



## India Peoplemeter Update – VII



## I. Introduction

It may surprise many when we say that this is the third year of digital television data for the industry. While most of the spotlight on digital has come in recently, the process of analog to digital conversion really started with the implementation of Conditional Access System (CAS).

The conversion to digital platforms got a fillip when CAS was joined by Direct-to-Home (DTH) as the other major digital platform. We now also have IPTV. All these signals are received by a home through a Set-Top Box (STB). In the case of CAS, signals are still received through the cable operator. In the case of DTH, as the name implies, signals are received by satellite without cable operator intervention. In the case of IPTV, the signals are transmitted to the home by the IPTV service provider.

While TAM always measured viewership of digital homes, increased digital penetration has meant more digital homes in the panel. Consequently, with sample sizes in key markets crossing the reporting threshold, it is the right time to start reporting digital homes as a separate analysis target group.

**How does TAM estimate the size of the population having access to digital TV? How does TAM ensure that the panel is representative? How are digital platforms measured by TAM? These questions and more are answered in this document.**

As always, please feel free to contact us if you require more information, have any questions or wish to give us feedback on this document. All these could be addressed to your friendly neighborhood TAM representative or by writing to Pradeep Hejmadi at [pradeep.hejmadi@tamindia.com](mailto:pradeep.hejmadi@tamindia.com).

## II. What are we measuring?

The definition of “digital platforms” in the TAM context means those platforms that require a home to be equipped with a STB to receive TV signals. This definition includes CAS, DTH and IPTV platforms.

## III. What is the size of the digital universe?

Since the TAM panel is structured to be representative of the universe of TV owning households, the presence of digital homes in the universe is appropriately mirrored in the panel. TAM, therefore, has its own estimate of digital penetration. This estimate multiplied by the size of the TV universe

(projections based on NRS '06) gives us the absolute estimate of the size of the digital universe.

Apart from this panel-based estimate, we also commissioned an independent study to arrive at an external estimate of digital penetration – which could be used to validate the digital penetration in the panel. In fact, two such separate large scale surveys (Digital Establishment Surveys – DES) were commissioned by TAM in the past year and a half. The DES estimates of digital penetration were compared to the digital penetration estimates from our own panel. As may be expected, the two estimates were in line with each other.

Based on the experience of the last two DES rounds, the decision is to use panel penetration estimates and conduct DES every year as a validation measure.

#### Snapshots of the last DES.

Chart 1 overleaf captures each market's contribution to the digital universe (for example, Mumbai contributes ~30% to the ~7.5 million individual digital universe<sup>1</sup>) as well as the penetration of digital platforms in that market (Mumbai has a 15% penetration of digital platforms).

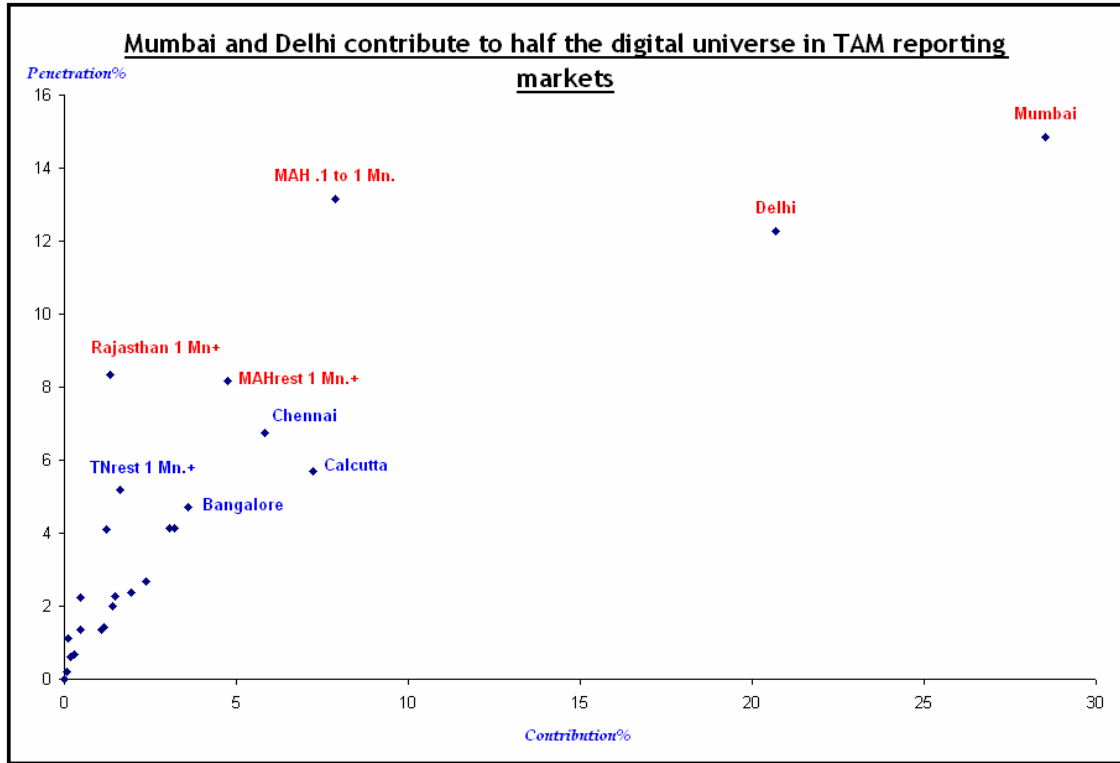
As may be expected, Mumbai and Delhi are the clear digital leaders accounting for 50% of the digital universe in the TAM reporting markets. Five reporting markets already have a penetration close to or more than 10%: Mumbai, Delhi, both Maharashtra strata and Rajasthan 1Mn+.

