how to do Effective Media

MEDIA PLANNING &
BUYING AS A SCIENCE

About the Author

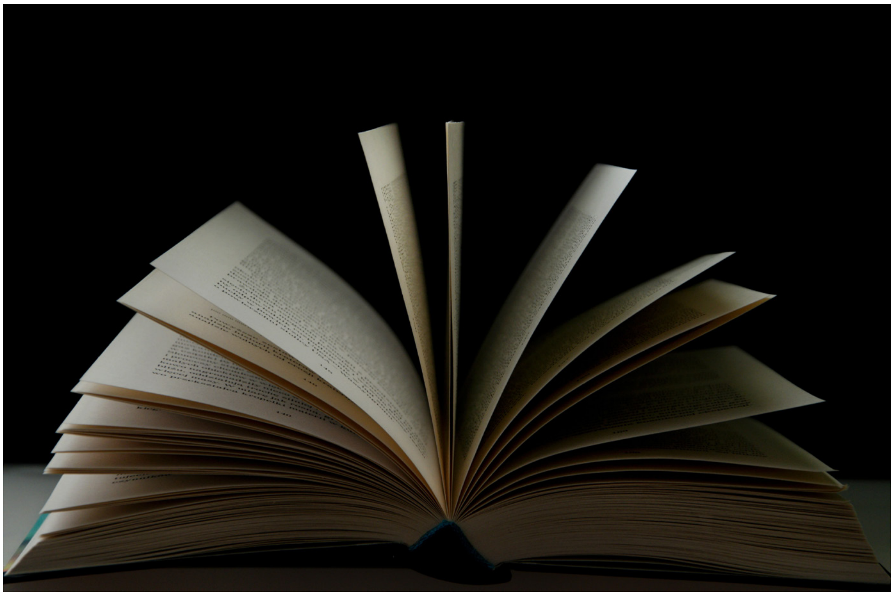
James Dixon is co-founder of Atomic 212° Australia's largest independent media agency serving blue-chip companies with smarter, faster, accountable media. An accountant-turned-digital-marketer turned-media-planner, he brings a unique view to the practice of media buying and a passion for making it more accountable to sales and growth. In this publication, James shares his views and processes for improving the ROI from media investment, developed over 20 years of professional practice.

ATOMIC 212°

About the Author

As Managing Director and Partner at Atomic 212°, Claire Fenner provides a unique perspective on the ongoing shift towards technology-led media buying, automation and the opportunities and challenges this presents for agencies and brands. Passionate about supporting the future of the industry by leveraging technological advancements to increase media accountability and effectiveness, Claire also recognises the need to balance this with tried and tested marketing principles. Claire spearheaded the agency proposition surrounding smarter, faster, accountable media and, as the managing director, oversees the strategic direction, media investment and key operations for all agency clients.

ATOMIC 212°



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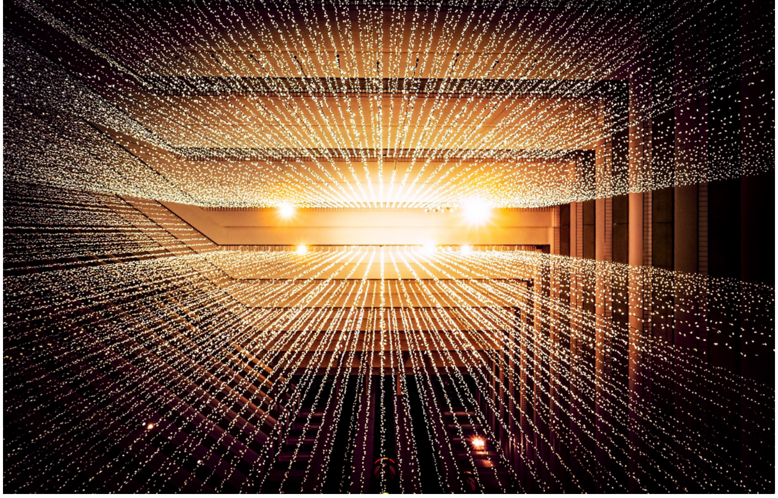
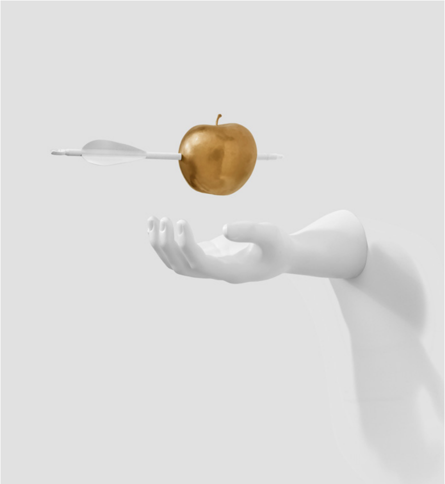




Contents

About this book

THIS BOOK IN 7 WORDS:

Effective Media is an always-on scientific process.

THIS BOOK IN ONE SENTENCE:

Media will be more effective for growth when deployed in an ongoing scientific process of hypothesis, test, learn, document, repeat.

THIS BOOK IN ONE PARAGRAPH:

If you are in charge of a media budget or working on the agency side supplying media services to a client, this book provides practical guidance for increasing the ROI. from that investment. The process in this book will require a mindset change from media as a campaign requirement, to media as a business process managed with a diligent scientific process. **We call this the Effective Media Process (EMS) and will outline this process extensively in this book.**

THIS BOOK IN 8 PARAGRAPHS:

As a practising media industry professional, it strikes me that there is little guidance, training, or open literature on the practical implementation of media effectiveness. I'd like to rectify this gap in the market by providing a practical framework that any business, big or small, can apply to set up, test, measure, and optimise media investment.

There are several essential reads on the theories of marketing that reference the need for media effectiveness, but these fall short on how to implement them in a practical day-to-day way.

Without wanting to clutter the practices of our busy industry or add more reading to the demanding daily schedules, my hope is that this booklet will summarise guiding principles and practices to advance the discipline of media effectiveness into daily use and give the industry a simple-to-use reference.

I do not profess that these are new or groundbreaking practices. I want to put a flag in the ground for good practices that can be implemented with quick effect.

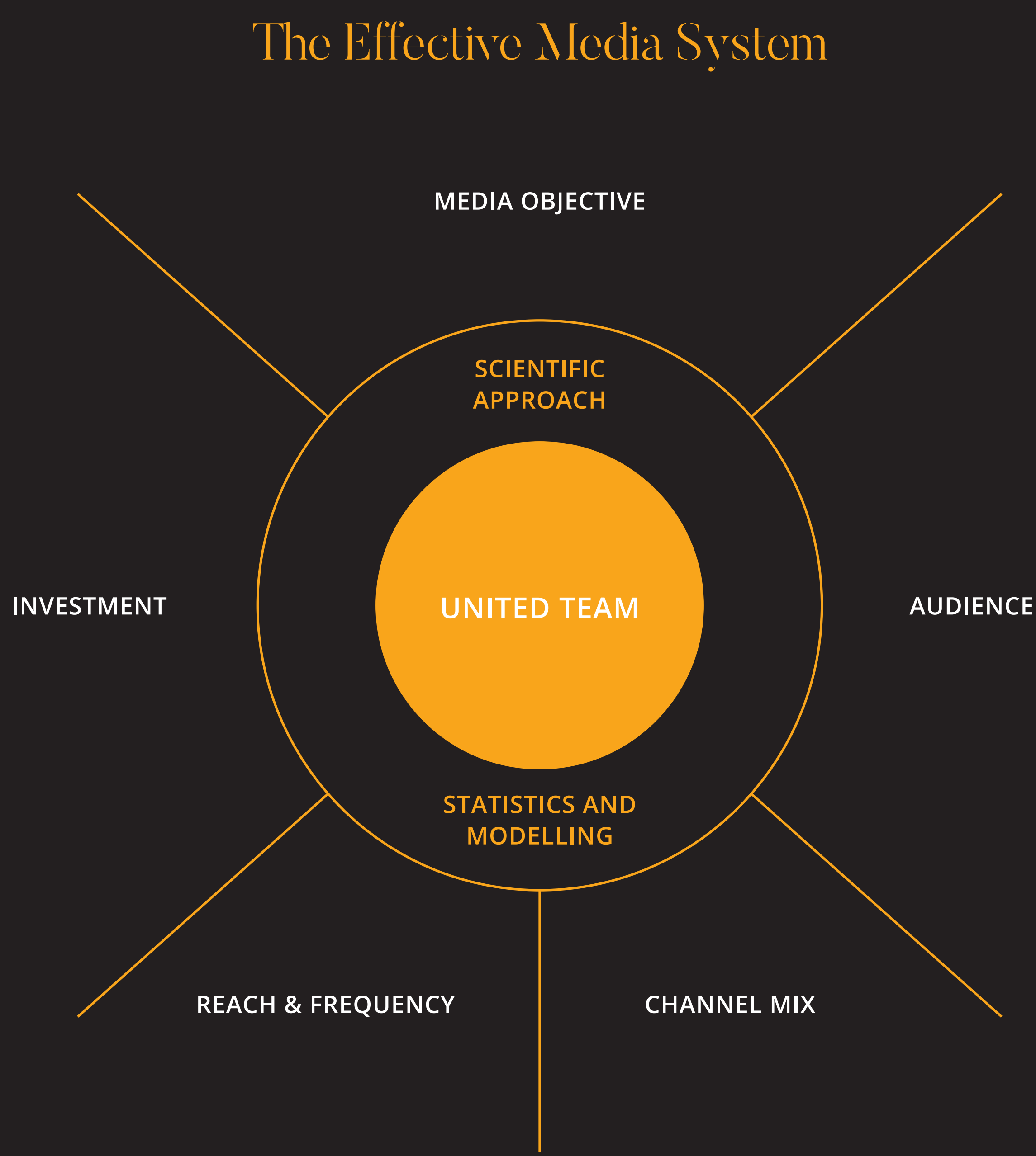
A Google search returns that there are no similar publications on the market. Most likely, those in the know are keeping their IP tight to their businesses. Or perhaps as an industry, we don't have any IP - which wouldn't surprise me.

Maybe I'm throwing caution to the wind. Or maybe I just want to add something back by lifting the veil. I honestly think that it's time we open up practices and shed light on successes and failures so that we can move forward on a more collaborative and scientific basis.

It might be unusual for an agency to share these practices. We typically guard our IP as tightly as the KFC secret herbs and spices recipe. But in the interest of moving the important conversation of media effectiveness forward, I am excited to put these words into a book.

JAMES DIXON, CO-FOUNDER AND PARTNER OF ATOMIC 212°

THIS BOOK AS A DIAGRAM



IN THE WORDS OF OTHERS...

With credit to Richard Dawkins and Karen Nelson-Field on page. 69 of her wonderful book, *The Attention Economy and how Media Works.*

MEANWHILE IN THE REAL WORLD

The scientific method: Richard Dawkins

Question time at any "in conversation" event can get interesting, but this one at the fourth annual Oxford Universities Think Week event, takes the crown. It was filmed at the Sheldonian Theatre, Oxford, on Friday 15th February 2013 and is well worth a watch on YouTube.

Questioner: The question is about the nature of science evidence. Youth both said, and I think most people here would agree with you, that we're justified in holding a belief if there's evidence for it or if there are logical arguments we can find that support it. But it seems like this in itself is a belief which would require some form of evidence. If so, I'm wondering what you think would count as evidence in favour of that and if not how do we justify choosing that heuristic without appealing to the same standard that we're trying to justify.

Dawkins: So… how do we justify, as it were, faith that science will give us the truth – is that the…?

Audience member (interrupting): How do we justify the scientific method?

Dawkins: Yes, um… it works. It works. Planes fly, cars drive, computers compute. If you base medicine on science you cure people, if you base the design of planes on science they fly, if you base the design of rockets on science they reach the moon. It works……(moderate pause)…bitches

This book is 26,000 words...

We hope you find them useful.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History & Context

CHAPTER ONE

"Start with the end in mind."

Franklin Covey

The Four Ps

This book will outline the path to reporting marketing ROI with scientific rigor

1.1 The Ideal State

So said Franklin Covey in his bestseller, The Seven Habits of Effective Leaders. The same applies to the habits of effective marketers.

The ideal state is that sweet spot where the CMO and their marketing function are seen as the critical growth engines for the business, where the CMO is a key stakeholder at a board level and has direct accountability over the company's growth trajectory through leading the four Ps (product, price, place, promotion).

An ideal-state conversation between C-suite executives in a blue-chip company, in advance of a quarterly board report, might look something like this:

CMO: I'm pleased to report that we've had an excellent quarter, the strongest this year in terms of marketing ROAS (return on ad spend). Marketing contributed to 18% of sales revenue, up from 15%, as measured through the approved model. The $678,000 spend returned $1.9m revenue within 7 days, and also maintained the target brand awareness value of $50m.

CEO: Great work. Where are we at with market share and year end projections?

CMO: We now have 30% market share and have modelled that we can achieve 40% within the next 18 months with the current budget, or six months with an additional $2m. The 40% market share will provide $46m year end EBIT up from $36m last year.

CEO: Right, CFO, can we get the $2m?

CFO: Sure thing, I am fully on board, great work.

The above is a conversation that I have not had the opportunity to experience, but I suspect it is not common. Too often, the CMO is either not on the board, not in full control of the Ps, or not able to state the impacts of marketing on sales due to disconnected systems.

It's no wonder CMO Magazine's "State of the CMO" report in 2020 found that Chief Marketing Officers have the shortest tenure of all C-suite executives.

That said, given the pressures on all businesses to grow, perform and report, it is surprising that this disconnect exists. The solution is within the grasp of the CMO. By being better able to report growth with scientific rigour and defend against the sceptics, the CMO will gain the confidence of the CEO and become the most trusted ally for growth.

1.2 The History of Marketing Effectiveness

I am confident that the first discussion of media effectiveness would have occurred at the same time the first report on media activity was produced. It wouldn't have had the auspicious title of 'Media Effectiveness', but it would have, no doubt, discussed the spend against the outcome.

I imagine somewhat fictitiously that it was a CFO from the 1920s asking the receptionist how the print ad worked on the weekend.

Regardless of the starting point, the question is current and is made more important in this age of accountability, shrinking commercial margins, and increasing market competitiveness.

The question is not complex, and it has never changed since the dawn of advertising. "Did the ad work?" Therefore, the answer is typically returned as a simple, "yes, really well."

But the underpinning of that response is deeply complex – and the subject matter of this book.

"Did the ad work?" is an important question and requires a very critical response; one that will drive a business forward if answered correctly, but backward if not.

To give a concise contextual overview of this subject, there are several current theories and thought leaders that make my shortlist. I briefly summarise these below, but I also recommend taking a look at them yourself.

'Everything You've Wanted to Know About Advertising & Media ... But Were Too Afraid To Ask'

By Ben Shepherd

Before engaging in the theories which underpin much of the substance of this book, I should pay my respects to Ben Shepherd and acknowledge that in many ways, my publication is a continuation and expansion of Shepherd's 2020 tome. (Put simply, my book provides a practical framework for marketing professionals, which builds on the theoretical concepts that Shepherd draws on and summarises in his publication.)

Shepherd's book itself is simply a great read, whether you're a uni student or the CEO of a media company.

And the accessibility of the read can be boiled down to one question: "how many people don't ask questions at all for fear of them being interpreted as 'dumb'?

The nuts and bolts can be summed up in six sections: media, advertising, effectiveness, strategy, technology and a closer called: The Optimist's Toolkit, which "will provide you with tips and information to ensure your knowledge of the industry is matched by your ability to navigate its cultural nuances".

The five chapters before the Toolkit offer a breakdown of how we got to where we are in the given field of discussion, what's happening now, a great explanation of key concepts, and of course, Shepherd's thoughts and opinions about where we are and where we're headed. Sprinkle in a few case studies, and you've got yourself 515 pages of intriguing, insightful, and intelligent analysis of our industry.

In his foreword to the book, Russel Howcroft noted that Shepherd, "has committed to updating it on an annual basis". I'm looking forward to the 2021 edition!

'The Long and the Short of It: Balancing Short and Long-Term Marketing Strategies'

By Les Binet and Peter Field

As the name of their study suggests, Binet and Field are interested in the tension and balance between the effectiveness and efficiency of marketing over the short and long term.

Arguably, the most impressive aspect of their interpretation of the relationship between these two essential factors in marketing is the sheer weight of data they collected and analysed in reaching their conclusions. A pair of OxBridge boffins (literally: Binet read Physics at Oxford, while Field attained his education at Cambridge), the guts of their work comes from 996 marketing campaigns stretching across 30 years.

While it would be glib to try to boil their conclusions down to a single sentence, they give it a decent go, when they talk of "the considerable dangers of judging success over the short term and of assuming that it will apply to the long term: it will not" (their emphasis, not mine).

It's a particularly poignant observation in the current marketing landscape, at a time when metrics such as 'likes' and 'shares' are regularly given weight over actual old-fashioned measures of success, such as dollars in the bank.

However, that's not to say Binet and Field dismiss digital out of hand. In fact, the very thrust of the piece is that it's foolish to discount a short-term strategy that can result in a real and immediate uptick in sales, foot traffic, and buzz.

However, it is similarly folly to believe this short-term sugar-hit – or even several of them coming in succession – results in long-term business effects.

Interestingly, their research showed that despite a noticeable shift in media expenditure over the years, – press classified and display going down as a correlation to online search and display going up, for example – there has been a remarkably consistent 60:40 split in overall expenditure when framed as brand-building versus activation. This balance delivers both maximum efficiency and effectiveness.

However, with our increasingly fractured media landscape, selecting the correct channels to achieve this split is no small task – particularly since no medium can be considered an island.

While the book was written in 2013, and the marketing landscape has evolved considerably during that time, the core of the argument still holds water. Simply put: balance is crucial between short and long-term. Short-term keeps a roof over your head but long-term helps you build a bigger, grander house.

Short term keeps the roof over your hear, but long term builds a bigger, grander house

'The Executive Guide to Marketing Effectiveness'

By Philip Kotler

Professor Philip Kotler is a giant of the marketing world, sometimes referred to as 'the Father of Modern Marketing'.

Arguably his seminal work, 'Marketing Management: Analysis, Planning, and Control' was first published in 1967 and is now up to its 15th edition, albeit with the assistance of Kevin Lane Keller as a co-author in modern iterations.

What set Kotler apart way back in the Swinging Sixties was his determination to bring a more scientific approach to marketing, applying principles of analytics and especially economics – he has a PhD in the latter – to a field known more for art than science.

More than half a century on, Professor Kotler is still going strong. When recently asked by *The Marketing Journal* – an online resource at which, full disclosure, he holds the title of "advisor" – how to "evaluate marketing effectiveness", part of the response was a short, two-page questionnaire from Kotler entitled, 'The Executive Guide to Marketing Effectiveness'.

The questionnaire contains 15 simple questions across five sections, specifically regarding customer philosophy, integrated marketing organisation, adequate marketing information, strategic orientation, and operational efficiency. The self-assessor can use this test to rank the marketing effectiveness of their organisation, ranging from "none" (for scores of 0-5) through to "superior" (scores of 26-30). Simple, yes, but also unforgiving.

Kotler suggests that a CMO would go through each division of their company on an annual basis to ascertain how effectively each is marketing. For the divisions that are struggling, the use of seminars, hiring experts and consultants, carrying out research, or simply reading more of the readily available literature can lift scores and make the company more effective at marketing overall.

No, it's not rocket science, but then sometimes the simple approach achieves the greatest cut-through.

And it worked, with Kotler noting that "higher-scoring divisions tended to have higher profitability", while the divisions that were profitable despite low scores tended to be operating in an environment where their competitors had achieved similarly low scores.

The kicker with the questionnaire? Kotler wrote it in the late 1970s!

It harkens back to the lessons illustrated by the research of Binet and Field, which show that while we can't afford to simply ignore the changing media landscape, the basics of how to be effective have essentially remained the same for decades.

'How Brands Grow: what marketers don't know'

By Professor Byron Sharp

Sharp is a professor of Marketing Science at the University of South Australia and Director of the Ehrenberg-Bass Institute, which South Australians can proudly proclaim for its status as the world's largest centre for marketing research.

How Brands Grow: what marketers don't know is, as the title suggests, is another read like Shepherd's that requires we sometimes cocky marketers to put our egos aside and embrace the simple fact there is always more to learn.

And, like Binet and Field's work, it's backed up with some pretty impressive research legwork.

Sharp pays particular attention to the idea of availability – both in a physical and emotional sense. Mental availability is critical, as Sharp says, the consumer is usually making purchases based on emotions rather than rationality. This is why having a consistent and memorable brand is so important.

Sharp has also caused quite the stir with his assertion that brand loyalty is not the goldmine that it has long been suggested. New customers' money spends the same as old, and the concept that 80% of your income is supplied by 20 % of (very loyal) customers is simply untrue.

SHARP HAS SEVEN KEY PRINCIPLES:

1. Continuously reach your category's buyers – this needs to be the case in both your communication and distribution.
2. Ensure your brand is easy to buy – convenience is key.
3. Get noticed – stand out!
4. Refresh and build memory structures – if something is getting you noticed, respect and build on it.
5. Create and use distinctive brand assets – sensory cues are critical.
6. Be consistent – you can't afford to go stale but, there's no sense in change for change's sake.
7. Stay competitive – be easy to purchase and don't make it easy for consumers to go elsewhere.

Mark Ritson, and his views on 'Marketing BS'

As one of the leading voices in marketing, Ritson preaches that there's far too much BS in modern marketing.

To give the man his dues, he is a professor of Marketing at Melbourne Business School with a PhD in Marketing. Rather than just having a bee in his bonnet, the good doctor does his research before he opens his mouth or sits down at his laptop and fires off a column the calibre of which has won him three PPA Business Columnist of the Year awards.

That said, it doesn't take years of university education to realise that we're dealing with a fair bit of BS in our industry. And at least Ritson has the gall to come out and admit it.

His line of thinking is that far too many agencies and the industry, in general, are inclined to pretend they are reinventing the wheel when, at the end of the day, there are basic approaches that have worked over a long, long period of time.

Everything needs tweaking and the occasional update, but the idea that we need new bells and whistles to market effectively is, to put it bluntly, a load of BS.

Take, for example, his words at the ADMA Data Week 2020 event, where Ritson spoke of how data was being overcomplicated by the likes of AI and machine learning when so much of what can be gleaned from data is in the simple.

"Brand tracking is really a very simple 40-item questionnaire with lots of correlations," he said.

