media & Entertainment Training Partners



**Media & Entertainment
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Media & Entertainment Skills Council

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Film



Radio



Gaming



Media



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Television



Advertising



Digital



Print