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<sup>1</sup> Based on Class I India

**Chart 1: Contribution-Penetration of digital platforms**



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Table 1 below gives us the penetration of digital platforms across SECs. As can be expected, in general, there is a descending order of digital penetration as one proceeds from SEC A to SEC DE.

Table 1

| Digital Penetration Estimates (%) |       |       |       |       |        |
|-----------------------------------|-------|-------|-------|-------|--------|
| Market                            | Total | SEC A | SEC B | SEC C | SEC DE |
| All India                         | 5     | 8     | 6     | 4     | 3      |
| <b>Top 6 metros</b>               |       |       |       |       |        |
| Mumbai                            | 15    | 21    | 19    | 14    | 10     |
| Delhi                             | 13    | 21    | 15    | 8     | 3      |
| Calcutta                          | 6     | 9     | 8     | 3     | 2      |
| Chennai                           | 6     | 7     | 7     | 6     | 5      |
| Bangalore                         | 4     | 7     | 7     | 2     | 2      |
| Hyderabad                         | 5     | 8     | 7     | 2     | 2      |
| <b>North</b>                      |       |       |       |       |        |
| PHCHP 1Mn+                        | 1     | 1     | 3     | 1     | 1      |
| PHCHP 0.1 to 1 Mn.                | 3     | 2     | 5     | 4     | 0      |
| UP 1 Mn.+                         | 2     | 2     | 2     | 2     | 1      |
| UP 0.1 to 1 Mn.                   | 4     | 5     | 2     | 4     | 6      |
| Rajasthan 1 Mn+                   | 13    | 15    | 25    | 4     | 3      |
| Rajasthan 0.1 to 1 Mn.            | 3     | 5     | 1     | 1     | 2      |
| Gujarat 1 Mn.+                    | 5     | 8     | 4     | 3     | 2      |
| Gujarat 0.1 to 1 Mn.              | 5     | 9     | 2     | 8     | 2      |
| Maharashtra_rest 1 Mn.+           | 10    | 17    | 8     | 7     | 6      |
| Maharashtra 0.1 to 1 Mn.          | 13    | 19    | 10    | 9     | 14     |
| MP 1 Mn.+                         | 5     | 6     | 3     | 8     | 4      |
| MP 0.1 to 1 Mn.                   | 2     | 2     | 2     | 0     | 2      |
| <b>East</b>                       |       |       |       |       |        |
| WB_rest 1 Mn.+                    | 0     | 0     | 0     | 0     | 0      |
| WB 0.1 to 1Mn.                    | 2     | 4     | 2     | 1     | 0      |
| Orisa 0.1 to 1 Mn.                | 3     | 5     | 3     | 2     | 2      |
| <b>South</b>                      |       |       |       |       |        |
| AP_rest 1 Mn.+                    | 4     | 11    | 3     | 1     | 0      |
| AP_rest 0.1 to 1 Mn.              | 2     | 2     | 2     | 2     | 1      |
| Karnataka 0.1 to 1Mn.             | 2     | 2     | 4     | 1     | 0      |
| Kerala 1 Mn+                      | 1     | 1     | 1     | 0     | 1      |
| Kerala 0.1 to 1Mn.                | 3     | 4     | 3     | 3     | 2      |
| TN 1 Mn.+                         | 6     | 6     | 3     | 9     | 6      |
| TN 0.1 to 1 Mn.                   | 6     | 4     | 8     | 7     | 6      |

*Data in red indicate that penetration is greater or equal to 10%*

*Data in blue indicate that penetration is greater or equal to 5% but less than 10%*

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#### **IV. How do we sample digital homes?**

One must underscore the fact that digital homes have been part of the TAM panel for a long time. The only thing that's changing now is that data from these homes will get reported separately.

