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“When Brands Go Dark: Examining Sales Trends When Brands Stop Broad Reach Advertising for Long Periods”

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When Brands Go Dark: Examining Sales Trends When Brands Stop Broad Reach Advertising for Long Periods

Due to a variety of financial reasons, or change in strategic focus, sometimes brands stop broad reach media advertising for a year or longer. These long dark periods have not been subject to much study, so little is known about the likely consequences. This exploratory study addresses this omission by documenting the sales performance of 41 beer, cider and spirit brands that advertised on and off over almost two decades. Changes in aggregate brand sales are reported for the years when brands stopped advertising relative to the last advertised year. On average, brand sales declined immediately in the first year, and every subsequent year of advertising cessation. Decline was generally faster for smaller brands and brands already declining in sales prior to advertising cessation.

Management Slant

- When brands stop broad reach advertising for a year or longer, more often than not, sales will decline and continue to decline year-on-year unadvertised.
- The average observed change in brand sales was minus 16% after one year without advertising, dropping to minus 25% after two years, and reaching minus 36% after three.
- Brand size and sales trajectory prior to stopping advertising affect the rate of sales decline; sales declined more rapidly for small brands and already declining brands.
- Larger growing brands were often observed to continue to grow after advertising stopped, but almost all small growing brands immediately began to decline.

INTRODUCTION

“A man who stops advertising to save money is like a man who stops the clock to save time.”

(commonly attributed to Henry Ford)

It is assumed that the longer a brand goes dark (unadvertised), the more likely it is that sales will eventually slip into decline (Broadbent, 1989). Yet advertising budgets are frequently cut when companies look to reduce costs or temporarily inflate profits. They are an easy target because advertising is one of a few large budget items that can be withdrawn at short notice and leave a business operating at a similar capacity.

Reducing advertising spend is unlikely to result in an *immediate* decrease in sales or market share, which suggests that brands could save money on advertising periodically without suffering major consequences (Tellis, 2004). The long-term implications of these decisions to stop advertising, however, are not well documented or understood. This paper investigates what happens to aggregate sales when brands stop spending on all broad reach advertising media for 12-months and longer, with a comprehensive data set from a single industry (alcoholic beverages, encompassing beer, cider and spirits).

‘Equity’ Advertising is Different

It is important to note that we are concerned with broad reach mass media advertising, in what are considered to be rather image driven product categories. We report on the effects of stopping what is commonly referred to as ‘equity’, ‘brand’, or ‘image’ advertising; specifically advertising on broad reach media, predominantly television, which rarely mentions price, nor product features. The brands are supported by other activities, such as price discounting, in-store promotions and price-oriented advertising by retailers. These other efforts are expected to immediately affect sales volumes when they are turned on and off. They are often called ‘activations’ because they are largely focused on catching buyers who are about to make a category purchase. In contrast, equity advertising aims to reach all

category buyers (and often goes beyond this), most of whom are light, infrequent category buyers that are expected to buy the brand even less frequently. So, this kind of advertising reaches many people who will not buy for many months. Any effect that such advertising has on sales must therefore be spread far out into time.

Two different theoretical views of how equity advertising works unsurprisingly lead to different predictions. The first theory sees advertising as primarily working to mold consumers' beliefs and hence, attitude towards the brand. This can happen via providing information, or by influencing feelings, or (post trial) by reinforcing or framing experience (Vakratsas and Ambler, 1999). This perspective includes post-modern views, such as advertising that constructs brands as myths, archetypes, or personalities. Under this theoretical perspective "the contribution of advertising largely ceased when the brand's image was created" (Broadbent, 1989, p. 23), and apart from occasionally targeting advertising to young new-to-the-category buyers, is only really needed when the brand's image needs to be re-positioned or refreshed due to changes in consumer preferences. This view is supported by the enduring nature of consumer beliefs and brand attitudes (Solomon, 1992) and hence, the stability of brand images over years.

An alternative theory is that equity advertising largely works via memory rather than attitude, and that these memories are rather fragile and context specific. Under this view, the primary role of broad reach advertising is to build and then maintain the brand's mental availability, which is its propensity to be noticed or brought to mind in buying situations (Romaniuk and Sharp, 2002, 2004; Sharp, 2010). Continuous advertising is therefore required, even if it says nothing new, to maintain the salience of the brand's links to category purchase cues, in the face of competitive memory interference (e.g. competitor advertising) and general forgetting. This view is supported by the low repeat-rates for consumers' brand beliefs when interviewed twice (Rungie, Laurent, Dall'Olmo Riley, Morrison and Roy, 2005;

Castleberry, Barnard, Barwise, Ehrenberg and Dall'Olmo Riley, 1994), by the contextual nature of attitudes (Foxall, 2002), by predictable differences in belief/image/attitude scores based on brand usage and hence brand size (Castleberry and Ehrenberg, 1990; Romaniuk, Bogomolova and Dall'Olmo Riley, 2012), as well as the low correlation between attitudes and behavior (Kraus, 1995).

Both theoretical perspectives predict some sales loss from broad reach advertising cessation, but the attitude/image theory predicts less sales loss, and certainly less immediately. In this theory, the primary source of lost sales is that the brand is failing to win its share of new buyers entering the category. Importantly the attitude/image theory suggests that activations and advertising targeted at new category buyers can substitute for broad reach advertising. In contrast, the mental availability theory predicts more immediate sales decline, from loss of mental availability across most buyers (especially the large number of light buyers), as well as from failing to win expected share among new category buyers.

Mental availability theory further suggests that smaller brands will suffer sales declines in particular. Smaller brands will suffer because they have lighter, less frequent buyers on average (and therefore, fewer occasions to refresh brand memories via direct experience), and because of their lower mental availability amongst their buyers, activations will have less ability to compensate for zero advertising. The attitude/image theory is more ambivalent about brand size, as even small brands can enjoy a strong image (Keller, 1993), and so have the ability to shift their marketing support away from equity advertising towards targeted activations.

Some Empirical Evidence

Estimates of the rate of advertising decay vary across studies. Analyses using econometric models find almost all of advertising's effect on sales typically occurs within three to nine months (Clarke, 1976; Hanssens, 1980; Köhler, Mantrala, Albers and Kanuri, 2017; Leone,

1995). However, it is necessary to note that this research stream typically refers to the decay in lifts due to an advertising pulse. That is, how quickly the sales spike decays, similar to campaign evaluations regularly conducted by brand managers, and to the evaluation of any after-effects of a price promotion. Yet broad reach or equity advertising is not expected to result in sales spikes when it is turned on; it is largely expected to maintain sales. By which, we mean to maintain the brand on its current growth trajectory, or preserve its market share, or stem decline in the face of new competition. Such maintenance advertising does not cause spikes because, as discussed, its sales effects are spread thinly over time, and can only be observed in long periods of advertising cessation.

