Is Advertising for Losers?
An Empirical Study from a Value Creation–Value Capturing Perspective

Koen Tackx, Sandra Rothenberger and Paul Verdin

Does advertising lead to higher profits? This question has occupied both academic researchers and company executives for many decades. Arguments have gone in both directions, and evidence is mixed at best. Re-examining the question from a value creation and value capturing perspective as introduced in the strategic management and marketing literature, this article attempts to re-interpret and reconcile the different views and empirically validate the resulting hypotheses. Using a database of the top 500 brands of established companies during the period 2008–2012, we find that advertising spending has no significant impact on profitability, in contrast with brand value and innovation (the latter also positively affects brand value creation). In addition, advertising spending actually weakens the positive effect of innovation on profitability. These findings provide support for the view that advertising in and of itself does not improve profitability. Rather, its effect is positive only when it acts to support customer value creation, based on brand value and/or innovation activities.

Keywords: advertising effectiveness, brand value, effectiveness of research and development, innovation, profitability drivers, value creation, value capturing

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**Abstract**

Does advertising lead to higher profits? This question has occupied both academic researchers and company executives for many decades. Arguments have gone in both directions, and evidence is mixed at best. Re-examining the question from a value creation and value capturing perspective as introduced in the strategic management and marketing literature, this article attempts to re-interpret and reconcile the different views and empirically validate the resulting hypotheses. Using a database of the top 500 brands of established companies during the period 2008–2012, we find that advertising spending has no significant impact on profitability, in contrast with brand value and innovation (the latter also positively affects brand value creation). In addition, advertising spending actually weakens the positive effect of innovation on profitability. These findings provide support for the view that advertising in and of itself does not improve profitability. Rather, its effect is positive only when it acts to support customer value creation, based on brand value and/or innovation activities.
Introduction

Is advertising increasing or decreasing company profits? For decades, marketers and finance people in both academia and the corporate world have asked this question (e.g., Rust et al., 2004). However, marketing directors are still faced with the popular conundrum that though roughly half of their marketing budget might be wasted, they do not know which half.

Rarely have alternative views on the relationship between key economic and business variables been so divergent, with respect to both theory and empirical results. More than 50 years ago, the Journal of Marketing published an article titled “What about the Relationship among Sales, Advertising, and Earnings?” (Twedt and Knitter, 1964); yet, so far, a universal, crystal clear, and undisputed answer has not been achieved.

Over the years, the discussion on the effectiveness of advertising has become polarized, and two opposite views labeled “advertising as market power” and “advertising as information” (Mitra and Lynch, 1995) have emerged. The former view considers the main beneficiary of advertising the company spending the money, whereas the latter treats the customer seeing the advertisement as the main beneficiary. Prior research has focused on developing just one point of view, rather than building bridges between the two (e.g., Erickson and Jacobson, 1992; Bahadir et al., 2009; Taylor, 2013). To close this gap, in this article we discuss this issue from a different angle.

We refer to the strategic management domain to shed new light on the discussion by (re-)introducing the concepts of value creation (for the customer) and value capturing (for the shareholder). Building on industrial organization theory, we develop and test a model that analyzes the influences of advertising, brand value, and innovation on profitability. The advantage of this angle is that the different beneficiaries of the traditional views are reunited into one model.

The structure of this article is as follows: we begin with a literature review to develop our hypotheses and then describe the model to be tested empirically. Next, we present the detailed composition of the data and the results of the empirical research. Finally, we discuss the implications for theory and practice, the research limitations, and avenues for further research.
Literature review and hypothesis development

Background

Stemming from industrial organization theory, two major “schools” of thought on advertising expenditures emerged in the second half of the twentieth century. First, the “power school” treats advertising as a tool to increase market power (Comanor and Wilson, 1967). According to this school, advertising expenditure decreases price elasticity, induces customer loyalty, and allows charging a premium price. As a result, larger brands can raise an efficient barrier to entry for new competitors (Carlton and Perloff, 1990).

