



The Broadcasters Research Council
Johannesburg
South Africa

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Report on the TAMS status August 2015

Robert Ruud from 3M3A Ltd. has made a comprehensive check on the South African TAMS. This has been a follow up of work that started a year ago with BRC as the client. The broadcasters have also used Robert Ruud for auditing before the establishing of BRC and 3M3A.

The points reviewed during this “TAMS panel health check”, were:

- Review of 2014 audit projects
- Review of Universe Update 2014B
- Load-shedding causing problems for universe estimates and calculations
- Improving household weighting efficiency
- LSM weighting and changes
- Readiness of TAM panel for DTT
- Initial thoughts Gold standard

The 2014 audit projects follow up

The 2014 audit led to a few projects to be followed up over time. These were:

Focus on difficult to recruit groups

As we see in the tables below the three groups of households “Rural”, “LSM 1-4” and “DSTV PVR” have been underrepresented in the panel, and special focus has been on trying to get the number of households in these categories closer to the ideal distribution given by the distribution found in the Establishment Survey (ES)

We see that there is improvement in all three groups from August 14 to August 15. The imbalance in the rural category has been removed, and the difference is now within the accepted tolerances. For the LSM 1-4 group there has also been improvement, but it is still off for reasons we will come back to. The DSTV PVR category is also improved, but still not within the tolerances. The increase in the DSTV PVR ideal number in the last year has also made the task of correcting the panel difficult.



Table 1. Difficult to recruit groups status 2014 vs 2015

RURAL

Date	Universe	Panel Size	Disproportionate Sample Target	Actual Installed	Difference	Index
Aug-14	2013A	2668	560	506	-54	-9.6%
Aug-15	2014B	2690	591	601	10	1.7%

LSM 1 - 4

Date	Universe	Panel Size	Disproportionate Sample Target	Actual Installed	Difference	Index
Aug-14	2013A	2668	320	106	-214	-66.9%
Aug-15	2014B	2690	345	181	-164	-47.5%

DSTV PVR

Date	Universe	Panel Size	Disproportionate Sample Target	Actual Installed	Difference	Index
Aug-14	2013A	2668	214	163	-51	-23.8%
Aug-15	2014B	2690	255	220	-35	-13.7%

The auditor is satisfied that the focus is on improving the balancing of the difficult to recruit groups, and that improvements have been significant in the last year.

Gradual removal of households older than 8 years

During the meeting a year ago, a plan was implemented to steadily remove households that exceed a tenure of 8 years, by 1 January 2016.

Good progress has been made: Out of the 542 households identified for removal, 313 have been de-installed. However, the Nielsen fieldwork department is behind schedule due to a shortfall in weekly removal quotas. Rather than increase the ratio of removals, it is recommended that the rule of 8 removals per week be maintained and the deadline extended to mid-Feb 2016. This follows the rule of minimizing disruption to the TAM panel.

92 percent of the panel is now less than 8 years old, compared to 85% a year ago. The group with more than 10 years panel tenure is now down from 12 to 4,3 percent.

Table 2. Distribution of time on the TAMS panel August 14 vs. August 15

	0-8 years	8-10 years	More than 10 years
August -14	84,8%	3,2%	12,0%
August -15	92,0%	3,7%	4,3%



The auditor agrees with the prolongation of the replacement period for older households. The most important consideration is the stability of the panel. The considerable number of households with tenure longer than 8 years that we saw last year, will be gone in mid-February 2016.

The KPI monitoring system

Since last august, a system for monitoring a number of KPIs has been in place. The system is updated weekly by Nielsen, and the BRC technical committee get an update of the numbers every 5 weeks.

Table 3. Monitoring of central TAMS KPIs

KPI Panel Health	August 2013	August 2014	August 2015
Installed Panel	1980	2658	2667
Polling	87%	95%	94.5%
Reporting (Intabs)	76%	90.9%	89.8%
Weekly Cume Reach	80%	96.5%	96.4%
Coverage of TV sets	80%	89.3%	92.8%
Ind. Weighting Efficiency	41.5%	64.9%	79.5%
HH Weighting Efficiency	52%	54.5%	65%
Ind. Maximum weight	99,000 (capped)	40,860	22,618
Late delivery of viewing data		5	3
TV Event coding errors (July 2015)			34 (0.004%)

The panel has grown quite a bit in the period shown, from 1980 households to just under 2700. Work is going on now to bring it to 2900 by the end of the year.