Studies specifically looking at advertising cessation (as opposed to proportionate reductions in advertising spend) are rare. Consequently, there is not very much available evidence to indicate how quickly sales decline is likely to set in after stopping advertising and the possible rate of sales decline over longer periods of time.

There is a stream of research looking at advertising and business cycles (reviewed recently by Dekimpe and Deleersnyder, 2018), where it is well-documented that firms very often reduce advertising during a recession. A common finding is that cutting advertising generally leads to declining sales and profitability during *and* after the recessionary period. However, the studies do not separate out reductions in spend from cessation of advertising, and given the unique conditions a recession presents, extrapolating these findings to times of economic stability is problematic.

Split cable experiments provide alternative evidence linking changes in advertising spend to brand sales (e.g., Lodish, Abraham, Kalmenson, Livelsberger, Lubetkin, Richardson and Stevens, 1995). Results from zero weight tests specifically, which compare ‘no advertising’ to ‘normal advertising weight’ conditions, show it is equally likely that sales will remain stable as decrease (Hu, Lodish and Krieger, 2007; Hu, Lodish, Krieger and Hayati,

2009; Lodish et al., 1995). In practical terms, if a brand decides to stop advertising for up to 12-months, there seems to be a 50/50 chance that this action will adversely affect sales (or, alternatively, lead to cost savings without consequences). The apparent randomness of sales changes is interesting and prompts further questions. What factors help to explain why some brands lose sales when advertising is stopped and others do not? What happens to sales when brands stop advertising for *more* than 12-months?

The present literature lacks consistently documented cases of brands stopping advertising for long periods. Gathering many in-market observations of what has happened to sales when mass reach advertising is removed from the marketing mix will shed light on: the long-term outcomes for brand performance, what happens more or less often (and at what magnitude), and important conditions that moderate outcomes.

The purpose of this study is to document what happens to sales across a large number of cases where brands stopped advertising. Our method further demonstrates how common aggregated data can be used to address this gap in knowledge. We introduce a simple descriptive approach applied to over 20 years of data from the alcoholic beverages industry, which captures 57 instances of brands that stopped advertising for a year or longer. The method produces easily-absorbed findings and is scalable for wider use. Regularities in sales patterns across these 57 cases and two conditions (brand size and prior sales trajectory) are described. Depicting marketing phenomena through descriptive research is an important step in advancing knowledge and providing support for marketing decisions (Ehrenberg, Barnard and Sharp, 2000). Findings from this research will provide further evidence for the long-term effects of advertising investments.

BACKGROUND

Advertising Spending

Stopping advertising is one part of a much larger advertising budgeting conversation, which revolves around how much a brand *should* spend on advertising, and how best to manage or distribute that budget over time. Common questions include: Are we spending enough to defend our position? How much must we spend in order to grow the brand? Can we afford to *not* spend on advertising for a time? These are important questions for which there remain relatively few evidenced-based answers or tools for determining the optimal advertising budget (Danenberg, Kennedy, Beal and Sharp, 2016).

It is not altogether surprising, then, that judgement-based approaches to budget setting are the most popular among advertisers, of which, the most common approach is to identify what can be afforded (West, Ford and Farris, 2014). Heuristic methods such as this, which have been criticised for being overly simplistic and unrelated to strategic marketing objectives, are likely to result in the misallocation of resources. So long as judgement-based budget setting abounds, advertising dollars will remain largely defenseless against cuts by upper management (Danaher and Rust, 1994).

It is conceivable that some reduction in advertising spending is reasonable, at least in some conditions. It was suggested decades ago that many brands are overspending on advertising. Aaker and Carman (1982) summarised 11 tests involving reduced advertising weight over one or two years. Of these 11 tests, 10 were associated with stable sales. Eastlack and Rao (1989) produced similar results from a series of in-market advertising experiments conducted at the Campbell's Soup Company. They found that decreasing advertising weight had little effect on sales over a period of eight to 10-months. Tests that have looked at the reverse situation, where advertising weight is increased, found that spending substantially more on advertising significantly increased sales only about half of the time (at the 80%

significance level) (Lodish et al., 1995). The logical conclusion is that advertising weight alone, adjusted up *or* down, is often not enough to substantively change aggregate brand sales in the short- to medium-term (up to 12-months).

Determining benchmarks or ‘normal’ levels of advertising spend gives some context for when these increases or reductions are more or less likely to be effective. For example, if a brand was overspending the amount that is needed to maintain its market position, then reducing spend removes waste, and we would not expect sales to respond negatively. It is well documented that larger brands spend more on advertising than smaller brands (e.g., Binet and Field, 2007; Buck, 2001; Jones, 1990). Empirical observation indicates it is not a simple linear relationship between market share and share of voice (SoV), but a curved-linear relationship. Larger brands tend to underspend on SoV relative to their market share whereas smaller brands overspend on SoV relative to their market share to maintain their respective positions (Buck, 2001; Hansen and Bech Christensen, 2005; Jones, 1990).

Larger brands seemingly benefit from their substantive past investments to establish consumer brand preferences, as well as advantages with respect to physical availability (e.g. distribution, price, product range). They rely on these historic factors to prop up present performance and increase the brand’s profitability. This very situation can also tempt financiers to ‘milk’ large share brands by further underspending. Jones (1990) suggested that milking brands could imperil sales and recent work has demonstrated that sales do decline when brands *consistently* underspend Jones’ Advertising Intensiveness benchmark over a five year period (Danenberg et al., 2016).

It appears that brands can reduce advertising spend to gain efficiencies, but if they underspend the recommended benchmark for their size, then they are at risk of losing sales and market share. Sales losses may not occur in the short or medium-term but there is evidence for eventual decline over the long-term, from which the brand may not recover.

Importantly the abovementioned studies pertain to some level of advertising spend being changed to some other level of spend. Stopping advertising altogether should be considered *extreme* underspending, and presents a unique case. Therefore, the potential perils of reducing advertising spend, as indicated by these studies, may not adequately represent the perils of not spending on advertising at all.

When Brands Go Dark

The earliest reported experiments on advertising cessation are from the 1960s. Anheuser-Busch tested the effects of different advertising weight levels on Budweiser beer sales and noticed that test regions completely deprived of advertising showed no significant differences in sales from control regions (Ackoff and Emshoff, 1975). The advertising hiatus and associated sales stability continued for more than 18-months before *slight* declines appeared in monthly sales figures. After reinstating advertising spend levels equivalent to before the experiment, sales bounced back within six-months. Based on these results, the researchers actioned several changes in advertising spending at Anheuser-Busch. From 1962 to 1968, cuts were introduced into more markets at deeper levels until the ‘ad spend per barrel’ was less than half what it was at the start. During this period both sales and market share increased. Ackoff and Emshoff (1975) conceded that the changes in advertising spend could not be solely responsible for the organisation’s growth over this time, and that other (unspecified) company actions or market conditions also contributed. However, they reinforced that “the changes induced by the research described here [including advertising cessation] did not *hurt* Anheuser-Busch” (Ackoff and Emshoff, 1975, p. 12).