If this notion is valid, just the mere size of a company and its total advertising expenditure benefit from economies of scale because of fixed costs, access to more effective media, and the impact of repetition. Marshall (1919, p. 199) described the third point as follows: “The chief influence of such advertisement is exerted, not through the reason, but through the blind force of habit: people in general are, for good and for evil, inclined to prefer that which is familiar to that which is not.” Thus, it is no surprise that followers of this school observe several benefits, including increased sales and market share (Bahadir et al., 2009), increased profits (Eng and Keh, 2007) and increased market value (Erickson and Jacobson, 1992). The benefits of advertising also go beyond the boundaries of the firm in that “advertising can also act as a signal of financial well-being or competitive viability of the firm” (Joshi and Hanssens, 2010, p. 22) and, as such, can increase the salience among investors (Srinivasan and Hanssens, 2009).

The second major school, called the “information school” (Nelson, 1974), refers to the benefits that advertising can generate for consumers. Advertising informs consumers about (new) products and services, and as such, demand is expanded and competition stimulated (Ali Shah and Akbar, 2008). Because advertising information also contains pricing data, customers become more price sensitive and prices are lowered. Part of the advertising industry (e.g., Deloitte, 2013), as well as some academic literature (e.g., Taylor 2013), embraces this school of thought.

In the past decade, an alternative school of thought has emerged, which we call value creation and capture, or VC2 (Hawawini et al., 2004). This view derives less from the advertising domain and more from the strategic management and marketing fields.
According to this view, to create long-term shareholder value the primary focus of a company is on developing a compelling and valuable offer, or the so-called value proposition. Here, it is up to customers to decide whether the proposed offer creates value for them. Following this approach, companies develop differentiated product and service offerings through innovation and publicize these offerings to the market through, in some cases, specific advertising, highlighting the value of these offerings to customers. In this framework, research and development (R&D) is deemed the cornerstone of value creation because its outcome is superior products and distribution processes (Mizik and Jacobson, 2003), despite uncertainty and risks (O’Brien et al., 2013).

For offerings that are not compelling enough, companies can increase advertising spending to “compensate” for the lack of attractiveness (Larreche, 2008). Conversely, companies whose products or services are convincing enough, can decrease their advertising expenditure and create superior value for shareholders. Table 1 summarizes the different views of the impact of advertising according to the different schools.

**Table 1**
Summarized view of the impact of advertising on corporate performance
Advertising

The traditional (power school) logic driving advertising is as follows: a company takes an action (advertising) that has an impact on the customer (change in perception of needs and/or expectation), such that he or she takes an action (purchase) that modifies the firm’s position in the market (e.g., increased market share; Chauduri, 2002), thus affecting its financial metrics (e.g., profit; Sriram and Kalwani, 2007) and, in turn, eventually influencing the value of the firm (Rust et al., 2004) and reducing its systemic risk (McAlister et al., 2007). Attempts to quantify and measure this process, however, have confronted the major challenge of a large amount of intangible factors (Mittal, 1999) that influence the overall customer perception. At the end of the process, it is up to customers to judge the usefulness of the communication (Mittal, 1994).

Advertising can play a key role in VC2. The information aspect as described previously informs customers about new or changed offerings1 or reminds them of existing ones. Only if customers appreciate the value of this offering, however, will the brand value of the company increase. By contrast, advertising as such should not make a difference for products or services known to the public. In this case, the main role of advertising is to capture value by establishing a barrier to enter the market for competitors (Sutton, 1991) or by compensating for weaknesses in the product or service offering (Larreche, 2008).

If we take the different observations into account, four financial consequences of advertising can arise. First is a direct negative impact on profits, which is the most straightforward—because advertising is a cost, profits will decline. The second is a direct positive impact on sales due to the information aspect. This effect has been subject to extensive research with different results (see Erickson and Jacobson, 1992, for an overview). In developed markets, an important goal of advertising is to move market share between existing players. As such, advertising can reach rather homogeneous levels within an industry (Mauri and Michaels, 1998). This type of advertising should not create value over the long run because this kind of “shouting out loud” can be imitated by competition. Third is an indirect negative impact on profit due to the compensation effect, as companies that invest more in advertising might “compensate” for shortcomings in their offering. Fourth is an indirect positive effect on the