A lot of care is taken to ensure the representative nature of the TAM Peplemeter panel. We ensure that proportions of key demographics are matched to that of the universe. Sometimes, some demographics are intentionally oversampled so as to give you additional samples for analysis. But these are statistically weighted to produce unbiased viewership estimates.

In the case of digital, each SEC in a market will have digital samples proportionate to the penetration of digital in the universe in that SEC. For example, if the SEC A demographic in Mumbai has a digital penetration of 21% that will also be the penetration of digital among sample homes in SEC A.

#### **V. How do we measure digital signals in a panel home?**

Digital signals are measured differently as compared to the regular analog signals. In the latter, the Peplemeter picks up the frequency of the TV channel that is being watched. A separate process links the frequency and the actual channel name.

Measuring digital is much more direct. We use state-of-the-art TVM5 Peplemeters from Switzerland that picks up broadcast transmission information and identifies digital TV channels. These meters are online meters. This means that data does not necessarily collected by visiting the home. The TAM system automatically collects the data using mobile or landline connectivity and makes it available for processing.

#### **VI. How do we project digital viewing onto the universe?**

This is done by a process called weighting.

##### **VI.1 Present weighting scheme**

Before we explain how digital weighting is handled, a brief background on what is weighting and how samples are weighted presently.

Weighting accomplishes two objectives:

1) Account for any over/undersampling

To ensure that users have enough samples to analyze the upper SECs, TAM oversamples these audiences<sup>2</sup>. Weighting is then used to ensure that the data is unbiased.

2) Project sample data to the universe

The Establishment Survey (ES) is used by TAM as a base to project sample data to the universe<sup>3</sup>. In doing the projection, we take care of the need to have fixed universes for commonly analyzed demographic breaks.

To achieve the above objectives, TAM operates with a weighting matrix that consists of the following weighting variables and their breaks:

| <u>Variable</u> | <u>Number of breaks</u> | <u>Breaks</u>           |
|-----------------|-------------------------|-------------------------|
| SEC             | 4                       | A, B, C, DE             |
| Access to cable | 2                       | C&S, NCS                |
| Gender          | 2                       | Male, Female            |
| Age             | 4                       | 4-14, 15-24, 25-34, 35+ |

This works out to be a 64-cell matrix consisting of combinations of the above variables. For example, one cell could be SEC A, C&S, Male, 4-14.

For each of these cells, the universe is fixed; source of which is the ES. It is only in two cases that the universe estimates for the same demographic in a market vary:

1) The analysis break is not identical to the weighting break

An example of this in the current system is the analysis age-group 4-9, part of the 4-14 weighting age-break. Universe estimates for the 4-9 age group are proportionate to the sample of 4-9 age-group individuals in the 4-14 group. Since this proportion may vary daily, the universe estimates may also vary.

<sup>2</sup> See India Peplemeter Update V

<sup>3</sup> See India Peplemeter Update VI

## 2) Adjustment of the weighting matrix

Every week before the weekly data processing, a check on the weighting matrix is undertaken. In some cases, the weighting matrix may be adjusted to increase precision of the viewership estimates. In such cases too the universe estimates may vary.

### **VI.2 Digital weighting scheme**

Given that digital is very likely to be commonly used break, we wanted to provide a fixed universe estimate for it as well. But there were challenges:

- 1) Extending the 64-cell weighting matrix further might lead to several small cells potentially leading to data instability.
- 2) Digital is a relatively fast growing medium. Thus fixing the digital universe for a whole year, as is commonly done, might not be a good solution.

To achieve a common ground between these conflicting challenges, the current weighting system was extended to digital in such a way that:

- 1) For commonly analyzed digital TGs, the universe size would be fixed as far as possible.
- 2) The universes will be fixed for a period of at least three months. These will then be reviewed and changed, if necessary.

