Big Audio
DATAMINE

What big data tells us about how radio advertising helps brands create and convert demand.

RADIOCENTRE

colourtext

Introduction

This study examines what can be learned about radio effectiveness using a meta-analysis of data taken from the results of over a thousand radio effectiveness studies carried out on behalf of individual advertisers.

The analysis offers a particular focus on how effectively the medium can help create new demand and/or convert existing demand for a brand.

Conducted by independent data analysis agency Colourtext, the study also explores how these effects can be maximised through creative development and media planning strategies.

Contents

Key take-outs

Radio consistently delivers significant uplifts for advertisers across a wide range of long- and short-term effectiveness outcomes.

1. **Radio helps CREATE FUTURE DEMAND,** increasing awareness by an average of around **50%**, and building positive brand sentiment by an average of up to **32%** (depending on the specific measure).

2. **Radio helps CONVERT EXISTING DEMAND,** increasing purchase consideration by **18%** and stimulating online search among **21%** of those who recall hearing the radio ad.

3. **Radio helps INCREASE EFFICIENCY of media plans**
    The additional impact that radio delivers for advertisers far exceeds its average share of total media spend, enhancing efficiency of media plans, reinforcing its claim to the title of *The Multiplier Medium*.

4. **The best-performing campaigns place an emphasis on CREATIVE CONSISTENCY**
    Campaigns that feature distinctive audio elements strongly associated with the brand – such as music, voices, straplines, brand characters, or a sonic brand device – and use them consistently within different radio executions and across media (where relevant) achieve greater effects.

5. **Campaigns that focus on building higher WEEKLY REACH deliver stronger effects**
    The most influential planning variable is weekly reach. The average uplift rate in effectiveness outcomes is significantly greater for higher-reach campaigns than for lower-reach campaigns.

Putting the learning into practice

The best practice learning derived from the data provides advertisers with clear guidance on how to optimise radio effectiveness through creative development and media planning.

1. Use radio to improve overall media campaign efficiency to both create future demand *and* convert existing demand for brands

Our analysis demonstrates how radio delivers significant uplifts in a wide-range of long- and short-term effectiveness measures far more efficiently than other media combined. This suggests that re-allocating budget from other media into radio will help improve overall effectiveness for media campaigns with *creating future demand* (brand-building) and/or c*onverting existing demand* (activation) objectives.

2. Maximise radio weekly reach when planning radio (audio) campaigns

Reach was found to be the most influential variable from a media planning perspective, far outweighing any influence of weekly frequency. This suggests that advertisers should focus radio campaign planning around maximising weekly reach over optimising weekly frequency. Routes to achieving this could include advertising across a wider range of days/dayparts and extending the campaign to include more stations across a longer timeframe. In many instances, advertisers could also consider adding digital audio on top of a maxed-out radio schedule to capture incremental listening occasions and extend overall campaign reach/ effectiveness even further.

3. Use distinctive audio brand assets consistently and across media

In this study, the brands that performed strongest all benefited from creative campaigns featuring consistent and distinctive audio brand assets. In a Marketing Week article, Mark Ritson advised brands to think about "logo +3" (colour, character, *and* audio) when considering distinctive brand assets. Developing/using distinctive and consistent audio brand assets can help advertisers create a clear advantage over competitors. In their research study *The Power of You* IPSOS revealed that audio branding is 3x as effective as visual branding on average, but it is currently used by only 8% of advertisers.

Background & Objectives

Building the Radiogauge database

Big Audio Datamine is a big data analysis which builds on results from the long-running and ongoing Radiocentre campaign effectiveness research project, Radiogauge.

Since Radiogauge launched in 2008, over 1,000 campaigns have been measured by research agency DRG using the standardised Radiogauge approach, for some of the UK's – and the world's – biggest advertisers. These individual advertiser-level Radiogauge results have played an extremely valuable role in demonstrating the effectiveness of the medium and growing confidence in radio advertising.

[See Appendix 1 for more information about Radiogauge, what it measures, and the method used]

In addition to building advertiser confidence in the medium, over the years Radiogauge has also been quietly building something else. All of the information collected from the fieldwork for each individual campaign has, since launch, been collated and stored in the Radiogauge database, which also records basic media campaign planning information, together with the main creative attributes of every radio commercial measured, based on a standardised set of twenty-two coding rules developed by the Radiogauge team at launch.

Over the years, this has developed into a deep data resource combining radio campaign planning factors, creative attributes, creative impact, and effectiveness outcomes.

Objectives for this study

Having reached the landmark of measuring over 1,000 campaigns, the time felt right to conduct an in-depth meta-analysis of this rich, bottom-up data, with two specific objectives:

1	2
Effectiveness benchmarks	**Best practice**
Provide an overview of the headline effectiveness outcomes achieved by campaigns that have been measured on Radiogauge over the last 14 years.	Develop understanding of which creative and media campaign planning factors are most influential in optimising results.