1 When referring to the offering, we do not limit this to the physical characteristics of the product or service, but also include the way it is brought to customers, such as through packaging, distribution, pricing, experience, and servicing. This necessity was also observed by researchers in the advertising domain; for example, Büschken (2007) found that the quality and size of the sales channels also influenced advertising efficiency.
value of the company due to the branding aspect. With regard to the third and fourth points, we hypothesize that the third will outweigh the fourth point because brand advertising without a good enough underlying value offering is not sustainable. Taking these points together, we posit the following:

**Hypothesis 1: Advertising spending has a negative impact on firm profitability.**

Advertising expenditure is considered a discretionary flow of costs. Thus, in the next section we focus on its possible impact on the stock of value that resides in the brand value.

**Brand value**

Brand value (or equity) is the term used to measure financial value of the brands companies possess (Kirk et al., 2013); it can be one of the most valuable intangible assets of a company (Keller and Lehmann, 2006). Indeed, brand equity is an indicator of the customer value that the firm has created over time and therefore does not need to depend on a short-term indicator or measure but rather is the result of long-term efforts (“stock” or “strategic resource” concept instead of “flow” or “current expense”). Brand value reflects the additional value (i.e., discounted cash flow) that accrues to a firm because of the brand name that does not accrue to a similar non-branded product (Keller and Lehmann, 2006). A large number of different methodologies can measure brand value, some of which focus on “the effects of brand equity on the demand and supply functions, in order to determine the influence of the brand in the decision making process” (Salinas and Ambler, 2009, p. 46). Such a methodology largely corresponds to our customer-oriented view on brand value, and we refer to this methodology in the empirical part of this research.

According to prior studies, a strong brand drives much of the benefits that were historically attributed to advertising by the power school: ability to charge a price premium (Bick, 2009), lower price elasticity (Keller and Lehmann, 2006), a way to attract new customers (Bick, 2009), lower sensitivity to competitors’ prices (Keller and Lehman, 2006), and higher barriers to entry (Eng and Keh, 2007). Taking these positive elements into account, it is no surprise that brand value has a positive impact on profitability (Eng and Keh, 2007). Following that logic, we posit the following:
Hypothesis 2: Brand value has a positive impact on firm profitability.

Table 2
The supposed impacts on profitability according to the different schools

To compare our view with the more traditional views, we highlight the supposed effects of advertising and branding on profitability in Table 2. The power school follows the logic of advertising’s capability of increasing brand value and, thus, customer loyalty, both of which are expected to drive profitability. According to the information school, advertising stimulates competition and thus decreases profits. This school is not very explicit on the effects of branding; rather, it conceptualizes branding’s main function as protecting innovation (Taylor, 2013). Finally, the VC2 contends that strong advertising for established companies is a sign of compensating weaknesses in offerings, thus decreasing profits. Conversely, it maintains that brand value is the way to induce customers to appreciate offerings. That is, strong brand value leads to higher profitability.

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2 A clear distinction should be made between established and new companies/products/markets because the information effect of advertising is more relevant for the latter.
Innovation

While the role of advertising is still under discussion in the literature (e.g., Taylor 2013), there is consensus that innovation (often measured by spending on R&D) is an important driver for value creation (e.g., Mizik and Jacobson, 2003; Larreche, 2008) and thus can lead to several benefits, including higher sales, higher market share, higher sales growth, increasing profitability, and market value (Rubera and Kirca, 2012). Because the effect of R&D can last over time (Ribera and Circa, 2012) and competitors are eager to copy successful innovations, capturing the value of innovations becomes a key priority for competitors (Mizik and Jacobson, 2003). Regarding the impact on profitability, we therefore posit the following:

*Hypothesis 3: Innovation has a positive impact on firm profitability.*

To create the value of innovations, customers need to be informed and convinced of the benefits. Firms can leveraged this value either by brand strength (e.g., Apple does not need to invest in advertising to obtain substantial media coverage for a new product launch) or by advertising. Communication of the benefits of product innovations enhances their value, and this effect is stronger for pioneering innovations than for product improvements (Srinivasan et al., 2009). The interaction between product innovations and communications creates the ability to increase prices (Cassiman and Vanormelingen, 2013).

