

# Impact of Cable Television Digitization on the Revenue Model of Television Broadcasters

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## ABSTRACT

Broadcasters’ overdependence on advertisement revenues (their major chunk of subscription revenues being unfairly eaten by LCOs through rampant under-reporting) is a cause for concern for the whole Industry. With the advent of cable television digitization Broadcasters shall have a healthy mix of advertising and subscription revenue which shall wean them off of their heavy dependence on advertising revenues and thus Digitization is a landmark event for the financial and vibrancy of television industry.

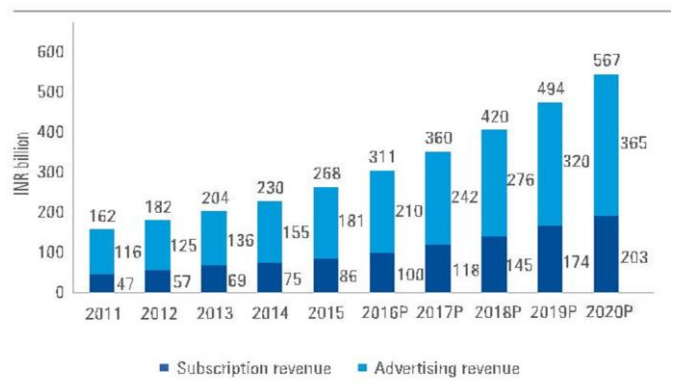
**Keywords :** Cable TV, Television, Digitization, Broadcasters, Revenue Model

## I. INTRODUCTION

### 1. Broadcasting

Television advertising revenue growth for broadcasters across genres in 2015 is better than expected, in spite of a high base in 2014 due to the general elections. The total Television advertising market is estimated to have grown at 17% in 2015 to INR181 billion, higher than the 13% projected in industry report last year. On the other hand subscription revenue growth for broadcasters continued to underwhelm, growing at an estimated 15% to INR 85 billion, lower than the expectations of 20% in the previous year’s KPMG report.

Going forward, Television advertising in India is expected to grow at a CAGR of 15% between 2015-20 to reach INR 365 billion. Subscription revenue for broadcasters is expected to grow at a CAGR of 19% between 2015-20 to INR 203 billion. This is expected to be driven by i) increase in the declared subscriber base in Phase III and IV, ii) increase in subscription revenues collected on the ground due to channel packaging and increasing HD penetration and iii) increase in revenue share of broadcasters in the subscription pie. The share of broadcasters in the subscription revenue pie is expected to grow from 24% in 2015 to 28% in 2020.



**Source:** KPMG-FICCI Indian Media & Entertainment Industry Report 2016: The Future -Now Streaming

**Figure 1.4.** Broadcaster Industry Size

### 2. Television Advertising Revenues

The Television advertising industry witnessed a 17% growth on the back of a strong economy; growing ad spends by E-commerce companies, contribution from cricket events and two important state elections (Delhi and Bihar). This is higher than industry’s expectations of 13% for 2015 in last year’s report.

Companies in the E-commerce space are said to have spent approximately INR 1,200 - 1,400 billion on advertising on Television in 2015, mostly on account of spends by popular sites such as Flipkart, Snapdeal, Jabong, Olx and Quikr. Several e-commerce companies launched Television commercials for the first time in 2014 and several more continue to do so in 2015, with

tier II E-commerce companies also stepping up their mainstream media ad spends. The benefit of ad spends growth from e-commerce companies was largely seen by Television channels, since the print industry did not witness a significant increase in ad spends from the sector. As per industry discussions, the Television advertising spend by E-commerce companies is expected to have grown at 80% in 2015, as they continue to invest heavily in customer acquisition and brand building. As a share of total Television ad spends, e-tailing category spends in Television advertising increased from approximately 3% in 2014 to approximately 5% in 2015, while total e-commerce spend on Television contributed to approximately 7% in 2015.

Sports continue to be a big driver of ad revenues on Television. The ICC Cricket World Cup is expected to have propped up Television ad spends, contributing INR 6 billion in Television advertising in 2015 (Sharma, 2015). And though IPL 2015 was expected to suffer from cricket viewership fatigue post the Cricket World Cup, both viewership and ad revenues were better than expected, with IPL estimated to have earned approximately INR 8.5 billion in 2015 (Dina, 2015). In 2016, as well, cricket events are expected to contribute significantly to ad revenue growth with IPL expected to see growth of ad revenues to INR 10 billion and ICC T20 world cup expected to earn INR 3 billion in ad revenues (Choudhary, 2016).

