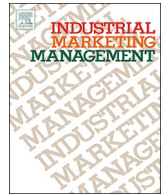




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Research paper

Revisiting the theory of business-to-business advertising

Roberto Mora Cortez^{a,*}, David I. Gilliland^{b,c}, Wesley J. Johnston^d^a Department of Entrepreneurship and Relationship Management, Southern Denmark University, Kolding, Denmark^b Department of Marketing, Colorado State University, United States of America^c Department of Marketing and Strategy, Aston University, United Kingdom^d Center for Business and Industrial Marketing, Georgia State University, Atlanta, United States of America

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ABSTRACT

Creating effective business-to-business (B2B) communications is an increasingly complex challenge for marketing managers. It requires a theoretical understanding of a number of puzzling, interacting components of an advertising stimulus. However, few academicians have pursued the goal of integrating and modeling how the B2B advertising process should be conceptualized. Gilliland and Johnston (1997) provided the first comprehensive model of the process, but B2B advertising has changed dramatically since this paper and demands an update to capture the new dimensions of the phenomenon. Using a systematic literature review to summarize recent trends, this paper incorporates the key changes in B2B advertising over the last 20 years. In particular, the authors explore a revised model of B2B effects, including (1) social media, (2) creativity and emotional appeals, (3) national culture, (4) brand equity and credibility, (5) ad experience social context, and (6) competing messages.

1. Introduction

In 1958, an account executive at the Fuller Smith & Ross ad agency created what was eventually to be considered the best business-to-business (B2B) ad of the 20th Century (TAG Archives, 2014). This ad was nicknamed “The Man in the Chair” and was created for Mc Graw-Hill to sell print advertising in the company’s many magazines. The ad listed a number of questions to a supposed vendor trying to sell the executive an unknown product (see Table 1).

The Business Marketing Association (BMA) parodied this classic ad with on-stage actors. The parody featured the “New Man” who was not in a chair, but speaking while he used a mobile phone and paced back and forth in an impatient manner. The questions and comments to the potential vendor included LinkedIn and Google. The conversation ended in the same way, however. “Now, what was it you wanted to sell me?” Given the results from the Challenger Sale (Dixon & Adamson, 2013) research, which found that most organizational buyers are over 50% through the buying process before they encounter a sales representative. The moral today is more like: *Sales start and sometimes end before the salesperson calls, because of B2B advertising, the internet and changes in the buying process.*

B2B communications are an increasingly complex challenge for industrial companies, as they have become more interactive with customers. The company brand is now often coauthored with customers and

no longer solely authored by the company. Because advertising is a form of one way communication, marketers have the most control in conveying the message clearly (Batra & Keller, 2016). Advertising is typically defined as paid nonpersonal communication about an organization, offering, or idea by an identified sponsor (Belch & Belch, 2017). While B2B advertising research has increased over time (Gartner, 2016), models of communications effects on buying decision-making have failed to incorporate the new findings into relevant and updated processes. The Institute for the Study of Business Markets has made this one of its research priorities (ISBM, 2018). Changes in organizational buying behavior, enhance the value of further understanding B2B advertising. This includes realizing the dispersion of the buying process to lower organizational levels and increased international diversity in the buying center.

Gilliland and Johnston (1997) conducted the research to examine B2B communications effects in a theoretical framework. Their model was based on media specific (broadcast and print) and non-media specific (selling materials and publicity) aspects and contrasted them with the situational differences in B2B and consumer marketing (B2C) communications. However, both the availability of communications tools and the buying behavior of organizations have evolved. Business decisions are less and less the outcome of a systematic decision-making process made by a group, and more often a decision made by a single manager under personal pressure from job stress and office social

* Corresponding author.

E-mail addresses: rfmc@sam.sdu.dk (R. Mora Cortez), dave.gilliland@colostate.edu (D.I. Gilliland), wesleyj@gsu.edu (W.J. Johnston).<https://doi.org/10.1016/j.indmarman.2019.03.012>

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Table 1
The man in the chair advertising.