How the study was done

With a focus on discerning valuable insights for advertisers from big radio data; audience research and data analysis company Colourtext was appointed to run this project, bringing over 20 years' experience delivering listener and advertising insight across the radio and on-demand audio markets for companies such as the BBC, Spotify, Sony Music, Warner Music, and Disney.

Method

The analysis process adopted by Colourtext involved three main elements:

Stage 1

Data cleaning and alignment. A crucial phase of any big data analysis is to ensure that the dataset is accurate, comparable, and as complete as possible. This involved double-checking data at each iteration to confirm that the inputs were in the best possible shape before moving on to the next stage.

Stage 2

Straightforward summary of the data to provide an overview of radio advertising effectiveness across all campaigns measured in the study.

Stage 3

Quartile and regression analysis to *identify the influential variables*, in particular, the creative and media planning characteristics most associated with the better performing campaigns.

The Big Audio Dataset

The final *Big Audio Dataset* that emerged from the data cleaning and alignment process to inform this *Big Audio Datamine* consisted of a total of 1,002 discrete campaigns for 463 individual brands across 14 sectors, involving over 100 media and creative agencies. The dataset features information relating to seven radio campaign planning factors, with each ad coded on the basis of 22 creative attributes. All of this data is then linked to five different effectiveness outcomes, from ad awareness through brand sentiment and finally response. In combination, all of these elements provided us with a total of 800,598 data points for analysis.

Discrete
Campaigns
1002

Individual
Brands
463

Sectors

14

Radio Planning
Factors
7

Creative
Attributes
22

Effectiveness
Outcomes
5

Total Datapoints

800,598

To the best of our knowledge, this is the biggest and most comprehensive radio advertising effectiveness dataset in the world.

The findings in detail

Context to the findings

Before diving into the detail, let's start with some context to help frame the data. Thanks to all of the analysis of the IPA Effectiveness Databank conducted by Les Binet and Peter Field over the last decade, it is now generally accepted that the most successful campaigns use a mixture of long-term brand-building combined with shorter-term activation.

In the years since their analysis was first unveiled, a number of industry sages have added their own perspective to the brand-building/activation model, one of which is featured in the image below.

The two main roles of marketing

Creating future demand

Converting existing demand

Long-term

Short-term
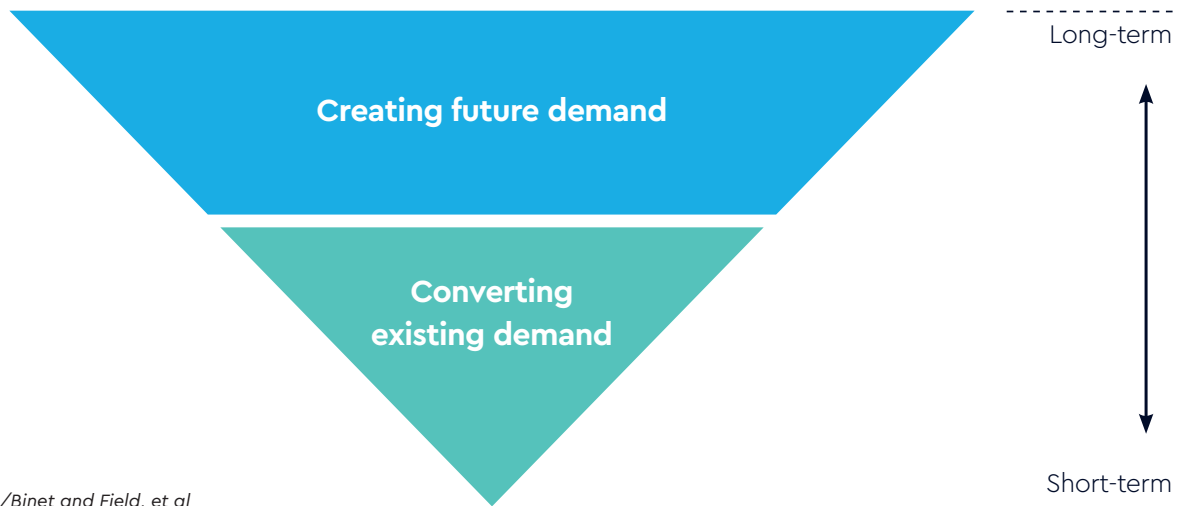
Source: IPA Databank/Binet and Field, et al