It is crucial for innovation approaches to be “optimally configured to both generate and appropriate value” (Fang et al., 2011, p. 598). This notion is in line with recent analysis demonstrating that it is not sufficient to create unique assets to capture additional profits as competition might trigger price wars (Costa et al., 2013). We argue that a stronger brand value can protect innovation efforts (as measured by R&D expenses) from competitive attacks. Thus, we propose the following:

*Hypothesis 4: Brand value amplifies the positive effect of innovation on firm profitability.*

*Hypothesis 5: Advertising spending weakens the positive effect of innovation on firm profitability.*
Theoretical model and variables

The literature review and research on value creation and value capturing identifies three dominant views of the performance drivers of companies: (1) the power school, (2) the information school, and (3) the VC2 school. As our main focus herein is on the VC2 view, we aim to test which marketing drivers truly influence the profitability of specific companies. Therefore, we develop our theoretical framework by proposing that only brand value and innovation (measured through R&D spending) have a significant impact on profitability while advertising spending has a negative impact on performance. We add various control variables related to firms and the industry for model completeness and to observe interactions. Figure 1 depicts our research idea and framework.

![Conceptual framework]

**Figure 1.** Conceptual framework

*Dependent variable*
The dependent variable is firm profitability in a given year and is primarily measured by net profit divided by total assets. This measure is an appropriate proxy to determine how much an investment (in assets) generates, and as such, it is viewed as a measure of how much value is captured for the shareholder. Although (early) literature on advertising effectiveness has focused on market share and sales rather than profit, it is increasingly clear that financial measures related to shareholder return are necessary to examine (Lehmann, 2004). We also consider total shareholder return, but this might be ambiguous because it is logical that the market only rewards investments in R&D and advertising if these generate profits (Erickson and Jacobson, 1992). Following the VC2 view, we focus on how much value is captured from the shareholder; thus, we use the metric of net profit/assets. Doing so has the disadvantage that we cannot correct for the direct effects of R&D and advertising on profit because of uncertainty about how much tax benefits these costs generate. Although we observed effects of advertising on earnings in the first year (Kim and McAlister, 2011), we assess different time-lag sensitivities to control for the direct effect of R&D and advertising.

Independent variables

The three independent variables we analyze are advertising expenditures, R&D expenses, and brand value. For advertising and R&D, we use the expenditures that were reported in firms’ financial statements in a given year. Brand value reflects the discounted excess value a brand generates for the company (Doyle, 2008), and we use the values as calculated by Brandfinance (2014). Brandfinance uses a royalty relief methodology as described by ISO 10668. Such a methodology has several advantages, including taking into account industry-specific valuations, and is accepted by fiscal authorities (Salinas and Ambler, 2009). The brand value obtained through this methodology comes from the “brand strength index“, a royalty rate of the revenues attributed to the brand. Underlying the brand strength index are 30 attributes that represent different stakeholders (e.g., customers, staff, financial, and external).

Control variables and moderators
To increase the relevance of our model and to accommodate the possible interactions, we include five variables:

**Industry variables:** We observed important differences between industries in terms of advertising and R&D spending (e.g., Mauri and Michaels, 1998). Industry effects accommodate the differences between business-to-business and business-to-consumer, technology and non-technology (Homburg et al., 2010), and product and service industries (Bick, 2009). As there are clear overlaps between these categorizations, we include only a single industry variable to encompass the distinction.

**Debt level:** Companies with a higher debt level likely have stronger desires to control expenses, as such debt levels might hamper spending in both R&D and advertising (Erickson and Jacobson, 1992) and the success of diversification is lower for firms with higher debt levels (O’Brien et al., 2013). However, companies can obtain tax benefits from deducting debt as well, so we do not put forth an expectation here.

**Age:** Older firms may rely more on their reputation, while younger firms likely need to invest more in advertising to make their products known to the market (Bahadir et al., 2009). In addition, the effectiveness of product innovations is greater for younger firms (Cassiman and Vanormelingen, 2013).

**Size:** Economies of scale can decrease the unit cost of advertising (Levitt, 1983; ) and perceived globalness can increase the brand value (Steenkamp et al., 2003), and thus we introduce revenues as a variable to measure firm size.