I don't know you
I don't know your company
I don't know your company's product
I don't know what your company stands for
I don't know your company's customers
I don't know your company's record
I don't know your company's reputation
Now, what was it you wanted to sell me?

Moral: Sales start before your salesman calls – with business publication advertising

concerns. Managers in firms are embedded in various social networks and both gain information from these networks and are influenced by them. While we can assume there are some professional and job-oriented influences driving action in a more economic, rational direction when making decisions for their company, pressures from the social networks can erode these and influence them to a more community perspective (Bellizzi, Minas, & Norvell, 1994). Research regarding brand sensitivity (e.g., Brown, Zablah, Bellenger, & Johnston, 2011) is an example of how perceived risk can influence organizational decision-making. Brand sensitivity is higher for both low and high product importance situations contrary to simply increasing as the importance increases.

Thus, the customer experience in B2B firms is fundamentally different today. It is often shorter in length, less hierarchical, and more complex (McKinsey Quarterly, 2009). Customers seek information about vendors when they perceive they need it, through the use of search engines, mobile browsers, blogs, and corporate websites. These more interactive marketing communications tools facilitate greater personalization of messages and information with respect to content, timing, and location. The marketing communications tools examined by the Gilliland and Johnston (1997) research can be dramatically expanded.¹

The purpose of this paper is to examine the evolution of the last 20 years of B2B advertisement tools and to extend the GJ model, specifically from an advertising context, in several ways: First, by integrating social media marketing activities with the other tools examined. Second, by examining how creativity and other emotional issues of advertising design can influence the brand processing of decision-makers in firms both as individuals and in buying centers. Third, by an examination of how national culture can moderate the impact of ad stimuli on the brand processing of individuals and decision-making groups within a multinational organization. Fourth, by examining the impact of brand equity and credibility, ad experience social context, and competing messages on brand processing of decision-makers in firms both as individuals and in buying centers. Thus, we contribute to B2B marketing research by including six topics—social media, creativity and emotional appeals, national culture, brand equity and credibility, ad experience social context, and competing messages—into the GJ model of B2B marketing communications effects.

The remainder of the paper is structured as follows: First, the methodology is described. Then, the review of the research on B2B advertising processing is synthesized, which is followed by a discussion of the main findings. Afterward, we establish a number of propositions to expand the GJ model. Finally, we summarize the current state of understanding of how advertising influences organizational buying behavior to provide managerial implications and further research directions.

2. Methodology

In order to identify new streams related to B2B advertising, we conducted a systematic literature review, a methodology previously applied in industrial marketing research (e.g., Salo, 2017; Tafesse & Skallerud, 2017). The goal of a systematic literature review is to summarize evidence and trends for further development of a particular topic. Our review targeted peer-reviewed journals, which represent the main source of knowledge regarding B2B advertising research. Hence, practitioner manuscripts, textbooks, business books, and conference papers were excluded from the search. We defined our timeframe based on representing the period after the Gilliland and Johnston (1997) publication until the moment this manuscript started to be developed. Thus, the period explored was 1998–2017. To extract the pertinent manuscripts, the authors considered multiple electronic databases, such as ABI/INFORM, EBSCO, ProQuest, Scopus, and Google Scholar.

We followed a three-stage approach for article selection. First, we focused on the main B2B marketing research outlets. In this aspect, Mora Cortez and Johnston (2017) distinguish three specialized journals: *Industrial Marketing Management* (IMM), *Journal of Business and Industrial Marketing* (JBIM) and *Journal of Business-to-Business Marketing* (JBBM). Also, the *Journal of Business Market Management* (JBMM) was considered. We executed key word searches (marketing communications, channel communication, advertising, advertisement, and ads) in those journals for the 1998–2017 period. A total of 29 articles were identified (see Table 2): IMM published 15 papers, JBIM published 11 papers, and JBBM published three papers.² Second, we explored the two major marketing journals (*Journal of Marketing* [JM] and *Journal of Marketing Research* [JMR]) cited by Gilliland and Johnston (1997) to cover a broader spectrum of advertising scholarly literature (B2B and B2C), applying the same previously described procedure with focus on the key words “marketing communications,” “channel communication,” “advertisement,” “advertising,” and “ads.” The key word searches output was 95 articles (38 in JM and 57 in JMR; see Appendix A). Third, the search was extended to any other marketing outlet³ that contributed to B2B advertising, using the same key words from stages one and two.⁴ Overall, a total of 140 academic research articles were selected for further analysis (see Appendix A). Table 2 presents the number of articles per source and five-year period. The last 10 years accounted for almost 70% of the sample, suggesting that advertising is still a current and developing topic.