What is particularly helpful about this take on the model is the use of everyday language to add clarity for those who are relatively unfamiliar with marketing terminology. It also helps reduce some of the vanity-project-stigma often associated with the phrase *brand-building* to better describe the job that it actually does, which essentially relates to *creating future demand*. In this context, activation is also more specifically re-framed as *converting existing demand*.
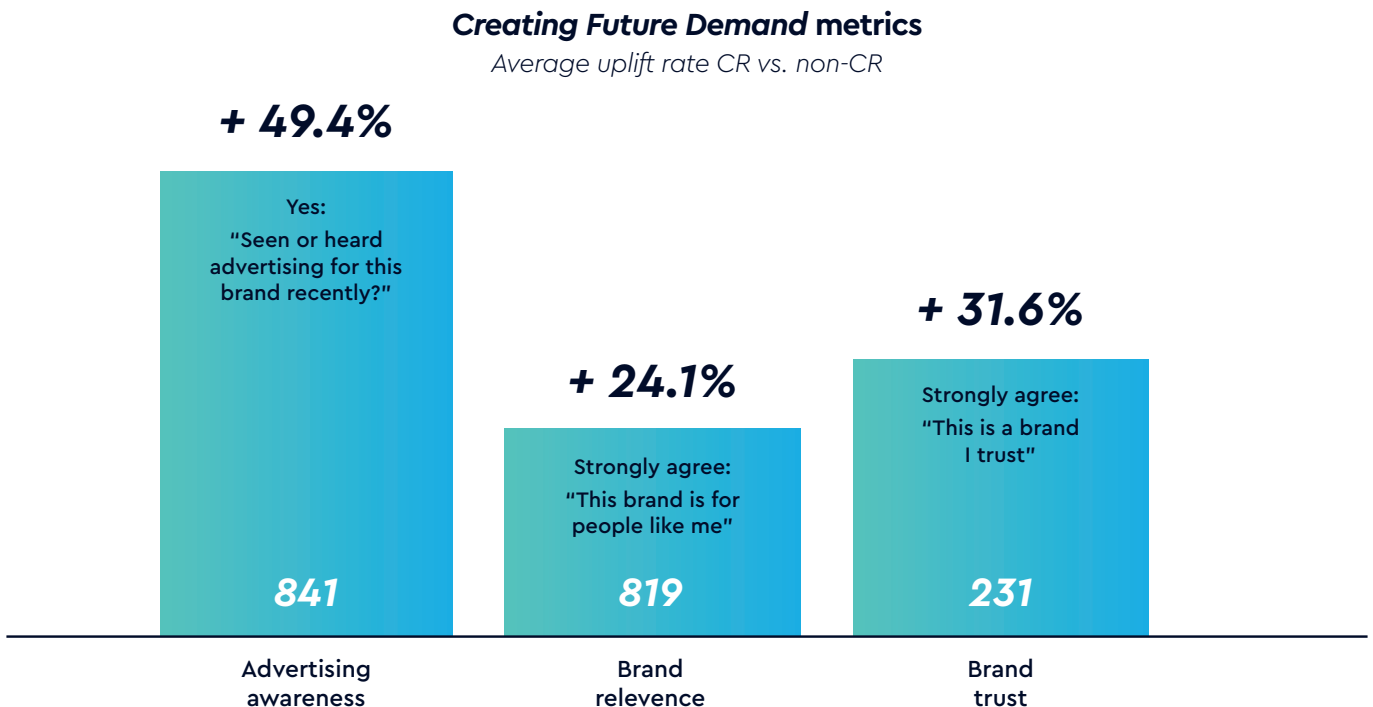
Accepting that these are the two main roles of marketing, we have reviewed different measures from Radiogauge to understand how effectively radio advertising can both create future demand *and* convert existing demand.

1. Radio helps create future demand
by increasing awareness and building positive brand sentiment

Starting with creating future demand, Radiogauge allows us to understand the effectiveness of radio advertising in terms of ad awareness, brand relevance and brand trust. So what does the data tell us?

The chart below shows the uplift rate (that is, the relative uplift in campaign performance metrics among commercial radio listeners compared to the matched sample of non-listeners) for our creating future demand metrics, averaged across all campaigns that we have this data for.

Creating Future Demand metrics
Average uplift rate CR vs. non-CR

+ 49.4%

Yes:
"Seen or heard advertising for this brand recently?"

841

Advertising awareness

+ 24.1%

Strongly agree:
"This brand is for people like me"

819

Brand relevence

+ 31.6%

Strongly agree:
"This is a brand I trust"

231

Brand trust

Source: Big Audio Datamine (number of cases in white)
Base: All aware of brand/all respondants

i. Increasing Ad Awareness

Starting with ad awareness, the average uplift rate (based on 841 campaigns) for those people answering yes to the question "have you seen or heard any advertising for *insert brand name* in the last four weeks?" is almost 50% higher among commercial radio listeners compared to the matched sample of non-listeners. It's fair to say that, over the years, radio's ability to reach out to wide audiences and drive awareness has generally been acknowledged among advertisers of all sizes. However, this analysis also allows us to review how radio performs against more-challenging-to-shift emotional metrics.
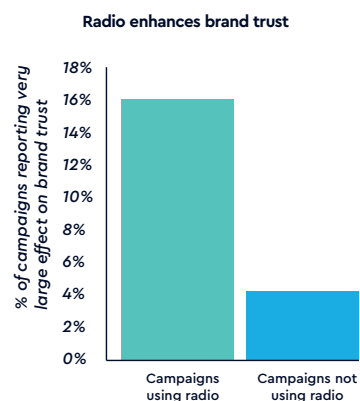
ii. Building Brand relevance