The current weighting matrix has digital as a separate break in the C&S weighting variable. This results in extending the 64-cell matrix extending to a 96-cell matrix. To prevent the existence of small-sample weighting cells certain weighting cells were combined.

For example, in a particular reporting market, one may combine 'SEC C, C&S-digital, Male, 4-14' and 'SEC C C&S-digital, Male, 15-24' into 'SEC C, C&S-digital, Male, 4-24'. Now, if an analyst were to analyze 'SEC C, C&S-digital, Male, 4-14', the universe estimate for this TG would be proportionate to the proportion of 4-14 year olds in the 'SEC C, C&S-Digital, Male 4-24' TG. This proportion could vary as respondents leave and join the panel. Thus the universe estimate for the 4-14 TG could also vary. To avoid the problem of floating universes, we have tried to ensure that common user TG combinations (eg. Female SEC ABC 25-44) will produce fixed universes.

As with the present regular weighting scheme, the new weighting matrix is reviewed every week to refine the scheme.



## **VII. How are homes classified as digital homes in the TAM database?**

A home that has taken a permanent digital connection is classified as a digital home right away. In the case of multiple TV sets, each set could receive TV channels through a different platform. To decide the classification, the home classification hierarchy is set as Digital C&S, Analog C&S and NCS in descending order.

Take an example of a home that has two TV sets. It receives C&S channels through a STB on one TV set and from the cable operator without any STB on the other. This home is classified as a digital home. This is consistent with the treatment of a home that receives C&S channels on one TV set while the other is only terrestrially connected - this is classified as a C&S home.

## **VIII. How can digital data be analyzed in the TAM software?**

### **VIII.1 Digital reporting breaks**

Currently, we analyze data on two fundamental access-to-cable splits: C&S and Non-C&S. In the present scheme, C&S gets split into:

1) C&S – Digital

All those homes that receive TV channels through a STB. These would include CAS, DTH and IPTV homes.

2) C&S – Analog

All homes that receive C&S channels without a STB, the regular cable-operator provided cable connection without a STB.

The new splits can be used just the way the usual demographics are used currently. For example, you can create an audience like “SEC A, Digital C&S, 15+, Male” by ticking the options as seen in the screenshot overleaf:

The screenshot shows the 'Audience' configuration screen in the TAM software. The top navigation bar includes 'Analysis', 'Markets', 'Channels', 'Audience' (highlighted), 'Dayparts', and 'Process'. The main interface is divided into several sections:

- TG Category:** Includes 'Pre Defined TG' and 'User Defined TG' tabs.
- Age:** A list of age ranges with checkboxes: 4 - 9 Years, 10 - 14 Years, 15 - 24 Years, 25 - 34 Years, 35 - 44 Years, 45 - 54 Years, and 55 & Above Years (selected).
- SEC:** A list of service categories with checkboxes: SEC A (selected), SEC B, SEC C, and SEC D/E.
- Access:** Radio button options: All, Cable and Satellite, CS Digital (selected), CS Analog, and Non Cable and Satellite.
- Sex:** Checkboxes for Male (selected) and Female.
- Bottom Right:** 'Select All' checkbox, 'Save Definition' button, and 'Next TG' button.

## VIII.2 Reach and Frequency runs

Special note has to be made with respect to R&F runs. Assume your planning period is September 1<sup>st</sup> to September 30<sup>th</sup> and you were running an R&F analysis. For any such analysis, it is important to take a common sample of respondents. TAM does this by taking all those sample respondents who reported data on the middle-day of the analysis period, in this case September 16<sup>th</sup>.

But a home could have taken a digital connection at any point in time in this period and thus would be labeled as a digital home from that point onwards. There are two situations:

- The home takes a digital connection on or before September 16<sup>th</sup>  
In this case, the home is treated as a digital home throughout the analysis period.
- The home takes a digital connection after September 16<sup>th</sup>

In this case, the home is treated as a C&S-analog home for the analysis period.

In other words, the homes' status on the middle-day of the analysis period will determine the way the analysis software handles the respondent status.

## IX. Conclusion

Markets like Mumbai already have a 15% penetration of digital platforms. The overall nation-wide penetration of digital TV is also set to grow fast. As the penetration of digital platforms increase, this particular target group will receive greater attention. TAM now equips you to take the first steps in understanding this group of consumers and drive your business.

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Version history:

V1.1: Chart of contribution-penetration based on TAM reporting markets and explicitly mentioned so in the text.