We extracted the articles' bibliometric details into Excel. For data synthesis, we read the manuscripts' abstract, introduction, and conclusion and conducted a content analysis of the full manuscripts via NVivo (v. 11). Due to both analytical and space constraints, we focused on the most applicable topics in extending the Gilliland and Johnston (1997) model, following a two-step process. We roughly classified our findings in a continuum from specific (e.g., skipping advertising in digital video) to general (e.g., emotional appeals). Then, we selected those topics from the general-end and analyzed their relevance to B2B advertising processing and direct consequences (see Appendix B). As a result of the theme selection refinement process, we identified six topics that should be further developed in an updated model of B2B advertising effects: (1) social media (as part of the advertising channel), (2) creativity and emotional appeals in ads, (3) national culture, (4) brand equity and credibility, (5) ad experience social context, and (6) competing messages.

To ensure the trustworthiness of our selection approach, we reviewed the topics' relevance for B2B advertising theory with two academic experts. Their suggestions pointed to work on the fit of the selected themes with the baseline model and to avoid excessively

¹ Forthwith we refer to the Gilliland and Johnston (1997) model as the GJ model.

² No papers were found in the *Journal of Business Market Management*.

³ Including the *Journal of Advertising*.

⁴ We included the words “B2B” and “industrial” to focus the search.

Table 2
List of journals and number of publications ($n = 140$).

Criterion	<i>n</i>	%
Source		
Industrial Marketing Management	15	10.71
Journal of Business and Industrial Marketing	11	7.86
Journal of Business-to-Business Marketing	3	2.14
Journal of Marketing	38	27.14
Journal of Marketing Research	57	40.71
Journal of Advertising	2	1.43
Journal of Research in Interactive Marketing	2	1.43
Journal of Targeting, Measurement and Analysis for Marketing	2	1.43
Others	10	7.14
Period		
1998–2002	14	10.00
2003–2007	29	20.71
2008–2012	58	41.43
2013–2017	39	27.86
Total	140	100.00

complicating the updated model to facilitate future empirical testing. Also, we examined the representativeness of the selected themes for B2B advertising practice. Specifically, we presented our results in a discussion forum with 15 U.S. sales and marketing managers. In general, they agreed with our selected themes. Finally, we conducted a survey during an international B2B marketing seminar to compare the importance of the selected themes versus non-selected themes extracted during our data analysis (see Appendix B). We asked 40 managers to rate how important for B2B advertising practice are both sets on a 9-point Likert-type scale (1 = “not at all,” 9 = “completely”). We ran a one-way, repeated measures analysis of variance (ANOVA) to analyze whether the means significantly differed. The results were satisfactory for our selected set ($M_{\text{Selected}} = 7.6$ versus $M_{\text{Non-selected}} = 6.2$, $F = 49.67$, $p < .01$).

3. Literature review

3.1. Extant B2B advertising processing model

To represent the response to advertising stimuli of industrial firms, the GJ model suggested an extension of information processing models of communications effects from B2C marketing literature (e.g., MacInnis & Jaworski, 1989). This model possesses three sequential levels: (1) antecedent conditions, (2) information processing, and (3) consequent conditions. First, the model is centered on the buy task involvement (BTI) concept defined as “a feeling of personal relevance that buying center members experience toward the buying center’s purchase of a specific product in a specific buying situation” (Gilliland & Johnston, 1997, p. 21), which moderates the effect of ad stimuli on the elements of brand processing.⁵ It is proposed that there are two sources of relevance for members of a buying center: personal (e.g., personal goals and values, existing relevance of the product) and situational (e.g., role in the buying center, importance to the firm, buy-class [i.e., new task, modified rebuy, straight rebuy]). The effect of these precedent conditions on BTI is moderated by the information processing ability and opportunity of buying center members.