The second column shows the average uplift rate (based on 819 campaigns) for respondents who strongly agree "this brand is for people like me". This measure of brand relevance is on average 24% higher among people exposed to the radio campaigns compared to those that weren't. This reflects how radio listeners often perceive themselves to be part of a wider audience community consisting of people who are just like them – this is generally true whether the station output predominantly serves a local geographical community or a wider community of interest.

iii. Enhancing Brand trust

This sense of audience community has another important effect beyond just building brand relevance. In 2002, the Henley Centre observed that *"the fact that they often feel part of a wider community is one of the reasons why radio listeners put a high level of trust in what they hear".* We can clearly see the benefit of this trusted relationship for advertisers in the third column on the chart, which features the uplift rate (based on 231 campaigns) for respondents who strongly agree "this is a brand I trust". On average, brand trust is almost a third higher among commercial radio listeners.

Historical analysis of the IPA Databank reveals how advertising campaigns featuring radio generate 4x the levels of brand trust of those that don't (see chart below).

Radio enhances brand trust

% of campaigns reporting very large effect on brand trust

18%
16%
14%
12%
10%
8%
6%
4%
2%
0%

Campaigns using radio — Campaigns not using radio

Source: IPA Databank

11

2. Radio helps increase efficiency of media plans

To put these uplifts into perspective, Nielsen analysis highlights how – in a typical year – radio's share of total media spend among advertisers that use the medium is around 8%. This clearly demonstrates how efficiently radio works as part of a wider media mix, driving uplifts of between twenty-four to fifty percent (depending on the measure) using only around 8% of the budget.

Combining these two pieces of data allows us to approximate the relative cost-efficiency of radio in driving these outcomes within a mixed media schedule (compared to all other media combined):

Ad awareness:
radio generates
5x
more cost-efficiently

Brand relevance:
radio generates
3x
more cost-efficiently

Brand trust:
radio generates
4x
more cost-efficiently

This is why adding radio into the mix helps improve the efficiency of a media plan; and hence why radio is often referred to as the *multiplier medium*.

# 3. Radio helps convert existing demand
increasing purchase consideration & stimulating online response

So far, the data has shown us how radio can drive awareness and change the way people feel about a brand, helping to create future demand – but what can it reveal about radio's ability to *convert existing demand*? In this context, Radiogauge allows us to understand the effectiveness of radio advertising in terms of driving *purchase consideration* among those in the market to buy now and how they *respond* as a result.

Converting existing demand metrics
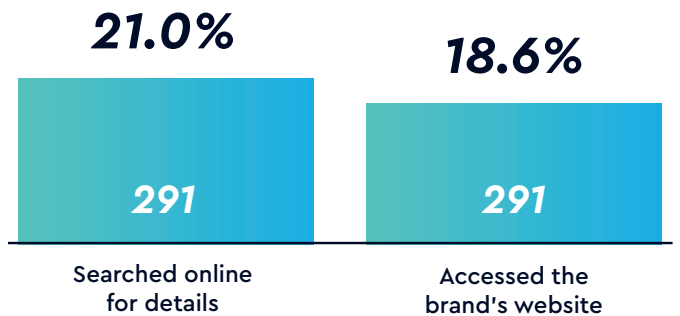
Radio drives purchase consideration

"If you were considering buying product category today, how likely would you be to consider brand name?"

17.9%

828

Brand
consideration
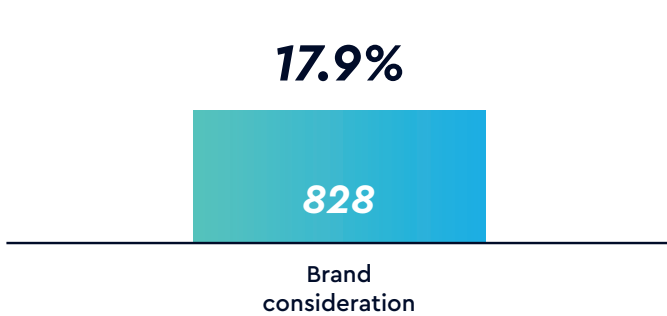
Source: Big Audio Datamine (number of cases in white)
Base: All respondents
(Average uplift rate CR vs non-CR (highly likely)

Radio drives online response

"Have you taken any of the following actions as a result of hearing this ad?"