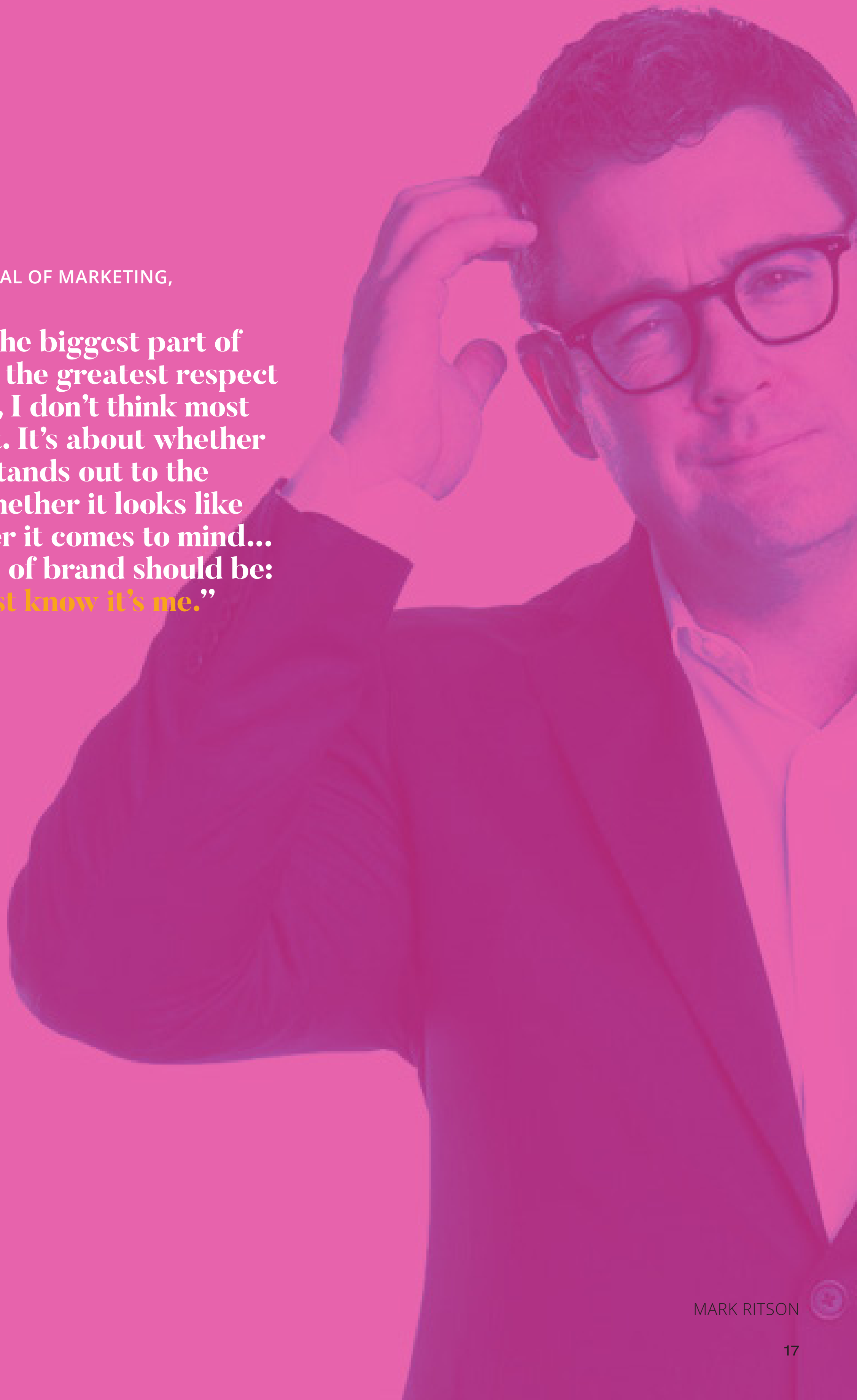
"You want segment ID questions, the customisable questions as hierarchical questions, the brand attribute measures, looking at their relationships to the funnel. Then look at what's moved, what's not moved.

"What are the challenges this year? Did you achieve your goals? What are the new benchmarks? It can all come from this simple piece of data."

Ritson is also a big advocate for brand saliency – an issue on which he finds allies in the work of Binet and Field.

AT THE 2019 FESTIVAL OF MARKETING, RITSON SAID:

"Salience is the biggest part of the job. With the greatest respect to marketers, I don't think most of them get it. It's about whether your brand stands out to the consumer, whether it looks like itself, whether it comes to mind... The first rule of brand should be: first they must know it's me."



MARK RITSON

Awarding effectiveness in marketing

Ours is an industry where too often, we reward style over substance. We have a seemingly endless list of awards and categories for each, but there is a clear focus on campaigns and no focus whatsoever on the systems that marketing departments develop to generate ROI.

It may not be as sexy or glamourous, but well researched, tested, and executed systems are repeatable and therefore the most consistent and effective way to ensure a solid ROI for our clients.

This is why we should have far more focus on awards for the most systemised media practices, as opposed to one-off campaigns.

The governance of marketing effectiveness is currently overseen by the following three main bodies. While the work they do is incredibly important, I am nevertheless left feeling that the focus remains on campaigns rather than effective and scientific systems implemented by marketing departments. I outline these bodies in some more detail below.

Marketing needs to move away from glorifying campaigns, there should be more focus and awards for long term processes and systems.

WARC

The World Advertising Research Center (WARC) has been around since the mid-80s, putting "evidence at the heart of every marketing decision to help marketers navigate any challenge with confidence".

The annual WARC Awards for Effectiveness uses the organisation's Creative Effectiveness Ladder – consisting of six rungs, starting at 'influential idea' at the bottom and building up to 'enduring icon' at the top – as a universal framework in deciding each year's winners.

And rather than hide their processes, WARC is only too eager to share how they came to their conclusions. WARC subscribers have access to the 'The effectiveness code', a whitepaper that analyses and compares 4863 award entrants from 2011 through 2019, as well as their 'Guide to Structuring for Effectiveness', which outlines best practices for effective advertising.

IPA

The Institute of Practitioners in Advertising (IPA) is the UK's major advertising body, and with more than a century of history and has even been a Royal Charter, they have both the runs on the board and a royally mandated responsibility "to advance the theory and practice of advertising, media, and marketing communications in all its aspects for the benefit of the public" (otherwise the Queen herself will be most cross with them).

Held every two years, the IPA Effectiveness Awards are global in scope and have a broad range of categories, yet the focus is narrow in what they promote: proof of effectiveness.

Winners need to show increases in profit and revenue while also showing that the sales generated as a result of their activity are not simply part of broader sales growth. Essentially, you need to prove the very specific activity you undertook worked.

They use the example of the 'Rosser Reeves Fallacy' to explain "the commonest example of confusion between cause and effect".

"An example of this is 'sales gains correlated with activity (e.g. ads) therefore activity increased sales.' The problem here is that sales increases can cause increases in ad awareness. The solution is to show that sales increases correlated with exposure to the activity, not just awareness of it."

There's nowhere to hide in the IPA Effectiveness Awards. Which is the way it needs to be.

The Effie Awards were founded by the New York American Marketing Association in 1968 and in the 60-plus years since have expanded to over 50 awards programs all around the world.

To win an Effie, you'll have gone through two rounds of interrogation from judges made up of top industry execs.

AS FOR HOW EFFECTIVENESS IS MEASURED, THE EFFIES WORK OFF FOUR CRITERIA:

1. Challenge, context, and objectives
2. Insights and strategic idea
3. Bringing the idea to life
4. Results

Three of the above four are measured equally – at 23.3% – with added weight given to the results section, which is worth 30%.

It's an intriguing method of measurement, as while there is extra emphasis on the results, it also acknowledges the fact that you can't just take the success of a business and claim it to have been the result of marketing without, as maths teachers love to say, "showing your work".

Ultimately, while we should always encourage creativity, we should never forget the central purpose of why we do what we do. **TO BE EFFECTIVE.**

AS STATED IN THE JUDGE'S ENTRY GUIDE:

"Tie together the story of how your work drover the results – the best cases did this seamlessly, the worst cases just threw the results out there as somehow a self-evident proof of the value of the work without explaining why or how."

WITH CREDIT TO THE BRILLIANT CONSUMER PSYCHOLOGIST ADAM FERRIER, I ATTENDED MUMBRELLA'S MSIX CONFERENCE IN 2019 – AN EVENT THAT'S DEDICATED TO

"those of us who want to take a bit more of an evidence-based approach"

1.3 The History of Marketing Science

With credit to the brilliant consumer psychologist Adam Ferrier, I attended Mumbrella's MSIX conference in 2019 – an event that's dedicated to "those of us who want to take a bit more of an evidence-based approach".

We were presented with research that showed correlations of ad recall to ad break position, studies that showed artificial intelligence predicting creative effects, and many other interesting presentations.

It was comforting to know that serious research was being undertaken in an area that is so often regarded as being more 'art' than 'science'.

I'm not embarrassed to admit that, up to that point, I had not appreciated that there were so many earnest academics who invested their days into advancing how marketing works.

I say I'm not embarrassed because in my experience, I would be in the vast majority of marketers who don't have a firm grasp of the enormity of work that is occurring in the world of marketing science.

This is something we, as an industry, need to remedy.

Science is the formal study of the world, the development of scientific laws that are empirically proven to repeat and therefore predict the future.

Think about that for a moment: predict the future. It sounds like science-fiction, but it is just science. If you apply the same throughput, you will get the same outcome.

Marketing science is the study of buying and selling and is sometimes called an 'applied science' in that it flows from pure theoretical sciences such as behavioural science or psychology.

University of South Australia | Ehrenberg-Bass Institute for Marketing Science

ARF the Advertising Research Foundation

The Ehrenberg-Bass Institute for Marketing Science and the Advertising Research Foundation are two leading marking science bodies that publish excellent research on this applied science.

The scientific approach

It is critical day-to-day marketing embraces a scientific approach. The complexity of our businesses' growth objective demands it.

As Chief Digital Officer of an agency, I have the privilege and perspective of working with many clients and many other creative, research, PR, and media agencies. That said, I attend over 100 meetings per year in which some brilliant ideas are presented, but very rarely do I hear a citation from the attendees that provides empirical evidence of their proposition, or a reference to theory, or a proposal to run a test within a controlled scientific framework.

All of this brings me to the conclusion that there is a gap between the findings of marketing science and practice in the industry.

Now, far be it from me to cast a judging eye about our industry for the lack of attention being paid to science – it's an understandable state of affairs.

Marketing Science has been the go-to journal since 1982. Originally a print publication, which has now found a home on the internet, *Marketing Science* covers a broad array of scientific research, and the bar for publication is high, with all submissions being peer-reviewed for quality of scientific rigour.

TAKE, FOR EXAMPLE, THIS HANDFUL OF CASE STUDIES THAT PIQUED MY INTEREST:

Advertising and Demand for Addictive Goods: The Effects of E-Cigarette Advertising

Test & Roll: Profit-Maximizing A/B Tests

The Strategic Implications of Scale in Choice-Based Conjoint Analysis

Advertising Strategy in the Presence of Reviews: An Empirical Analysis

Salesforce Contracting Under Uncertain Demand and Supply: Double Moral Hazard and Optimality of Smooth Contracts

And this is where my sympathy kicks in for the general lack of scientific rigour in our day-to-day practice because the preeminent source for marketing science makes for unquestionably sound but equally unquestionably dry reading.

The marketing function of a commercial business has little time to invest in reading the theories of marketing, let alone applying them. And the work from the above journals is not easily applicable to specific day-to-day operations.

Yet, as I mentioned above, science is the pursuit of knowledge, certainty. This is what we strive for in our everyday work as marketers: the ability to say with absolute certainty that what you are pitching will work, and your competitor's method will not.

And while it may be a tough sell to get your CEO to fund a double-blind study on your latest marketing idea, some organisations are doing just that – and in a financially sustainable way.

A division of the Advertising Research Foundation, the Marketing Science Institute (better known as MSI) is admittedly a non-profit organisation, yet it has been leading American academia in marketing research since 1961. Closer to home, the Ehrenberg-Bass Institute – "named after two world-famous marketing academics who dedicated their professional lives to the discovery of scientific laws about marketing and buyer behaviour" – has become the world's largest centre for research into marketing since founded in 1994.

Both institutions are funded by corporate memberships that allows those businesses to access the deep research undertaken and to obtain a competitive advantage from this work. The membership model demonstrates the commercial value of the scientific value that these institutions deliver.

What's more, the insights they deliver are legitimate game-changers.

Take the 2012 book by Byron Sharp entitled *How Brands Grow* – or, to use its full title, *How Brands Grow: What Marketers Don't Know*.

With scientific rigour from decades of research, Sharp and his colleagues at the Ehrenberg-Bass Institute reached three surprising conclusions:

1. Growth in market share comes by increasing popularity, that is to say: gain more customers of all types, even if they are 'light' users of your product.
2. Brands, even though differentiated, compete as near lookalikes.
3. Brand competition and growth are largely about building physical availability and mental availability.

This trio of conclusions flew in the face of decades of accepted knowledge yet was backed up by reams of scientific data. Some marketers may not have liked the conclusions, but it was a bit like telling gravity you're not a big fan of its work as you tumble over a cliff.

In short, it's no longer good enough to simply lump marketing science into the 'too hard' basket or argue that it's not a good use of company time, money and resources. It is, in many ways, the silver bullet.

And this book will provide a scientific framework that a business can apply in its day-to-day marketing operations to further understand how its specific media investments work to drive growth.

After all, failing within a scientific process is progress. Winning outside of a scientific process is luck.

IN A RECENT INTERVIEW WITH TRINITYP3 TITLED 'THE IMPORTANCE OF MARKETING PRINCIPLES', MARK RITSON STATES THAT

Considering marketing as science is too simplistic based on the thorough rigour required to truly claim a scientific approach.

RITSON POINTS TO AN ACADEMIC PAPER TITLED 'IS MARKETING SCIENCE', WRITTEN BY MR J PETER AND MY J OLSEN, PUBLISHED IN THE JOURNAL OF MARKETING IN 1983, THAT CONCLUDES AS FOLLOWS:

'Finally, it is reasonable to ask what we have learned about the question, "Is marketing a science?" While we recognize that no defensible criterion for distinguishing science from nonscience has ever been found (Lauden 1982) we believe that the main task of science is to create useful knowledge. To the degree that marketing has done so, then it can be labelled a science. As marketing scientists, we should be concerned to make our discipline more effective in creating useful knowledge about our subject matter. We believe that such improvements are best achieved by adopting the relativistic/constructivist approach to science advocated here. Recognizing the social processes of science, the context of specificity of scientific knowledge, and other features of the R/C program can give marketing scholars the freedom and confidence to create new conceptual schemes and perspectives. This is in contrast to following the outdated rules of the P/E approach that focus only on testing theories we already have. A creative science of marketing is more likely to flourish by taking a relativistic/constructivist approach.'

AVINASH KAUSHIK

The 10 / 90 Rule for Magnificent Web Analytics Success

“Numerous studies have pointed out that while almost all Fortune 500 companies have great investments in “Web Analytics” they still struggle to make any meaningful business decisions. Most people complain that there are tera bytes of data and giga bytes of reports and megabytes of Excel and PowerPoint files. Yet no actionable insights, no innate awareness of what is really going on through the clutter of site clickstream data.

MY RULE IS SIMPLE, IF 10% OF SPEND IS ON THE TECH, THEN 90% OF SPEND SHOULD BE ON INSIGHT”.

1.4 The History of Media Science

If the awareness and adoption of marketing science is low, the subgenre of media science is even more light on. There is a general ignorance of the entire area that desperately needs to be addressed.

So, at this point, it's important to note that this book will now narrow its focus to media science. More specifically, the science of proving how media works on the consumer and produces ROI for the business.

Really, that's the core of what media is supposed to be providing: an effect on the consumer that generates a return on the business's investment in said media.

It's so obvious, yet when you ask most firms about the empirical evidence and data they have collected and analysed to inform their choices when it comes to purchasing media, very, very few will have used repeatable experiments to help decide.

That is to say, they have failed to apply any scientific rigour.

The role of media in the marketing mix sits within the P of promotion.

Media is the connector of the message and the consumer. Be it radio, TV, billboard, Google, or any other channel, the role of the media is to get the commercial message to the consumer.

THE PRIMARY CONSIDERATIONS THEREFORE ARE:

1. Who does the message need to get to (audience)?
2. Which media will they be found in (which channel will be most effective/impactful)?
3. How many people need to see it (reach), and how many times will a given person need to see it to achieve the objective (frequency)?
4. What outcome does the business want (objective)?
5. How much should we spend (investment)?

DESPITE THE OBJECTIVES BEING CLEAR – THEY ARE USED EVERY DAY BY MANY THOUSANDS OF BUSINESSES – ONE WOULD BE HARD-PRESSED TO FIND CONTEMPORARY EMPIRICAL RESEARCH INTO DETERMINING IMPORTANT MEDIA BUYING FACTORS SUCH AS::

1. What is the optimal reach to increase brand awareness by 1%?
2. What is the best channel mix to launch a new product?
3. What frequency should be used in Facebook for consideration objectives?

Google any of the above questions and, while several blogs that act as though starters can be found easily enough, there's no real scientific rigour to hang your hat on.

A lot of 'that's interesting' but not a lot of 'that's evidence'.

The risk here is that subjective opinion sways the marketer into making decisions that impact the businesses' growth trajectory – these are choices that genuinely matter and can have long-lasting and far-reaching consequences. And when you're talking about issues of such magnitude, it is far better to have science on hand for the hat hanging rather than a random person's meandering thoughts.

Unfortunately, there's not a lot out there in this space. But that's not to say there's nothing.

One group I'm particularly impressed with when it comes to media science is Analytic Partners, based in New York. Since being founded in 2000, they have worked with hundreds of major brands across the globe and generated empirical data to actually apply a scientific framework.

Analytic Partners call this framework the ROI Genome, which has the admirable mission "to create marketing wisdom from accumulated numbers and knowledge".

As to how it goes about achieving this mission, Analytic Partners use in excess of 2 million marketing metrics from more than 700 companies in over 45 countries, with a combined, spend worth hundreds of billions of dollars.

Not bad data sets to interrogate if you want genuine insights and probably why they're able to brand it as "beyond benchmarking".

Analytic Partners release reports, case studies, and videos that highlight their work and insights. For instance, the 'ROI Genome marketing intelligence report: Staying ahead of emerging media' provides a great overview of the opportunities presented by the multitude of new channels the average consumer now chooses to engage with.

However, on a number of occasions, it also concludes that to discount 'traditional' methods would be foolish.

A particular example that was intriguing was the idea of the influencer.

It's one of the buzziest channels in marketing at the moment as it's new, it's super engaging, and it certainly doesn't hurt that 99% of the people putting themselves forward as influencers are ridiculously good-looking.

The ROI Genome data that Analytics Partners publish is the most empirical source of unbiased media science data available to marketers

IT'S A CLASSIC EXAMPLE OF SUBJECTIVE OPINION INFLUENCING THE MARKETER. BUT WHAT DOES THE SCIENCE SAY?

"To date, we've consistently found that traditional PR is still better at driving sales than Influencers on average, but it depends on who and the cost to engage a particular individual,"

Analytic Partners wrote in their report.

ANALYTIC PARTNERS

"For example, we often see that known celebrities (in the traditional sense), will be less efficient than many influencers simply because of cost."

Now, that's not them saying that influencers don't work, simply that when it comes to ROI, paying a celebrity a lot of money to say they like your product isn't necessarily going to be the most efficient use of your money. Instead, you should probably opt for boring old PR. (As an aside, remember when PR had a reputation for being the fun department? These influencers blew that out of the water.)

It somewhat flies in the face of what influencers and celebrity endorsement would have you believe. But numbers don't lie.

And again, the Genome Project is ongoing, so what it says about influencers – or OTT or programmatic or addressable TV or podcasts; the list truly does go on and on when we talk about emerging media – is not a fixed issue, it's just what the numbers say now.

All of which is a good thing. We need to remember that we're dealing with an environment that shifts all the time, so to use dated numbers would be foolish. But then so would just going with your gut or using a particular channel because it's the 'it' channel at the moment.

Yet, there is so much acceptance of using these latter methods. And it's time for that to end.

Media science needs to be at the heart of how we make all these decisions. It's madness to say otherwise.

CASE STUDY

FREAKONOMICS

Freakonomics – Does TV Advertising Actually Work?

"So, don't get me wrong. I'm not implying that advertising doesn't work. I'm implying that we don't have a very good idea about how well it works."

So said Steve Levitt – Professor of Economics at the University of Chicago and co-author of the multimillion-selling 2005 book *Freakonomics* – on a November 2020 episode of the podcast *Freakonomics Radio*.

The issue came about after Levitt had been hired by a major (and unidentified) retail chain to work out whether the estimated billion (with a b) dollars a year they were spending on advertising each year actually worked.

One of the major issues was that the firm had TV advertising blitzes around three major holidays – Father's Day, Black Friday, and Christmas – which saw a major uptick in sales.

But were the sales caused by the advertising blitz, or did the blitz simply correlate with a time when customers were going to be buying up big anyway?

The episode goes into great detail to explore the issue of advertising effectiveness in television, including breaking down studies and speaking to experts in the field, including former Chief Marketing Officer of Unilever Keith Weed, as well as Anna Tuchman, who is an associate professor of marketing at Northwestern University's Kellogg School of Management (which, just FYI, is the same institute where Philip Kotler is on staff).

THE CONCLUSION REACHED?

"We find that almost all brands seem to be over-advertising and that they are earning a negative ROI from advertising in an average week," Tuchman said.

"If we don't account for the fact that demand would naturally be higher during certain periods when we tend to advertise more, and we falsely attribute that increase in sales to the causal effect of advertising, that could lead us to overstate the effect of ads."

So, it's not the case that TV advertising doesn't work, just that effectiveness can easily be confused as a result of failing to separate causation from correlation.

What's more, Tuchman says her research hasn't shown any difference in this conclusion based on the industry being advertised.

As for why major, successful firms the world over have continued to pursue a line of advertising, even when they can't empirically show *how* it works? Tuchman puts forward the hypothesis of the 'principal-agent problem'.

"So, the manager that's in charge of setting the television advertising spending and working with the advertising agency, their incentives may not be aligned with the profit-maximising goals of the firm," she explained.

"They don't want to put themselves out of a job by doing a lot of digging and showing that, 'Oh, it turns out our TV ads are unprofitable."

1.5 How Media Impacts Business Revenue

Marketing and media should really be considered as a two-speed endeavour.

As discussed earlier in this book – primarily set out by Les Binet and Peter Field – it is important to consider both the short and long-term effects of your marketing and media and to have the budgets and the tactics for both.

Remember, while you can't have any kind of long-term growth without the efficiency provided by a short-term view, constantly repeating what works in the short-term does not make for a considered and effective long-term strategy.

In the short term, your activity needs to stimulate direct sales within a smaller period, say, over a quarter. This is generally achieved through direct, performance, and digital marketing.

However, in the long term, your activity needs to stimulate sales indirectly over a larger period, such as a year or several years. This is typically done through brand marketing and above-the-line marketing.

WARNING! All media channels can help achieve both short and long-term objectives

Digital media often gets categorised as 'conversion' media, while non-digital media is lumped as being 'brand'.

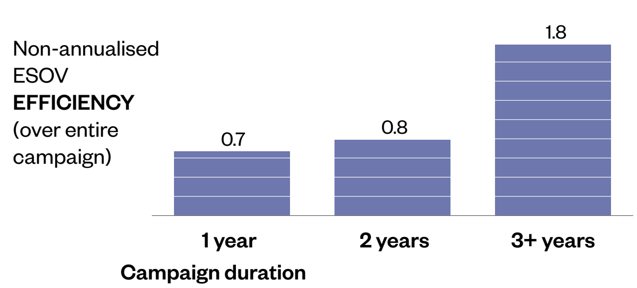
This is a bad assumption, as it leads businesses to structure their teams in this way, segregating short and long-term tactics to channels.

The truth is, all channels can deliver short and long-term objectives.

Brand Building	Sales Activation
Creates mental brand equity	Exploits mental brand equity
Influences future sales	Generates sales now
Broad reach	Tightly targeted
Long Term	Short Term
Emotional priming	Persuasive messages

(Source: Les Binet and Peter Field, Media in Focus: Marketing Effectiveness in the Digital Era, IPA)

Share effects accumulate over time



In practical terms, a typical brand would need to sustain an excess share of voice of 20% in order to drive share growth of 1% per annum. This illustrates how slowly market share responds to communications investment in most cases – and why long-term effects are so important to measure. In practice, the main effect of most campaign investment is to maintain market share rather than increase it, as Ehrenberg and others have observed. Most brands looking for ambitious market share growth will hope to do better than this average figure, by making their budget work harder.