Polling and reporting has gone up from levels that were not in line with panels internationally in 2013, to becoming a panel with levels of polling and reporting on level with any other high quality TAM system known to the auditor. 95% polled and 90% reporting is in line with many other TAM systems.

The weekly Cume Reach of TV sets of more than 96%, means that almost all installed meters report data at least once a week.

The individual weighting efficiency has also gone up significantly and ensured that the data coming out of the TAMS are stable and have small error margins.

The weighting efficiency describes how close the actual panel profile is to the ideal described in the ES. A panel that consists of the same profile individuals and households as the ideal described in the ES, will need less weighting span. (If the panel was a perfect mirror of the Ideal, every panel member would have the same weight – just add them up and get the projected universe. In real life of course we have too many of some and too few of others. Then we need to give them different weights to fit the panel to the ideal.)



All KPI's are steady or are improving, and all KPI scores meet TAM contract levels. The TAM Technical Committee meets every 5 weeks to inspect panel health and KPIs

The KPI monitoring system is well in place and works like it should.

Review of Universe Update 2014B

All relevant targets have been checked for any instability and irregular changes caused by the updating of the universe projections from 2014A to 2014B.

The auditor recommends going ahead with the update.

Load-shedding causing problems for universe estimates and calculations

The scheduled and unscheduled load shedding that takes place in South Africa causes problems for the TAMS.

During load shedding, the available audience is reduced.

This is not picked up by TAMS, leading to ratings calculated against a national universe that is larger than the technical universe (the universe of people that have access to the broadcast)

The solution to the problem is to keep the weighting of the panel as it is, but to make a possibility to filter only the households that are in the available audience.

Nielsen will implement the following:

- A load shedded household will be defined as a household where power has been off for a period of 2 hours or more during Prime Time.
- These households will be marked on a daily basis – with a demographic flag that can be accessed as any other demographic in the Arianna, Telmar and other end user tools.
- Nielsen will produce the daily flagging by checking the individual meter logs for the codes indicating power off and power on during Prime Time with a minimum power break of two hours between them.
- There will be no weighting of any kind of the load shedding variable. It will describe how many households in the panel have been load shedded on the reported day, following the rule above.

The implementing of the system in the central Nielsen data processing system, will take 6 months.



The auditor believes Nielsen has the right approach to TAMS problems with Load Shedding. The concept of “available audience” is what should be measured. At the same time, the panel needs to be balanced on a national level.

The load shedding variable will be tested and followed up by the auditor in future work for BRC.

Improving household weighting efficiency

The household weighting efficiency has increased in the last three years as Table 3 clearly shows. It is however still below the internationally accepted minimum of 70%.

South African media stakeholders in any media are currently discussing the role of the LSMs in future media surveys. (More about LSMs below)

The TAMS weighting model is a two-step model that does the weighting on household level before doing the weighting on individual level. This two-step procedure ensures the correct weights to project the data both to household and individual level universes.

The two weights are of course linked, so that changes in the household level weighting model may affect the individual level weighting. This effect will be stronger the higher the changed variable is correlated with TV usage.

Since it has been established by Niensens work (below) that the LSM system is not a very good system for segmenting members of a panel over time, there was reason to think that changes to the LSM on household level would not influence the individual weighting in any special direction. (There are multiple reasons not to believe LSMs are highly correlated with TV usage)

The test made during the visit was with 1 day only, but showed the following.

- 1) There is no effect at all on the individual weighting if LSMs are removed from the household weighting.
- 2) The efficiency for the household weighting itself is improved significantly if LSMs are removed from the household weighting. For the one tested day the efficiency increased from 65% to 73% just by removing this element.

Nielsen will make further tests and if the results are consistent, the LSMs will be taken out of the household weighting from the update to 2014b.

The removal of the LSM from the household weighting is in line with the ongoing work to simplify the TAMS weighting and make the panel more efficient. The auditor fully supports the removal of LSMs from the Household weighting.



LSM weighting and changes

The LSMs are not suited for a panel that follows the same people over time. (Longitudinal studies)

There is large social mobility in general in South Africa, and there is also great mobility in and out of households. Relatives moving into a household, and bringing new appliances will change the LSM of the household.

Nielsen have analyzed panel households over time and find that from January to June 2014, 22 percent of households have changed LSM category. The same analysis for January to June 2015 show exactly the same result. This is an ongoing process. If we suppose that the rate of change is the same from July to December, almost half the households in the panel change their LSM level in one year.

The general pattern of movement is towards the middle, the lower LSMs rise and the higher LSMs fall.

