ECONOMETRIC MODELLING STUDY

3 FMCG BRANDS

June 2015
INTRODUCING MAPP
MAPP - BREAKS DOWN MAGAZINE METRICS TO WEEKLY DATA

- Allows weekly breakdown of readership data based on actual reach curves
- Provides performance estimates for each issue of a title
- Mainly for econometric modelling studies
- mapp’s metrics are based on an algorithm using currency readership (Emma or Roy Morgan) and sales estimates from publishers
HOW DOES IT WORK?

**Inputs**
- Early sales scan data or final sales estimates for each new issue of approx. 32 titles
- Recent audience trend. Seasonality. Derived RPC
- Accumulation curves to distribute reach week-by-week

**Outputs**
- Forecasted ‘Real-time’ reach for current issues (approx. 32 titles)
- Gross ratings distribution week-by-week
- Updated at least weekly

*Based on Emma June 14 readership*
RESEARCH OBJECTIVES

**Hypothesis:** Magazine media is being under-represented in Marketing Mix Models due to traditional magazine data inputs inaccurately representing how readership builds over time and drives sales.

Magazine Publishers Australia have invested in the collection of superior Magazine readership data by title which more accurately reflects the true way in which viewers engage with magazines.

**Objectives:**

1. To compare the result of two Marketing Mix Models representing two different sources of magazine data inputs:
   a) MAPP Readership (curve applied)
   b) Monthly Readership

2. To understand ways Magazine Publishers can unlock opportunities for advertisers in the activation of magazine advertising

*MAPP Readership Data: Source MPA*
MARKETING MIX MODELLING
MARKETING MIX AND MULTI TOUCH ATTRIBUTION MODELS ARE BECOMING THE NORM TO ASSESS MEDIA ALLOCATIONS

But as with most things in life, the devil is in the detail
IT IS IMPORTANT THAT THE MODEL DATA INPUTS ARE TIME ALIGNED WITH THE SALES OUTCOME

*The model is looking for a relationship between sales and activity*

- Example Data Inputs TV GRPs: Gross Rating Points
- Example: Media Laydown for TV
- Example: Actual Sales Data of Advertiser’s Product

• Example Data Inputs TV GRPs: Gross Rating Points
THIS HAS TRADITIONALLY NOT BEEN THE CASE FOR MAGAZINE INPUTS

Monthly averaged data will always struggle within a weekly time series data set.

- Average readership or circulation figures do not reflect the way that audiences are exposed to magazine advertising over time.
- In the absence of accurate exposure data, modellers will model the next best available source.
MAPP READERSHIP IS A TIME ALIGNED DATA SOURCE FOR MAGAZINES

Transforming data is a familiar concept within modelling
THREE BRANDS WERE MODELLED USING BOTH MAPP READERSHIP & AVERAGE READERSHIP

Leading aircare
Leading healthcare
Leading household cleaner
MARKETING MIX MODELLING

WHAT DOES THE CONTRIBUTION OF MAGAZINE ADVERTISING LOOK LIKE?
MEDIA CONTRIBUTION FOR THE MODELLED ITEMS IS IN LINE WITH FMCG NORMS

Contribution To Sales | Aggregated Total Brands

Total Period MAPP Readership Model

Nielsen Australian Norms: Media Contribution at 5%

- Media
- Trade
- Base

- Charts show aggregation of three brands and three periods modelled: Air Freshener 5.5%, Health Product 5.4%, Household Cleaner 5.3%
- Contribution of all media and print on par with modelled norms for Australia
- Model 2 Monthly Readership data media contribution measured at 4.46%
MEDIA CONTRIBUTION TO SALES REVENUE INCREASED FROM 4.5% TO 5.2% BY MODELLING MAPP READERSHIP

The client had been underrepresenting the value of their media investment by 16%
WITH MAPP READERSHIP DATA IT IS NOW RECOGNISED THAT MAGAZINES DELIVER MORE VOLUME THAN DIGITAL

Unsurprisingly poor decisions get made when the wrong data inputs are used

Contribution to Total Media | Aggregated Total Brands
Total Period

- Facebook
- Online Video
- Outdoor
- Digital
- Magazine
- TV

• Chart shows aggregation of three brands and three periods modelled
• Magazine drives 10% – 23% of 5.2% of media driven sales
MAGAZINE IS THE SECOND HIGHEST CONTRIBUTOR TO SALES REVENUE