(Source: IPA The Long and the Short of It, Les Binet and Peter Field)

The short term

Measuring the short-term impact of media on sales with accuracy is entirely possible.

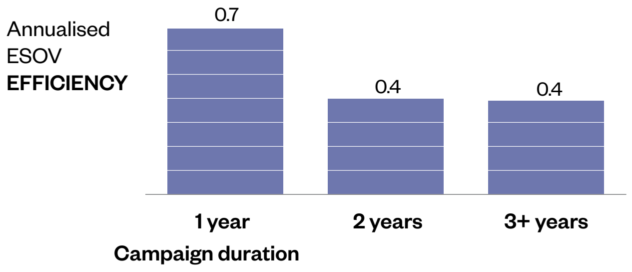
Digital media provides rich data that ties itself very closely to online sales (see below in relation to measuring digital media), while non-digital media can be measured to an acceptable accuracy through correlation techniques that we will discuss later.

The media-mix model is our preferred method for media effectiveness measurement, as it takes account of:

- online and offline media impacts;
- creative, offer and product variables; and
- economy and external factors.

Where a business is spending on digital channels only, a digital attribution report would suffice for the most part with media analysis, but when spending on digital and non-digital media, a more fulsome analysis is required. Otherwise, the impact of the non-digital media is side-lined and under-weighted in its importance to short-term sales.

Excess share of voice in year one has most impact with a typical 0.7% increase in market share from +10% share of voice



(Source: IPA The Long and the Short of It, Les Binet and Peter Field)

WARNING! Digital attribution

Digital-attribution models are important parts of understanding the online consumer journey but be wary of placing too much reliance on them. They can be imperfect due to three critical factors:

1. They don't take into account the cross-channel influence of other, non-digital, channels on the digital channels performance.
2. They do not always account for important parts of the journey such as Facebook impressions, due to technical limitations.
3. The redaction of cookie technologies and increasing browser privacy protocols will significantly reduce the ability to establish digital attribution of individuals.

Given digital attribution is a strong means of measuring but not perfect, we advocate a more traditional media-mix model is developed, but that it is aided by modern approaches such as machine learning.

The long term

Measuring the long term impact of media is complex but important.

Commonly referred to as ‘brand marketing’, this is an investment that should not be ignored in terms of its ROI.

But, all too often, it is.

The value of a brand and the appropriate valuation method is subject to much debate, primarily because this is not a perfect science. But we cannot ignore the correlation between brand awareness and the size of revenue.

The valuation of brands by accountants has created significant guidance and protocols via global accounting standards that are required to be applied by the professional bodies that govern such matters.

Accountants have typically viewed the valuation of brands with suspicion because this is an area that has been repeatedly abused as a mechanic to inflate or deflate company valuations as required for reporting purposes.

The accounting governance became so concerned by this practice that they ruled it out altogether, and as such, the brand component of a business is not typically recognised in a company’s balance sheet.

The accounting standard is unambiguous about how internally generated brands should be treated in annual reports: expenditure on internally generated brands cannot be distinguished from developing the business as a whole and cannot be recognised as an asset.

Accountants, therefore, don’t recognise brand investment in financial ledgers, which is a shame. It leads to a short-term understanding of marketing, short-term expectations, and short-term tactics.

This was studied by Roger Sinclair and Kevin Lane Keller in a paper published in the *March 2017 Journal of Brand Management*, where they coined the term “The Moribund Effect”.

“The Moribund Effect” is defined as an accounting phenomenon by which the value of a brand that is acquired, measured, and added to the balance sheet by a company remains unchanged no matter how well the brand might perform for that company over time.

“Any relationship it might have to enterprise wealth (e.g., as a contributor to the market premium), or any gain in absolute terms, is hidden from view.”

At best, it’s inefficient. At worst, it’s fraud. And yet, it happens all the time.

So, what’s the solution? Well, the authors of the paper had an interesting fix: “If the standard setters cannot or will not correct this anomaly, then marketers must.”

One way we marketers could present a workaround would be to show a simplified calculation to your finance team for discussion. At the minimum, this will start a valuable discussion and raise the notion that your efforts have a legacy of more than one year.

The real desired outcome of this conversation, however, would be that it leads to a growth budget being allocated to marketing teams.

WITH THIS IN MIND, HERE'S A CONVERSATION I WOULD LIKE TO SEE TAKE PLACE BETWEEN THE CMO AND CFO:

CMO: Hey, I propose that the bulk of our marketing budget has an economic value of more than this current financial year. Could we consider this and its impact?

CFO: Sure, what are you proposing?

CMO: Let's hypothesise that we stopped all marketing efforts at the end of this financial year. I guess that we would lose 10% of sales revenue every year, and in 10 years we would have very little revenue.

(Note: 10 years and 10% are used for demonstration purposes only – ideally, you'll develop your benchmarks. See further below for ideas.)

CFO: Sounds OK, but what is your point?

CMO: This simple maths would suggest we have an asset – a reputation – that would serve us at no cost for 10 years. Can we value the brand on this notion?

CFO: Yes, we could, although not in a formal accounting way. But in an informal way, it sounds really interesting.

CMO: See, if we value it this way, the value of the brand is the value of the decreasing revenues over the decade. Based on this year's revenue of $10 million, the brand value is about $50 million in revenue.

CFO: So if that was treated as an asset, in accordance with my accounting standards, we would have an asset of $50 million on the balance sheet, depreciating at $5 million per annum in the profit and loss statement.

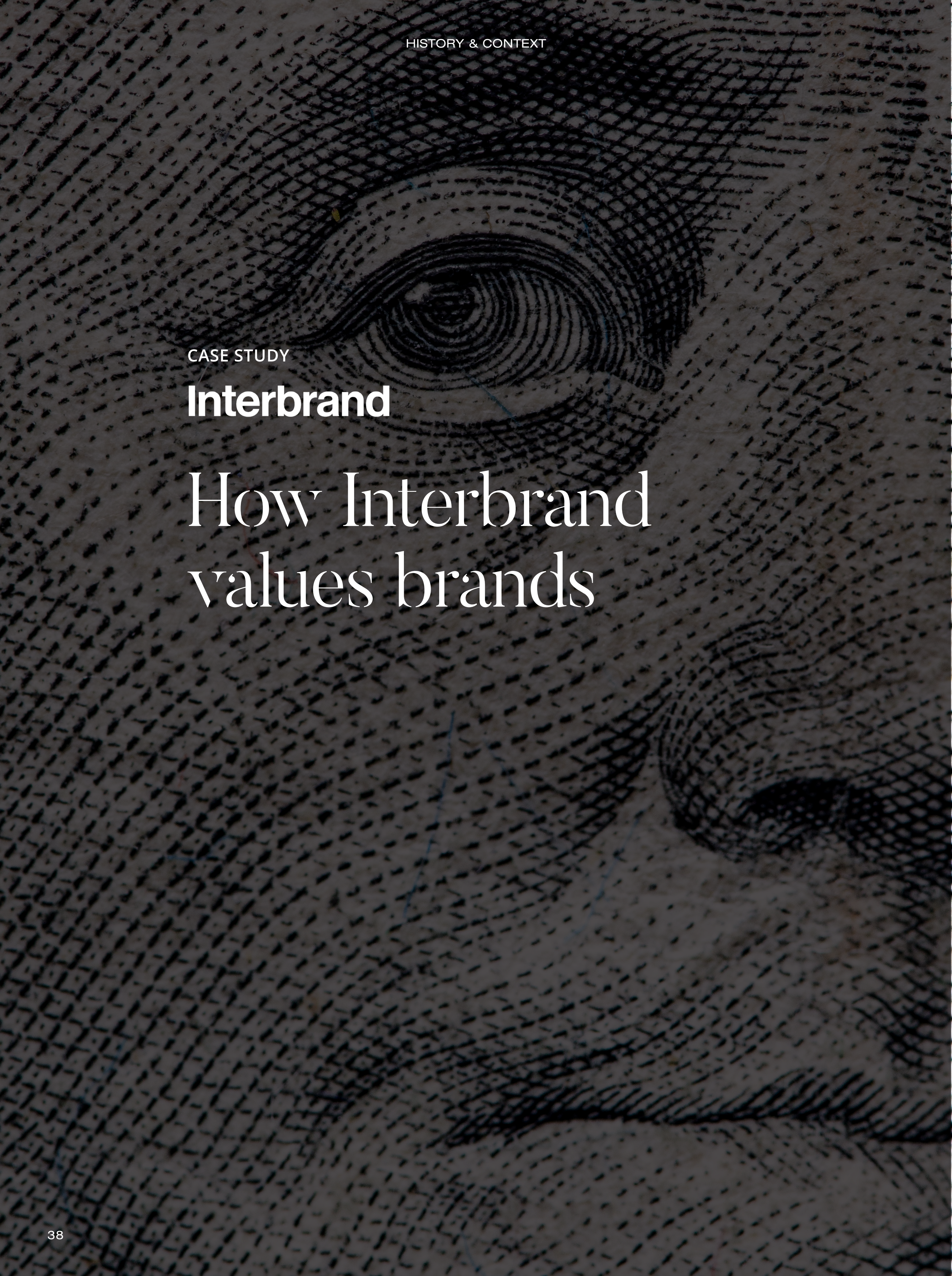
CMO: Exactly, so if this were an asset, such as our real estate or factories' machines, we would have a depreciation budget of $5 million in order to recognise the value of the machines and their economic contribution to the business. My budget for brand is less than $5 million, so could we talk through increasing the budget to $5 million to maintain the asset value?

Now, I know the above is a challenging conversation for both the CMO and CFO to grapple with – it challenges the CMO to talk in accounting terminology and challenges the CFO to consider the impact marketing has in terms of its business value beyond the fiscal year.

Food for thought: Establishing a brand-decay benchmark

The 10 year / 10% method used in the above 'conversation' is a simplified model for illustration purposes. There are several options to develop a scientific basis for establishing the brand decay timeline for your business:

1. Pause marketing in a test environment for 12 months, then measure and extrapolate the outcome.
2. Double marketing in a test environment for six months, then pause and measure the timeline to 'return to normal' sales.
3. Review your historic business sales by market or investment levels to see if the business previously ceased or paused marketing investment for other reasons, then use this period to extrapolate a brand-decay benchmark.



CASE STUDY

Interbrand

How Interbrand values brands

Since 1988, Interbrand has been the leading name when it comes to the measurement of brand valuation – in fact, they played a role in developing the methodology that led to brand measurement being a certified metric.

ACCORDING TO INTERBRAND, THERE ARE THREE KEY BRAND STRENGTH FACTORS:

1. **Leadership:** Determined by direction, alignment, empathy, and agility.
2. **Engagement:** Determined by distinctiveness, coherence, and participation.
3. **Relevance:** Determined by presence, trust, and affinity.

So, how do they suggest you balance the short and long-term needs of your business? Well, according to their Best Global Brands 2020 paper, "many of the fastest growing global brands" intertwine three key considerations:

1. a long-term human truth;
2. a nearer-term business ambition; and
3. constant, agile action.

Granted, your brand being motivated by human truth sounds a little 'woo-woo', but having a clear purpose that underlines everything you do means you won't ever stray too far from the path over the years.

They use the example of Tesla, which became the world's most valuable car manufacturer in July 2020, less than 20 years after it was founded. While there are myriad factors that have resulted in this growth, they have all been underpinned by a singular, clear purpose.

It's your way of 'seeing' the future – by creating it.

With this "north star" setting your course, you can then go about charting a path, that while forward, is unlikely to ever be straight. These steps are your nearer-term business ambitions, which should be used as targets over a set period of time.

And achieving these outcomes, as well as setting your next target, is where agility – the ability to respond to external factors in a timely fashion – comes in.

IT'S THREE SIMPLE STEPS, EACH LOGICALLY INFORMED BY THE LAST, THAT HAS SEEN BUSINESSES BOTH NEW AND OLD FORGE THEIR PATH AND CREATE A BRAND THAT DELIVERS STRONG ROI:

"By setting a north star purpose, translating it into a proximate ambition, and making ongoing moves to achieve that ambition, the world's fastest-growing businesses are effectively using their brands as flags planted in the future – and creating a journey that people within and outside of the business want to be part of."

CASE STUDY

HISCOX

“Quarterly reporting was basically invented by American analysts”

STEVE LANGAN

Steve Langan is the CEO of Hiscox USA, having graduated to the big chair after a successful stint as both CEO and CMO of Hiscox UK and Ireland. What's more, he's a man with a background in marketing, working for the likes of Diageo, Coca-Cola, Nestlé – plus he advocates that Guinness is "really is good for you" – so he's well worth listening to.

Langan believes that marketers are essentially terrible at internal communications and that the key to turning that around and getting buy-in from the whole business on your marketing plan is simplicity.

"You've got to find a bridge in the organisation between what you do as a marketeer and what the organisation expects," he said in a presentation at the EffWeek 2018 event.

AS SUCH, HE DEVELOPED WHAT HE CALLS THE "ABCD OF MARKETING" AT HISCOX:

- Awareness
- Brand affinity
- Consideration
- Decision to purchase

"You've got to have a really clear way of articulating to the business what marketing is doing," Langan said. "If you keep the language simple, the measurements then become easier to articulate."

And with buy-in from your entire team, you have a far better chance of showing the business how the long-term plan is going to work out, with Langan giving the example of how it took him 14 years at Hiscox to build the brand to the point it was cash positive – evidence, he says, that quarterly reporting is "fundamentally awful".

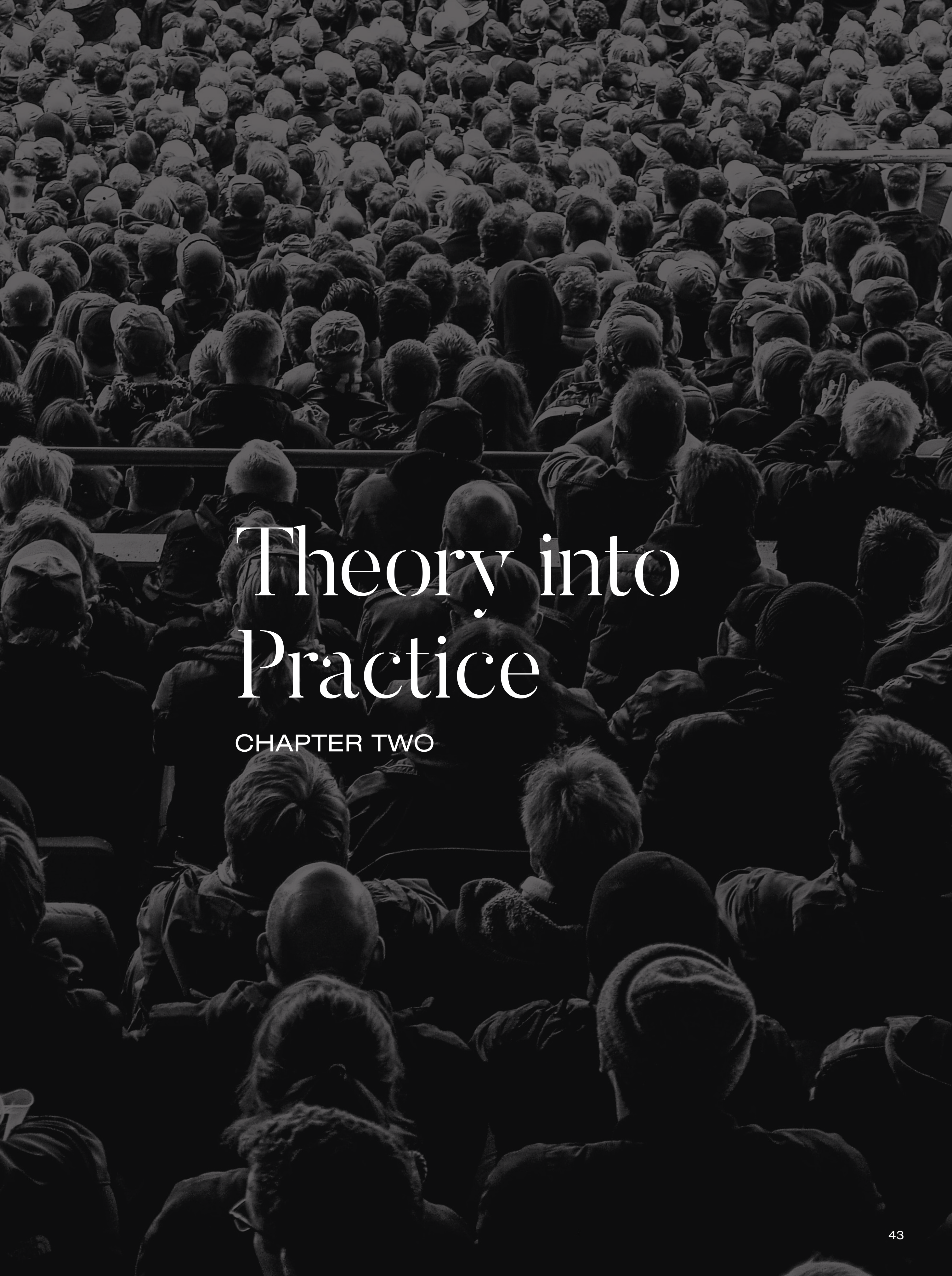
"Quarterly reporting was basically invented by American analysts to keep themselves busy and to flip businesses," he said.

That said, Langan was at pains to point out that "there's a difference between short-term briefs and quarterly reporting".

He used the example of his time working for Coca-Cola Brazil, where their marketing was heavily influenced by the ultimate unknown: the weather. With rain forecast, the team had sat back. But when the weatherman had got it wrong and, Rio was in store for sunny days, the team worked hard to get out an ad in 48 hours to ensure the vitamin D people were soaking up, was washed down with a mouthful of Coke.

"There's a difference between having to pivot really quickly to respond to events or to be driven by quarterly reporting," he observed.

"Quarterly reporting is fundamentally value destructive, morale destructive, behavioural destructive, but you've still got to be nimble."



Theory into Practice

CHAPTER TWO

2.1 Getting Systemised for Accountable Growth

In summary of the preceding chapters, there is an abundance of general marketing theory, a shortage of media-specific theory, a plethora of short term measurement options, and a dearth of long term measurement options.

Despite these limited external resources, it is always preferable for a business to learn and optimise from its activities. This is because a broad theory is a guiding light rather than a definitive path.

The truest and most profitable path is forged when the marketing department becomes intimate with their particular objectives, actions, and results.

The objective of this section is to show you how to build a robust internal system for progressing your media investments effectively.

Becoming media effective is not simply a matter of counting TARPs or CTRs or the CPC. Media effectiveness stems from an understanding of how those metrics ladder into tactics, and how those tactics ladder into the main objective: growth.

Our various roles may seem three or four times removed from the task of growth, but to understand media as a main contributor to growth, is to understand the bigger picture of the business we service.

A business exists to serve its shareholders by creating more dividends. The dividend comes from profits, the profits come from growth, the growth comes from demand, the demand comes from adverts, and the adverts are visible due to media.

The shareholders appoint a CEO to run the business on their behalf. The CEO, in turn, appoints a suite of Chiefs with various roles:

CEO: Ultimate responsibility for all runnings in the business

CFO: Responsible for reporting, counting, and investing the company funds

COO: Responsible for day-to-day operations

CMO: Responsible for growing sales

The CMO title has evolved in the last decade. In the early noughties, the CMO had been relegated to the outer realms of business importance, distanced from the inner circle on the notion that marketing was a side hustle and not core to the business. In more recent times, I am pleased to see it moving closer to the centre, ascending in importance, and sometimes even retitled to Chief Growth Officer, Chief Customer Officer, or Chief Revenue Officer to confirm that KPI.

This increased importance likely has something to do with the increasing complexity of running a business and the levers required to grow it. Although I doubt CMOs have ever lost their focus on growth, the ability to prioritise the levers for growth has become considerably more complicated within the ever-evolving Four Ps principles of marketing.

Within the guiding Four Ps (Price, Product, Place, Promotion), media sits in Promotion. Promotional strategy includes several sub-strategies such as public relations, events, and advertising. Broadly, media, therefore, sits within the tactics of advertising, that sits within the promotion tactics, that sits within the Marketing Strategy.

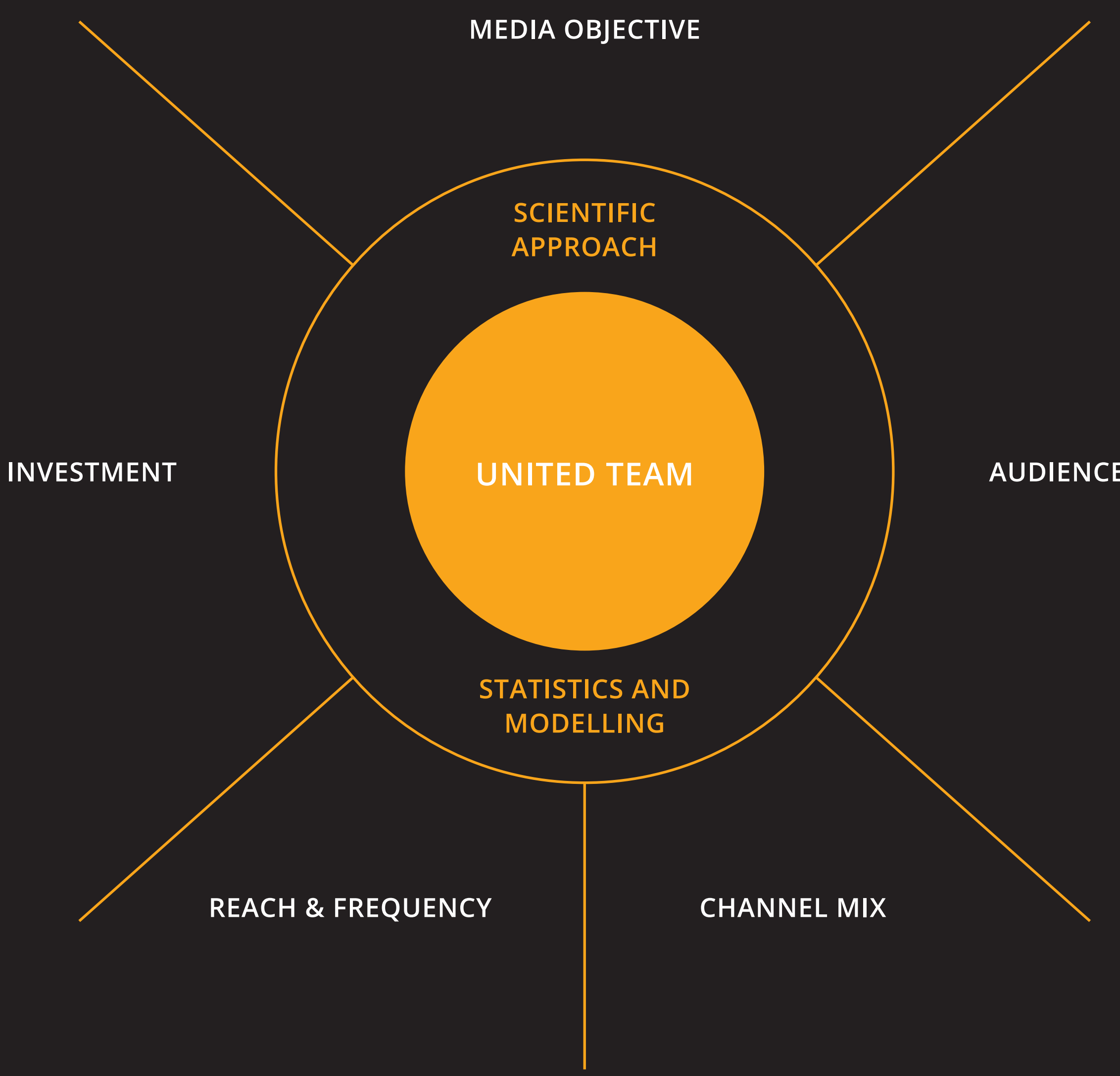
Given each of the Ps has several substrata, a back-of-the-envelope calculation would tell you that media should take up around 5% of a marketing team's headspace.