Jun-14									
Jan-14	LSM 3	LSM 4	LSM 5	LSM 6	LSM 7	LSM 8	LSM 9	LSM 10	MOVED OUT OF
LSM 3		1		1					2
LSM 4	1		22	9	1				33
LSM 5	1	14		80	5	3			103
LSM 6		1	47		78	15	5		146
LSM 7		1	2	48		48	12	1	112
LSM 8				6	32		28	3	69
LSM 9					7	19		14	40
LSM 10							17		17
MOVED INTO	2	17	71	144	123	85	62	18	522

Jun-15									
Jan-15	LSM 3	LSM 4	LSM 5	LSM 6	LSM 7	LSM 8	LSM 9	LSM 10	MOVED OUT OF
LSM2									0
LSM 3		8	1						9
LSM 4	8		42	6					56
LSM 5		25		89	8	1			124
LSM 6		1	41		86	12	2		142
LSM 7			2	30		46	21		99
LSM 8				2	34		26	3	65
LSM 9					4	19		18	41
LSM 10							16		16
MOVED INTO	8	34	86	127	132	78	65	21	551



The analysis by Nielsen shows very clearly that the LSMs are not as stable as they need to be in order to be in the weighting RIMs. The removal of the LSMs from the household level weighting is a first step, and as soon as the individual LSMs are no longer a trading target they should also be removed from the individual level weighting. For as long as LSMs are used as trading targets, they need to be kept stable through weighting.

The LSMs are not suited for longitudinal studies and should be removed from the weighting and the TAMS as soon as possible.

Readiness of TAM panel for DTT

South Africa will start the transition to DTT by switching off analog signals from December 2015. The switch off starts in Northern Cape and will take up to 18 months before all regions have switched to DTT.

Technically the auditor has no concern, the Nielsen TVM5 works in a large number of TAM services in countries where DTT is already the standard.

The immediate concern for TAMS is that in order to pick up the viewing of specific “DTT only” broadcasting in the regions that have made the transition, the panel needs to have enough panel households in the region.

Nielsen will present a scenario of available households in each of the regions, in order to plan the necessary buildup of the panel in these areas.

There is already an ongoing buildup of the panel to 2900 households, and the auditor will recommend building the panel to a total of 4000 households as a next expansion.

The increasing opportunity and availability for niche and special interest channels is bound to happen in South Africa in the same way as in all other countries that have made the analog switch off / digital switch over elsewhere. This will make a fragmented TV market that is difficult to measure even with very large TAM panels.

For the future BRC and Nielsen should also look into hybrid measurement solutions taking advantage of multiple sources of viewing information on both broadcast and online viewing.

TAMS needs to be increased in the regions where the Analogue Switch Off will happen first. There needs to be a sufficient number of households able to pick up the DTT broadcasts as they are rolled out.



Initial thoughts Gold Standard

A Gold Standard for TAMS can be understood as different things.

- 1) An agreed way of calculating all measures so that all end user software offerings in the market will produce the same numbers.
- 2) A standard for what is understood to be the central areas of TAMS, and how these should be implemented across different suppliers. If there is a given Gold Standard BRC can choose suppliers of different parts of the TAMS as long as they deliver services according to the Gold Standard.

TAM software packages are developed for international use. There are usually scripts or switches in the software that can be set to make the calculations happen according to local agreements. There are different standards in different markets, and it is hard to rank these as they are usually the result of local needs or local (historical) standards.

A Gold Standard for TAMS in general would give standards for every element of the service:

- ES Methodology
- Best research practices
- Estimation of Universe
- Recruitment procedures
- Balance of the panel
- Weighting process
- Peoplemeter technology
- Panelist compliance
- Panel maintenance
- Data Cleaning
- Data Processing

In specifying a new contract, all of these elements would be given KPIs, penalty clauses etc.

There was agreement in the BRC meeting to let this be a project for the future, and concentrate time and money on building up and getting ready for the DTT switchover.

The auditor agrees that a Gold Standard is a good idea which should be implemented in the future. However, most of the points in the Gold Standard already hold very good levels. The TAMS panel is at this time a well-run, well balanced panel, and a panel with quality levels as good as the standards found in European TAM operations.



South African TAMS has been transformed in the last couple of years. The regular, often day to day, cooperation between BRC and Nielsen has given KPI scores and results that were far out of reach in 2013.

The combination of Clare O'Neils vision and clear direction and Candice Ulrichs' strong ability to implement many difficult changes at the same time has given South Africa a high quality well-functioning TAMS panel in record time!

Oslo, September 7th 2015

Robert Ruud