Second, the response created by advertising stimulus depends on its meaning for the individual (Batey, 2015). According to the hierarchy-of-effects models (e.g., Lavidge & Steiner, 1961), a buying center member is assumed to pass through a series of steps from cognitive awareness to offering purchase. This type of model faces controversy related to the independence and sequential ordering of cognition and affect (Batra & Keller, 2016). Cognitive learning demands attention, but

individuals are not always attentive, which weakens the explanatory power of hierarchy-of-effects models (Jensen & Jepsen, 2007). In this sense, Gilliland and Johnston (1997) suggest we turn toward the Elaboration Likelihood Model (ELM; Petty, Cacioppo, & Goldman, 1981; Petty & Cacioppo, 1986). ELM is a “dual-process theory of attitude formation and change arguing that persuasion can act via a central or peripheral route and that personal attributes determine the relative effectiveness of these processes” (Angst & Agarwal, 2009, p. 341). Which route the individual’s brain uses depends on her level of elaboration (Jensen & Jepsen, 2007). Central route processing is relevant when arguments are clear and allow consideration of the true merits of the situation, while peripheral route processing is activated when arguments are not searchable or lack specificity on the true merits of the situation.

Third, the consequences of processing B2B advertisements have been categorized as cognitive and emotional responses. The former are defined as thoughts and inferences resulting from ad exposure, while the latter are defined as feelings evoked in the course of ad exposure (MacInnis & Jaworski, 1989; Puccinelli, Wilcox, & Grewal, 2015). BTI level moderates the impact of brand attitude on potential behavioral outputs, because practitioners with more at stake in a decision are prompted to engage in behaviors consistent with their attitude, in comparison to those who would be less affected by the decision (Gilliland & Johnston, 1997, p. 25).

3.2. Social media in B2B markets

B2B practitioners are increasing their resource allocation to advertising, especially due to exhaustive online and social media campaigns, which have been expanded in recent years (Iankova, Davies, Archer-Brown, Marder, & Yau, 2018; Salo, 2017; Swani, Brown, & Milne, 2014). Different social media networks (SMNs) represent divergent but integrative forms of communication (Holliman & Rowley, 2014; Salo, 2017). On the one hand, Facebook can provide a means for customer relationship management, blogs can help to position idea creators (i.e., companies or key practitioners within a firm) as thought leaders in a field, and Twitter allows delivering short brand messages to quickly interact with customers (Brennan & Croft, 2012). On the other hand, Instagram’s focus is sharing image-based content and YouTube deals with videos (Iankova et al., 2018, p. 3). All SMNs converge to content creation with active participation of the audiences (i.e., user-generated content), which requires brands to deeply understand segments’ information needs (Holliman & Rowley, 2014). Overall, SMNs can contribute to B2B brands by enhancing and sustaining customer relationships and developing trust between business partners (Brennan & Croft, 2012). However, SMNs have been neglected in B2B marketing models of information processing from advertisements.

The adoption and utilization of SMNs is spreading in the B2B sector (Huotari, Ulkuniemi, Saraniemi, & Mälkäskä, 2015; Keinänen & Kuivalainen, 2015). Nevertheless, B2B marketers do not perceive the value created by using social media (Mora Cortez & Johnston, 2017), showing low rates of importance for the main available platforms (e.g., Facebook, LinkedIn). For example, Richter (2015) indicates that at least 59% of B2B marketers considered social media as irrelevant for marketing activities. In other respects, Keinänen and Kuivalainen (2015) pointed out that the SMN acknowledged as the most important in industrial settings is blogs and forums. Moreover, these authors show that 49% of their respondents were favorable toward developing restricted SMNs to support the supplier-customer interaction. This is in line with privacy and security issues identified by companies in the context of public platforms (Wedel & Kannan, 2016). An additional and more important reason why B2B marketers do not value SMNs is that their firms have not used social media to their full potential (Michaelidou, Siamagka, & Christodoulides, 2011), while encountering difficulties to align these new platforms with their marketing efforts (Wang, Rod, Ji, & Deng, 2017). Advertising is only one functionality of SMNs. Having in

⁵ Brand processing refers to the process of perceiving and learning about a brand.

place a better understanding of social media as advertising, B2B marketers can improve their message strategies to engage target audiences in content creation (Huotari et al., 2015) and reach higher levels of responsiveness (Swani, Milne, & Brown, 2013).