However, media, again very approximately, receives around half of the budget available to that team. Herein lies a critical mismatch: using my very approximate percentages, the marketing team is required to spend 50% of their budget in just 5% of the time available to them.

The substantial budget demands focus and accountability. However, the time available can't always provide it.

The solution is in systemisation. A systemised operation can streamline and improve process, product, and profits.

The Effective Media System



CASE STUDY

McDonald's marketing mix modelling

With almost 40,000 restaurants around the world and global revenue of over $20 billion, it will come as no surprise that McDonald's has one of the largest marketing budgets in the world, and the people in charge of the purse strings are eager to ensure they see ROI.

In 2018, the global food chain appointed Chris Graham – who was then their head of media Australia and New Zealand – to the newly created role of head of global media accountability and ROI, which has since morphed into the role of head of global media accountability and sourcing.

During his tenure, Graham has been a firm advocate for market mix modelling (MMM), which he believes "is the best way to answer the ROI question".

"We wanted to get rid of subjectivity when trying to identify a 'great campaign'. You need to start talking about all of the variables that can actually impact a great campaign," Graham told *Marketing* magazine in November 2019.

"It might be product price, the fact that you've refurbished your restaurant, the outstanding campaign creative or perhaps it's down to the media channels you used.

"Even if you know which one of those variables drove the favourable campaign outcome, it's then about looking at how much each one of those helped drive that outcome."

Unsurprisingly, the channel mix is only one relevant factor. Creative also plays a major role. As Graham told *CMO Magazine* in October 2019: "The creative agencies are on-board as well – for me, this was the bigger exercise. Their usual reaction is it's all about efficiencies. But suddenly they realised creative plays a big role in that calculation."

It will be no surprise that McDonald's has taken up the MMM approach globally, although it may warm hearts Down Under to learn this international strategy has its roots on our shores, where the model has been in use since 2014.

The model saw Macca's treble their digital spend over five years, up to 30%, although it has not been a simple case of 'more spend on digital equals more burgers sold'.

"A key learning was digital works in combination with all other media channels," Graham said at the IAB MeasureUp conference in Sydney in October 2019.

"It's reinforced if we put more money into digital, it will help drive our revenues. But we have to have the other building blocks of TV, radio, outdoor to deliver the best outcome."

AS FOR HOW GRAHAM KNOWS MMM IS WORKING – A FIRM ADVOCATE FOR MEASUREMENT – HE GAVE THE GREAT RESPONSE THAT "NUMBERS DON'T LIE".

"In Australia, ROI has almost doubled over the last five to six years,"

he told *Marketing.*

The Ideal Effective Media Team

Role	Trait
CMO	With a tenacious curiosity for ROI
Senior Marketers	With a broad understanding of brand media, performance media and how they interplay
Data Analysts	Not necessarily formally trained in data science, but very strong with spreadsheets, website analytics, and drive to deliver insights
Operations	A key organiser with strong attention to detail to ensure data inputs are clean and reliable (i.e. tagging digital creatives, obtaining and storing TARP reports, cataloguing ad creatives
CFO	Aligned on media as an investment in growth
CIO	Aligned and prioritising data and data science resource as required

WITH SO MUCH THEORY TO APPLY, IT CAN BE DIFFICULT TO KNOW EXACTLY WHERE TO START.

IN THE WORDS OF THE GREAT STEPHEN COVEY:

Start with the end in mind...
[This refers to] the ability to envision in your mind what you cannot at present see with your eyes. It is based on the principle that all things are created twice. There is a mental (first) creation, and a physical (second) creation. The physical creation follows the mental, just as a building follows a blueprint.

FranklinCovey

2.2 The Effective Media System Overview

THE ENDGAME LOOKS SOMETHING LIKE THIS:

CEO: 'Is that new test campaign working?'

CMO: 'Yes, we are 2 months in, seeing increased sales from the test market, 5% more than we modelled on the baseline. It's giving a 4:1 ROI short term, and 6:1 long term. If we take it nationally, we can beat this year's target by 8% on the same media investment, by 10% with an optimised media mix, and by 16% if we maximise efficient spend.'

CEO: 'Susan, that's awesome, insightful, and succinct, thank you.'

The CEO is correct, that is an awesome response, loaded with insight. But you'd be surprised at how many C-suite executives and marketing practitioners still do not speak this language. Gobbledegook, they say. Marketing hocus-pocus.

Sure, like anything worthwhile, this is a language that takes time and practice. But I can assure you, a structured test and learn mentality underpinned by data and modelling will generate ROI if applied systematically.

LET'S BREAK DOWN THE CMO'S CONVERSATION INTO ITS KEY COMPONENTS...

Test Campaign: The CEO is familiar with the test and learns the system and looks forward to the results.

2 weeks in: The CMO is mindful that the test is set across a specific period of time and refers to the current duration as a sign of statistical significance for the results she is about to deliver.

Increased sales: The statement doesn't hide from the fact that it reports sales as a primary KPI. Awareness, reach, engagement ... they don't mean squat if the business isn't making bank.

Test Market: The company is running matched markets, whereby it has established two similar markets and uses one for investment and one as a control.

5% more than the baseline: A baseline has been established on a scientific basis via a media model (discussed fully later in this book).

Short and Long-term ROI: The statement recognises the fact that marketing has two speeds, each with their own processes, guiding principles, and potential pitfalls. Most importantly, rather than focusing owlishly on short-term sales, the CMO has a methodology for expressing long-term value.

Beat target: The test market has a set target, an attainable growth objective based on realistic but not overly conservative business goals.

Optimised media mix: The company is running media optimisation models to ensure spend is being allocated across the most efficient and effective channels.

Maximise efficient spend: The company has a clear model for efficient spend by way of diminishing yield curves (see chapter 4.5).

Succinct: The CMO is aware that the CEO has many other things to think about and has expressed the summary in a clear, punchy manner.

So let's start with the end in mind. 'The end' is a short 120-word business update, but the underlying substance is powerful.

This end conversation is the outcome of a system-based media function that the following chapters detail.

THE SYSTEM THAT WE WILL OUTLINE THROUGHOUT THE REST OF THIS BOOK IS MADE UP OF TWO CORE PROCESSES:

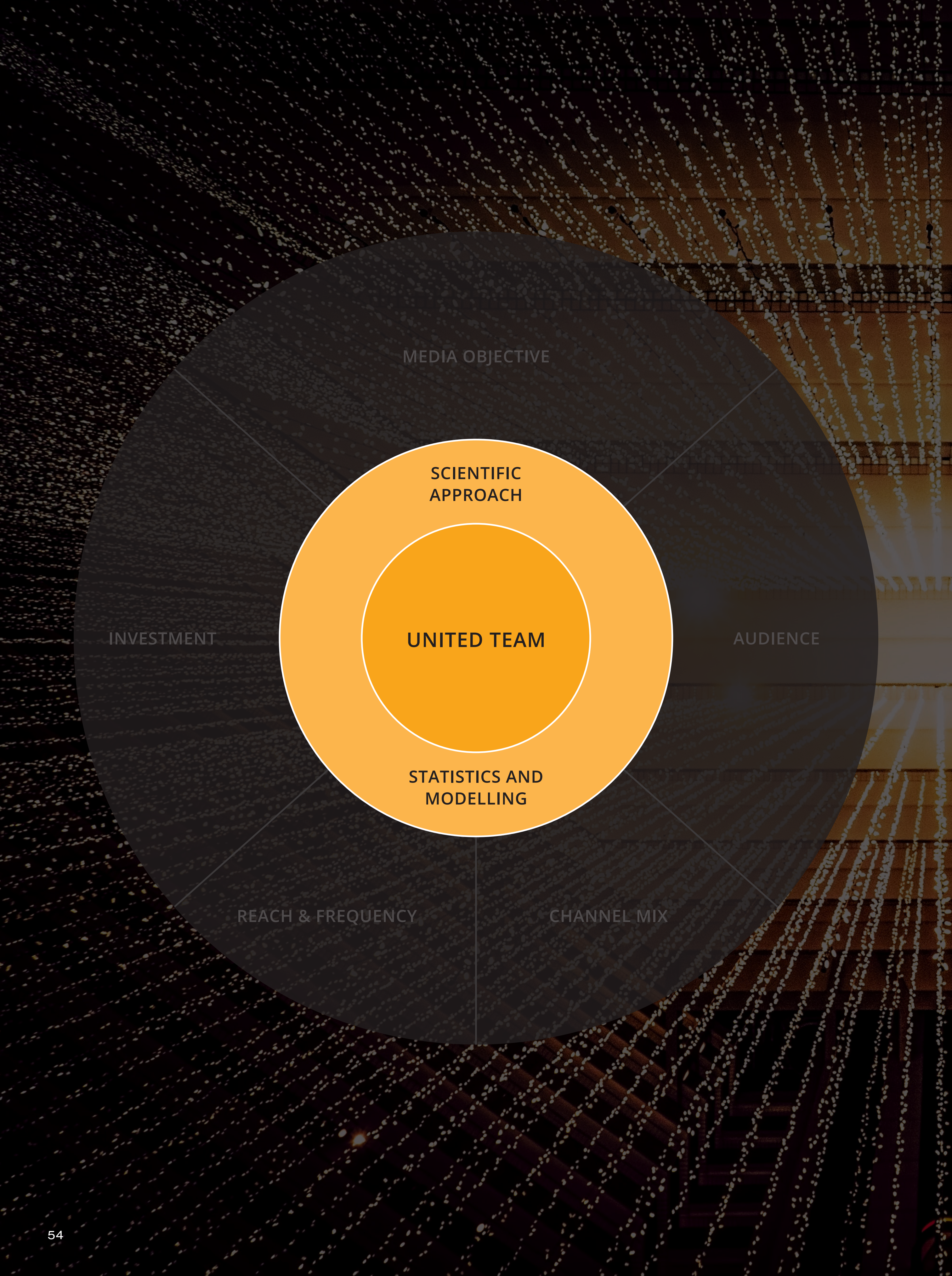
1. Scientific process – testing and learning
2. Measurement with modelling

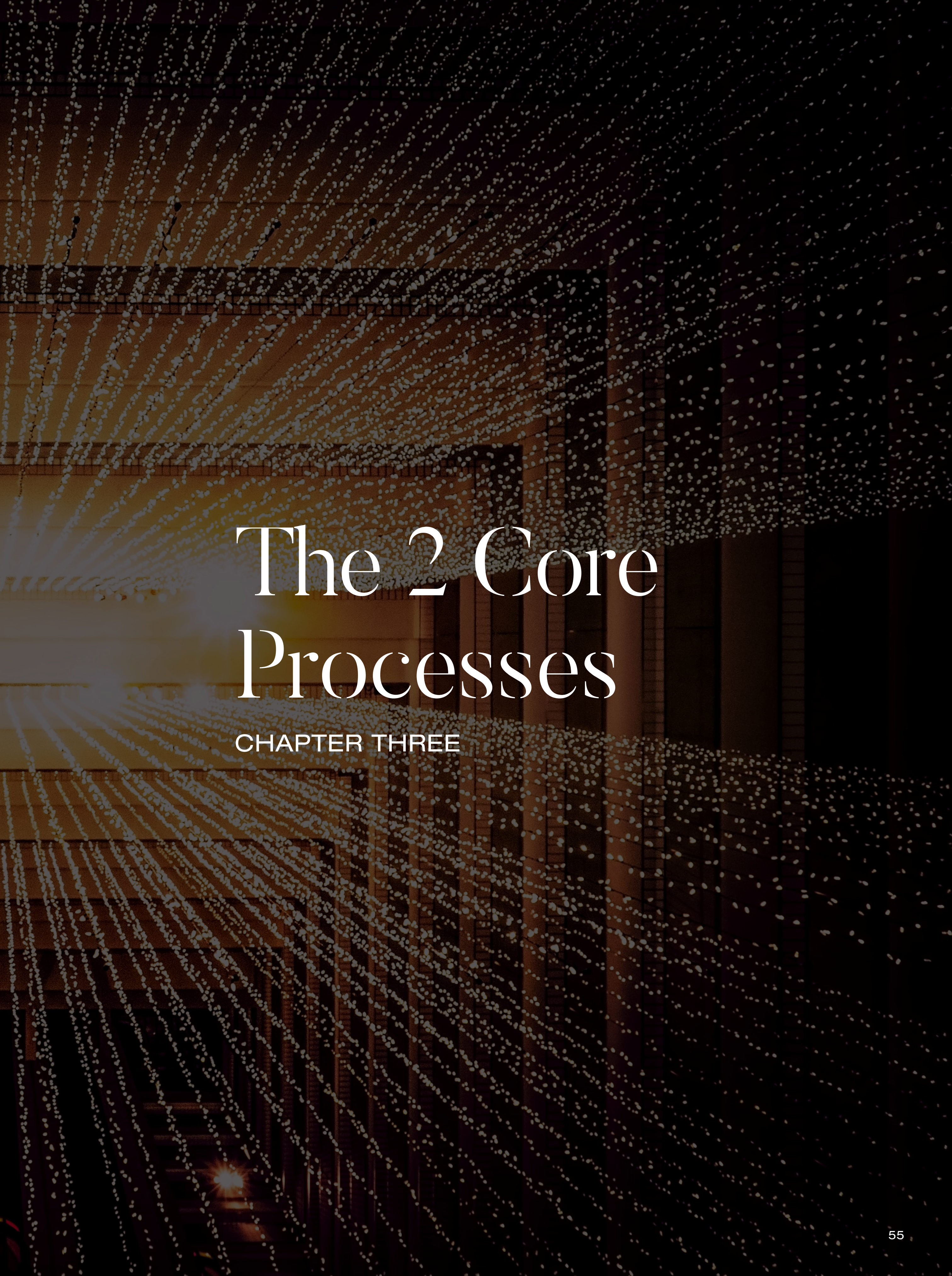
THIS CORE THEN APPLIES TO MEDIA PLANNING IN THESE AREAS:

1. Objective
2. Audience
3. Reach & Frequency
4. Channel Mix
5. Investment

THE SCIENTIFIC CORE CAN BE APPLIED TO CONFIRM THE TRUE IMPACT OF MARKETING THEORY ON BUSINESS ROI

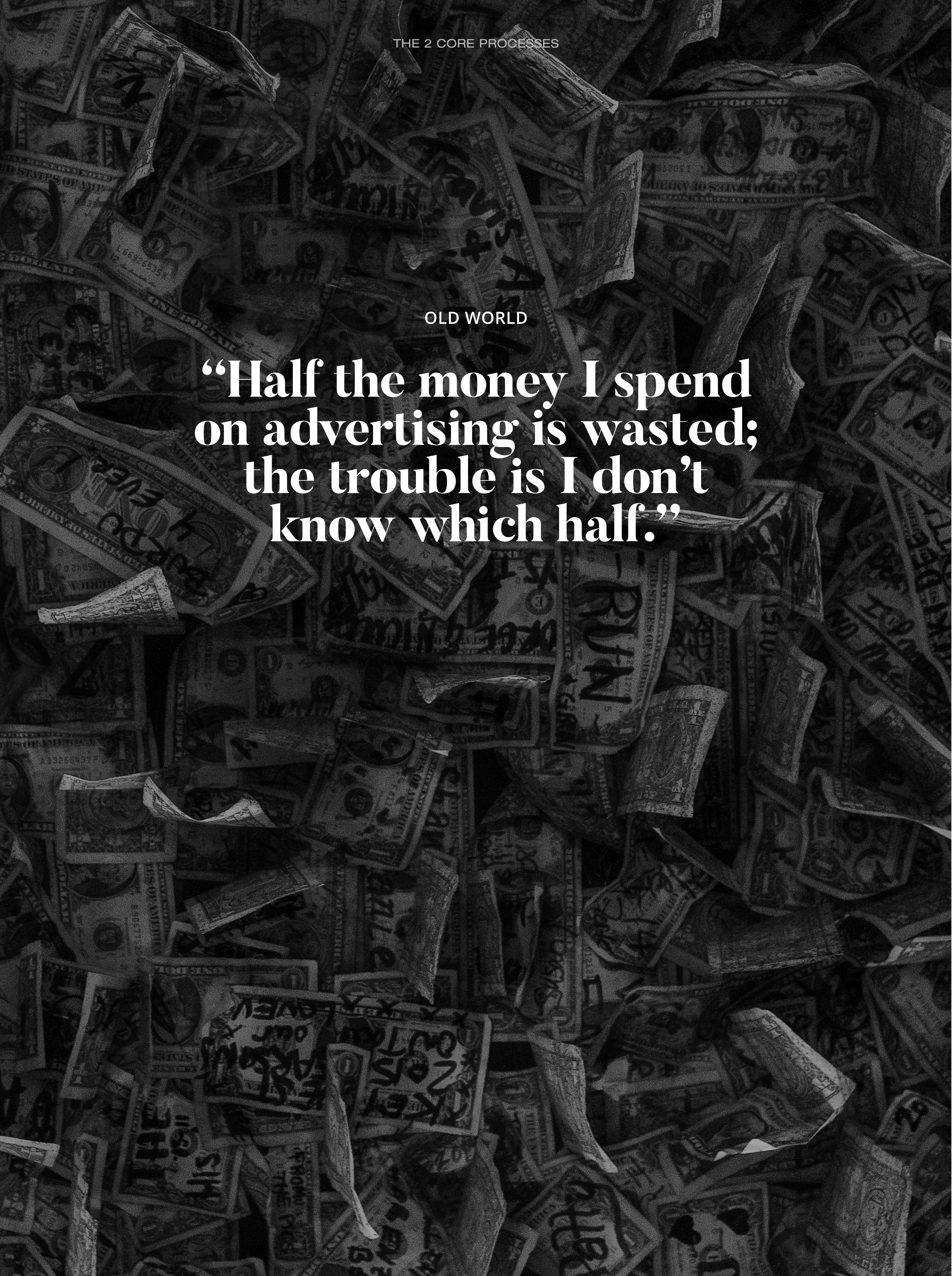
Fail Forward Fast.
Test & Learn Methodology.


MEDIA OBJECTIVE
SCIENTIFIC APPROACH
INVESTMENT
UNITED TEAM
AUDIENCE
STATISTICS AND MODELLING
REACH & FREQUENCY
CHANNEL MIX



The 2 Core Processes

CHAPTER THREE



OLD WORLD

"Half the money I spend on advertising is wasted; the trouble is I don't know which half."

3.1 Scientific Process

NEW WORLD

"That's pretty wasteful. You should have implemented a scientific measurement process some years ago my friend."

With the tools and methodologies available to marketers in the modern marketing environment, the adage about wasted advertising spend shouldn't hold anymore, if it ever really did.

THERE ARE THREE KEY MESSAGES WE WANT YOU TO TAKE AWAY FROM THIS CHAPTER:

1. Marketers should apply a scientific process to all marketing.
2. This process is as old as science itself: hypothesis, test, measure.
3. Macro and micro testing should permeate everything the marketer does.

Marketers criminally underuse testing

Science and experimentation go together like a horse and carriage – ask a kindergarten class what a scientist does, and they will tell you: "experiments!"

Yet, while marketers are coming around to the world of data science, there remains an entrenched reluctance to experiment with what does and doesn't work in a campaign on a significant scale.

Julian Runge, a behavioural economist and digital marketing researcher who has done work with Facebook's marketing science research group believes that this dearth in experimentation can be marked down as largely being institutional, what he refers to as "organisational obstacles". Many of these obstacles are legacies of a time before big data but have become entrenched and therefore have become roadblocks to informed advancement.

"Marketing mix models are well established and trusted decision-support tools that are seen as less technologically complex and costly than setting up randomised custom trials (RCTs)," he wrote for Harvard Business Review.

"But in fact, launching RCTs on digital channels doesn't require unusually complicated technology, can be done at near zero cost, and can actually help optimise existing marketing mix models."

In the same piece, he outlined how simple, cheap and effective RCTs can be. In his work at Facebook, he ran an observational survey of how leading firms used RCTs and found that running 15 experiments annually, as opposed to zero, led to around 30% higher ad performance, while firms that conducted 15 experiments the year before had a 45% increase in performance.

Just stop and process that: 45% performance improvement in two years. And all that was required was 30 RCTs, which can be performed "at near zero cost" over 24 months.

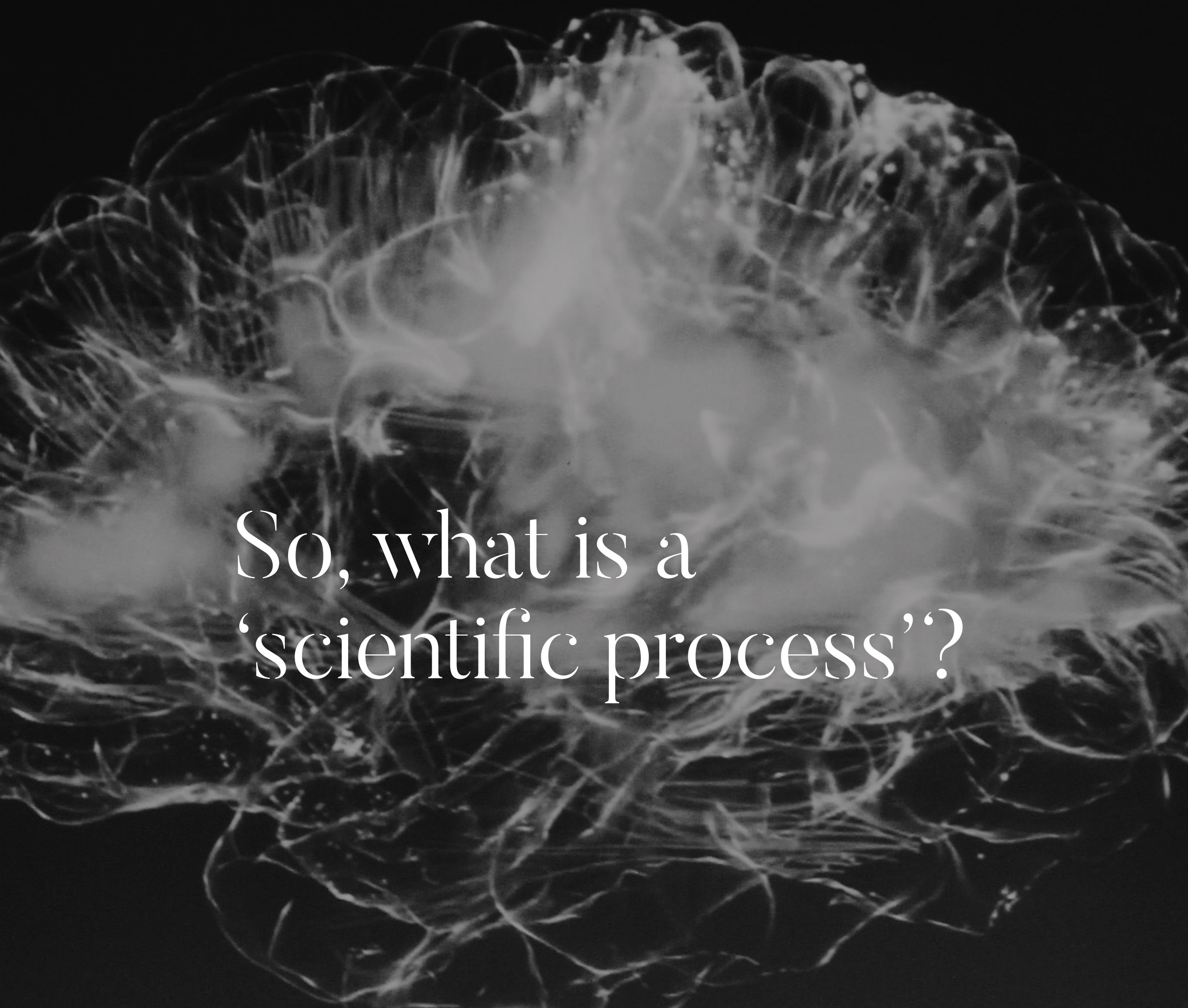
Runge and his colleagues at Facebook wrote a paper about their studies, wherein they devised a four-point plan, or what they call a "reinforcement learning frame" to help firms adopt experimentation:

1. Devise an exploration policy
2. Define a reward that is to be maximised through learning
3. Continuously innovate and develop new candidate policies
4. Rigorously reinforce

You have to love it when someone doesn't just highlight a problem, they bring a solution to the table.