21.0%

291

Searched online
for details

18.6%

291

Accessed the
brand's website

Source: Big Audio Datamine (number of cases in white)
Base: % of those hearing the ad claiming to respond in this way

i. Driving Purchase Consideration

The column on the left of the chart shows the average uplift rate (based on 828 campaigns) for respondents who are highly likely to consider buying the advertised brand. This highlights how radio's ability to drive ad awareness, brand relevance, and brand trust, also translates into an 18% average uplift in purchase consideration.
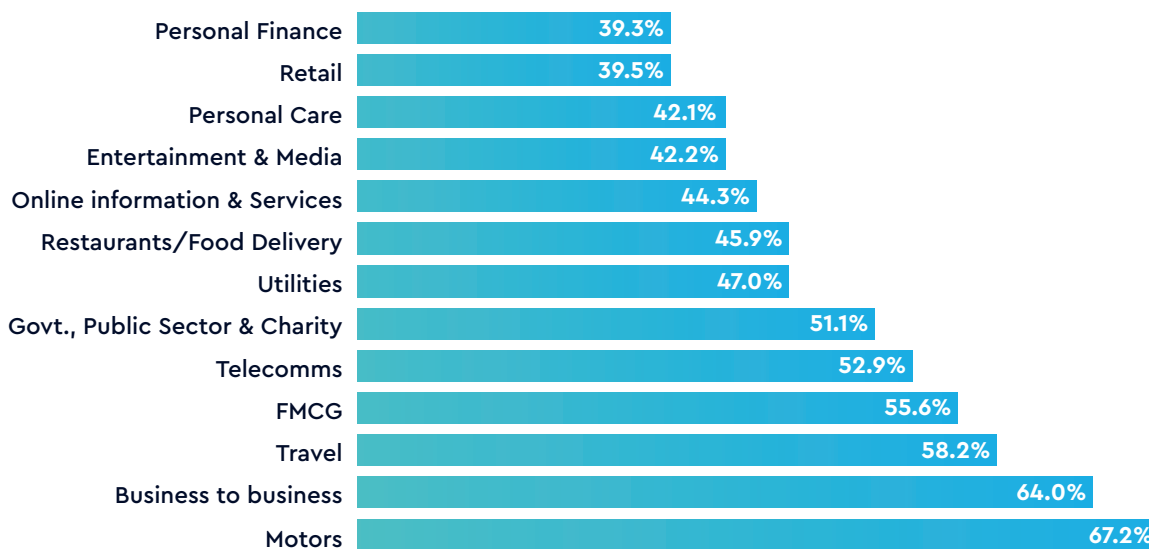
ii. Stimulating Online Response

The other measure of radio's ability to convert existing demand that we have data for is online response. The two columns on the chart show the average proportion of respondents (based on 291 campaigns) who claimed to have *searched online for details* or *visited the brand's website* as a result of hearing the radio ad. These figures of 21% and 19% are based only on those who recalled the radio ad – so we don't have a comparative measure for non-listeners. To put these numbers into perspective, they equate to an overall response rate of between 4 and 5 percent calculated on the total base of commercial radio listeners exposed to the campaigns.

What the data tells us about optimising radio advertising effects

So far, we've only looked at averages across all the campaigns in the database. But, as with any study of this nature, there are significant differences in effects across individual campaigns – as illustrated on this chart featuring the average uplift rate in ad awareness by sector. There were similarly significant ranges in uplift rate between campaigns within each sector.

Average ad awareness uplift rate by sector

Sector	Uplift rate
Personal Finance	39.3%
Retail	39.5%
Personal Care	42.1%
Entertainment & Media	42.2%
Online information & Services	44.3%
Restaurants/Food Delivery	45.9%
Utilities	47.0%
Govt., Public Sector & Charity	51.1%
Telecomms	52.9%
FMCG	55.6%
Travel	58.2%
Business to business	64.0%
Motors	67.2%

Source: Big Audio Datamine
Base: Ad awareness uplift rate (CR vs. non-CR)

This leads on to the final stage of the process, which set out to identify the characteristics most associated with the better performing campaigns, and the extent to which they influence them.

What affects radio campaign performance?

Fixed factors	**Variable factors**
• Sector • Size of brand • Type of purchase	• Creative execution • Campaign weight