Split-cable tests captured by market research companies since the Anheuser-Busch experiments have provided larger data sets to examine what happens when brands go dark. The split-cable method identifies two matched samples of consumers (or markets) and delivers different amounts of (traditionally television) advertising to each group. Aggregate

sales are monitored across the samples over time and differences observed are attributed to the advertising manipulation. Most split-cable tests have looked at different advertising spend levels (either up or down weighting), but a subset of tests looked at treatments with and *without* advertising, which are called zero weight tests. In these tests, the control market maintains a ‘normal’ level of advertising spend (i.e. unchanged from before the test period) while advertising is turned off in the treatment market. Across four studies (Hu et al., 2007; Hu et al., 2009; Lodish et al., 1995; Risky, 1997) 158 zero weight tests were reported, each lasting 12-months. Details from these studies are listed in Table 1.

Table 1: Zero-Weight Advertising Tests with Significant Changes in Sales Effects

Study	Tests (n)	% Significant	Sales Difference
(Lodish et al., 1995)	62	36% (p<0.2)	-23% (Volume)
(Risky, 1997)	23	57%	-15% (Volume)
(Hu et al., 2007)	46	63%* (p<0.05)	-
(Hu et al., 2009)	27	41%* (p<0.05)	-

* This statistic was not reported in the published articles; the author provided it on request.

Across studies, about half of the zero weight tests show no change in sales when advertising stopped for 12-months. When a significant sales effect was observed, sales were lower in the dark market on average. It, again, appears that stopping advertising for prolonged periods does not always have an observable effect on sales, but if it does, it is likely to be a decrease. Advertisers should consequently proceed with caution when considering a complete cessation of advertising, and monitor closely for changes in sales over time (Tellis, 2004). We are mindful, however, that these studies cover a period of time when the carryover effects of past advertising are present (for about three to nine months, as previously discussed). If a brand stops advertising for more than 12-months, it is probable that sales declines will occur

more often and be greater in magnitude. To the best of our knowledge, investigations of this nature have yet to reach the academic advertising literature. Thus:

RQ1: What happens to aggregate brand sales after a brand stops all mass media advertising for a year or more?

It is likely that stopping advertising will affect different brands in different ways. Sales outcomes will vary based on different qualities of the brands themselves and/or the circumstances surrounding the advertising cessation. Two factors worthy of investigation are a brand's size and sales trajectory prior to stopping advertising.

Prior evidence strongly suggests that brand size should moderate advertising sales effects, which may extend to advertising cessation. Larger market share brands have greater market-based assets (Srivastava, Shervani and Fahey, 1998; Sharp, 2010); they have wider physical availability (Wilbur and Farris, 2014) and years of prior advertising and brand usage have given them more mental availability amongst the population of category buyers (Romaniuk, 2016). Smaller brands are building such assets, so they should gain proportionately more from spending on advertising, and lose more from cutting advertising. Split-cable weight tests report that the likelihood and magnitude of sales changes following a reduction in advertising weight are less for larger/established brands than smaller/new brands (Hu et al., 2009; Lodish et al., 1995; Risky, 1997). So, larger brands appear more resistant to sales reacting (negatively) to a cessation in advertising, but for how long?

A brand's sales trajectory is another important contextual variable. Marketing managers are likely to consider past brand performance when setting advertising budgets, particularly when allocating across a portfolio (Low and Mohr, 1999). Money is generally invested where greater returns are expected. Perhaps money may be more commonly taken from brands that are not growing (to support other growing or profitable stable brands), presenting a potential bias. It is unlikely that brands already in steep decline prior to stopping

advertising will stabilise or reverse trend due to retracting all advertising support. Therefore, are declining brands that are denied advertising support destined to die and die quickly?

Extending our first research question, we are looking to explore two conditions that may help explain how sales respond to stopping advertising:

RQ2: How do (a) brand size and (b) prior sales trajectory affect aggregate sales trends after a brand stops all mass media advertising for a year or more?

METHOD

Data

Data for this study was provided by a global manufacturer of alcoholic beverages. The data set included two decades of advertising media spend and brand sales volume information spanning beer, cider, wine, spirits, premixed ready-to-drink (RTD) beverages, and non-alcoholic or ‘mixer’ brands in the Australian market. This type of ‘as-it-lies’ data collected from the normal operation of competitive brands presents something of a natural experiment, allowing us to document what happened to numerous brands that stopped advertising. Such an approach has also been used when category advertising is stopped (e.g. Capps, Bessler and Williams, 2016).

The advertising data included brand and variant level media spend estimates reported annually for 20 years (1996 to 2015). Expenditure was reported in Australian dollars across 10 media platforms: metro and regional TV, metro and regional press, magazines, radio, online, cinema, out of home, and direct mail. Estimates were the best data available, as the company typically purchased media in packages for multiple brands and could not always calculate exact investments for individual brands. Nonetheless, the estimates (based on spot data collected and valued by Nielsen) were suitably detailed to determine when a brand was or was not advertising in any given year.

The sales data tracked the manufacturer's volume sales to distributors and retailers. Records comprised of brand and variant level sales reported monthly for almost 23 years (July 1993 to April 2016). The data was normalised to nine litre case equivalents for all brands and included both bulk keg sales as well as retail packs. Sales data were aggregated from months to calendar years. Alcohol is a highly seasonal category in Australia, so this aggregation not only smoothed the seasonal variation in sales, but also converted sales to the same yearly format as the media spend data. To calculate brand market shares, category sales data was provided by the company and also supplemented with additional data from online statistics portal Euromonitor: Passport. Yearly category sales volume (in nine litre case equivalents) was available for cider and RTD beverages from 1996 to 2016, for spirits from 1997 to 2016, and for beer and wine from 2001 to 2015.

Identifying Advertising Stops

To begin we had to develop a definition of a 'stop' to determine if/when any brand stopped advertising across the data set. Under normal market conditions it seems unlikely that any competitive brand ever completely stops all forms of advertising (depending on the chosen definition of advertising). For CPG products, packaging can be considered point-of-purchase advertising, and brand websites as owned media tend to remain active regardless of paid media decisions. In this study, stopping advertising refers to a massive reduction in a brand's mass reach advertising. Because media spend information was reported annually, we considered a year without advertising as any year when a brand's total spend was less than one percent of its average annual spend over the 20-year period. This definition captured years with zero advertising spend across all media, as well as times when large brands that spent multiple millions of dollars on advertising per year spent only a few thousand dollars on low reach media, such as outdoor (which is practically equivalent to ceasing communications across category consumers).