3.3. Creativity and emotional appeals

The power of emotions in B2B marketing communications has received recent scholarly attention (e.g., Lynch & De Chernatony, 2004; Swani et al., 2014) because brands in industrial contexts are potential sources of differentiation (Mudambi, 2002) by establishing a unique and consistent identity (Michaelidou et al., 2011, p. 1154). Much of existing B2B branding and communication theory does not recognize the role of emotional responses from practitioners, due to the prevalent paradigm about the members of the buying center being more knowledgeable in regard to the offerings provided by vendors and more rational than B2C customers (Lynch & De Chernatony, 2004). Nevertheless, members of buying centers are receptive and vulnerable to subjective marketing messages (Brown et al., 2011; Mudambi, 2002). Thinking processes involve non-linear paths, influenced by emotions and memories that individuals many times cannot articulate (Van Dessel, 2010). In this sense, Zaltman (2003, p. xii) stresses that “most of the thoughts and feelings that influence consumers’ and managers’ behavior occur in the unconscious mind.”

The role of creativity in advertising is regarded as a key element in the process of creating effective advertising (e.g., Reinartz & Saffert, 2013; Sasser & Koslow, 2008). Creative advertisements can affect levels of cognitive responses as well as positive emotional reactions in relation to the ad (Baack, Wilson, van Dessel, & Patti, 2016); in particular, creativity can increase awareness and favorable attitudes toward the ad (Yang & Smith, 2009). The creative dimension of ads refers to bringing together traditionally unconnected objects or ideas (Reinartz & Saffert, 2013). Moreover, the marketing literature (e.g., Smith, Chen, & Yang, 2008) defines creative advertisements as those characterized both as divergent and relevant. The former pertains to the inclusion of novel, different, or uncommon elements in the ad. The latter relates to the ad being meaningful and appropriate to the audience (Smith & Yang, 2004). From a B2B perspective, advertising creativity is an under-researched arena (Baack et al., 2016). During the last two decades, some paradigms about buying center information processing have been challenged, acknowledging that industrial buyers are not always objective decision-makers (Brown et al., 2011; Lynch & De Chernatony, 2004), opening a window for academicians to research subjective matters in B2B advertising. In line with this research stream (e.g., Sweeney & Webb, 2007; Wind, 2006), Baack et al. (2016, p. 175) suggest that B2B marketers “rethink effective strategies in terms of the nature of communication with business audiences.”

Due to the prevalence that companies involve people in decision processes, the human component in information processing is stressed more and more in practitioner and academic B2B literature (e.g., Baack et al., 2016; Brown et al., 2011; Reinartz & Saffert, 2013). A key component of advertising design, regarding the potential influences of an ad toward a product/service is the type of appeal used to shape and deliver a message (Van Dessel, 2010, p. 55). The usual typology for advertising appeals is polarized, contrasting rational versus emotional appeals. The former focus on practical, functional, or utilitarian needs for the product or service and emphasize informational features of the offering or tangible benefits for using a particular brand (Grigaliunaite & Pileliene, 2016). The latter refers to the attempt to stir up emotions that can motivate purchase (Swani et al., 2014, p. 876). Therefore, emotional appeals “speak to the heart,” while rational appeals “speak to the head” (Van Dessel, 2010). The diversity among buying centers and the varying levels of motivation and involvement of their members (Lynch & De Chernatony, 2004) suggest the development of advertising strategies that cover both rational and emotional appeals. Like B2C buyers, participants of a buying center respond to advertisements

neither in a fully rational nor fully emotional manner; the effects tend to be rationalized from the individual emotional reactions (Grigaliunaite & Pileliene, 2016), according to her BTI level, identity (self), and personality (e.g., De Mooij & Hofstede, 2010).