At an overall level, our analysis revealed that there are many factors that can influence radio campaign performance - which we have broken down into the 'fixed' and 'variable' factors.
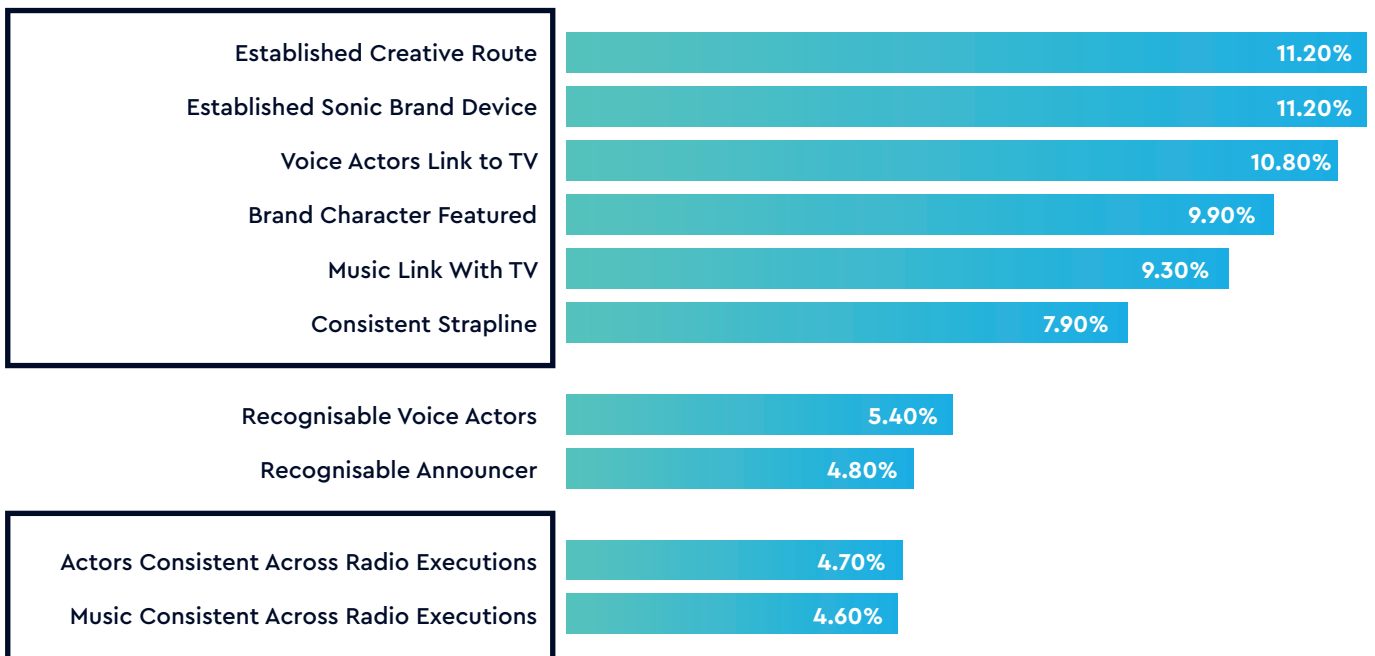
'Fixed factors' are out of the advertiser's control, such as the sector the brand occupies, the size of the brand, and its purchase cycle. By 'Variable factors' we mean ones that the advertiser can influence – such as radio campaign planning weights and creative execution, and it is these that this report now focuses on.

4. The best-performing campaigns place an emphasis on creative consistency

This chart shows the top ten creative attributes based on the difference in average ad awareness uplift rate for campaigns with commercials that feature each of the individual creative attributes shown, compared to those that don't feature them.

The Top 10 Creative Attributes

Ad awareness uplift rate (ads using attribute vs. those not using)

Attribute	Uplift
Established Creative Route	11.20%
Established Sonic Brand Device	11.20%
Voice Actors Link to TV	10.80%
Brand Character Featured	9.90%
Music Link With TV	9.30%
Consistent Strapline	7.90%
Recognisable Voice Actors	5.40%
Recognisable Announcer	4.80%
Actors Consistent Across Radio Executions	4.70%
Music Consistent Across Radio Executions	4.60%

Source: Big Audio Datamine
Base: Ad awareness uplift rate (ads using attributes vs. those not using)

As the chart demonstrates, eight of the top ten relate to developing consistent audio elements – such as music, voices, straplines, brand characters, or a sonic brand device – and using them consistently within different radio executions and across media, where relevant.
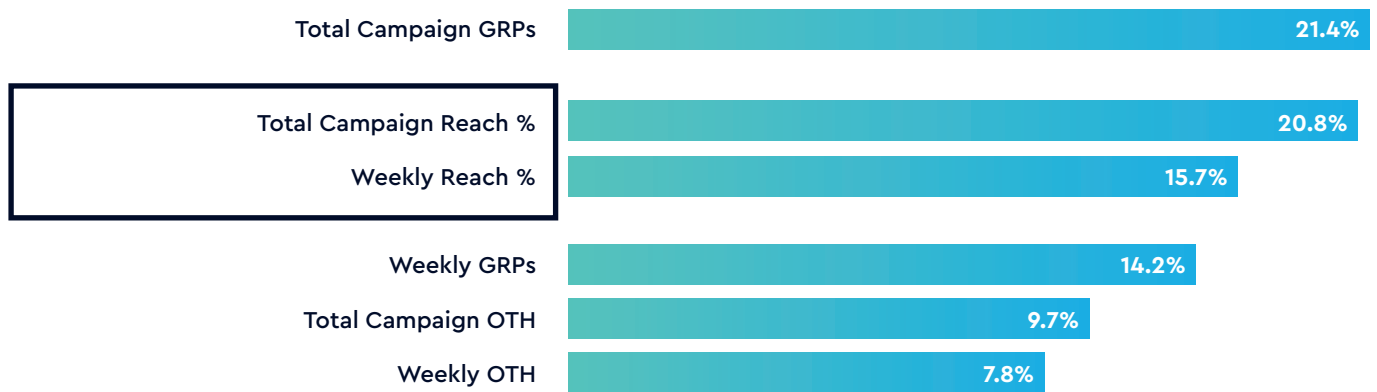
This learning is not a surprise as it is completely consistent with previous Radiocentre reviews of effective creativity featured in Radiocentre's Multiplier Studies published over the last 20 years.