HD channels are also contributing significantly to ad revenue growth for some Broadcasters. Initially, HD channels were offered as premium ad-free channels and were completely dependent on subscription revenues. However, this has changed with broadcasters beginning to monetize HD channel feeds separately for ad revenues. Typically HD channel rates are higher due to the premium nature of HD channel viewers.

As per industry discussions, The FMCG category (including Food and Beverages, Personal and Household products), continued to contribute approximately 50% of the ad spends on Television in 2015. Baba Ramdev-promoted Patanjali Ayurved Ltd also emerged as one of the biggest spenders on Television as it seeks to establish itself as a serious contender in the Indian FMCG market. Patanjali is expected to have spent INR 3 billion (Mitra & Choudhary, 2015) on advertising on different media

between November 2015 and March 2016, of which a significant portion would have been dedicated to Television advertising. Patanjali started its Television advertising in November 2015 when the company launched atta noodles. Since then Patanjali has expanded its Television ad campaigns to seven product categories, out of the 30 product categories that it sells (Venugopal, 2016).

In 2016, the launch of 4G networks by Reliance Jio and the large incumbent mobile operators – Bharti Airtel, Vodafone and Idea – is expected to boost ad spends on Television. The 4G launch is also expected to result in higher ad spends by mobile handset companies.

## II. REVIEW OF LITERATURE

**Kemppainen (2012)** observed that the digitization of radio has taken place through changing terrestrial broadcasting delivery system from analogue to digital. But broadband and mobile reception technologies have now introduced new aspects to the digitization process. This process is increasingly guided by developments in technology and in the market, but public service broadcasting companies still have influence in it. All digitalization new initiatives face the same problem – the lack of reasonably priced receivers equipped with a multifunctional chipset to facilitate the transition. The role of programming content is also changing. The overflow of music on different platforms forces public service broadcasters to reconsider the content of their own broadcast offerings.

**Kim and Webster (2012)** observed audience behavior by examined the field in a different geographic context. It also provides implications to broadcasters and policy makers in Korea, where the government has stressed the social responsibility of the broadcasters and imposed strict programming regulations on both terrestrial and cable broadcasters. Although this study did not examine exposure to all the available news programs, the decreasing trend in weekday news viewing will be a huge disappointment to policy makers who emphasize the public duties of broadcasters. The results will also raise questions about how to deal with fragmented and polarized audience behavior, which seems to be an inevitable consequence of a choice-abundant media environment.

**Stephanie et al. (2012)** explored the impact of digitization on the Indian film industry clustered around the metropolis of Mumbai known as Bollywood. It examined the opportunities and challenges posed by the digital and Internet revolution and how industry players exploit these opportunities and surmount the challenges. The ideas presented in the article were first developed through discussions with Bollywood executives and media researchers based in Mumbai. Extensive secondary research of related academic and trade publications was then carried out for corroboration and validation. Three test cases of leading players in the Bollywood digital media-space are presented to corroborate the analysis. The article concluded that the challenges confronting Bollywood are a result of disruptions brought on by digitization: its impact on key stakeholders in the value chain, the moves made by these stakeholders to exploit digitization, the resultant pressure on other players in the value chain, and finally, the changes that affect existing business models. The study hence attempts to provide a snapshot of the sweeping changes transforming Bollywood as it embraces the disruptive innovation of digitization.

**Tainsky and McEvoy (2012)** explored television ratings from the 2006 and 2007 National Football League (NFL) seasons to estimate viewer demand in large markets without local teams. The factors that are found to be statistically significant and positively related determinants of television ratings are: team quality and age; the closest team in proximity to the market; late-season contests; and having teams such as the Cowboys and Patriots as participants. Concurrent game telecasts and contests involving unevenly matched teams are negatively related to viewership.

**Bourreau et al. (2013)** surveyed of 151 French record companies to test the “long-tail” hypothesis at the level of the firm. More specifically, it test whether, following the “selling less of more” principle coined by Anderson (2006), record companies that have adapted to digitization (at various levels: artists’ scouting, distribution, and promotion) release more new albums without having higher overall sales. it constructed a production function in which the output is produced from conventional inputs of labor and capital, as well as inputs that are more specific to the recorded music industry. It considered two types of output: a commercial output (albums sales) and a creative output (number of new albums released). It shown that labels

that have adapted to digitization are more efficient in respect of creative output, but that there is no effect of adaptation to digitization on the commercial output, which is consistent with the predictions of the long-tail hypothesis.