**Year:** Because the general economic climate as well as firm expenditures might affect consumers’ confidence in brands, we include the years 2010, 2011, and 2012 as a variable. At the time of analysis, these were the most recent data available. Adding less recent years has an impact on the availability of the firm data.

**Data**

We describe the hypotheses tested as well the impact of the control variables in the following formula:
\[ P_{it} = b*a_{it} + b_1*(ADV)_{it} + b_2*(I)_{it} + b_3*(BV)_{it} + b_4*(ADV*I)_{it} + b_5*(BV*I)_{it} + [b_6*(IND)_{it} + b_7*(D)_{it} + b_8*(A)_{it} + b_9*(Y)_{it} + b_{10}*(S)_{it}] + e \]

where "P" is profitability, "a" is intercept, "b" are the regression coefficients, "ADV" is advertising, "BV" is brand value, "I" is innovation (measured by R&D spending), "IND" is the industry effect, "D" is the debt level, "A" is age, "Y" is the year effect, "Size" is firm size (measured by revenues), and "e" is the error term. For all the variables, "i" is the company and "t" the period from which we obtained the data.

To test the hypotheses, we built a database that collects financial, advertising, and brand data. To do so, we started with the 500 largest brands in the world by using brand value as calculated by Brandfinance (2014). We focused on brands that were among these largest brands in 2012 and/or 2008, as our focus was on established companies rather than start-ups, whose advertising effect we deemed as fundamentally different. We added available brand values for companies owning multiple large brands. For financial data, we referred to the Thomson Reuters database, which collects data of companies that publish their financial results. As such, we excluded private companies from the data set. Industries in which most of the companies managed a portfolio of unrelated brands, such as tobacco and packaged foods, were not included. We also excluded banks, mainly because their key financial metrics are different but also because of their size, as including them would skew the averages on these metrics. If reported currency was other than US dollars, we translated figures into US dollars by means of Thomson Reuters EIKON using the fiscal year end date exchange rate. An important filter was that we only included companies that reported both R&D and advertising expenditure. In the end, we considered 51 companies from eight different industries for which we observed each individual year from 2010 to 2012. In 2012, these companies owned US$4.448 billion in assets and made US$210 billion in profits. Their brand value as estimated in 2012 was US$732 billion.

We divided brand value by revenues to correct for size but also because it seemed the most logical from a value creation perspective; that is, how much value do customers attribute (brand value) in terms of money spent (revenues). We use a one-year time lag between the brand value and the financial data. The logic behind this approach is that the value created

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3 We omitted the "crisis" years 2008 and 2009 because the market situation led to extraordinary measures at some of the companies.
at the beginning of the year is compared with the value captured throughout the year. The net profit, divided by total assets, provides an appropriate representation of potential shareholder return.

Table 3
Sample firms: data & descriptive statistics (means and standard deviations, n= 51)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Advertising Expenses (k$)</th>
<th>Brand Value (k$)</th>
<th>Innovation (k$ R&amp;D)</th>
<th>Profitability (RoA %)</th>
<th>Age (years)</th>
<th>Debt Ratio %</th>
<th>Revenue (k$)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>2,169.48</td>
<td>12,636.89</td>
<td>4,922.23</td>
<td>6.35</td>
<td>55.61</td>
<td>20.27</td>
<td>58,184.89</td>
</tr>
<tr>
<td><strong>S.D.</strong></td>
<td>3,287.87</td>
<td>11,903.66</td>
<td>5,502.44</td>
<td>6.65</td>
<td>33.56</td>
<td>14.73</td>
<td>48,396.31</td>
</tr>
</tbody>
</table>

As Table 3 shows, our sample was fairly diverse across industrial segments: consumer discretionary (19.6%), consumer staples (11.8%), health care (3.9%), industrial (7.8%), information technology (39.2%), materials (2.0%), telco services (9.8%), and utilities (5.9%). The average age of the 51 companies was 55.61 years, which confirms our focus on established companies. We included other control variables in our analysis such as debt ratio and revenue.