5. Campaigns that focus on building reach deliver stronger effects

Having considered creative best practice, we then reviewed the influence of radio campaign planning factors on effectiveness. For this analysis, Colourtext sorted all campaigns into quartiles based on their deployment of the different campaign planning factors, sorted from highest to lowest. Average uplift rates in ad awareness were calculated across the top two quartiles (that is, those using *higher* levels of reach, frequency, and ratings) and then compared to the average uplift rates of the bottom two quartiles (those running at *lower* levels of reach, frequency, and ratings).

The Effect of Media Planning Factors

Ad awareness uplift rate (top 2 vs. bottom 2 quartiles)

Total Campaign GRPs	21.4%
Total Campaign Reach %	20.8%
Weekly Reach %	15.7%
Weekly GRPs	14.2%
Total Campaign OTH	9.7%
Weekly OTH	7.8%

Source: Big Audio Datamine
Base: Ad awareness uplift rate (top 2 vs. bottom two quartiles)

This chart shows the average uplift between the top and bottom two quartiles for each campaign planning factor. So, taking *weekly reach* for example, the average uplift rate was 15.7% higher in the top two (higher-reach) quartiles than in the bottom two (lower-reach) quartiles.

Reviewing this data, it's interesting how, for a medium that has become synonymous with frequency planning over the years, reach is clearly the driving force behind better campaign performance. This doesn't mean that frequency has zero influence on outcomes, more that its effects are far outweighed by the impact of building higher reach (also important to note here that frequency naturally builds as a function of increasing campaign reach).

Again, we shouldn't be surprised by this outcome as it strongly echoes learning from Radiocentre's *ROI Multiplier* study.

Simply put, the more people you reach, the bigger the effects from your radio campaign will be.