### III. RESEARCH METHODOLOGY

#### 3.1 Research Objectives

To examine the impact of Television Digitization on the revenue model of Television Broadcasters

#### 3.2 Research Hypothesis

There is no significant difference among respondent opinion (demographic-wise and stakeholder-wise) regarding the impact of Television Digitization on the revenue model of Television Broadcasters.

#### 3.3 Research Design

The present research being exploratory cum descriptive in nature, primary data has been collected from a sample of 350 respondents from diverse socio-economic backgrounds and regions from the National Capital Region using judgmental sampling technique through a structured questionnaire. A 5-interval Likert scale from Strongly Disagree (measuring 1) to Strongly Agree (measuring 5) has been employed to measure the psychographics (attitudes, interests and opinion) of respondents. Secondary data has been collected from diverse offline and online national/international research publications.

The **Research Instrument (Questionnaire)** finalized after conducting a pilot study and obtaining valuable feedback and suggestions comprises of 5 key research statements eliciting critical information from the respondents (apart from relevant demographic information having a bearing on their psychographic attitudes, interests and opinions).

#### 3.4 Research Tools

For hypothesis testing and analyzing significant difference Analysis of Variance test using General Linear Model (Univariate Analysis) was applied employing SPSS 20.

### IV. DATA ANALYSIS AND INTERPRETATION OF RESULTS

**4.1 Due to Digitization the Cable Operators shall not be able to under-report their subscription and unfairly cheat the Broadcasters.**

**Table 1.1: Univariate Analysis**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Model	5099.692 <sup>a</sup>	18	283.316	250.624	0.000
Gender	0.000	1	0.000	0.000	0.987
Residence	0.093	1	0.093	0.082	0.775
Occupation	6.255	2	3.127	2.767	0.064
Age	2.276	4	0.569	0.503	0.733
Education	2.491	3	0.830	0.734	0.532
Family Income	4.116	5	0.823	0.728	0.603
Type of beneficiary	34.075	1	34.075	30.143	0.000*
Error	375.308	332	1.130		
Total	5475.000	350			

Source: Primary Data

a. R Squared = 0.931 (Adjusted R Squared = 0.928)

\*Significant at 5% level of sig.

Table 1.1 points to the affirmation of the hypothesis (H<sub>01</sub>) by majority of respondents across categories as there is no significant difference in respondent opinion (gender-wise, residence-wise, occupation-wise, education-wise, family income-wise and age-wise) w.r.t. agreement with the research statement “Cable Television Operators in a DAS regime, being legally bound to transmit only digital signals, shall not be able to under-report their subscription and unfairly cheat the Broadcasters of their genuine share in the subscription revenue pie”, but there is significant difference w.r.t. type of beneficiary (p-value is less than 0.05).

The value of adjusted R Squared is 92.8%, which represents that percentage of variation explained by all variables. Additionally, taking into account the mean value (3.79) and S.D (1.128) along with little statistical difference among respondent opinion it could be concluded that the majority of respondents across categories validate the null hypothesis “There is no significant difference among respondent opinion (gender-wise, residence-wise, occupation-wise, age-wise, education-wise, income-wise, stakeholder-wise) regarding Cable Television Operators in a DAS regime being legally bound to transmit only digital signals and not being able to under-report their subscription and unfairly cheat the Broadcasters of their genuine share in the subscription revenue pie.”

**4.2 Each user being uniquely identifiable to the service provider shall help Advertisers/Marketers ascertain accurate patronage and preference patterns.**

**Table 1.2 : Univariate Analysis**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Model	6533.785 <sup>a</sup>	18	362.988	525.759	0.000
Gender	0.204	1	0.204	0.296	0.587
Residence	0.703	1	0.703	1.018	0.314
Occupation	2.009	2	1.005	1.455	0.235
Age	1.985	4	0.496	0.719	0.580
Education	4.964	3	1.655	2.397	0.068
Family Income	7.657	5	1.531	2.218	0.052
Type of beneficiary	11.547	1	11.547	16.725	0.000*
Error	229.215	332	0.690		
Total	6763.000	350			

Source: Primary Data

a. R Squared = 0.966 (Adjusted R Squared = 0.964)

\*Significant at 5% level of significance

Table 1.2 points to the affirmation of the hypothesis ( $H_{02}$ ) by majority of respondents across categories as there is no significant difference in respondent opinion (gender-wise, residence-wise, occupation-wise, education-wise, family income-wise and age-wise) w.r.t. agreement with the research statement “Each user in DAS network being uniquely identifiable to the service provider shall help Advertisers/Marketers ascertain accurate patronage and preference patterns of Television Audience for Broadcasters and their ‘Software’ (programming content)” but there is significant difference w.r.t. type of beneficiary (p-value is less than 0.05).