Results
To measure the strength of the linear multiple relationships between the normally distributed variables, we used Pearson’s correlation. Table 4 shows the results of all pairs of variables. As the most relevant insight from our research framework (see Figure 1), the table shows that brand value (.386, p < .05) and innovation (.378, p < .05) (R&D spending) are positively associated with profitability. By contrast, advertising spending is non-
significantly associated with profitability (.056). The year control variable is associated with neither the dependent nor the independent variables, indicating that the chosen years (2010–2012) do not matter for analysis purposes. The rest of the control variables (age, debt ratio, and revenues) show negative associations with the independent and dependent variables; only the industry effect indicated a positive association.
Table 4
Bivariate correlations for all pairs of variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Profitability</th>
<th>Advertising Spending</th>
<th>Innovation</th>
<th>Brand Value</th>
<th>Age</th>
<th>Industry</th>
<th>Debt Ratio</th>
<th>Revenues</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advertising Spending</td>
<td>.056</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td>.378**</td>
<td>-.078</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Value</td>
<td>.386**</td>
<td>.250**</td>
<td>.360**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.350**</td>
<td>.102</td>
<td>-.130</td>
<td>-.222**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>.263**</td>
<td>-.175*</td>
<td>.229**</td>
<td>.076</td>
<td>-.485**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debt Ratio</td>
<td>-.431**</td>
<td>-.264**</td>
<td>-.435**</td>
<td>-.323**</td>
<td>-.301**</td>
<td>-.232**</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue</td>
<td>-.167*</td>
<td>-.254**</td>
<td>-.208**</td>
<td>-.380**</td>
<td>.011</td>
<td>-.015</td>
<td>.278**</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>-.111</td>
<td>.007</td>
<td>.035</td>
<td>.038</td>
<td>.000</td>
<td>.000</td>
<td>.038</td>
<td>.000</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Pearson’s correlation is significant at levels: *p < .10 and **p < .05; mean and standard deviations in the diagonal

After examining the association among the dependent, independent, and control variables, we again focused on the impact of our conceptual framework (Figure 1). Therefore, we used a simple linear multiple regression for the three years combined (2010–2012). Because according to the Pearson’s correlation analysis the year effect has a non-significant effect on the independent and dependent variables, we simplify the suggested equation to

\[ P_i = b_1 a_i + b_2 (ADV)_i + b_3 (I)_i + b_4 (BV)_i + b_5 (ADV*I)_i + b_6 (BV*I)_i + e. \]

Table 5 shows the results of a linear multiple regression analysis carried out to analyze the impact of advertising spending, innovation, and brand value on profitability (see Hypothesis 1–Hypothesis 3). To obtain a better overview of the results, we combined the years (2010–2012) because we detected no significant year effect. With an R-square of .215, all years combined reveals a positive and significant impact of brand value (.284, p < .01) and innovation (.276, p < .01) on profitability (measured through return on assets), in support of Hypotheses 2 and 3. Hypothesis 1, which claims that advertising spending has a negative impact on firm profitability, is not confirmed; we found a non-significant relationship (.007, n.s.) between advertising spending and firm profitability.
To better understand the moderation effect of high and low advertising spending and high and low brand value on the impact of innovation (R&D spending) on profitability, we conducted a multi-group analysis with structural equation modeling using AMOS 22. Overall, the goodness-of-fit indices suggest that the proposed model achieved a good fit to the observed data. Table 6 shows the results of a moderating effects, indicating support for Hypothesis 4 that the positive effect of innovation on profitability is amplified by high (.418, \( p < .01 \)) and low (.256, \( p < .01 \)) brand value. Regarding Hypothesis 5, we conclude that the positive effect of innovation on profitability is weakened by advertising spending: high advertising spending effect has no significant impact on the relationship between innovation and profitability (.246, n.s.); however, low advertising spending reveals a significant impact (.415, \( p < .01 \)).