And while Runge noted that RCTs can be done with minimal investment, he does recommend a portion of the advertising budget be set aside for experimentation, writing that "10% is typical among companies with a successful experimentation program."

Ultimately, macro and micro testing and the development of scientific processes should permeate everything the marketer does – because it gets results!



So, what is a ‘scientific process’?

Scientific process is the pursuit of knowledge through developing a hypothesis, testing it and measuring the results. We are taught this framework in high school, but it is unlikely to surface as a daily practice thereafter.

Unfortunately, the scientific process does not find its way into many fields of marketing. Marketing and science are too often seen as chalk and cheese. But it doesn't have to be this way. If the scientific process was diligently and consistently applied within the marketing practice, it would undoubtedly fuel business growth and sales.

The ideal approach, in my view, is an an-always on attitude to macro and micro testing, something I rarely see in practice. Generally, marketers undertake micro tests in a silo channel (e.g. advert copy test in Google Adwords) where the test is not incorporated within a structured macro program. Don't get me wrong, this type of testing can lead to useful learnings, but its usefulness is limited because the learnings generally stay within one channel and one team.

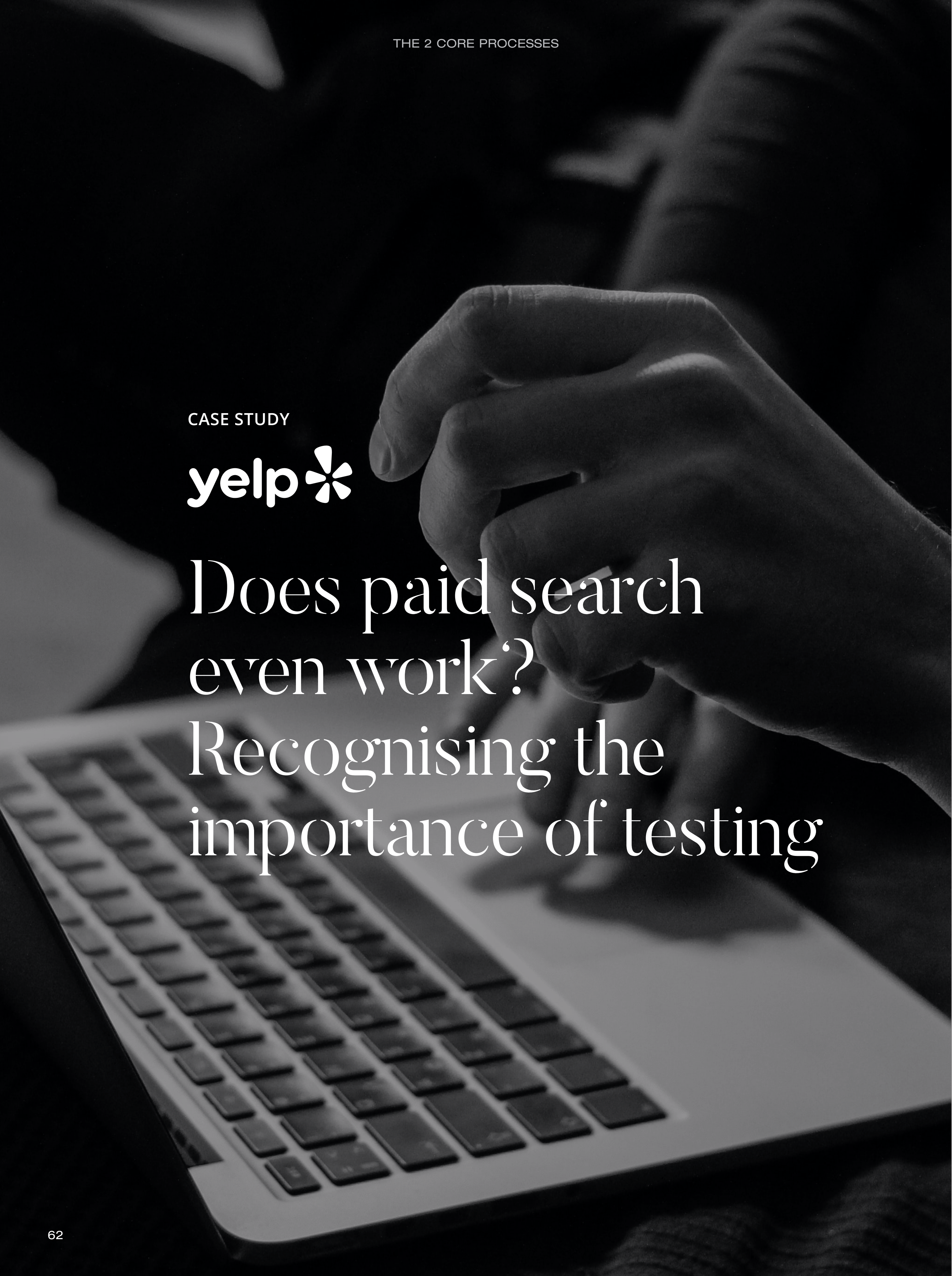
Your mission...

IMAGINE A MARKETING DEPARTMENT WHERE THE ANNUAL GROWTH TARGET IS BASED ON AND FROM A SCIENTIFIC PROCESS.

HERE'S THE CONVERSATION:

CFO: What do you think we can hit next year?

CMO: We have been running some models, based on the learnings from the past 12 months and the tests that we deployed throughout the year. We tested TV, it has a 14% impact on sales, and it is at 65% optimal budget. We tested radio, it has a 12% impact on sales and 95% optimal budget. We have modelled this out and can drive another 18% sales if we invest $x, or 25% if we invest $y, noting that the second option would have a 20% ROAS.



CASE STUDY

Does paid search even work? Recognising the importance of testing

In 2013, a paper was published that claimed: "brand-keyword ads have no short-term benefits, and that returns from all other keywords are a fraction of conventional estimates".

Far from being a conversation starter or blind musing, this was a serious bit of academic research, clocking in at 25 pages, with co-authors from the University of Chicago and UC Berkeley, and featuring an impressive list of references.

Furthermore, the authors' conclusions were reached by conducting a series of controlled experiments to test their hypothesis.

All of which is to say we're talking about a legitimate study, conducted with scientific rigour, by experts in their field, that concluded that "the efficacy of SEM is limited at best".

So why have we seen global spending on search advertising go from $US62.9 billion in 2013 to more than double that amount – $135.9 billion – by 2019?

Well, the full conclusion reached by the paper was: "The results of our study show that for a well-known brand like eBay, the efficacy of SEM is limited at best."

You see, the paper was conducted by eBay Research Labs and the controlled experiments they conducted were by 'turning off' their own, large-scale campaigns.

None of which is to say that the company or the authors had ulterior motives in publishing the paper, merely that we're talking about SEM for a brand that, in 2013, had net revenue in excess of $16 billion.

It's pretty hard for any brand to make an apples-to-apples comparison with a company that has that kind of revenue and brand recognition.

Nevertheless, the paper still caused a bit of a stir and caught the attention of Michael Luca, an assistant professor at Harvard Business School.

He decided to conduct his research on the issue, but rather than see whether SEM worked for a monster like eBay, he investigated the effectiveness of Yelp ads on small businesses.

Luca and his colleague created their experiment, with a sample size of more than 18,000 restaurants across America.

THE RESULTS? ACCORDING TO A 2017 HARVARD BUSINESS REVIEW ARTICLE, THEY FOUND

"while the ads were up, the restaurants in them got more page views than the others—22% more on desktop browsers, 30% more on mobile devices, and 25% more overall. Users requested directions to them 18% more often, made 13% more calls to them, and clicked through to their websites 9% more often. The differences disappeared as soon as the ads were taken down."

Does paid search work? Obviously, it depends. But if your business is probably more akin to a medium-sized restaurant than a global behemoth, it's certainly worth giving it a go. The key, as with all marketing, is to develop a scientific process and test, test, test. What works for one business may not work for another.

3.2 Measurement with Modelling

How on earth do we not understand Marketing Effectiveness? We have discovered penicillin, landed men on the moon, and split the atom, but we have not yet understood where the other half of the marketing budget goes.

Media effect is complex, but that shouldn't stop us from trying, and we can do much better. Humans have proven many times that where they put the focus, they can solve incredibly complex problems.

There are so many variables that impact a business' growth. There are the primary Ps, then there are the secondary Ps, then there is a myriad of external factors such as competitors, economies, and consumer sentiments.

The bulk of the understanding is derived from subjective evaluation. It is opinion-based and therefore fundamentally flawed. Not so much a science as a guessing game. This has bred scepticism in the CFO office and a depreciation of the CMO voice as one of authority for growth.

As I explained in the previous chapter, the key to combatting this issue is science. CMOs must develop a scientific process.

KEY TAKEAWAYS FROM THIS CHAPTER:

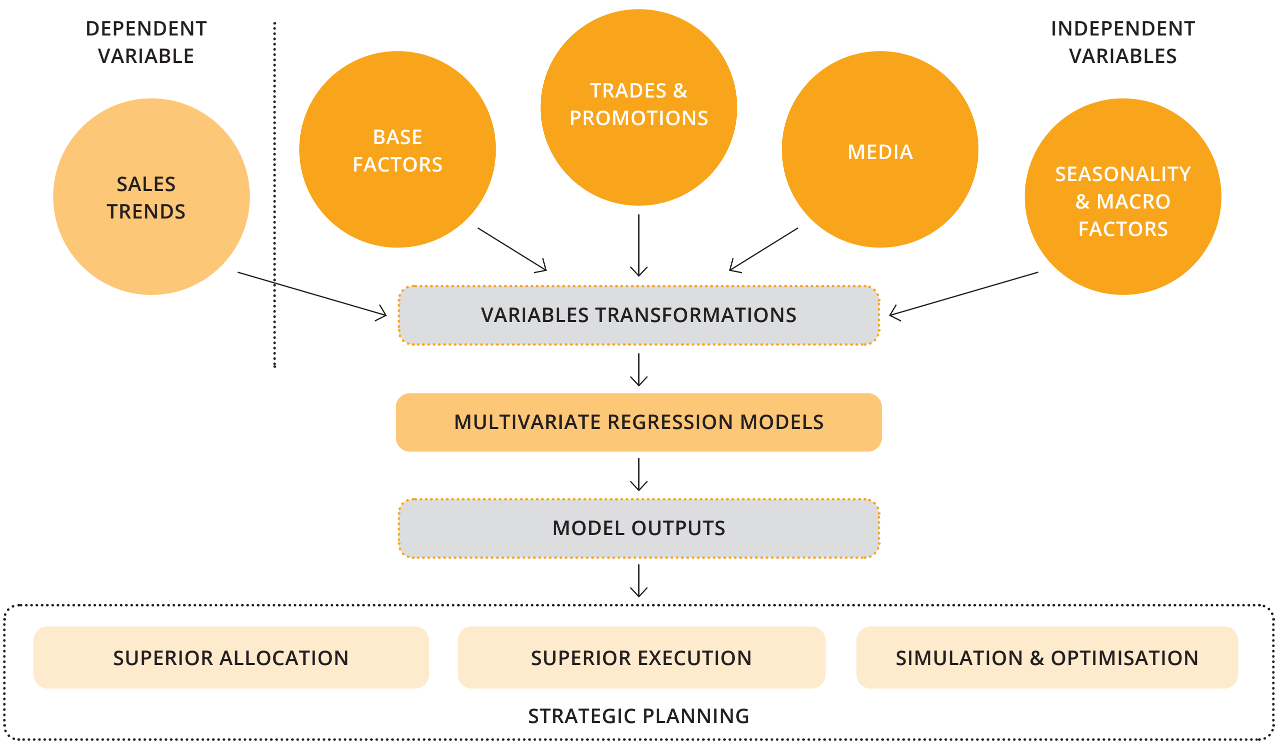
Marketing has so many variables, models are the only way to discern unbiased progress.

Bias is the marketer's enemy, models are not biased.

Modern technologies make models accessible to all.

Correlation is not causation.

MARKETING MIX MEDIA METHODOLOGY



How can CMOs set up the scientific process?

We propose that marketers work with the broader C-suite team to implement an always-on scientific process that permeates the entire business. This involves a bifurcated approach that should divide your view of the marketing world into a macro and micro mindset. Macro for the big picture "is this full media mix working" and micro for the per channel analysis.

MACRO MODELS ENABLE THESE TYPES OF CONVERSATION:

CFO: So you are saying that we can increase the annual budget by 80% and still have a cost of sale that is profitable?

CMO: Yes.

CFO: Impressive, can I see the workings?

CMO: Yes, in fact, your team helped us pull the data and assess the model.

CFO: Great, I can support this at the board meeting. It's a no-brainer.

1. MACRO TESTING

The macro-environment for media effectiveness is the largest and most significant question that we can ask – well, maybe not in the meaning of life sense, but definitely, in the field of marketing – *Is this media returning a positive ROI?* Secondary questions are: *Can it deliver more? Is it optimal?* In other words, can we get more sales for less cost or more sales at a positive ROI?

Although complex, the answer to this question lies in econometric models and media mix models. A solid but not necessarily extensive understanding of modelling processes, outcomes, and limitations is needed. Let's delve a little deeper.

Modelling is the process of taking data (e.g. date, creative message, media channel) and finding a causative link between that data and an outcome (e.g. sales). The maths that underpins these models is hugely complex – if you're like me, you think about statistics classes at school or university and get the chills – but it's not outside the realms of comprehension or some desktop research on YouTube. A great place to start on YouTube if you want to develop this skillset is the "Statisticsfun" channel.

Once a pattern of causative data is found, a model can be built on the underpinning maths, and that model can both forecast and inform which inputs are important to the outcome.

Such models have been used for media planning and analysis for many years, but the persistent speed bump is that they are not ingrained into the marketing department as a source of truth for budgeting and optimising the business outcome.

Maybe a digital geek (and I say the term endearingly, being one myself) in a sub-team within the marketing team has developed some highly effective modelling relating to search spend, but ask most executives in the marketing department about causative modelling between marketing data sets and sales, and they will likely go cross-eyed.

This is a huge problem – how can you pitch an optimised budgeting approach to the CFO if you don't understand it yourself.

These models are not perfect. Statisticians will argue over which statistical framework is most relevant for the task, but there is no better way of answering the macro question of whether marketing is working. Everything else is subjective and open to bias.

And the good news is that once you embrace the maths, your CFO will welcome you in. You speak their language and have a data-driven point of view to converse on.

A macro model needs about three years of data to become worthy (aka statistically significant) and also needs this period of time to get a good read on the impact of media on sales.

Below I have put together a template to implement your first test. Note that you need not limit these tests to the question of whether the media is working. Regression models can be used for many purposes, including analysing the impact of marketing on longer-term brand metrics, the impact of media on store visits, the impact of the creative message and offers on conversions.

6 Tips for Presenting the Model to Stakeholders

1. Show the structure of the model
2. Make the assumptions clear
3. Make the limitations clear
4. Make the metrics clear
5. Show previous effectiveness of the structure when applied previously (statistical significance)
6. Explain how and when you will report back on effectiveness

<EXAMPLE STARTER PROJECT BRIEF>

Test Subject:	Media ROI
Test Owner:	CMO
Hypothesis:	Media investment supports growth by x% of sales
Test Framework:	A quarterly correlation of media activity to sales data
Measurement Framework:	A regression analysis that quantifies the impact of media investment on sales
Test Period:	1/1/20 to 30/3/20
Measurement Metric:	Sales
Measurement Method:	Basic Regression Model
Measurement Technology:	Excel (note there are various more advanced and automated tools available)
Baseline:	X,000 sales
Approach	Increase media investment by 10% in X Market for a period of three months
Expected Result	X,000 incremental sales (excludes X,000 from baseline)
Control Market	Matched market identified as X

Modelling is typically the domain of the analyst's department, or more recently named the data science department. Large corporations are investing and developing these departments to gain insights from the large amounts of data that they have access to. Marketing insights will be part of the remit but are unlikely to be the exclusive remit of these departments.

Where the data team has no capacity for media analysis, or too long a lead time, or doesn't exist, the underlying maths in these models is complex but not outside the comprehension of the marketing team. Moreover, for understanding marketing data, it is more important to understand the concepts of modelling than the methods.

Whilst it might be daunting, a good understanding of the above is very important to the current day marketer. It is the best way (I also think the only possible way) to have a science-based point of view on media effectiveness. And remember, there is a lot at stake. The media budget is a large amount of money that deserves to be understood through the scientific prism.

2. MICRO TESTING

Once we have the big questions moving along, you can dig deeper and get to the bottom of the following important questions:

Which media channel is working best?

Did that new creative work?

Is my competitor's spend impacting my results?

Did that offer stimulate sales?

These conversations should generally be isolated to the marketing department as opposed to being held with the CFO. They inform the tactics and day-to-day activity of the marketing department.

A very similar process can be applied and rolled down from the macro framework i.e. collect relevant data and use regression models to report the answers.

Here is a table of the types of data that need to be collected. The sooner you start, the better. Most models need two years of data or more, by week, to provide a strong report.

Question	Output data needed	Core data needed	Supplementary data needed
Which media channel is working best?	Sales data by week	Impressions/spots by channel by week	Offers, promotions, creative versions competitors spend and offers, broader economic data
Did that type of creative work?	Sales data by week	Message/offer in market by week	As above
Is that competitor spend impacting my results?	Sales data by week	Competitor spend by week (typically sourced from AQX paid licence required)	As above
Should we spend more?	Sales data by week	Impressions/spots by channel by week	As above
Are we reaching the right segment?	Sales by segment by week	Impressions/spots by channel by week	As above

The supplementary data column is interesting to note. Models will ingest everything you have available and tell you what is important or not. There is no harm in including as much data as you have as it might surprise you with a correlation that you can work with, i.e weather correlates with ice cream sales, recessions correlate with university enrolments, eating cheese correlates to deaths in bedsheets (it's true: https://www.fastcompany.com/3030529/hilarious-graphs-prove-that-correlation-isnt-causation)

Correlation Versus Causation in SEO

SparkToro

RAND FISHKIN

It's a phrase so ancient that its origin is found in Latin: "cum hoc ergo propter hoc", or "with this, therefore because of this".

However, this well-trodden phrase itself is these days recognised as a logical fallacy, which has led to the far more commonly heard saying, "correlation does not imply causation".

And it's a problem we've grappled within marketing for as long as the field has existed.

The classic example is a toy store that goes all-in on advertising at Christmas and sees gangbuster sales – but was the boom in income due to effective ads or just because virtually everyone in the world is spending up big on the latest gadgets to avoid disappointing their kids come the morning of December 25?

It's why we strive so hard to isolate causation – because the ability to replicate it means we can achieve similar sales any time of the year.

However, when it comes to search engine optimisation (SEO), there is an argument – explored in a 2015 post on 'Moz' written by the company's co-founder, Rand Fishkin – that you should ignore causation and instead, shoot for correlation.

While six-year-old advice regarding SEO methods may seem as ancient as the Latin phrase that inspired it, Fishkin's logic was based on that very concern: what Google considers to be 'good' SEO can change seemingly on a whim, "the best path forward isn't to exclusively build to the signals that are recognised and accepted as having a direct impact on rankings".

"Instead, successful marketers have been engaging in the tactics that Google's algorithms are chasing—popularity, relevance, trust, and a great overall experience for visitors," Fishkin wrote.

"Very frequently, that means looking at correlation rather than causation."

He used the example of bounce-rate – that if Google were to reward pages that keep people on them for an extended period, some companies might make changes to their content that would make navigating the page more time-consuming.

By comparison, a company that creates easy-to-find information on a logical-to-navigate page may be penalised because users quickly get what they're after and leave.

But long term, the latter company is going to be better off, because they'll have return customers, earn good social and word-of-mouth, and build a reliable network of backlinks, which Google will ultimately realise is far more worthy of rewarding.

As Fishkin says of the former company, "You found an algorithmic loophole and exploited it briefly, but by playing the 'where's Google weak?' game rather than the 'where's Google going?' game, you've ultimately lost."

Now, Fishkin isn't arguing against looking at causation and utilising it to your advantage when you identify it, he's simply cautioning against the very real temptation to 'game' the system for short-term outcomes because this approach is unlikely to pay dividends in the long run.

TECHNICAL TIP

Silo Channel Testing

The always-on practice of testing should equally apply to and within individual channels.

This practice is more commonplace in modern marketing departments. Digital marketers are well versed in the merits of A/B testing ad copy, landing pages, and offer messages.

These tests are typically run in a platform (e.g. Google Adwords or Facebook) and are encouraged, if not fully automated, within those platforms. Google Adwords now (as of 2021) has an autopilot mode that will create variations of ads and placements and optimise to the best performing combinations with no need for manual input.

The potential pitfall is that when a digital marketer is considering a channel as a silo or using the autopilot features of the media platforms, the channel may be influenced by external factors.

Be mindful to consider the external factors and not attribute the success of a channel purely to its internal mechanics. Be aware of the entire channel ecosystem.

CASE STUDY

The rise and rise of the data scientist

If you don't have a stats team (aka data scientists), then you'd better hire one. If you can't afford to hire one, outsource. Better yet, do both. I can't stress this enough. All future-focused corporates are investing heavily in data science teams, whose core function is to collect and organise company data for analysis.

The profession of data scientist has seen a huge surge over recent years, going from virtually non-existent at the start of the 2000s, to being one of the most sought-after – and difficult to fill – roles for firms around the world.

"There are very few data scientists out there passing out their resumes," LinkedIn co-founder Allen Blue said at a 2019 town hall.

"Data scientists are almost all already employed because they're so much in demand."

Blue also noted that data science is no longer confined to traditional 'tech' roles, with "massive growth — 15 times, 20 times growth" in the data science jobs as a result of the importance of appreciating data in industries such as education, manufacturing and, yes, marketing.

SO, IN VERY BROAD BRUSHSTROKES, WHAT DOES A DATA SCIENTIST ACTUALLY DO?

A data scientist takes the huge swathes of data that are available in the modern work environment and interprets it into relevant insights, which can then be applied to the business to improve processes and, ultimately, outcomes. They will also design and conduct experiments because, you know, they're scientists!

This obviously requires a solid understanding of statistical analysis but also – due to the massive amount of varied and ultimately 'unclean' data that comes in – machine learning and software engineering skills are required because technology is essential to process the sheer amount of data.