**4.3 Digitization shall bring in much-needed transparency and accountability by plugging the loophole of unfair sharing of subscription revenues.**

**Table 1.3 : Univariate Analysis**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Model	5539.530 <sup>a</sup>	18	307.752	352.968	0.000
Gender	1.036	1	1.036	1.188	0.277
Residence	0.205	1	0.205	0.235	0.628
Occupation	1.988	2	0.994	1.140	0.321
Age	2.920	4	0.730	0.837	0.502
Education	1.770	3	0.590	0.677	0.567
Family Income	4.287	5	0.857	0.983	0.428
Type of beneficiary	35.397	1	35.397	40.597	0.000*
Error	289.470	332	0.872		
Total	5829.000	350			

Source: Primary Data

a. R Squared = 0.950 (Adjusted R Squared = 0.948)

\*Significant at 5% level of significance

Table 1.3 points to the affirmation of the hypothesis ( $H_{03}$ ) by majority of respondents across categories as there is no significant difference in respondent opinion (gender-wise, residence-wise, occupation-wise, education-wise, family income-wise and age-wise) w.r.t. agreement with the research statement “Digitization of Cable Television shall bring in much-needed transparency and accountability by plugging the loophole of unfair sharing of subscription revenues among LCOs, MSOs and Broadcasters”, but there is significant difference w.r.t. type of beneficiary (p-value is less than 0.05).

The value of adjusted R Squared is 96.4%, which represents that percentage of variation explained by all variables. Additionally, taking into account the mean value (4.11) and S.D (0.938) along with little statistical difference among respondent opinion it could be concluded that the majority of respondents across categories validate the null hypothesis “There is no significant difference among respondent opinion (gender-wise, residence-wise, occupation-wise, age-wise, education-wise, income-wise, stakeholder-wise) regarding each user in DAS network being uniquely identifiable to the service provider helping Advertisers/Marketers ascertain accurate patronage and preference patterns of Television Audience for Broadcasters and their Software (programming content)”

The value of adjusted R Squared is 94.8%, which represents that percentage of variation explained by all variables. Additionally, taking into account the mean value (3.95) and S.D (1.022) along with little statistical difference among respondent opinion it could be concluded that the majority of respondents across categories validate the null hypothesis “There is no significant difference among respondent opinion (gender-wise, residence-wise, occupation-wise, age-wise, education-wise, income-wise, stakeholder-wise) regarding Digitalization of Cable Television bringing in much-needed transparency and accountability by plugging the loophole of unfair sharing of subscription revenues among LCOs, MSOs and Broadcasters.”

**4.4 Television Industry based on advertisement revenues, virtually all decisions for creating content is taken on the basis of viewers' preference patterns.**

**Table 1.4 : Univariate Analysis**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Model	6388.451 <sup>a</sup>	18	354.914	435.526	0.000
Gender	0.454	1	0.454	0.557	0.456
Residence	0.009	1	0.009	0.011	0.918
Occupation	0.222	2	0.111	0.137	0.872
Age	0.825	4	0.206	0.253	0.908
Education	2.107	3	0.702	0.862	0.461
Family Income	4.730	5	0.946	1.161	0.328
Type of beneficiary	14.494	1	14.494	17.786	0.000*
Error	270.549	332	0.815		
Total	6659.000	350			

Source: Primary Data

a. R Squared = 0.950 (Adjusted R Squared = 0.948)

\*Significant at 5% level of sig.

Table 1.4 points to the affirmation of the hypothesis ( $H_{04}$ ) by majority of respondents across categories as there is no significant difference in respondent opinion (gender-wise, residence-wise, occupation-wise, age-wise, education-wise and family income-wise) w.r.t. agreement with the research statement "Television Industry being run by and large on advertisement revenues, virtually all decisions for creating content are taken on the basis of viewers preference patterns", but there is significant difference w.r.t. type of beneficiary (p-value is less than 0.05).