Each brand’s media data were coded as having either ‘some spend’ or ‘no spend’ (advertised or unadvertised) each year. Some brands advertised in every year, so were excluded from analysis. Some brands stopped only once in two decades while others had bursts of spending with gaps in between. In total, 57 cases from 41 brands were identified where these brands cut all mass advertising media spending for one year or longer. These cases came from a range of alcohol subcategories, but most were beer (43 beer, five cider, four spirits, three RTD, one wine, and one mixer).

In 34 of these 57 cases, the brand remained unadvertised in the following year too; constituting a two-year stop in advertising. The other 23 brands either restarted advertising, reached the final year of the data set, or were delisted from the market. In this continuing fashion, there were fewer cases of brands staying unadvertised as the length of time increased. Table 2 shows the number and length of cases from the data set.

Table 2: Cases of Advertising Stops

Years without advertising	1	2	3	4	5	6	7	8	9	10
Number of cases	57	34	17	12	11	6	6	4	2	1

Analyses

In all 57 cases, a brand’s sales volume in its last *advertised* year (immediately before stopping) was converted to a value of 100, and sales volumes in the following *unadvertised* year(s) were indexed relative to this value. This conversion reveals the proportional change in sales from that last advertised year following advertising cessation. For example, an index changing from 100 in the ‘base year’ to 80 in the (first) ‘no advertising year’, represents a 20% decrease in sales after stopping advertising. The index measure is comparable across brands of different sizes, and can be used to assess sales changes after one year without advertising, then two years, and so on, across cases. Once all cases were indexed, the average

index in each year was calculated to determine the average change in sales across all cases after one year without advertising, then two years, and so on.

To establish sales trajectory prior to stopping advertising we looked at brand sales in the year immediately prior to the last advertised year (which is also an advertised year) and indexed these sales against the base year too. This approach reveals the year-to-year change in sales immediately before stopping advertising, which provides important context for sales trends observed after advertising cessation. For example, a prior year index of 115 shows that a brand's sales were 15% higher than the base year indexed at 100, which indicates the brand was in decline leading up to stopping advertising.

Cases were also classified into subgroups as per the two conditions of brand size and sales trajectory. Brands with average yearly sales less than 250k units were considered small brands, between 250k and 1M units considered medium, and greater than 1M units considered large. Cases were classified as stable if the difference between prior and base year sales was less than +/-10% index points. Cases with change greater than +/-10% were labelled growing or declining respectively. These cut off values were chosen to split the sample into three roughly equal groups for each condition. A near equal number of cases were classified as previously growing brands (n=18), stable (n=19) and declining brands (n=20). Most of those growing cases are small brands. There are more cessation cases from small brands (n=23) than medium (n=17), or large brands (n=17). Importantly, brands did not change their size classifications throughout the duration of the data set. Small brands were not reclassified as medium, or medium as large when growing, nor the reverse when brands declined.

Beyond descriptive analysis, regression modelling was used to demonstrate congruent validity. Regression modelling made it possible to include further data and control for the influence of category sales changes.

RESULTS

Sales Trends After Advertising Stops

Table 3 summarises the sales indices for all cases in each year. Central tendency and dispersion are reported through the mean sales index and the standard deviation from the mean. The mean sales index across all cases after one year without advertising is 84, showing that sales after one year without advertising were 16% lower on average than the prior advertised year. The mean sales index falls further below the base year in each additional unadvertised year. On average, sales are 25% lower than the base year after two years without advertising, and 58% lower after five years without advertising. The base year is indexed at 100 for all cases, giving a standard deviation of zero in that year. Sales indices varied considerably in other years, as reflected by the standard deviation. For example, among the one-year advertising stops, indices ranged from 175 to 3 (i.e. +75% to -97% in sales growth or decline respectively).

Table 3: Mean Sales Index for All Cases

Year	Prior	Base	1	2	3	4	5	6	7	8	9	10
Number of cases	57	57	57	34	17	12	11	6	6	4	2	1
Mean Sales Index	113	100	84	75	64	46	42	37	32	28	29	34
Standard Deviation	53	0	33	50	42	30	24	25	23	18	7	-
% Declining*	-	-	53	62	71	100	100	100	100	100	100	100

* Cases with an index of 90 or less relative to the last advertised year were classified as declining following cessation.

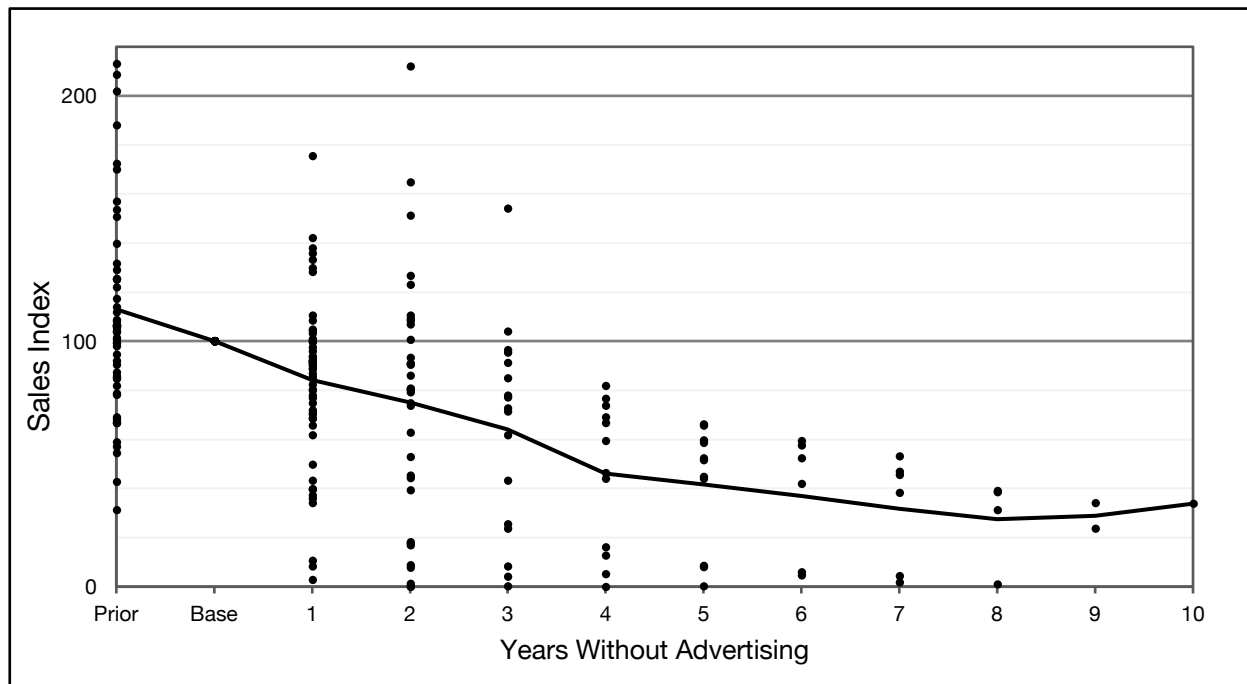
Table 3 also reports the proportion of cases that declined in sales following cessation. Of all 57 cases, 53% (n=30) reported a sales index of 90 or less after one year without advertising. That is, brands that stopped advertising for 12-months experienced substantive sales declines about half of the time, which is in line with findings across split cable tests.