The critical ingredient going hand-in-hand with all this tech and mathematical skill, however, is human insight and communication. Collating and sorting data is all well and good, but the best data scientists can then translate what it all means in concise terms and explain how it can be applied to achieve clear, workable business solutions.

In fact, when asked by the Harvard Business Review: "Which skill is more important for a data scientist: the ability to use the most sophisticated deep learning models, or the ability to make good PowerPoint slides?" Jacqueline Nolis, a leading data scientist (who went by Jonathan at the time of the interview), made the argument for the latter, such is the importance of communication in the field.

If that all sounds pretty education-intensive – being a mathematician, software engineer, and communicator, as well as being a scientist – well, it is. In fact, according to the University of Wisconsin, "88 per cent of data scientists have at least a master's degree and 46 per cent have PhDs."

Of course, if there's a negative to the sudden rise of this role, it's probably that it's still too new for consensus to be built on best practice across an industry – let alone multiple industries – and with such intelligent and qualified people often inhabiting ill-defined roles, there are any number of approaches taken.

"I learned of an airline that didn't know how to update its pricing models after the Covid-19 outbreak because the data scientists who developed those models were no longer with the company," CEO of Domino Data Lab Nick Elprin wrote for Forbes in March.

"The materials and process to update the models were spread across dozens of systems, and the original code wouldn't run because it depended on older, unknown versions of specific Python packages."

To stop issues like this from arising within your organisation, it's critical to have a top-notch Chief Information Officer (CIO) in place.

The CIO is the sheriff bringing law and order to what Elprin refers to as the "Wild West' of data science systems". But rather than packing a six-gun and treating their data science department as the OK Corral, the best CIOs build consensus among their teams to reach mutually beneficial outcomes.

Being in the C-suite, obviously, leadership is a critical part of the CIO's role, so being at the forefront of developments in data science is important, but as the field grows increasingly specialised, a good CIO also knows when to listen to their team and appreciate their expertise.

More than just overseeing the data science department, however, the CIO also tends to be charged with ensuring a business' online security, given many a cyberattack targets data breaches, the cost of which, according to IBM was, on average in 2020, $US3.86 million.

The CIO then must be able to take what they have learned – be it from their work and research or from what their team is telling them – and explain to the rest of their colleagues at the head of the business what the data team is doing, why they may require increased resources and, ultimately, present and deliver business goals that drive profit.

Ultimately, it may be new, unknown, and somewhat scary territory, but getting the right people on board to collate, process, and implement the findings from data is a journey worth taking because, if you'll allow me to lean on the Wild West analogy once more, "there's gold in them thar hills."

USA Bureau of Labor states that Statistician is the fastest growing corporate occupation for the next 10 years

OCCUPATION	GROWTH RATE, 2020-30	2020 MEDIAN PAY
Motion picture projectionists	70%	$27,490 per year
Wind turbine service technicians	68%	$56,230 per year
Ushers, lobby attendants, and ticket takers	62%	$25,110 per year
Nurse practitioners	52%	$111,680 per year
Solar photovoltaic installers	52%	$46,470 per year
Cooks, restaurant	49%	$28,800 per year
Agents and business managers of artists, performers, and athletes	46%	$75,420 per year
Costume attendants	44%	$42,910 per year
Exercise trainers and group fitness instructors	39%	$40,510 per year
Model makers, wood	39%	$64,050 per year
Athletes and sports competitors	38%	$50,850 per year
Makeup artists, theatrical and performance	37%	$106,920 per year
Occupational therapy assistants	36%	$62,940 per year
Statisticians	35%	$92,270 per year
Entertainment attendants and related workers, all other	35%	$27,230 per year
Physical therapist assistants	35%	$59,770 per year
Animal caretakers	34%	$26,080 per year
Miscellaneous entertainers and performers, sports and related workers	34%	$15.70 per hour
Information security analysts	33%	$103,590 per year
Film and video editors	33%	$67,250 per year

(Source: https://www.bls.gov/ooh/fastest-growing.htm)

The perils of bias in research

THE TERM 'FAKE NEWS' HAS BECOME A UNIVERSAL CATCH-CRY FOR PEOPLE SEEKING TO CAST A NARRATIVE AS BEING UNRELIABLE – SO MUCH SO THAT IN 2017, THE AMERICAN DIALECT SOCIETY DECLARED 'FAKE NEWS' TO BE THE WORD OF THE YEAR.

The news, once seen as a sacred, infallible source of information in the Western World, can now be dismissed by simply bleating two words, regardless of the proof you have that said news is fake or not.

It is a fair concern, given the ease with which misinformation and disinformation can be created and disseminated using deep fakes, Photoshop, or by just typing outright lies on social media.

However, I wonder whether we should instead be paying closer attention to fake science.

It sounds like an oxymoron – how can science be fake? Hypotheses prove if it is accurate or not.

But much like it pays to read the whole story, rather than just the headline, and investigate sources when determining whether the news is legitimate or not, so too do we need to cast a critical eye over science.

Nico Neumann, an assistant professor and fellow for the centre for business analytics at Melbourne Business School, suggested in a 2018 article for Adnews that there are "three criteria that indicate red flags" when you're assessing research:

1. The financial sponsor of the study is an industry lobby body or group that benefits from the results shown.
2. There is only a 'pseudo' white paper or just a slide deck, lacking important technical details.
3. There has been no peer review by fellow scientists.

A classic example was the tobacco industry funding research.

By the 1950s the scientific evidence that smoking was harmful was becoming overwhelming, yet 'science' refuting this continued to be pushed out, largely by an industry with a vested interest in the outcome.

"The tobacco industry's rationale for funding research on both active and passive smoking is to bring under their influence scientists who could act as experts, to raise goodwill support on critical issues, to push scientific 'extremists' (those who do not agree with industry positions) into isolation and to have work published which can create controversy or diversion," the World Health Organisation found.

Of course, we don't even need to go so far as the nefarious organisation that is Big Tobacco; look to papers referenced in this very book – such as the evidence that letterbox drops achieve massive cut-through (presented as fact by catalogue distribution company Salmat), or the paper that argued paid search doesn't work (conducted by eBay Research Labs). I was careful to highlight where these stats came from when referencing them because it was clear we were dealing with research that was – at least – coloured by financial outcomes.

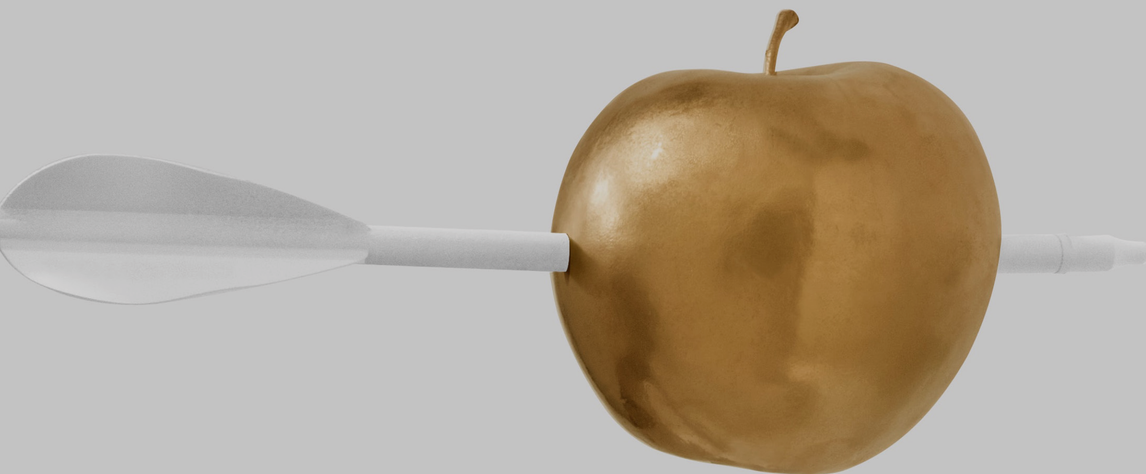
They may not be lies, it's just that they're probably not the whole story either.

None of which is to say that we should immediately be mistrustful of research, simply that we need to cast a critical eye over stats, data and outcomes that are presented.

Who conducted the research? Who paid them? How weighty is the evidence presented that leads to the conclusion? And has anyone with absolutely no vested interest in the outcome reviewed the research and found it to be solid?

Just as an informed citizen of the 21st Century knows better than to take a headline they read on social media and regurgitate it as fact without any further inspection, so too should those who rely on science to make business decisions do a little digging before using 'research' to draw conclusions.

The right **MESSAGE,**
To the right **PERSON**
At the right **TIME,**
With the right **FREQUENCY.**



Applying the Science & Modelling Core to Media Planning

CHAPTER FOUR

4.1 What outcome does the business want (Objective)?

WHAT SHOULD YOU TAKE AWAY FROM THIS CHAPTER?

1. The objective of media is to grow sales in both the short and long term.
2. Media objectives should be built from models, not budgets.
3. It takes 6-12 months (at least) to establish strong and accurate models.

THE CONVERSATION YOU SHOULDN'T BE HAVING:

CEO: We need 10% growth next year.

CMO: Yes, no problem.

A BETTER CONVERSATION:

CEO: We need 10% growth next year.

CMO: I have been working on some models based on the market opportunity. Can we sit down for two hours this week to discuss?

THE CONVERSATION YOU SHOULD BE HAVING:

CEO: What growth can we achieve in the next five years?

CMO: Great question, I have been working on some models based on the market opportunity. Can we sit down for two hours this week to discuss?

This book aims to overturn the short-term, campaign-based thinking in media briefs in favour of long-term systemisation.

Somewhere in the day-to-day workings of media buying, we have forgotten that it is crucial to building a long-term system of planning, testing, and progressing media effectiveness. We have become too enamoured and mixed up with the creative process, which favours tactical (rather than strategic) campaign-based thinking.

We should think of media buying in terms of a two-speed operation, involving a long-term process where the bulk of effort and attention is placed, and a short-term operation where tactical campaigns are deployed as the exception.

Too often, media requirements are pitched out as a response to a brief, as opposed to a response to a system. A client asking a media agency to implement a media buying system is as rare as hens' teeth. Short-term tactical campaigns rule the current mindset - and this is an error.

Short-term thinking creates short-term objectives, investments, reporting, and measurement as opposed to long-term process, reporting, and optimisation.

Media also operates on a two-speed highway: long-term memory structures versus short- term activation.

SO, IN CONSIDERING AN EFFECTIVE MEDIA PROCESS, WE NEED TO CONSIDER THE FOLLOWING THREE QUESTIONS:

1. What is a realistic growth rate for the business over three years (long-term)?
2. What is the realistic growth this quarter (short-term)?
3. To what extent can media contribute to this growth?

What is realistic growth for the business over three years (long-term)?

Growth projections should be based firmly in reality. It should be derived by understanding opportunities through zero-based budgeting.

In an insightful Marketing Week opinion titled "Why Unilever is right to adopt zero-based budgeting", Mark Ritson talks about the importance of zero-based budgeting with great advocacy. It is the rare but important contrast to the budget + additional % approach, through which the marketing department is given the opportunity to outline the potential of the market and the cost to obtain that potential in an efficient and timely manner.

Zero-based budgeting requires the establishment of the market size, segments, and financial opportunity in its totality, followed by a focus on the segment that the business will target, how it will target this segment with the 4 Ps, and how much market share can be gained against the competition.

For the market share element, the leading theory is ESOV (Excess Share of Voice), which posits that a company's share of the market will be equal to its share of media investment over time. To grow market share, a company should spend 'excess' (defined as the surplus of % spend in media in its market over its % market share). It is a convenient and baseline theory that has sound research supporting it - see for example, Binet and Field's *The Long and the Short of It* discussed earlier in this book.

Zero-based budgeting and ESOV should be the guiding paths to answering questions about long-term growth. They do not account for opportunities and threats that present through the period (such as new markets or competitors), but they should be useful to defend against wild expectations from the CEO or CFO quarters.

For a more detailed deep dive, I highly recommend the *Mark Ritson Mini MBA* for a complete playbook on how to be an effective marketer in this space: https://mba.marketingweek.com/marketing/

What is realistic growth for the business this quarter (short-term)?

The three-year plan discussed above will provide an upward-curving sales forecast based on the market size and three-year budget. The quarters will compound over the three years to provide quarterly, seasonally adjusted baselines.

The task of the marketer is to exceed the baseline quarterly with superior tactics across creative and media (without forgetting the broader importance of the 4 Ps).

With regard to media effectiveness and its contribution to short-term growth cycles, a quarterly review of media is appropriate. Marketers and their media buyers should ask and resolve the following questions.

Question	Route to answer
Was the media mix correct? Can it yield more growth?	At the start of the quarter, a media mix should be defined within the model based on the previous rolling 36 months. Media models use correlation and statistical regression to calculate the contribution of each channel within the mix. Once this causation is calculated, scenarios can be iterated to provide the strongest possible weighting of each channel for the growth objective - with a corresponding growth dollar value assigned.
Did the offer / message / creative uplift brand, consideration or acquisition? Can it yield more growth?	Within a strong media mix model, a variable for offer/message/creative will be built in so that its importance can be determined within the media mix. This will give an overview of the comparative importance of the offer, message or creative within the model. If its importance has increased, it is safe to assume that it was more effective.
Did a specific channel perform better than expected? Can it yield more growth?	By comparing the channel importance within the model to previous quarters, the variances will signal the increased or decreased contribution to growth. A channel expert can then advise on the yield curve for this channel to gauge increased effect over cost.
What non-media factors impacted the quarter? Can we leverage or mitigate these?	Media mix models often include external variables such as competitor spend, economic indicators, and industry-specific issues. Include as many external data points as you can - the model will include or reject them based on their correlation to growth. If they prove positive or negative to sales, then run a cross-correlation report to determine which other variables they align with, then use these other variables as levers.

How much can media contribute to this growth?

A deserving and appropriate response to this question is complex and requires 6-12 months to build.

MARKETERS AND THEIR AGENCIES SHOULD USE THE COMBINED SKILLS OF A STATISTICIAN AND MEDIA PLANNER AS FOLLOWS:

1. Understand the precise impact of media on sales by way of Bayesian statistics.
2. Understand other positive and negative variables such as product price, creative and competitors.
3. Factor in brand investment and impact of brand on sales.
4. Factor in adstock decays (the memory atrophy and diminishing impacts of advertisements on the consumer).
5. Understand the precise impact of each media channel on the overall media impact.
6. Build a model that allows for scenario planning with all variables, then present and workshop these variables with the business to land on the likely scenario.
7. Model the optimised media mix and factor in diminishing curves and fluctuating media rates.
8. Present this back to the business.
9. Activate it, monitor it, evaluate and refine it every three months, ongoing for many years.

This approach is extremely powerful to a business. It is the science of moon landings, applied to marketing. It enables the CMO to present a science-based growth plan to the Board. It is not new, but to date, this approach has been cost-prohibitive for all but the largest companies (see McDonalds case study). However, with advances in technologies such as Facebook Prophet, Google AutoML, and DataSlayer.ai, this power is within reach of all marketing departments.

Models provide the means to understand how media contributes to sales. From this baseline, media can be held accountable.

Baseline Growth

Baseline growth is the growth (or losses) that would occur based on a business' history. It is important to confirm this in order to evaluate the impact of future media campaigns. Truly effective marketers will remove this baseline from the growth and acknowledge it would have happened regardless.

THERE ARE THREE WAYS TO ESTABLISH BASELINE GROWTH:

1. **Quick and Easy:** Plot three years of sales on a line chart in a spreadsheet and apply a trendline.
2. **Facebook Prophet is a powerful forecasting tool.** If you do not have access to a Python coder, www.dataslayer.ai provides user-friendly access to this tool. This will give you a forecast based on 'media as was' not 'media not included', meaning baseline is the sales that would be derived if media activity were to remain the same as in the past. This is still useful where the objective is to surpass previous media performance.
3. **Use advanced statistics to model a baseline on media effectiveness.** This is an expert area and requires an advanced understanding of statistics. However, where afforded, it provides the best possible means to determine the impacts of media and marketing as a whole. It takes account of internal and external economic factors and provides a rich understanding of the factors that influence sales growth.

4.2 Who does the business need to reach (Audience and Targeting)?

A FEW KEY THEMES TO GET US STARTED:

1. To target or not to target
2. Personas, segments and audiences
3. Waste
4. A way forward: Matched Markets

Marketers have long sought the holy grail of targeting for effectiveness and efficiency. Digital media has provided this over the last ten years, but this approach is now under challenge from both academia and privacy legislation.

A scientific approach using matched market tests is the way forward.

THE OLD WAY:

CEO: I am not seeing our ads in the market.

CMO: That's OK, you are not the target audience.

THE NEW WAY:

CEO: Which segments are performing this month?

CMO: Segments 1c and 4d have significantly outperformed the controls this month.

To target or not to target, that is the question

In the early days of digital marketing, the industry was certain it had finally found the solution as to how to reach and target specific audiences. But then Byron Sharp turned everything on its head in his seminal book *How Brands Grow: what marketers don't know.*

BYRON SHARP, PROFESSOR OF MARKETING SCIENCE AND DIRECTOR OF THE EHRENBERG-BASS INSTITUTE, PUTS FORWARD 7 HABITS FOR EFFECTIVE MARKETING:

1. Continuously reach all buyers of the category (communication and distribution) – avoid being silent;
2. Ensure the brand is easy to buy (communicate how the brand fits with the user's life);
3. Get noticed (grab attention and focus on brand salience to prime the user's mind);
4. Refresh and build memory structures (respect existing associations that make the brand easy to notice and easy to buy);
5. Create and use distinctive brand assets (use sensory cues to get noticed and stay top of mind);
6. Be consistent (avoid unnecessary changes whilst keeping the brands fresh and interesting); and
7. Stay competitive (keep the brand easy to buy and avoid creating hurdles to purchase i.e. by targeting a particular group)

These habits align with the premise of this book in terms of deploying a long-term system for media effectiveness, where media is always on and always tested within a scientific framework. However, where we differ is in relation to the application of a broadcast marketing approach as a one-size-fits-all strategy.

Many businesses do not have the budgets to advertise to their total market, nor the willingness of the CFO to fund zero-based budgets. In these circumstances a bottom-up approach to media is appropriate, where the most immediately rewarding a combination of media channels (in terms of sales) are taken to their most effective point (i.e. point of diminishing returns) before the next channel is commenced.

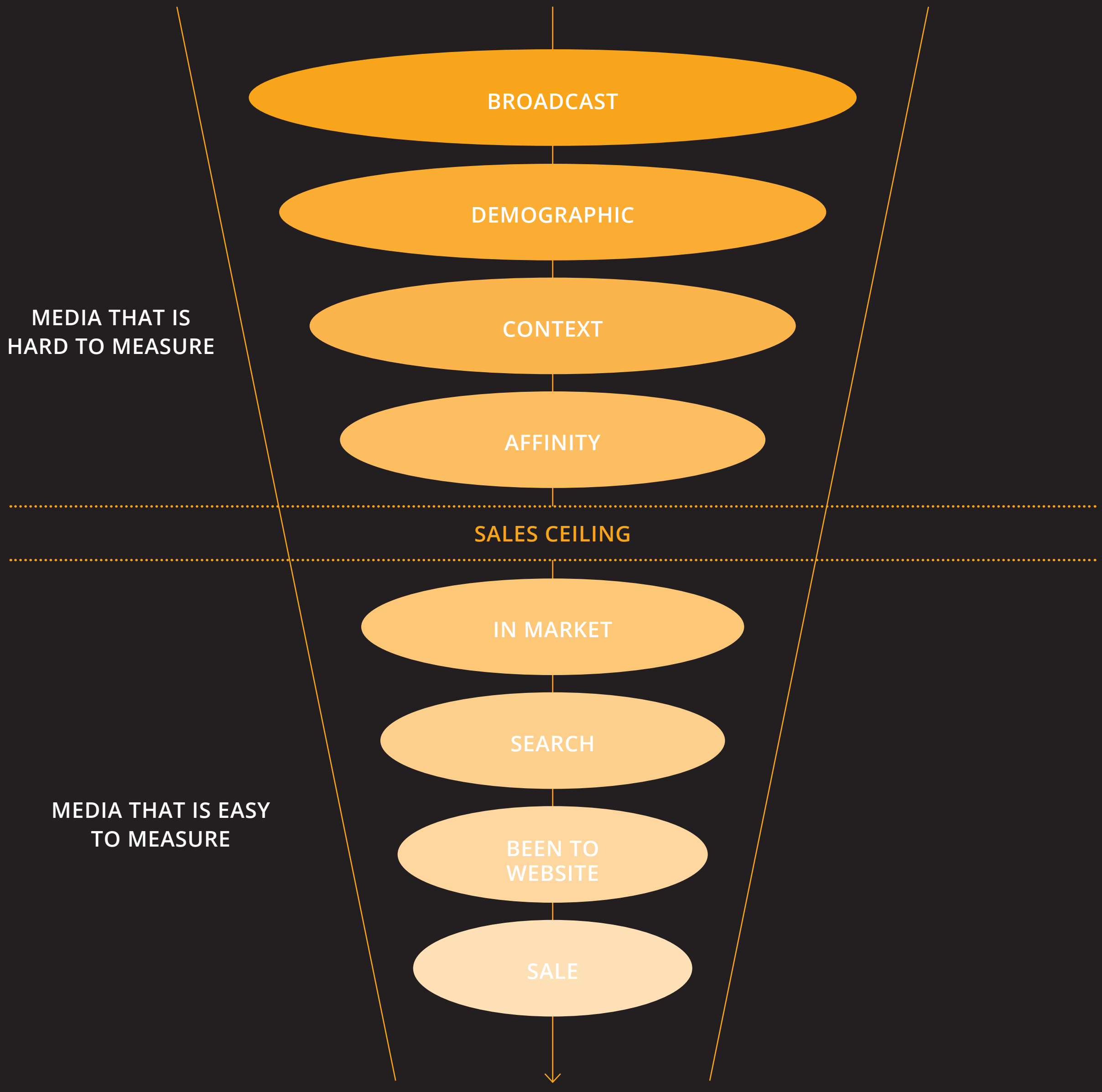
Of course, this very common bottom-up approach has its limitations.

Note the 'sales ceiling' line in the diagram. This is a very real limitation of the bottom-up approach, which arises when the people within the most effective channels have been exhausted as opportunities, i.e. the full audience has seen the advert and has either chosen to engage with it or disregard it as irrelevant.

Further note that when a digital platform deems your advert as not relevant to its user, it will restrict and potentially not show the content to that person. So, despite being live with a targeted approach, the business will need to consistently spend more to chase a diminishing-in-market audience.

The growth ceiling from these lower funnel channels can generally only be broken with a bold move into non-digital channels at a certain moment where business ambition and budget are unlocked. A leap of faith is required into the less targeted and less measurable media known as ATL (Above the Line).

Media becomes harder to measure as it moves up the funnel



LET'S CALL THIS 'THE BOLD, THE BRAVE, THE BEAUTIFUL' MOMENT (TBTBTB).

The Bold: This is a defining moment when the CEO, CFO, and CMO align with confidence to grow a company; a moment when the Price, Product, Place, and Promotion align.

The Brave: A time when the theories of marketing (and this book) are unleashed in the real world with expectations high and reputations on the line.

The Beautiful: A time when theory, judgement and experience deliver in the ultimate market test.

SO - TO TARGET OR NOT TO TARGET?

Yes, absolutely, it makes perfect sense to maximise the commercial opportunity of measurable channels to the point where they do not yield a clear return on investment (within a fully attributed model).

But, understand and acknowledge that this will hit a growth ceiling.