The value of adjusted R Squared is 95.7%, which represents that percentage of variation explained by all variables. Additionally, taking into account the mean value (4.08) and S.D (0.973) along with little statistical difference among respondent opinion it could be concluded that the majority of respondents across categories validate the null hypothesis "There is no significant difference between respondent opinion (Gender, Residence, and occupation, Age, Education and Family Income-wise), regarding television Industry being run by the large on advertisement revenue, virtually all decisions for creating content are taken in the basis of viewers preference pattern."

**4.5 Broadcasters' overdependence on advertisement revenues is a cause for concern for the whole Industry**

**Table 1.5 : Univariate Analysis**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Model	4703.059 <sup>a</sup>	18	261.281	193.222	0.000
Gender	0.301	1	0.301	0.222	0.638
Residence	4.957	1	4.957	3.666	0.056
Occupation	0.926	2	0.463	0.342	0.710
Age	2.687	4	0.672	0.497	0.738
Education	5.314	3	1.771	1.310	0.271
Family Income	13.607	5	2.721	2.013	0.076
Type of beneficiary	182.360	1	182.360	134.858	0.000*
Error	448.941	332	1.352		
Total	5152.000	350			

Source: Primary Data

a. R Squared = 0.959 (Adjusted R Squared = 0.957)

\*Significant at 5% level of significance

Table 1.5 points to the affirmation of the hypothesis ( $H_{05}$ ) by majority of respondents across categories as there is no significant difference in respondent opinion (gender-wise, residence-wise, occupation-wise, age-wise, education-wise and family income-wise) w.r.t. agreement with the research statement "Broadcasters' overdependence on advertisement revenues (their major chunk of subscription revenues being unfairly eaten by LCOs through rampant under-reporting) is a cause for concern for the whole Industry", but there is significant difference w.r.t. type of beneficiary (p-value is less than 0.05).

The value of adjusted R Squared is 90.8%, which represents that percentage of variation explained by all variables. Additionally, taking into account the mean value (3.53) and S.D (1.502) along with little statistical difference among respondent opinion it could be concluded that the majority of respondents across categories validate the null hypothesis "There is no significant difference between respondent opinion (Gender, Residence, and occupation, Age, Education and Family Income-wise), regarding Broadcasters' overdependence on advertisement revenues (their major chunk of subscription revenues being unfairly eaten by LCOs through rampant under-reporting) is a cause for concern for the whole Industry."

## V. FINDINGS AND CONCLUSION

Majority of respondents across categories (gender, residence, occupation, age, education, family income and type of beneficiary) feel that Cable Television Operators in a DAS regime, being legally bound to transmit only digital signals, shall not be able to under-report their subscription and unfairly cheat the Broadcasters of their fair and genuine share in the subscription revenue pie. There was a huge loophole in the previous analog regime whereby Local Cable Operators used to under-report subscribers base on a massive scale adversely affecting the fair revenue share of Broadcasters. But with the advent of Digital Addressable System regime the malpractices can't be continued and Broadcasters could look forward to healthy subscription revenues.

Majority of respondents across categories (gender, residence, occupation, age, education, family income and type of beneficiary) feel that each user in DAS network being uniquely identifiable to the service provider shall help Advertisers/Marketers ascertain accurate patronage and preference patterns of Television Audience for Broadcasters and their Software (programming content). Now with the advent of DAS Advertisers/Marketers can know for certain the exact number of audience and their preference patterns of viewing popular channels, eliminating the guesstimate-based audience count and it is win-win situation for both Broadcasters as well as Advertisers/Marketers.

Majority of respondents across categories (gender, residence, occupation, age, education, family income and type of beneficiary) feel that Digitization of Cable Television shall bring in much-needed transparency and accountability by plugging the loophole of unfair sharing of subscription revenues among LCOs, MSOs and Broadcasters. In the previous analog era there was no transparency and accountability and Local Cable Operators used to fudge and under-report their actual client base which adversely affected Broadcasters' revenues. This loophole has been systematically eliminated with Digitization of cable television.

Majority of respondents across categories (gender, residence, occupation, age, education, family income and type of beneficiary) agree that Television Industry being run by and large on advertisement revenues, virtually all decisions for creating content are taken on the basis of viewers preference patterns. Television Industry like Print relies heavily on advertising revenue which forms the bulk of their earnings. This was a major impediment because television channels were caught in a mad-race for Television Rating Points (TRPs) and thus couldn't focus on quality content for the audience. This shortcoming shall hopefully be addressed with Digitization of cable television.

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