This proportion increases to 62% of 34 cases without advertising after two years, and 71% of 17 cases without advertising after three.

Chart 1 plots the dispersion of cases around the mean (indicated by the solid line) at each incremental stop length, which shows a clear downward trend in sales across cases year-on-year when brands remain unadvertised.

All brands that stopped advertising for four years or more saw sales fall below the base year (index 100) and sales stayed below the base year while advertising cessation continued. This result is partly because almost every case where a brand indexed higher than the base year in the *first* unadvertised year remained unadvertised for less than four years (i.e. brands that initially grew when unadvertised typically went back on-air within a couple of years). Noting that of all 57 cases, only 14% (n=8) reported *growth* (i.e. sales index was 110 or more in the first unadvertised year) after stopping advertising for one year, when 32% (n=18) of cases were growing before they stopped advertising.

Chart 1: Indexed Sales (All Cases) of Brands Stopping Advertising



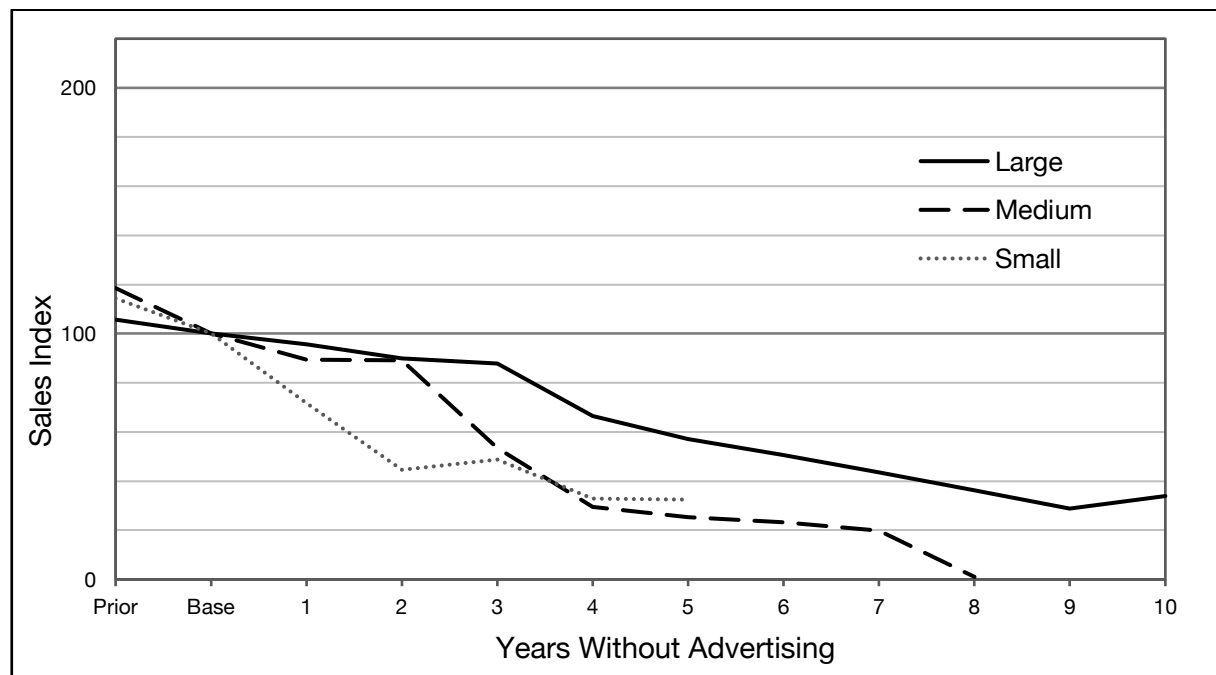
Note: This chart omits one value in the 'prior' year that is greater than 200 (374)

Sales Trends by Conditions

Mean sales indices were then calculated for the different brand size and prior sales trajectory classifications. Each brand size group (large, medium and small) and sales trajectory group (growing, stable and declining) contained more than 10 cases of advertising stops of one and two years, but the samples are smaller for stops of three years or more. Sample sizes can be found in the appendix. Regardless of these small sample sizes, all observations are reported and qualitatively explored.

Chart 2 plots the mean sales index for the brand size groups. All groups show declines over time. The most notable difference between size groups is that the average proportional decline over the long run is consistently less for large brands than for the medium and small brands. The slower average decline for large brands was largely expected given prior research findings, and also considering that relative proportional sales change will naturally appear less extreme from a larger base figure.

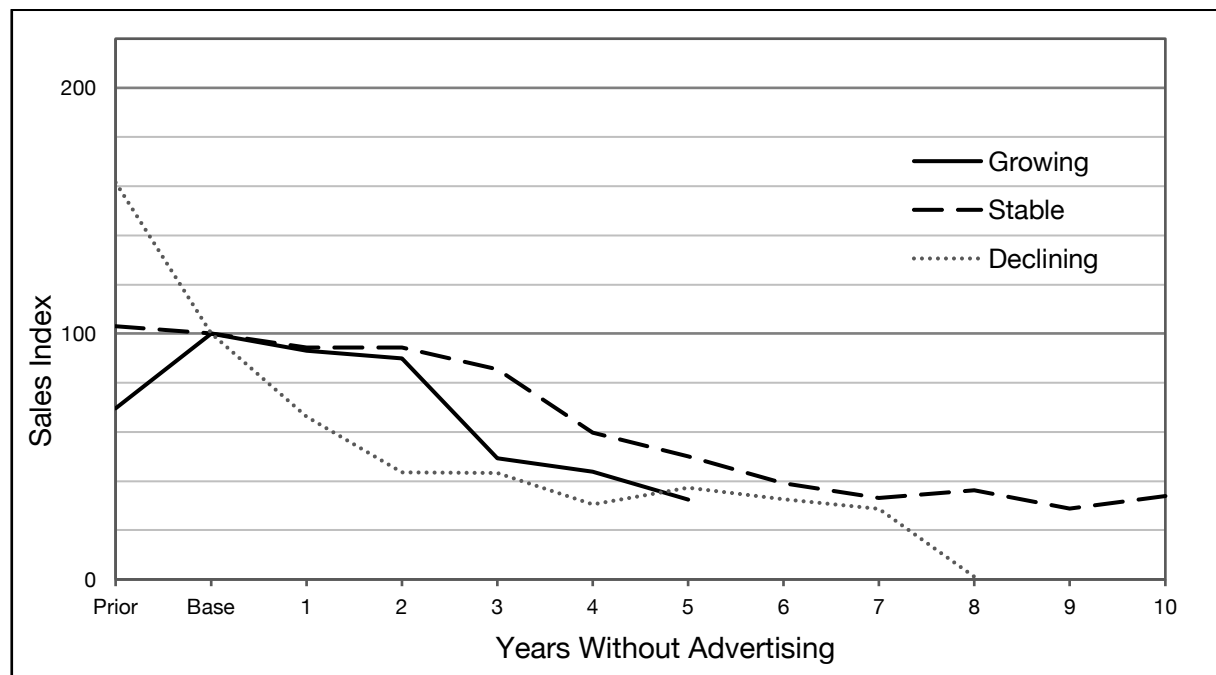
Chart 2: Mean Sales Index by Brand Size



Another notable difference between brand size groups is the length of time that brands stopped advertising. Some large brands went unadvertised for nine and 10 years (two cases for nine years and one case for 10 years). The longest case for medium brands was eight years, and no small brand went unadvertised for longer than five years. The steeper rate of decline for small brands likely increased the chance of being delisted sooner.