**Table 5**
Linear multiple regression for advertising spending, innovation, and brand value on return on assets

<table>
<thead>
<tr>
<th></th>
<th>Years combined</th>
<th>R² .215</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Loading</strong></td>
<td>2.245</td>
<td>(.825)</td>
</tr>
<tr>
<td><strong>SE</strong></td>
<td>.045</td>
<td>(.007)</td>
</tr>
<tr>
<td><strong>Beta</strong></td>
<td>.091</td>
<td>(.927)</td>
</tr>
<tr>
<td><strong>T</strong></td>
<td>2.720</td>
<td>(.007)</td>
</tr>
<tr>
<td><strong>P</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hypothesis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advertising spending</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Value</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dependent variable: Return on assets

**Table 6**
Moderating effect of advertising spending and brand value on the effect of innovation on profitability

<table>
<thead>
<tr>
<th>Innovation → Profitability</th>
<th>Estimate</th>
<th>SE</th>
<th>Beta</th>
<th>C.R.</th>
<th>P</th>
<th>R²</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Advertising spending</td>
<td>.242</td>
<td>.162</td>
<td>.246</td>
<td>1.493</td>
<td>.135</td>
<td>.061</td>
<td>H5 √</td>
</tr>
<tr>
<td>Low Advertising spending</td>
<td>.259</td>
<td>.053</td>
<td>.415</td>
<td>4.923</td>
<td>***</td>
<td>.172</td>
<td>H5 √</td>
</tr>
<tr>
<td>High Brand Value</td>
<td>.208</td>
<td>.063</td>
<td>.415</td>
<td>3.298</td>
<td>***</td>
<td>.175</td>
<td>H4 √</td>
</tr>
<tr>
<td>Low Brand Value</td>
<td>.197</td>
<td>.075</td>
<td>.256</td>
<td>2.642</td>
<td>***</td>
<td>.065</td>
<td>H4 √</td>
</tr>
</tbody>
</table>

\[ *** < .01; ** < .05; * < .1; \text{ns}= \text{non-significant} \]
Limitations and avenues for further research

This article has several limitations that might lead to further research. First, the hypotheses are only valid for established brands and products. For new products or brands, the information school approach would likely lead to a stronger effect, as long as the value offer was compelling enough. To test Hypothesis 1, we also assumed that all brands spend on advertising an amount above the “minimal” threshold to communicate their offering. In addition, an important nuance that we did not take into account was the quality of advertising. Spending levels are an element that can be relatively easily to imitate. The creative impact might be the real differentiator in terms of competitive advantage (Ericson and Jacobson, 1992). Most studies investigating the impact of advertising through financial measures implicitly assume that in the long run, all creations reach the same level of effectiveness. The same reasoning applies to R&D spending; using R&D expenses as a metric might not be flawless, but it at least demonstrates the firm’s interest and commitment in innovation.

Second, we considered only mono-brand companies; however, prior research indicates that “a larger brand portfolio positively impacts on advertising efficiency” (Büschen, 2007, p. 68). Third, we only included “paid” advertising and, as such, do not included “earned” media such as press or social media, though these also might affect the firm’s results (Stephen and Galak, 2012). A similar shortcoming is that online advertising might be relatively cheaper than offline advertising and companies that switch earlier to online might benefit from this (temporary) price advantage.

Fourth, as mentioned previously, we used expenditures as a measure of advertising and R&D. However, these are “input” measures, and thus they omit the execution aspect. McAlister et al. (2007) suggest using disaggregated measures to overcome this issue. Using survey methodology to ask people to assess the efficiency and effectiveness of advertising could be a solution, but this has the disadvantage of being less objective than the input figures we used.

Conclusions and implications for management

A debate that has remained unresolved for decades—namely, whether advertising is good or bad for profitability—seems to miss an important angle, as this debate centers mainly on
traditional industrial organization arguments. In parallel with this debate, we believe that arguments in practice on the “right” level of advertising that companies should use may be ill-framed or even missing the point. More recent views of the critical role of value creation show an alternative path to generating and explaining profitability. That is, it is the sustained creation of customer value, achieved through innovation and brand value creation, that delivers (long-term) profitability.

In a similar vein, our empirical results suggest that advertising will only help in the process insofar as it supports genuine and sustained value creation; if not, advertising will have little effect or even a negative effect, because it risks wasting scarce resources that could have been better spent on the creation of customer value. Advertising seems useful to communicate information about the value proposition of (new) products and services, but for established markets, its potential to increase profitability seems limited. In summary, our research confirms that advertising as such does not create value but rather can facilitate value capturing, if and only if underlying customer value is also created.
References