Appendix
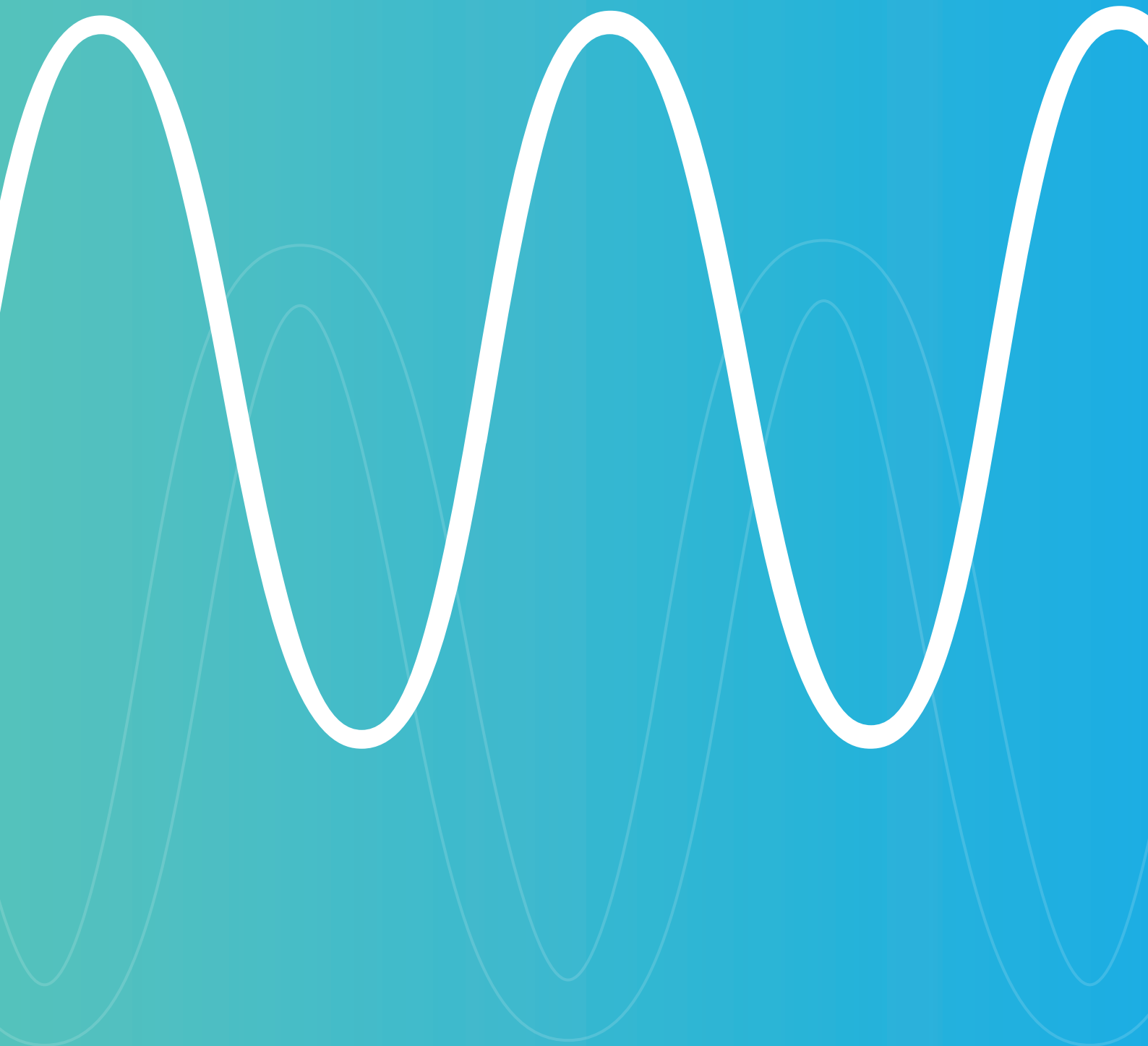
About Radiogauge

Radiogauge is an award-winning, radio-advertising-effectiveness measurement tool, funded entirely by the commercial radio industry. It was launched in January 2008 with the goal of helping individual advertisers understand the specific effects they've achieved as a result of their radio advertising campaigns – and how these can be enhanced through creative development, informed by best-practice learning.

The study achieves this by comparing the post-campaign differences in a standardised set of outcomes – such as: ad awareness, brand relevance, and purchase consideration – between matched samples of commercial radio listeners *and* non-listeners.

Respondents also score each ad measured against eleven statements linking to Radiocentre's bespoke *Five I's* radio-creative-evaluation process (which explores how effectively each ad delivers Involvement, Identity, Impression, Information, Integration).

The research is conducted at regular intervals across the year and uses a consistent methodology and sample to measure all campaigns. Beyond economies of scale, crucially this also means that all data collected, for each and every campaign, is directly comparable.

Isolating Radio's Effect & Evaluating Creative Performance
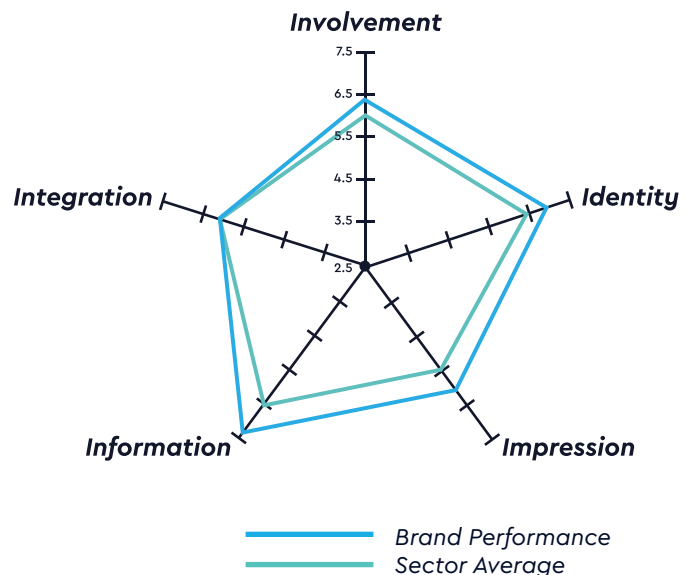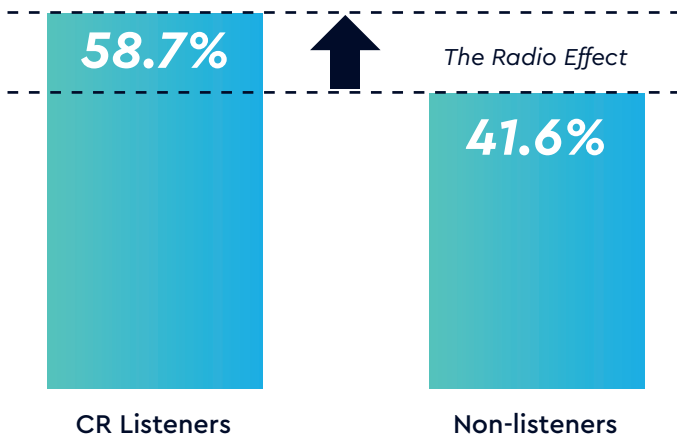
Source: Radiogauge (illustrative data only)

References/helpful resources

The Long & the short of it
Binet and Field/IPA

Cover Curve Generator Tool
Accessible via Radiocentre.org

The Power of You
IPSOS, 2020

Radiogauge
DRG, ongoing

ROI Multiplier
Holmes and Cook, 2013

How Brands Grow
Professor Byron Sharp/Oxford University Press

About Radiocentre

Radiocentre is the industry body for commercial radio, working on behalf of stakeholders who represent 90% of commercial radio in terms of listening and revenue.

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