Chart 3 plots the mean sales index for the prior sales trajectory groups. Average sales declines were much larger for brands already in sales decline prior to stopping advertising relative to previously growing and stables brands. None of the previously declining cases (n=20) captured in the data set indexed above base year sales *in any year* after stopping advertising. One declining case eventually arrested its decline and even increased sales slightly (without resuming advertising), but did not return to its base year sales without advertising. Stable and growing brands stayed more stable on average for two years without advertising, with mean sales indices of 94 and 90 respectively.

Chart 3: Mean Sales Index by Prior Sales Trajectory



These averages were higher by virtue of including cases that continued to grow after stopping advertising, even after two or three unadvertised years. For previously growing brands (n=18), an almost equal number of cases indexed above and below 100 after a year without advertising (n=10 vs. n=8 respectively). In comparison, a minority of cases indexed above 100 after a year without advertising for previously stable brands (n=4 of 19) and none for previously declining brands.

Looking at the crossover of prior sales trajectory and brand size for previously growing brands *only*, a clearer pattern emerges. All previously growing large and medium brands (n=8) continued on an upward trend after stopping advertising, with sales indices greater than 100 in the first two unadvertised years. In all of these cases, advertising resumed after one or two years. Most previously growing small brands (n=8 of 10 cases) dropped below 100 after stopping advertising for one year, and all dropped below 100 after two years. These two groups of growing brands are similar in other respects; each contain cases that were previously growing by similar magnitudes before stopping advertising, and all include brands from different alcohol subcategories (e.g. beer, cider, spirits, etc.).

Regression Modelling

Multiple regression was used to quantify the relationships between brand size (average yearly sales log transformed), prior sales trajectory (percentage change in sales before stopping advertising), and change in sales after stopping advertising.

Category growth/decline was also included in the model. As noted earlier, category sales records for beer and wine were only available from 2001, hence, nine of the 57 cases where a brand stopped advertising could not be matched with category-level data and so were omitted from the model. For the remaining 48 cases, category growth/decline was calculated as the year-to-year percentage change in category sales volume in the year(s) the brand stopped advertising. A Spearman's rank correlation showed no significant relationship

between brand sales changes and category sales changes, $r_s = .18$, $p = .21$ (two tailed). Despite lacking a clear relationship, the category growth/decline variable was still included in the multiple regression to explore its possible incremental benefit to the model.

The model is significant ($F(3,44) = 8.2$, $p < .001$), with an R^2 of .36. Both prior sales trajectory and brand size were significant predictors of brand sales changes after stopping advertising. Standardised beta-weights show that prior sales trajectory ($B = .50$) more strongly predicts sales changes than brand size ($B = .35$). The model further suggests that the effect of category growth/decline on brand sales changes after stopping advertising is relatively minor ($B = -.04$). The VIFs range from 1.002 to 1.041, hence there is no concern regarding multicollinearity among the explanatory variables.

DISCUSSION

“The sales of a brand are like the height at which an airplane flies. Advertising spend is like its engines: while the engines are running, everything is fine, but, when the engines stop, the descent eventually starts.” (Broadbent, 1989, p. 23)

Advertising is being held accountable now more than ever, and many marketers must present some case to retain their advertising budgets. It has proved challenging to build an evidence-based case for maintenance or ‘equity’ advertising because it’s difficult to see the sales effects of this investment. The value of such advertising is effectively demonstrated by observing the consequences of its absence.

This study contributes to the literature through its novel approach to documenting the long-term effects of advertising budgeting decisions, specifically the decision to go dark on all broad reach advertising media. Using descriptive analyses incorporating many brands’ advertising spend over two decades, this study shows the effects of stopping advertising for long periods on aggregate sales for beer, cider, and spirits brands. Multiple regression was

used to check whether the conclusions from the descriptive analysis were consistent with statistical estimates, which they were. This work also identifies two key explanatory variables (brand size and prior sales trajectory) that affect sales responses when alcohol brands stop advertising, which should be incorporated in future research.

We observed that when broad reach advertising media spend was stopped, most alcohol brands lost sales or suffered slower growth immediately in that first year of cessation. Decline became more common as brands went longer without advertising. Across brands of different sizes, on different sales trajectories, relatively few avoided this fate.

Sales decline was more immediate and greater on average for small share brands than for larger share brands. Large and medium brands experienced some initial stability after stopping, on average, which is consistent with reports from split-cable studies (Hu et al., 2009; Lodish et al., 1995; Risky, 1997). However, our findings further indicate that if left unadvertised for more than two years, large and medium brands also invariably slip into decline. For these brands, Broadbent's plane analogy quoted above appears apt; larger brands can cruise along for a time before descent starts. However, the plane analogy implies accelerating decline, which was not observed. Across all cases, the average rate of sales decline year-on-year was rather moderate. The same was true for larger brands after the first two or three years without advertising. Though the data are messy (which is to be expected given these are real world observations), and the number of cases dwindles as advertising cessation runs longer, alcohol brands do not commonly fall out of the market at an exponential rate when broad reach advertising is turned off for multiple years. Still, the outcomes are generally detrimental for brands that go dark for such long periods.

Brands that were stable or growing prior to stopping advertising also experienced some initial stability. All previously declining brands, however, continued to decline after stopping advertising irrespective of their size.

One consistent exception to the broad declines documented across cases was for already-growing large and medium sized brands, which all continued increasing in sales for two years after stopping advertising (and from there, were readvertised).

Of the two theoretical perspectives discussed earlier, it is our view that the results fit best with the mental availability theory of how advertising largely works. That for most brands, negative changes in sales occur in the first year of cessation supports the idea that equity advertising that reaches even the brand's lightest buyers is necessary for maintenance. Though there is enough variation in the individual cases that it's possible that the attitude/image theory might still be apt under some conditions.