3.4. National culture

The globalization phenomenon needs to be addressed in B2B advertising theory. On the one hand, the global-local dilemma (i.e., whether to standardize advertising or to adapt to local habits) has been discerned (e.g., Khang, Han, Shin, Jung, & Kim, 2016; Wong & Merrilees, 2007) to tend toward an internal (i.e., local) focus; where an adaptation strategy enhances performance (De Mooij & Hofstede, 2010). On the other hand, the composition of decision-making units is becoming more international (i.e., multicultural) and people with different origins (i.e., countries) can be found in the buying center for a specific situation. For example, an Australian mining company operating in Latin America involves practitioners from the USA, Chile, and Ukraine, in a purchase of grinding products. People from different countries experience life through divergent long-term priorities (Petersen, Kushwaha, & Kumar, 2015), influencing their responses to stimuli. These priorities have been developed since childhood and persist through time (Gatignon, Kimberly, & Gunther, 2004). “National culture is one such long-lasting personal experience ... that distinguishes one group of people from another” (Petersen et al., 2015, p. 44). Moreover, cultural aspects influence motivation and desires of groups and individuals (Hofstede, 2001; Keegan & Green, 2016).

The culture of a country or region drives a collective programming of the individual mind (Hofstede, 2001). National culture relates to people’s values, habits, beliefs, norms, roles, symbols, signs, and behaviors (Keegan & Green, 2016). From a marketing perspective, national culture is a force that affects reasoning and emotional patterns of business practitioners and, as a consequence, their views of managerial hurdles and concepts (Mora Cortez & Johnston, 2018; Nakata & Sivakumar, 2001). Hofstede’s five cultural dimensions adjust the self and personality of practitioners, influencing both mental and social processes. The former relates to how people think, learn, and process information. The latter pertains to how practitioners relate to customers, colleagues, and business-outsiders, and, hence, influences motivation and emotionality. Overall, national culture impacts on a buyer center member’s responsiveness to marketing efforts from suppliers (Petersen et al., 2015), including interpersonal relationships and mass communication, which, in turn, affects how advertisements are processed (De Mooij & Hofstede, 2010).

3.5. Brand equity and credibility

Intangible factors such as brands are relevant even in rational and systematic decision-making (Amrouche & Yan, 2017; Mudambi, 2002). B2B brands are meaning clusters that serve to represent the products or firms (Ballantyne & Aitken, 2007). Based on such cognitive knowledge about brands, customers create brand image and associations. The differential effect that brand knowledge has on decision-makers’ responses to the marketing of that brand is conceptualized as *brand equity* (Keller, 2013, p. 59). Advertising contributes to brand equity by communicating the value of brands from the buyer’s perspective (Mudambi, 2002). Brand equity is intrinsically related to credibility. The higher the credibility of a brand, the higher the chances for advertising to generate positive cognitive and emotional responses in the market, which consequently foster brand equity in a virtuous cycle (Belch & Belch, 2017; Suh & Houston, 2010). Brand equity quantifies evidence of offerings and past value-in-use experiences, serving customers to cognitively file brand meanings, especially “the customer’s inferred reputation of a brand” (Ballantyne & Aitken, 2007, p. 366).

3.6. Ad experience social context

As value is dependent on context, buyers perceive an ad differently, according to their environment (Batra & Keller, 2016). Prior research acknowledges that social context and surroundings affect advertising experience (Belch & Belch, 2017). The presence of others leads to the automatic activation of a concern with the impression others are forming, creating emotional tension. Also, the presence of others can prime the level of rationality of a decision-maker, favoring different information processing routes; according to her social environment of advertising experience. In fact, an ad experience social context affects message reception because the environment activates knowledge structures, directing attention to applicable information (Puntoni & Tavassoli, 2007). This phenomenon is explained by two processes. First, a context can directly affect the processing of advertisements themselves (Puccinelli et al., 2015). To increase ad recall and positive responses, the advertising content should match the buying center member experience context. For example, a copper miner would react better to a print ad, if the ad picture or background relates to his operations rather than a different context (e.g., lithium). Second, advertising and context can interact to influence cognitions about the self (Puntoni & Tavassoli, 2007, p. 285), adjusting the focus of internal attention and consequently favoring consistent stimuli.