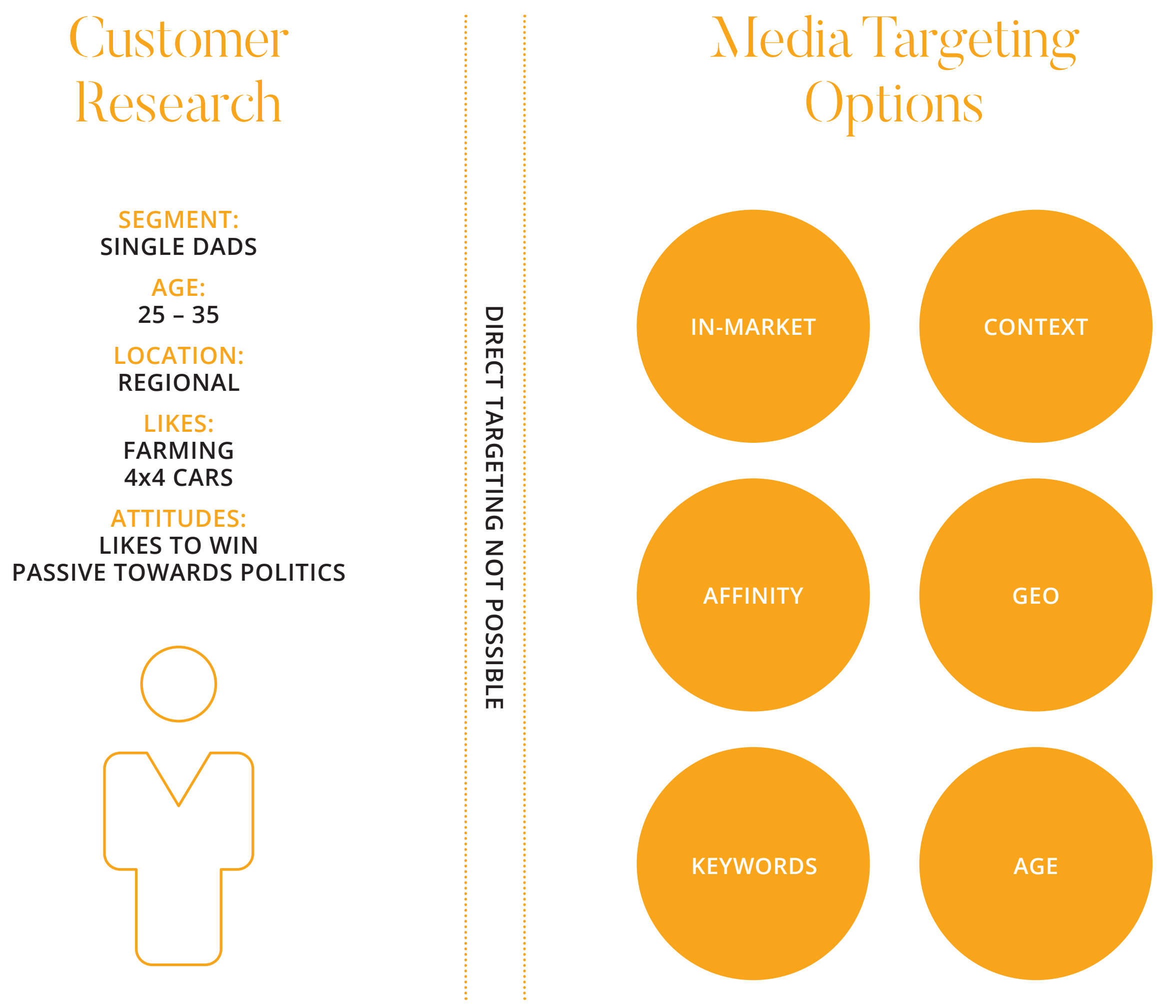
It is critical to understand where the business sits in terms of its market maturity, to start from the most targeted media (if new to market), and then to progress with targeted 'in market' media until you hit the sales ceiling. Then utilise the scientific approaches in this book to take you through that ceiling into further growth.

Aligning Personas, Segments, and Audiences

When it comes to targeting your market in media, it pays to be aware of the disconnect and limitations of media and market research.

In understanding your segment, you will have undoubtedly spent many hours researching the market and developing a specific heterogeneous segment. This segment will constitute a unique combination of age, gender, behaviours, buying patterns, habits, hobbies and (the tough-to-uncover-but-ever-so-important feature) attitudes.

In applying this deep knowledge to media, however, there will be limitations, particularly in relation to attitudinal characteristics.



BROADLY SPEAKING, MEDIA CAN PROVIDE THE FOLLOWING TARGETING TO AUDIENCE CHARACTERISTICS:

Targeting Requirement	Digital Media (well, most digital media)	Non-Digital Media (but there are exceptions)
Age	Strong	Medium
Gender	Strong	Medium
Keywords	Strong	Not available
Email address	Strong	Not available
Visited website	Strong	Not available
Interests	Strong	Strong
Attitudes	Weak	Weak
In market	Strong	Medium

Where persona research has provided non-matching characteristics, these insights can be leveraged via the Roy Morgan consumer survey (Single Source: https://www.roymorgan.com/products/single-source), which is a genuinely useful ongoing source of consumer research. In Australia, 50,000 people are interviewed every three months across 100 attitudinal questions that can then be cross-sectioned for insights into media habits. As a result, media preferences and consumption patterns can be determined for cohorts of attitudes. This is a core media planning tool and technique that underpins the bulk of media agency's processes for attitudinal media buying.

The downside of this approach is that, while you can plan media against consumer cohorts, it is not possible to buy that media without waste i.e. that media will be shown to in-market and out-of-market consumers.

In 2020 Google and Apple rang the death bell for digital targeting through cookie based technologies.

The impact of digital targeting is being worked through and will land in late 2022. It is likely to be significant and increases the need for business to invest cookie-less means of measurement, reporting and optimising media, such as the Effective Media System (EMS) outlined in this book

How to deal with waste

Despite advances in media buying and targeting, a business must come to terms with the notion of waste. I doubt there is another business purchase line where this concept is so prevalent.

LET'S LOOK AT FOUR MACRO BUYING STAGES AND THEIR INTERPLAY WITH WASTAGE:

1. **Buy now (In market):** This is the money shot and is easily targeted with digital media under the 'retargeting', 'custom audiences', and in market technologies provided by the likes of Google and Facebook. Note, however, that a typical conversion rate from these audiences is 2%. Meaning 98% of those who saw the advert and clicked onto the website did not decide to buy.

2. **Buy now but not with you:** Within the above 98% are the consumers who came to see your product but chose to buy it from another supplier or paused purchase for a later date. A 98% wastage rate is a large number to swallow, so we need to make sure that the financial return from the 2% offsets the cost of the 98% with some margin. Lifetime values are critical here. By knowing and buying media to a confirmed profit on lifetime value, the marketer and the CFO can be assured of positive overall investment, as opposed to a view that 98% of the budget is wasted.

3. **Buy later:** Digital media is typically appraised on a 'cookie window'. This varies by digital platform but can be as low as 24 hours. Non-digital media do not have the ability to confirm the time to sale. However, it is safe to say that both have influence over many days, weeks, and months. The notion of this timeline is called "adstock" and to determine the true value of media investment, as well as the true waste, adstock needs to be factored into the calculation.

   There are no definitive or industry-standard adstock periods for marketers to use, although benchmarks are contained in various academic research pieces that cite typical adstocks in FMCG are 2-3 weeks: see for instance, Robert P. Leone's "Generalizing What is Known about Temporal Aggregation and Advertising Carryover", published in *Marketing Science.* Calculating adstock specifically to a business can also be calculated from internal data by modelling where media has been low or offline for some weeks/months and analysing the resulting slowdown in sales, then extrapolating this to understand the time decay and legacy value of media investment.

4. **Never Buy:** The never buy category is not necessarily a complete waste. A large proportion of these consumers will be passive advocates. In other words, they act as "yes I have heard about them" references when asked by an in-market friend or colleague. Nielsen's "Global Trust in Advertising" reports consistently rank "Recommendations from people I know" as the top-ranking trusted influence in the buying decision. It is important to include a value for this advocacy group by surveying customers and understanding the percentage impact that these influencers have on the purchase propensity.

Getting comfortable with waste is a necessary part of the process, one which is achieved by fully understanding the lifetime value of a new customer, the value of adstock, and the value of influencers versus the cost of media.

The more common approach is to understand the cost of acquisition from a given channel (Search or Social) against a rough understanding of the value of a customer or lead. This approach needs to be significantly sharpened if marketers and their agencies wish to achieve truly effective media investment.

Adstock in the words of Wikipedia

Advertising adstock or advertising carry-over is the prolonged or lagged effect of adverts on consumer purchase behaviour. The term "adstock" was coined by Simon Broadbent. Adstock is a model of how the response to advertising builds and decays in consumer markets. Advertising tries to expand consumption in two ways; it both reminds and teaches. It reminds in-the-market consumers to influence their immediate brand choice and teaches them to increase brand awareness and salience, which makes it easier for future advertising to influence brand choice.

The adstock theory hinges on the assumption that exposure to television advertising builds awareness in the minds of the consumers, influencing their purchase decision. Each new exposure to advertising builds awareness, and this awareness will be higher if there have been recent exposures and lower if there have not been. In the absence of further exposures, adstock eventually decays to negligible levels. Measuring and determining adstock, especially when developing a marketing-mix model is a key component of determining media effectiveness.

THERE ARE TWO DIMENSIONS TO ADVERTISING ADSTOCK:

1. decay or lagged effect.
2. saturation or diminishing returns effect.

The underlying theory of adstock is that exposure to media builds awareness, resulting in sales.

Each new exposure increases awareness to a new level. The decay effect of adstock eventually reduces awareness to its base level, unless or until this decay is offset by new exposures. This decay effect can be mathematically modelled and is usually expressed in terms of the 'half-life' of the advertising. A 'two-week half-life' means that it takes two weeks for the awareness of advertising to decay to half its present level. Some academic studies have suggested that the half-life range is around 7– 12 weeks.

How to win with matched market testing

The concept of matched market testing is not new but is often overlooked in favour of targeting all markets for speed to scale.

Speed is not the friend of effective media. By adopting the slower-but-infinitely-more-effective process of matched market tests, the business can scale with more confidence and considerably less waste.

GETTING STARTED:

Finding a matched market can be as simple as using data from website analytics, split by regions, and matching off segments that have statistically close correlations of sales or lead or sessions. The correlation function in excel or Google Sheets provides this functionality - a simple guide on using this functionality can be found here: https://blog.sheetgo.com/google-sheets-formulas/correlation-formula-google-sheets/.

By finding two or more matching markets, a business can establish evidence-based processes to confirm classic marketing theories such as ESOV, broadcasting versus targeting and adstock. Moreover, the theories can be individualised to ensure the individual business responds to them.

HERE'S HOW THIS CAN WORK:

Broadcast v Targeting

Hypothesis:	Broadcast targeting will exceed sales and ROI over-hyper-targeting across 6 months.
Set-up:	One market to a media mix that skews to the Byron Sharp 'target the masses' and a contrast market that focuses on hyper-targeted digital channels. Allow six months for evaluation.
Measurement:	Compare sales revenues over the period, taking into account the legacy sales value arising from adstock (see below).

Adstock

Hypothesis:	Brand awareness and media investment have a value equivalent to the incremental sales compared to periods of no media spend.
Set-up:	Pause media investment in a non-critical market, noting that this should be done when business circumstances allow e.g. a reduction in budgets may provide the opportunity moment.
Measurement:	Allow six months for evaluation of the variance in sales against the control market. Attribute a portion of the variance of sales depending on the strength of the match market and any other significant variables impacting the test period.

Current Theories on Targeting

1. Moment Targeting

In his paper “The Persuadables: How Advertisers Can Use the Principles of Recency and Spend Level to Significantly Improve ROAS”, marketing and research consultant Joel Rubinson suggests targeting a consumer who can be persuaded (the persuadables) will deliver a 50% improved outcome, compared to simply maximising reach.

Research from the Mobile Marketing Association and Neustar concludes that brands should focus their advertising on the “moveable middle”, which has a 20-80% probability of buying a particular brand.

Read more in their research paper, published by WARC: ***Understanding six influential models of brand growth – and when to use them, Outcome-based marketing v2.0: Profitable growth by targeting consumers in the movable middle.***

2. Customer Lifetime Value

Peter Fader, Professor of Marketing at The Wharton School of the University of Pennsylvania, posits that focusing on customer lifetime value (CLV) and targeting the most valuable customers is key to driving sustainable brand growth. His thesis relies on research that indicates that, over extended periods, some customers are demonstrably more valuable than others.

A granular understanding of the most valuable shoppers can present deeper opportunities than differentiation or scale, allowing brands to target valuable segments and to directly meet their customers' needs with goods and services. However, "so-so" customers, who are less valuable but numerous, cannot be neglected, even if it is not possible or worthwhile for these individuals to be served in the same way as high-value buyers. Loyalty data is key to this approach, which is more suitable for products with slow-to-moderate purchase cycles and/or the ability to design and personalise the customer experience.

Read more in Professor Fader's research paper, published by WARC, titled "***How focusing on their most valuable customers can help brands drive growth".***

3. Contextual targeting

The death of the third-party cookie and the rise of privacy legislation are limiting the use of tracking technologies. These shifts come against the backdrop of increasingly wary consumers, who are more aware than ever that they are being digitally "tracked" by advertisers. In this environment, contextual advertising, often relegated to the background in the programmatic era, has become more important than ever. AI and other technologies can now discern web page sentiment, understand the nuance of language, ascertain the content and tone of images and video, and even automatically configure ad creative to complement context. An article by WARC data analyst Rob Clapp titled "Contextual targeting grows in importance for privacy and post-cookie world" states that two-thirds (70%) of European advertisers are considering contextual targeting as a solution to data protection regulations and browser cookie controls, an increase from 62% in 2019.

UK home improvement retailer B&Q wanted to raise awareness of the colour-match service of its Valspar paint brand. The service helps users to accurately match the colour of personal items – a swatch of fabric, for example. To reach potential customers, contextual analysis AI and keyword/metadata search identified home and lifestyle content across a selection of premium publishers. Image recognition technology was then used to scan images within that relevant content to discern key objects and pinpoint their colour. With that information, in-image ads were served featuring custom animated creative that dynamically changed colour to match the content of the images.

Read more in marketing guru Ben Plomion's paper (published by WARC), titled ***"Back to the future: How AI-enhanced contextual targeting may help marketers in the post-cookie era".***

4.3 Which channels will be most effective (Modelling Channel mix)?

HERE'S WHAT WE WILL BE TALKING ABOUT IN THIS CHAPTER:

- The Typical Media Planning Process
- Media Mix models for Effective Media System
- The Flaws of Digital Attribution
- Halos
- Diminishing curves

A CONVERSATION THAT DOESN'T QUITE STACK UP:

CEO: How is the campaign going?

CMO: Looking good, sales are up 15%.

THE BETTER CONVERSATION TO HAVE:

CEO: How is the campaign going?

CMO: Looking good, sales are up 15% on the baseline, and daytime TV, in particular, is performing much better than the model predicted.

Media mix modelling isn't new but was pushed sideways when digital attribution heralded a new era. Well, that "new era" has not yielded the magic we all thought it would. Digital attribution was never the correct solution for a full view of media ROI and is now very flawed given the death of cookies. Media mix modelling is back and here to stay … let's do it right.

The typical media planning process

With regard to the previous two chapters, once the Objective and Audience is defined, the business will typically pass these on to their media agency to develop a media planning approach.

THE MEDIA PLANNING PROCESS IS SUMMARISED AS FOLLOWS:

1. **Audience analysis:** Key audience segments are replicated in Roy Morgan Single Source and matched to its 50,000 database (or where existing segmentation is not available, new segments are built in Roy Morgan). Media consumption habits are obtained from this database and used as an empirical source of data to inform channel selection.

2. **Channel selection:** channel mix is determined with consideration of media consumption, budget, required reach & frequency, campaign objectives, historical learnings, market conditions and the role each channel plays.

3. **Implementation strategy:** Within each selected channel, further analysis is undertaken to determine the reach & frequency, flighting, formats and other tactics that will achieve the objectives, as well as a more detailed understanding of which media networks/ publishers should be considered. Niche media options are also considered where they might not factor into mainstream media tools and datasets.

This process is a tried, tested, and time-worn practice. The Roy Morgan Single Source dataset is robust at 50,000 and refreshed every three months. However, the planning is limited in its accountability and optimisation unless the Effective Media System is in place to measure the proposed mix of channels against the expected outcome.

In fact, if I could boil this book down to one core theme, it is that businesses should measure and optimise by way of the Effective Media Process.

This planning process is best utilised where little or no internal data exists i.e. the business has not invested in multiple media channels previously, or previous investment has not been well documented or stored. This process is also valuable when entering new markets or promoting to new audiences where internal data is limited.

It is not growth-focused or effective to allow media to run with no systematic process that ensures accountability.

THE FOLLOWING QUESTIONS SHOULD BE ASKED OF ALL MEDIA INVESTMENT:

1. What revenue did the media yield?
2. Did the planned media mix provide optimal yield?
3. Which channels under/over-performed from a fully attribute view on sales?
4. Which channels under/over-performed on longer-term brand metrics?

These questions can only be answered with media mix modelling.

Media mix models within the Effective Media System

Media Mix Modelling (MMM) is the use of statistics to interpret the impact of each media channel on the outcome (sales, website traffic etc). The precise statistical methods can vary and now accommodate machine learning to seek the model of best fit i.e. the model and algorithm that gives the best prediction on the 'hold out' data set. (The hold out data set refers to a period of data at the end of the model (i.e. 1-3 months) that is withheld from the modelling and is used as a sense check to confirm the accuracy of the model.)

Once a statistical algorithm has been found that provides a strong prediction on known data, the business can take this forward in confidence as an algorithm for growth.

This is a very important moment for the business. It now has a strong science-based position to make media effective.

Getting to this point is relatively straightforward from a statistics point of view, provided the business has a good supply of source data. A collection of 3-5 years of previous media data is the minimum entry requirement, with further important data points listed below.

Data Point	Importance
Media channel data by channel (impressions or spots)	Critical
Media spend data by channel	Medium
Competitor media spends	Medium
Price points / offers / discounts	Medium
Economic variables	Dependant on industry
Brand strength variables	Medium
Ad reach and frequency variable	Medium
Anomalies (events, website downtimes etc)	Dependent on severity

Once this data is collated, it is passed to a statistician or data scientist to run various forms of statistical models to find the model of best fit. The resultant model will have an accuracy indicator (i.e., strong, medium, weak). Where weak, more input variables are needed to see if there is a variable that is truly influencing the outcome of sales. Where the model is deemed strong, the business now has a brilliant place to understand correlations such as:

- Which media channel impacts sales;
- Which mix of media channels impacts sales;
- Which offer message impacts sales;
- Which offer message in which media channel impacts sales;
- The value of brand health of sales;
- The value of brand health on media and sales;
- The impact of competitor spends of offers on sales; and
- The impact of positive or negative economic indicators on sales.

Media mix modelling is not new, but its importance has languished in favour of the immediacy and perceived accuracy of digital attribution.

Priority #1

for businesses that want to become effective with media should be collating media data and building a media mix model.

Digital Attribution: The holy grail or marketing fail?

Digital attribution was a marvel of the early internet era (2000- 2020) when cookie-based technologies reigned supreme and allowed a user (by way of their browser) to be identified for tracking, reporting, and targeting purposes.

Media vendors would place a piece of code on an advertiser's website to enable reporting of successful events such as sales or downloads. Each vendor would claim the full sale where their media had a part to play, leading the business to think kindly on that channel and invest more.

The truth, however, was that each vendor had a bit part. Full attribution was needed via website analytics to determine the deduplicated contribution from each channel.

Once deduplicated, the business then had to consider a model to weigh the various channels. Considerations were the recency of the channel's input, the frequency of that channel to the output, and the perceived strength of that channel in the process (i.e. was an ad impression more or equal to a click on the website).

Digital attribution was a valid but not perfect process to understand ROI from digital media, but the concurrent impact of non-digital channels was overlooked in this story due to a perception that tracking this impact was not possible or not part of the customer journey.

This was and still is an obvious oversight that can be corrected by falling back to a more holistic approach with regression-based modelling.

THE KEY BENEFITS OF REGRESSION-BASED MODELLING ARE:

It takes account of all media (digital and non-digital);

It is not cookie-based;

It is based on maths that a CFO can understand, validate, check and approve.

These compelling reasons should be enough to get buy-in from the marketing and C-suite teams for the implementation of the Effective Media System into the business.

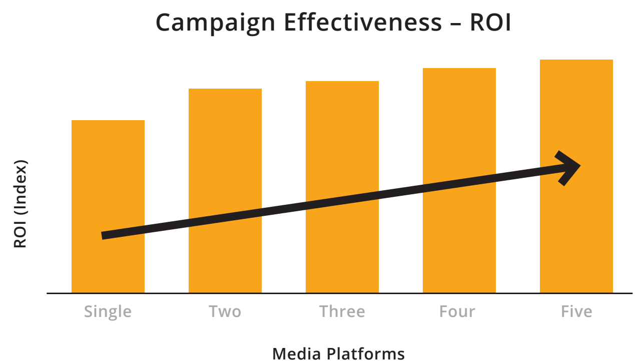
Media halos: finding the golden crown with a multi-channel approach

A core decision in effective media planning is the decision to use one, multiple or all possible media channels.

The common theory of multi-channel media plans is supported by strong research in the works of Analytic Partners with their Genome Project, which I discussed earlier in this book. They have enviable access to over 3,000 sets of media mix data which is aggregated to give empirical evidence to a multi-channel approach providing superior ROI.

Their research states that ROI increases with more channels in play. While this is somewhat intuitive, it needs to be tempered against the budget available. Heavy reach across 3-5 channels will give the consumer a strong impression, recall and trust signal in the buying process. Thin reach, however, across 3-5 channels will not deliver the same signalling.

Our ROI Genome shows that there is a strong case to be made for a combined multi-channel approach to drive campaign effectiveness.



ANALYTIC PARTNERS

There are several ways to validate whether a company's multi-channel media activity is delivering a cross-channel halo impact, including:

Pre and Post ABV	If the business is running, or previously ran, a single-channel campaign, analyse and compare the average basket value (or sales revenue) pre and post multi-channel campaign. The hypothesis is that the multi-channel activity will deliver higher ABV due to the improved trust signals coming from the multi-channel approach.
Pre and Post CTR	If the business is running, or previously ran, a single-channel channel campaign, analyse and compare the click-through rates on supporting digital activity such as brand search CTR in Adwords, or CTR in display, or social ads before the implementation of multi-channel activity. The hypothesis is that the multi-channel activity will deliver higher CTR on digital ads due to the improved trust signals coming from the multi-channel approach.
Matched Market	Activate single-channel media in one market, and multi-channel media in another for a true test of the theory.

Diminishing curves and single-channel optimisation

An alternative view to multi-channel theory is single-channel optimisation. This has a less intuitive feel for brand marketers and is more typically adopted by lower funnel marketers (aka digital performance marketers). Diminishing returns are also considered in non digital channels (most commonly for TV), however, in relation to diminishing reach rather than sales.

Single-channel optimisation plots the channel spend against the sales that can be attributed to this channel - this data is typically provided by the respective digital platform. By adding a curve through the scatter graph function in Excel or Google Sheets, a view of where the impact of spending tapers off to less and less return is made. If the business knows its effective cost of acquisition (ideally based on lifetime customers profit) the curve of the graph can precisely pinpoint the optimal monthly or weekly budget for that channel.