Managerial Implications

The finding that sales most commonly declined after brands stopped advertising offers some evidence, specifically for marketers of beer, cider and spirits brands, to justify keeping their brands on-air each year. We acknowledge this becomes a more complex decision when companies own multiple brands in the same product category (which is reasonably common in the alcohol industry, and others), and so must decide how to allocate scarce resources between a portfolio of brands. We do suggest however, that a strategy of "this year we advertise these brands, and then next year we advertise those brands" is probably ill advised. Forcing brands to take turns going dark for long periods could have a net negative affect on the total portfolio in the long-run.

Removing advertising support for long periods from previously declining brands (to potentially allocate those funds to other 'healthier' brands in a portfolio) seems to inevitably prove fatal to those brands irrespective of their size. It is possible, even probable, that other forms of marketing support were removed along with advertising for these observed cases, which would have further assisted the demise of these brands. Even so, the cessation of advertising could have been premature, and the lifespan of these brands might have been

longer if supported with broad reach advertising. Knowing when to withdraw support in line with changing consumer trends (e.g. premium or low-calorie consumption) versus teasing out if the brand team is just ‘losing faith’ following a couple of poor performing advertising campaigns will remain as a practical challenge.

Conversely, we observed that larger previously growing brands are relatively unaffected by stopping advertising and so can withstand an advertising hiatus for one or two years. This specific situation might represent an opportunity for companies to save money, improving profits. However, we cannot be sure if these brands wouldn’t have grown by *more* had they kept advertising.

Removing advertising support for long periods from small growing alcohol brands resulted in the most radical changes; for almost all of these cases, the sales trajectory immediately reversed from growing to declining. Small growing brands clearly need continued advertising support if they are to fulfil their growth potential. To increase sales and market share, these brands need to build mental availability across the market by exposing light, medium, and heavy category buyers to brand messaging, and broad reach advertising helps to build and reinforce memories at scale.

The findings also provide support that brands should advertise with continuity over time, which proponents of mental availability theory recommend. Brand memories fade and must be refreshed and reinforced over time. Category purchases typically occur each and every week. Having extended dark periods means there can be long gaps between consumers making a category purchase and their exposure to brand advertising. Even dark periods of several months can prove detrimental to supporting sales and market share (De Canha, Ewing and Tamaddoni, 2020). In this gap, consumers may be nudged by a competitor’s advertising or simply forget to think about the brand when it comes time to make a purchase, especially if they are a light category and/or brand buyer (Sharp, 2010). Therefore, rather than adopt a

pulsing strategy, which would see brands turning equity advertising on and off periodically, a continuity strategy that reduces or excludes dark periods over the long-term better supports brand performance (Gijzenberg and Nijs, 2019).

Limitations and Future Research

A key limitation of this study is the inability to control for other potential confounding variables. The analysis examined only mass media advertising spend in relation to aggregate sales for the target brands; many other internal and external forces influence sales. Changes in pricing and promotions, distribution, competitor activities, and other marketplace forces likely contributed to the changes observed here. At a more macro-level, during the period of time studied, several disruptive changes also occurred in the Australian alcohol market, such as large company mergers and corporate takeovers, new competitor entrants, a notable trend toward premium craft brands, changes in physical and online distribution, changes in subcategory size and trends, and more. We acknowledge the sole effect of stopping advertising on sales cannot be revealed without removing or controlling these other influences. However, such controls were not possible in this study. The data comes from the normal operation of real brands in real markets, and information on other variables was incomplete or absent. At the same time, we find it quite remarkable that the results are as clear as they are without these controls.

Another limitation is that we do not have transparency on how the dollars ‘saved’ from stopping broad reach advertising were spent. It is possible that brands did not go completely dark, but redirected their budgets to communications that were not captured in our data set, such as previously mentioned ‘activations’ advertising, event marketing or sponsorship, or social media and influencer advertising (post 2004). The data does capture online spend, which started from 2008, but it is limited to display advertising and was

consistently dwarfed by investments in television advertising in particular. Despite these data limitations, the data was like with like across brands and time.

When classifying the sales trends of brands (as growing, stable, or declining), relying on merely two consecutive years of data may have inaccurately reflected the brands' long-term sales trends. Aggregate yearly sales can fluctuate randomly within a longer-term trend, so some brands may have been misclassified. A remedy would be to observe sales for longer than two years prior to advertising stops. However, this was not possible in every case, and the additional criteria would have meant fewer cases to analyse.

Finally, the generalisability of the findings is as yet unknown because our results pertain to one industry (alcoholic beverages, predominantly beer) in one country (Australia). However, the observed sales changes in this study are similar to what is reported from zero-weight tests (e.g. Lodish et al., 1995; Risky, 1997). In those studies, the average change in sales over 12-months without advertising was minus 15% and minus 23%, while ours is minus 16% for the same time period. Their data came from a mix of product categories found in supermarkets (e.g. food, cleaning and beauty products). We suspect that our findings and subsequent recommendations are not confined to beer, cider and spirits brands; that the broad patterns and important conditions identified here are likely to generalize. Replication is encouraged to reveal the extent that the direction and precise magnitude of patterns identified here are common (or not) to other products and services and other market conditions (e.g. durable products, emerging markets, categories with varied levels of advertising intensity, etc.). Fortunately, the practical approach used here should be straightforward to extend to many industries.

REFERENCE LIST

- AAKER, D. A. and J. M. CARMAN. "Are You Overadvertising? A Review of Advertising-Sales Studies." *Journal of Advertising Research* 22, 4 (1982): 57-70.
- ACKOFF, R. L. and J. R. EMSHOFF. "Advertising Research at Anheuser-Busch, Inc. (1963-68): Part I." *Sloan Management Review* 16, 2 (1975): 1-15.
- BINET, L. and P. FIELD. *Marketing in the Era of Accountability*, Oxfordshire, United Kingdom: World Advertising Research Centre, 2007.
- BROADBENT, S. *The Advertising Budget: The Advertiser's Guide to Budget Determination*, Henley-on-Thames Oxon United Kingdom: NTC Publications Ltd for Institute of Practitioners in Advertising, 1989.
- BUCK, S. *Advertising and the Long-Term Success of the Premium Brand*, Henley-on-Thames: World Advertising Research Center, 2001.
- CAPPS, O., D. A. BESSLER and G. W. WILLIAMS. "The Ramifications of Nearly Going Dark: A Natural Experiment in the Case of Us Generic Orange Juice Advertising." *Agricultural and Resource Economics Review* 45, 1 (2016): 68-97.
- CASTLEBERRY, S. B., N. R. BARNARD, T. P. BARWISE, A. EHRENBERG and F. DALL'OLMO RILEY. "Individual Attitude Variations over Time." *Journal of Marketing Management* 10, 1-3 (1994): 153-162.
- CASTLEBERRY, S. B. and A. EHRENBERG. "Brand Usage: A Common Factor in Consumer Beliefs." *Marketing Research* 27, 2 (1990): 14-21.
- CLARKE, D. G. "Econometric Measurement of the Duration of Advertising Effect on Sales." *Journal of Marketing Research* 13, 4 (1976): 345-57.
- DANAHER, P. J. and R. T. RUST. "Determining the Optimal Level of Media Spending." *Journal of Advertising Research* 34, 1 (1994): 28-35.
- DANENBERG, N., R. KENNEDY, V. BEAL and B. SHARP. "Advertising Budgeting: A Re-Investigation of the Evidence on Brand Size and Spend." *Journal of Advertising* 45, 1 (2016): 139-146.
- DE CANHA, N., M. EWING and A. TAMADDONI. "The Impact of Advertising on Market Share: Controlling for Clutter, Familiarity, and Goodwill Decay." *Journal of Advertising Research* 60, 1 (2020): 87-103.
- DEKIMPE, M. G. and B. DELEERSNYDER. "Business Cycle Research in Marketing: A Review and Research Agenda." *Journal of the Academy of Marketing Science* 46, 1 (2018): 31-58.
- EASTLACK, J. and A. RAO. "Advertising Experiments at the Campbell Soup Company." *Marketing Science* 8, 1 (1989): 57-71.
- EHRENBERG, A., N. R. BARNARD and B. SHARP. "Decision Models or Descriptive Models?" *International Journal of Research in Marketing* 17, 2-3 (2000): 147-158.