Sales Revenue Contribution | Aggregated Total Brands

Total Period

- $40m
- $16m
- $8m
- $4m
- $2m
- $1m

- TV
- MAPP Readership
- Digital
- Outdoor
- Facebook
- Online Video

- Aggregated ROI for all three brands modelled, results shown for MAPP Readership model
THE TIME ALIGNMENT IN MAPP READERSHIP INPUTS DROVE SIGNIFICANT IMPROVEMENTS IN MAGAZINE ROI

The ROI changed by 168%
AS A RESULT OF BETTER DATA INPUTS, THE CLIENT POTENTIALLY MAKES A VERY DIFFERENT INVESTMENT DECISION

The scale of the change and overall ranking will vary by category

- Aggregated ROI for all three brands modelled
ROI ON ADVERTORIAL VS NORMAL PLACEMENTS...

ROI by Ad Type | All Brands

<table>
<thead>
<tr>
<th>Total Period</th>
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</thead>
<tbody>
<tr>
<td>Advertorial</td>
</tr>
<tr>
<td>$1.11</td>
</tr>
<tr>
<td>Normal</td>
</tr>
<tr>
<td>$0.96</td>
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<tr>
<td>Advertorial</td>
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<tr>
<td>$1.27</td>
</tr>
<tr>
<td>Normal</td>
</tr>
<tr>
<td>$1.28</td>
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<td>Advertorial</td>
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<tr>
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<tr>
<td>Normal</td>
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<td>$1.28</td>
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</tbody>
</table>

- Advertorial
- Normal

<table>
<thead>
<tr>
<th>Advertorial</th>
<th>Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educate</td>
<td>Execute cross channel</td>
</tr>
<tr>
<td>New usage occasion</td>
<td>Brands with high awareness</td>
</tr>
<tr>
<td>New idea</td>
<td>Use as a reminder</td>
</tr>
<tr>
<td>Drive product engagement</td>
<td>Low engagement required</td>
</tr>
</tbody>
</table>

- ROIs shown from the MAPP readership model. The same pattern was observed in the monthly readership model
ROI ON PLACEMENT...

ROI by Position | Total Brands

Total Period

Front Middle Back

$1.39 $1.40 $1.43

Effectiveness by Position | Total Brands

Total Period

Value

• ROIs shown from the readership model. The same pattern was observed in the circulation model
• Effectiveness = Sales Value driven per 1000 readership

The role of Front Page

Make an impact
Drive volume
Build awareness
IN THE CORRECT FORMAT...

ROI by Ad Size | Total Brands

<table>
<thead>
<tr>
<th>Total Period</th>
<th>ROI</th>
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<tbody>
<tr>
<td>Small</td>
<td>$2.27</td>
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<tr>
<td>Half Page</td>
<td>$1.61</td>
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<tr>
<td>Full Page</td>
<td>$1.28</td>
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<tr>
<td>Double Page</td>
<td>$1.01</td>
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Effectiveness by Ad Size | Total Brands

<table>
<thead>
<tr>
<th>Total Period</th>
<th>Effectiveness</th>
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</thead>
<tbody>
<tr>
<td>Value</td>
<td>24</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>78</td>
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</tbody>
</table>

- Effectiveness = Sales Value driven per 1000 readership
HOW CAN WE FURTHER IMPROVE THE ABOVE MEASURES IN THE ACTIVATION OF MAGAZINE ADVERTISING?

BY LEVERAGING MEDIA CHANNEL SYNERGIES
LAYER SYNERGISTIC CHANNELS TO INCREASE SALES DRIVEN BY MEDIA

Synergy Contribution % | Magazine + Other Media
Total Brand | Total Period

Print
Television
OLV
Dig Disp
18%
15%
12%

Online Video
TV
OLV
Dig Disp
13%
8%
12%

Print
TV
OLV
Dig Disp
13%
13%
18%

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MAGAZINES ARE THE PERFECT COMPLIMENT TO TV!

When Magazines and TV are layered together, TV’s ROI improves by 18%
An optimised magazine schedule has incremental revenue potential of $24m

This represents an increase in total sales value of 2.5% over 3 years
SUMMARY

When modelled with MAPP readership data the contribution of magazine to total media contribution improved from 10% to 23%

When modelled with MAPP readership data total ROI improved 168%

Across the three brands modelled optimisations made possible by the MAPP readership data are worth approximately $24m* in incremental revenue opportunity across 3 years

• Equates to 2.5% shipment sales value of the three brands modelled over three years
MAGAZINES KEY THOUGHTS

• Start using MAPP data in modelling studies
• Focus less on reach/circulation and more on response
• Think about the synergies between mediums