Diminishing curves are a powerful practice for optimising media effectiveness and should not be limited to digital channels. By correlating total media spend to total sales (excluding baseline pre-campaign forecasts), the same technique can give a good steer on total media efficacy.

The weakness in this practice is that the sales data used for the graph is biased. It allocates the full sale value to the single channel. It ignores the halo impact from other channels detailed above. In this regard, it should be seen as a complementary exercise in the first instance, but building to a more advanced view as the models within the Effective Media System evolves.

CASE STUDY

salmat

The merits of the humble letterbox drop

Salmat was started in the 1970s by Phil Salter and Peter Mattick (Sal-Mat, get it?) as a catalogue distribution company.

But, for a short time, Salmat was publishing an annual marketing report.

The report gave an overview of the industry – budgets, channels, and strategies – what consumers are interested in when it comes to making purchases, and finally giving some recommendations for the future.

In 2018, their report had the suggestion that companies would do well to "move some investment from social media to letterbox and sampling".

Now, there's an argument that given Salmat was a major player in Australia's catalogue distribution business at the time (they have since sold this arm of their business to IVE in a $25 million deal), it was in their interests to pump up the tyres of letterbox drops as a marketing model.

That's a fair criticism, but whether a grain of salt was required or not, the numbers painted a picture that was worth investigating.

Because, while it seems like madness in the digital age that anyone would invest in such old-fashioned methods as letterbox advertising, it's actually still a reliable method of reaching a mass audience, with IVE claiming, "Almost 11 million Australians read unaddressed mail in any given week".

Back to the 2018 report, and while Salmat recommends the letterbox drop in the name of "sampling which are influential purchase levers for consumers" when compared to social media, they were not making a blind stab with the suggestion to at least try the catalogue method.

Rather, Salmat pointed to work they did with a major pharmaceutical brand after the brand dropped their letterbox marketing by 30% and soon saw sales fall away.

SALMAT DREW UP A METHODOLOGY TO MEASURE JUST HOW MUCH IMPACT THE BRAND'S LETTERBOX MARKETING WAS HAVING ON THEIR TOTAL REVENUE AND CAME UP WITH SOME PRETTY STAGGERING STATS, INCLUDING:

An increase in letterbox distribution resulting in a 1.5% increase in sales.

A massive $8.14 return on each dollar they were spending on their catalogue marketing.

Those are the kind of numbers that simply cannot be ignored, and they carry a strong reminder that sometimes the older, less glamorous methods still achieve serious cut-through.

Using media mix models removes bias and provides a clear view on which media channels provide most ROI

4.4 How many people need to see the message how many times (Reach and Frequency)?

HERE'S WHAT WE WILL BE TACKLING IN THIS CHAPTER:

1. Reach and Frequency as foundations for planning
2. Deduplicating reach
3. Recency
4. Attention-based planning
5. Putting this into practice

I DON'T LIKE THIS CONVERSATION:

CEO: I am seeing our ads but are we doing enough?

CMO: Well, there is a lot in the market, but you are not the target audience.

I ABSOLUTELY LOVE THIS CONVERSATION:

CEO: I am seeing our ads but are we doing enough?

CMO: Yes, we have modelled the reach and frequency for optimal impact based on last year's activity. You are not in the core audience, but you should be getting 6-8 impressions across the media channels this month all the same.

Reach and frequency are core planning and execution metrics that need a scientific approach to achieve optimal efficiency. Too little and impact is decreased, too much and the ads become irritants and spend is wasted. Modelling the impacts of intense reach and frequency against a controlled environment is the ideal way to establish optimal efficiency.

Reach & frequency in a nutshell

REACH IS USED TO EXPRESS THE TOTAL PERCENTAGE OF A TARGET AUDIENCE WHO ARE EXPOSED TO A COMMERCIAL AT LEAST ONCE THROUGHOUT A CAMPAIGN PERIOD. FREQUENCY DESCRIBES THE AVERAGE NUMBER OF TIMES THAT A PERSON WITHIN THIS TARGET AUDIENCE HAS HAD THE OPPORTUNITY TO SEE THE ADVERT.

The legend of +3 frequency

In 1968, Herbery Krugman published his magnum opus Consumer Behavior and Advertising Involvement, which stated that the most effective frequency was three. Krugman asserted that the first exposure, like the first exposure to anything, was something new and dominated by the consumer reaction, "What is it?".

The second exposure, he suggested, was characterised by the response, "What of it?" That is, having fully appreciated just what is the nature of the new information on the first exposure, the consumer shifts to a question of whether or not the advertising has any personal relevance. Another element for the second exposure is the recognition response, "Ah ha, I've seen this before!" Such recognition permits the consumer to pick up where they had left off without the necessity of doing the "What is it?" all over again.

Finally, on the third exposure, the consumer knows they have been through the "What is it?" and the "What of it?". The third exposure then becomes a reminder. It is also the beginning of the withdrawal of attention from the completed task, or as Krugman puts it, of disengagement from the advertising. This number still pervades media planning conversations but should be deemed a legacy of the past when consumers had very different and limited media exposures.

Some further reading: http://www.labsag.co.uk/demo/Docs/Manuales-de-Simuladores/profesores/Lecturas/Adstrat/media-strategy-and-exposure-estimation.pdf

Reach as the foundation of media effectiveness

I've already spoken in some detail about the work of Professor Byron Sharp at the Ehrenberg-Bass Institute. His book *How Brands Grow: What marketers don't know* emphasises broad reach and mass awareness as foundational media strategies. He stresses mass media and emotional channels such as TV and radio as key choices.

However, the fragmentation of audiences across many media environments have complicated the ability for a business to obtain, measure and report reach as a deduplicated human number. Meanwhile, the increasing prevalence of advertising avoidance by consumers and multi-tasking behaviours have made effective reach and frequency even more difficult to achieve.

THE TASK CENTRES AROUND THE FOLLOWING THEMES:

1. Deduplicating R&F
2. Modelling effects
3. Ad avoidance and attention
4. Recency

Deduplicating reach: Cutting out the BS

A multi-channel media plan will typically itemise the individual reach and frequency of each channel. Digital channels have the native ability to place and report unique reach and frequency, while non-digital channels use third parties to estimate and report the same. The sum total of these is not a useful metric for planning effective media. It is often a sum that is several times more than the population of the audience.

Enter the Sainsburys method from 1963, a mathematical formula that still holds true today, expressed as deduplicated reach = 1 - (1 – p1) (1 – p2) (1 – p3) ... (1 – pm) where: p1 = the reach of media channel "1" expressed as a percentage of the target market size.

For example, suppose three media channels have a reach of 24%, 30%, and 20%. Using the Sainsbury model, reach would be 57.4% (.574 = 1 - {(1 - .24) (1 - .30) (1 - .20)}).

Research has shown the maths to deliver 80% accuracy, and more complicated algorithms have been developed that can increase the accuracy to 90%.

To deliver effective media, it is important to start an activity with an understanding and assumption of unduplicated reach using the Sainsbury method, and to then apply this to the test, learn and reporting framework of the Effective Media System i.e. document that the activity had an assumed deduplicated reach of X and delivered Y in sales (with sales number to be derived from the EMS model). By tracking this data over several media campaigns, the business will gather insight on the impact of smaller or larger reach and frequency, which can then be extrapolated for optimisation.

You can find a fantastic run-down of the Sainsbury model in J.M. Caffyn and M. Sagovsky, "Net Audiences of British Newspapers: A Comparison of the Agostini and Sainsbury Methods," *Journal of Advertising Research* (March 1963), pp. 21-25.

CASE STUDY

WARC

How recency planning and attention factor into the effectiveness of reach and frequency

Basically, this is a carpet-bomb approach required to achieve cut-through, especially given how advertising averse the modern consumer is, happy to change the channel when the ads roll on?

Erwin Ephron was among the first to challenge the effectiveness of frequency when, in the 1990s, he put forward the idea of 'recency planning'.

The root of recency planning, according to a case study created by WARC, "is that the real media target isn't consumers, it's purchases, and since in almost all categories purchases occur 52 weeks a year the most sensible way to intercept them is with continuous advertising."

The concept received broader acceptance when the Ehrenberg-Bass Institute wrote that "reach is more important than frequency of exposure; continuous advertising is more effective than bursts followed by long gaps".

HOWEVER, BY 2010 EPHRON HIMSELF WAS CALLING RECENCY PLANNING "FLAWED":

> **"Audience exposure to an ad is no longer a given; it's a probability of less than one. With multi-tasking and commercial avoidance, a large part of a program's reported audience will not see the advertiser's message. That means it will often take more than a single exposure to reach a consumer with an ad. And that calls for frequency."**

WARC SOUGHT TO TEST THIS OUT BY PUTTING FORWARD FOUR HYPOTHESES:

Hypothesis 1 (H1): Each exposure is as effective as every other. There are no diminishing returns to more exposures, and all potential advertising schedules would have the same effectiveness.

Hypothesis 2 (H2): The optimal response is three. Fewer exposures are less effective, as are too many exposures.

Hypothesis 3 (H3): The response decreases as each additional exposure is added.

Hypothesis 4 (H4): A more extreme version of Hypothesis 3.

Using a variety of methods to test their hypotheses, WARC reached the following conclusions:

"Hypothesis 1 is unlikely (we used it to verify the model); but unless every exposure after the first is much less effective (H4), there are potential benefits to a slightly higher frequency, particularly in a world of ad avoidance. We would argue that testing the shape of the response is important, particularly for newer brands or categories: even if the first exposure is best, how much better is it? It will have an impact for the optimal media plan particularly under conditions of greater ad avoidance."

Thus, they declared, their testing suggested that "Ephron was probably over-playing the importance of frequency if the first exposure is always the most effective", however they did not discount "scenarios where a flat low-weight plan might not always be best".

Attention-based planning: relevance, unexpectedness, viewability, and brand prominence

Digital display records viewability rates of approx. 50%, meaning half of the media does not make it into view but is still charged. TV compares at 75% viewed[1].

Karen Nelson Field, a Professor of Marketing Innovation at the University of Adelaide, is leading the charge for attention-based planning through research, publications (see for instance her highly insightful article "The WARC guide to planning for attention" published by WARC), and the proposed metric QCPM, where "Q" stands for quality.

In her 2020 publication, *The Attention Economy and how Media Works,* she details that human attention is low, advertising is a small part of the human mindset, and even when we do see it, it is unlikely to influence us. Her research concludes that relevance, unexpectedness, viewability, and brand prominence are controllable triggers for attention.

It is a heartbreaking reality that a significant proportion of media is not seen, and the media that is seen may not be paid the slightest skerrick of attention. If this is the case, what are we even doing here? Should we all pack up, go home, and look for new jobs?

Well, no. It's all going to be OK, provided you are aware of the downfalls and provided you have a plan.

It is going to be OK if you are operating media within the Effective Media System, which provides the scientific understanding of the true ROI that media delivers to the business. It is OK that half the money is wasted if that is the reality of the market, as long as the other half provides a positive total ROI.

Putting reach and frequency into practice

Add the reach and frequency of all channels, as well as the deduplicated reach and frequency, into the EMS model. Run the model to confirm the importance of these metrics on the sales over the model period (ideally three years of past data). This will confirm the impact of R&F on sales and enable a micro and macro view for optimisation.

In addition, run a matched market experiment where possible. Identify two markets with similar brand awareness, consideration, and conversion rates and then apply a heavyweight reach, or frequency, media plan for 1-3 months in one market, keeping the other as a control. The hypothesis is that the heavyweight media plan will show noticeable uplift in brand, consideration, and sales within the experiment period and for the adstock period after. Note that this test will also determine the adstock value when the sales return to pre-test levels.

Key EMS action #1: Implement the Effective Media System to provide a scientific view on total media ROI.

Key EMS action #2: Add a QCPM metric into media planning, using a subjective or objective quality metric interposed onto the raw CPM of the channel. Check out Karen Nelson Field's Amplified Intelligence tool: https://amplifiedintelligence.com.au/.

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https://www.thedrum.com/news/2019/04/19/tv-viewability-remains-be-seen-the-digital-age

The Myth of Targeting: Double-jeopardy effects in digital-media consumption

With the fragmentation of audiences across many channels, advertisers arguably have countless options for targeting small and presumably loyal audiences through niche media channels.

However, the theory of double jeopardy (developed by social scientist William McPhee in 1963) predicts that small audiences are generally disloyal and proposes that to grow, brands need to grow their reach with mass media.

A detailed study in the Journal of Advertising Research confirmed the presence of moderate double-jeopardy effects, refuting the myth of small but loyal audiences. The findings thus are a cautionary tale for advertisers who may look to dissociate completely from traditional big media and turn most of their spending toward smaller niche outlets to target a more engaged audience.

For more information, check out "The myth of targeting small, but loyal niche audiences: Double-jeopardy effects in digital-media consumption" by Harsh Taneja, published by WARC and also in the Journal of Advertising Research, Vol. 60, No. 3, 2020

PROFESSOR BYRON SHARP

"To understand the advantage of zero-based budgeting you first have to appreciate the brain-numbing ridiculousness of the way most marketing budgets are set. First, a finance executive with no marketing training and no knowledge of your market looks at the five-year revenue growth of your brand. They extrapolate the sales line using an arbitrary compound annual growth rate calculation and come up with an expected sales goal for the upcoming year. Then they take an entirely arbitrary percentage of a sales figure – usually varying somewhere between 1% and 10% – and they apply this proportion to the expected revenue number. This budget is then confirmed to the marketing team who pass on the good/bad news to their agency partners about how much money they have for the year ahead. Usually over cocktails."

MARK RITSON

4.5 How much to spend (Investment)

FROM:
'CAN WE HAVE 10% MORE SALES NEXT YEAR, BUT SORRY, WITH NO EXTRA BUDGET'

TO:
'WE NEED TO GET TO 20% MARKET SHARE WITHIN THE NEXT 3 YEARS, ESOV SUGGESTS AN ADDITIONAL $10M PER ANNUM IS NEEDED, WHAT DOES THE MODEL SAY?'

Marketing budgets are often set on an incremental basis, where the previous year's budget is cut or increased based on the available cash in the business as opposed to the market forces at play in the category. This process will not allow the business to grow in line with the market opportunity, moreover, it leaves the business exposed and the marketing function not accountable or funded to grow market share.

The ideal budget setting process is where the CEO, CFO, and the CMO align with a view on achievable market share, and a common view on the three budget methods below.

ESOV

ZERO-BASED

UNIFIED DIMINISHING CURVE TO LTV

ESOV

TAKEN FROM 'TO ESOV AND BEYOND' THE AUSTRALIAN ADVERTISING COUNCIL, 2021

A brand's sales are sourced from the market, therefore an understanding of advertising investment in the category should be a key input in determining the advertising budget. Decisions on product, pricing and distribution are all informed by an understanding of the category and competitors; therefore, it stands to reason that the level of advertising investment should also employ this too.

However, if internal advertising budget discussions at your firm centre around 'what did we spend last year?" or "it's ...% of sales revenue" or "we've got no idea...", then it is likely you are one of the organisations that are missing this piece of the puzzle.

A simple, empirically proven approach to planning advertising budgets based on an external view of the market is share of voice (SOV), the impact of which was first investigated by John Philip Jones in 1990. Seeing that many advertisers determined a brand's advertising budget using a fixed ratio of advertising to sales (and that this practice was seldom challenged), Jones saw the need for more effective advertising budgeting.

His challenge was to create a simple, practical approach derived from the experience of brands in the real world. There was to be no black box. His data covered 1,096 advertised brands across 23 countries.

In his research, Jones posed the following question: does this (fixed-ratio) approach tell the advertiser whether the brand's budget is the right sum for generating optimum sales and maximum profit? His hypothesis was "no" because the fixed-ratio approach takes no account of competitive activity.

Jones investigated the effect of a brand's advertising intensity relative to its category competitors. He showed that it was the brands whose percentage of the total category advertising spend (referred to as their "share of voice", or SOV) exceeded their market share percentage that was more likely to see market share gains. These brands had a high level of advertising intensity (extra "share of voice", or ESOV) and saw growth as a result. As with mental availability, ESOV has a relationship with market share.

"Share of voice in our categories is an important benchmark to go 'can we legitimately compete in this category and drive the growth we need to achieve?' It has also forced us to make choices about which categories we support – we've got to place the bets on the categories that we think can drive profitable growth because of that investment."

JOSH GRACE,
CMO SAMSUNG AUSTRALIA

ESOV presents a simple well-researched formula for budgets where market share is increased in direct proportion to share of spend.

However, these data points can be tricky to find. Where share of market data is not readily available, 'share of search' can be used to gauge share of the market. Use Google trends to compare brand search volumes in the category as a proxy for customer behaviour and therefore share of the market. Share of spend is typically found via Nielsen Ad Spend data, a paid database that media agencies access. It accurately tracks spend in TV, Radio, OOH, but has limited data on Google and Facebook channels. Google and Facebook spend can represent a significant portion of spend but are hard to establish. Paid scraping tools such as SEMrush can get close, but failing this, remove both channels from your calculation on the basis that main competitors are spending similar amounts, noting that the accuracy in the resulting ESOV calculation is weaker.

Zero-Based Budgeting

Zero-Based budgeting is a practical process of research to understand all customer markets available to the business and the cost versus ROI of gain in each market. It is a critical process that is central to the role of the CMO.

The research and ROI process requires qualitative and quantitative research and a spread of gut feel to segment customer groups and define the ROI for each segment. Once concluded, the ESOV methodology above can outline an appropriate media budget for the segment if both share of voice and share of market data points are available. Elsewise, the estimates of the zero-based exercise will act as a threshold for customer acquisition that can be applied in the media mix model, ie. if the confirmed segment has a lifetime value per customer of $X, this $X can be the threshold CPA in the modelling process. Enabling the marketer to increase media spend towards this CPA in an efficient and controlled manner.

BUDGETS ARE NOT CONNECTED TO PRIOR YEAR SPENDING

- Prevents “embedding” of existing spend in the cost base
- Allows spending level to be set based on necessary activities of a function, rather than historical trends
- Requires more work to understand activities and cost structure

SPENDING INCREASES OR CUTS ARE NOT SIMPLY SPREAD EVENLY ACROSS BUDGETS

- Eliminates common “sandbagging” practices in budgeting process
- Allows for more strategic allocation of planned spend
- Requires more work to analyse and prioritise activities and expenditures

ZBB

A budgeting process that allocates funding based on program efficiency and necessity rather than budget history

BUDGETS ARE TIED TO SPECIFIC ACTIVITIES AND LEVELS OF SERVICE

- Better aligns spending targets with required activities of a function
- Replaces “do more with less” with “do the right things with the right amount”
- Requires fairly detailed knowledge of departmental activities and willingness to do less or discontinue activities

FUNDING IS TARGETED MORE TO ACTIVITIES THAT ALIGN WITH THE STRATEGY

- Allows for better alignment of expenditure with overall strategy and departmental missions
- Can reduce incidence of “we’ve always done that”
- Prioritising activities across various functions can be challenging

https://www2.deloitte.com/global/en/pages/operations/articles/gx-zero-based-budgeting.html

Deloitte.

Unified Diminishing Curve to LTV

The models within the Effective Media System will look at the fluctuations in media spend against the fluctuations in sales to determine the correlations and impacts of times of high spend versus times of low spends. The model needs fluctuating data, and ideally, periods of no spend to give strong results. If your business has had consistent spending and sales data for many years, the model will not provide as reliable forecasting. However, in this instance, the opportunity exists to test increased or decreased spend in a matched market and observe the fluctuations in sales metrics.

As discussed in previous chapters, creating a model to establish media effectiveness is the most conclusive action to resolve many effective media questions. A strong model can determine the full attribution of media to business sales, and importantly the incremental sales over the baseline. By dividing the cost of media by incremental sales, the business establishes a true cost per sale.

That true cost per sale can then be compared against lifetime value and plotted out to establish a point where media investment is a negative ROI, and therefore too much. This is the alchemy of the endeavours outlined in this book, a point where the CFO and CMO have a scientific understanding of monies in v. monies out. Clarity and confidence for all.

Lifetime value calculations are not a perfect science and need to be adjusted to the specifics of each business. Totalling the average values of the immediate sales, subscriptions, and subsequent sales will capture the majority of LTV, but also consider the value of the advocacy of a happy client. There are no benchmarks for this value, ideally, the business would run a consumer survey to understand the impact that advocacy has on the customer journey and then apply this learning as a value into the baseline sales.

Baseline Sales

Media models typically determine a baseline sales value which represents the amount of sales that would occur with no media investment. This baseline is then discarded as 'what would happen anyway'. However, the baseline represents an interesting legacy mix of revenue that comes from brand investments, customer advocacy, PR, SEO, and adstock. As such, it should not be taken for granted, moreover modelled with deeper data to further optimise the full funnel of brand, sales, and customer experience.

Final Thoughts

The phrase 'Effective Media System' has been used 84 times in this book, and this is no accident.

Truly effective media can be achieved by building, maintaining, and ensuring C-suite commitment to an Effective Media System.

Using this system, the CMO, CFO and CEO can see, with undeniable scientific evidence, the true impact of media on growth.

To not have the EMS in place is equivalent to putting together a flat-pack from Ikea without the instruction manual - you might be able to fumble your way through it, but the end product won't be anywhere near as sturdy as the image on the box.

TO RECAP ON THE PITCH AND RATIONALE OF THE EMS:

- It will make the business's ROI on media investment clear and accountable.
- It will determine baseline sales and will attribute to media only that which is media-driven.
- It is holistic and takes all media, competitors, and economic variables into account.
- It is comprehensive in its long term view on adstock.
- It will hold marketing departments, media, and creative agencies accountable for growth.
- The cost to develop and maintain will be fully offset by the savings achieved.

TO RECAP ON THE KEY STEPS TO IMPLEMENTING EMS:

STEP	APPROACH
Get agreement for a science-based approach to media	Explain the above benefits to stakeholders.
Build a scientific approach	Adopt a test, learn, measure, and document approach for all media campaigns.
Build a media mix model	Collate all past data, use regression statistics or machine learning to document the baseline sales, baseline contributions of previous media, impacts of the creative, brand, and economic variables.
Clarify the realistic objective	Use baseline forecasts and the media mix models to plan scenarios for maximum and optimal growth.
Audience	Test the various theories with matched market tests, use the model to confirm the outcomes.
Channel Mix	Use the media mix model to inform channel planning and optimal spending per channel.
Reach, Frequency and Attention	Test the various theories with matched market tests, use the model to confirm the outcomes.
Spend	Use the ESOV methodology to benchmark current budgets, then undertake a deeper zero-based approach to find the effective CPL for the target market, then implement media models to increase budgets to maximum efficiency (i.e. where a fully attributed CPL returns profitable growth)

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About Atomic212°

We are a 100% Australian owned independent media agency working with Australia's largest brands and have a national footprint across Sydney, Melbourne, Darwin and Brisbane.

Our core service is planning and buying media that performs against growth objectives.

The agency was born as a data-led performance agency, meaning data, technology, measurement, transparency and accountability are at the heart of everything we do. This ethos has remained ingrained in our DNA as we have grown into a full-service media agency.

We champion a new agency approach by bringing marketing technology and data to media with a focus on ROI. Our independence allows us to deliver above and beyond, constantly exceeding expectations. It allows us to build solutions in an agile and economical way.

Our mission is to deliver the smartest people with the strongest point of view. All planning, buying and reporting services are backed with customer understanding born from statistics to provide an undeniable evidence-based approach. We remove the guesswork to deliver certainty and accountability to media buying.

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