- FOXALL, G. "Marketing's Attitude Problem - and How to Solve It." *Journal of Customer Behaviour* 1, 1 (2002): 19-48.
- GIJSENBERG, M. J. and V. R. NIJS. "Advertising Spending Patterns and Competitor Impact." *International Journal of Research in Marketing* 36, 2 (2019): 232-250.
- HANSEN, F. and L. BECH CHRISTENSEN. "Share of Voice/Share of Market and Long-Term Advertising Effects." *International Journal of Advertising* 24, 3 (2005): 297-320.
- HANSENS, D. M. "Bivariate Time-Series Analysis of the Relationship between Advertising and Sales." *Applied Economics* 12, 3 (1980): 329-339.
- HU, Y., L. M. LODISH and A. M. KRIEGER. "An Analysis of Real World Tv Advertising Tests: A 15-Year Update." *Journal of Advertising Research* 47, 3 (2007): 341-353.
- HU, Y., L. M. LODISH, A. M. KRIEGER and B. HAYATI. "An Update of Real-World Tv Advertising Tests." *Journal of Advertising Research* 49, 2 (2009): 201-206.
- JONES, J. P. "Ad Spending: Maintaining Market Share." *Harvard Business Review* 68, 1 (1990): 38-43.
- KELLER, K. L. "Conceptualizing, Measuring, and Managing Customer-Based Brand Equity." *Journal of Marketing* 57, 1 (1993): 1-22.
- KÖHLER, C., M. K. MANTRALA, S. ALBERS and V. K. KANURI. "A Meta-Analysis of Marketing Communication Carryover Effects." *Journal of Marketing Research* 54, 6 (2017): 990-1008.
- KRAUS, S. J. "Attitudes and the Prediction of Behavior: A Meta-Analysis of the Empirical Literature." *Personality and Social Psychology Bulletin* 21, 1 (1995): 58-75.
- LEONE, R. P. "Generalizing What Is Known About Temporal Aggregation and Advertising Carryover." *Marketing Science* 14, No. 3, Part 2 (1995): G141-G150.
- LODISH, L. M., M. ABRAHAM, S. KALMENSON, J. LIVELSBERGER, B. LUBETKIN, B. RICHARDSON and M. E. STEVENS. "How Tv Advertising Works: A Meta-Analysis of 389 Real World Split Cable Tv Advertising Experiments." *Journal of Marketing Research* 32, 2 (1995): 125-139.
- LOW, G. S. and J. J. MOHR. "Setting Advertising and Promotion Budgets in Multi-Brand Companies." *Journal of Advertising Research* 39, 1 (1999): 67-78.
- RISKEY, D. R. "How T.V. Advertising Works: An Industry Response." *Journal of Marketing Research* 34, May (1997): 292-293.
- ROMANIUK, J. "Building Mental Availability." In *How Brands Grow: Part 2*, J. Romaniuk & B. Sharp (eds.). Melbourne: Oxford University Press, 2016.
- ROMANIUK, J., S. BOGOMOLOVA and F. DALL'OLMO RILEY. "Brand Image and Brand Usage: Is a Forty-Year-Old Empirical Generalization Still Useful?" *Journal of Advertising Research* 52, 2 (2012): 243-251.

ROMANIUK, J. and B. SHARP. "The Concept of Brand Salience and Implications for Measurement." Presented at European Marketing Academy 31st annual conference: Portugal, 28-31 May, 2002.

ROMANIUK, J. and B. SHARP. "Conceptualizing and Measuring Brand Salience." *Marketing Theory* 4, 4 (2004): 327-342.

RUNGIE, C., G. LAURENT, F. DALL'OLMO RILEY, D. G. MORRISON and T. ROY. "Measuring and Modeling the (Limited) Reliability of Free Choice Attitude Questions." *International Journal of Research in Marketing* 22, 3 (2005): 309-318.

SHARP, B. *How Brands Grow*, South Melbourne: Oxford University Press, 2010.

SOLOMON, M. R. *Consumer Behavior: Buying, Having, and Being*, Needham Heights, MA: Allyn and Bacon, 1992.

SRIVASTAVA, R. K., T. A. SHERVANI and L. FAHEY. "Market-Based Assets and Shareholder Value: A Framework for Analysis." *Journal of Marketing* 62, 1 (1998): 2-18.

TELLIS, G. J. *Effective Advertising: Understanding When, How and Why Advertising Works*, SAGE, 2004.

VAKRATSAS, D. and T. AMBLER. "How Advertising Works: What Do We Really Know?" *Journal of Marketing* 63, 1 (1999): 26-43.

WEST, D., J. B. FORD and P. W. FARRIS. "How Corporate Cultures Drive Advertising Budgets: Best Practices Combine Heuristics and Algorithmic Tools." *Journal of Advertising Research* 54, 2 (2014): 149-162.

WILBUR, K. and P. FARRIS. "Distribution and Market Share." *Journal of Retailing* 90, 2 (2014): 154-167.

APPENDIX

Table: Cases of Advertising Stops Classified into Conditions

Year	Total	1	2	3	4	5	6	7	8	9	10	
All cases	57	57	34	17	12	11	6	6	4	2	1	
Brand Size	Large	17	17	12	6	5	5	3	3	3	2	1
	Medium	17	17	11	6	3	3	3	3	1	0	0
	Small	23	23	11	5	4	3	0	0	0	0	0
Sales Trajectory	Growing	18	18	11	3	3	3	0	0	0	0	0
	Stable	19	19	11	8	5	5	4	4	3	2	1
	Declining	20	20	12	6	4	3	2	2	1	0	0