3.7. Competing messages

Another determinant of information processing and meaning grasping from advertising is competing ads. If common associations are reinforced by a single firm, sharing the same meaning, through different modes (advertising channels), messages are more effective (Batra & Keller, 2016). However, whether multiple, competing firms converge in their communicational concepts, a buyer's information processing is conflicted leading to commoditization. In many industrial markets, there is an obsession to leverage firm positioning through the use of “integral solutions” as a key element of its ads. The message of an advertisement has to leverage the uniqueness of the firm/offering/idea and reinforce value propositions, thereby supporting sales (Lichtenthal, Yadav, & Donthu, 2006).

Modern buyers are exposed to multiple, competing advertising messages per day (Belch & Belch, 2017). The fierce competition in B2B markets has led to the adoption of multiple advertising media. Nevertheless, almost every channel is reaching saturation and gaining a share of mind is highly difficult (Lichtenthal et al., 2006). The tremendous amount of ads and other forms of promotion require advertisers to develop interesting, differentiable, and sustainable messages for buyers. If not, B2B advertising can be perceived as a commoditized inconvenience.

4. Conceptual framework and propositions

Our proposed conceptual framework, as shown in Fig. 1, is organized in three subsections: (1) Antecedents, (2) Processing, and (3) Consequences. We discuss in detail only paths and propositions differing from or absent in the original GJ model. Overall, the refined model examined in this manuscript contributes to B2B advertising theory, building over six elements: (1) social media, (2) creativity and emotional appeals, (3) national culture, (4) brand equity and credibility, (5) ad experience social context, and (6) competing messages.

4.1. Antecedents

Preceding conditions represent personal and situational elements of the buyer center member that determine her level of BTI. These antecedents are temporary short-term conditional aspects; thus, BTI is also a short-lasting phenomenon for the buyer. For a more rational context with high BTI, central route processing is activated, and practitioners

privilege tangible arguments. In contrast, if a buying center member is influenced by a more human or personal setting with low BTI, peripheral route processing is activated, and practitioners privilege subjective cues and generate emotional responses about the advertisement (Jensen & Jepsen, 2007).

A particular ad stimulus is driven by the key elements of the message and the channel chosen for delivery. On the one hand, a basic element of message development is selecting the use of a functional/rational appeal or an emotional appeal (Swani et al., 2014). Rational appeals are dominant in B2B advertising and are operationalized in terms of their level of informativeness, while emotional appeals are operationalized in the form of metaphors and rhetorical written/pictorial figures (Van Dessel, 2010, p. 49). To provide clarity about advertising appeals, Albers-Miller and Stafford (1999) summarize types of appeals found in academic research (see Table 3). Industrial brands that communicate based on functional appeals only, fail to accept that both emotion and cognition influence decision-making (Lynch & De Chernatony, 2007). For example, Dow Corning successfully created a low-cost highly emotional brand called Xiameter, based on symbolic appeals such as openness, honesty, empowerment, and energy (Dwyer & Tanner, 2006). In advertising, message content can be articulated via text, image or video, whereas the latter generally captures audience attention more rapidly (Grigaliunaite & Pileliene, 2016). We note that appeals are represented in the message content, which needs to be aligned with the advertising channel structure (Batra & Keller, 2016). To control for the degree of need-for-cognition, Van Dessel (2010, p. 49) describes the use of literal rhetoric (i.e., factual content generally used for product comparisons, demonstration, and service description) and symbolic rhetoric (i.e., figurative content to encourage elaboration, increase information processing, and create new structures of meaning). On the other hand, media channel selection is a relevant decision for the B2B marketer. Different channels (e.g., advertising, websites, sales reps, trade shows, consultants, technical journals) possess pros and cons regarding persuasion in B2B communications (Puccinelli et al., 2015). Traditionally, information sources (channels) can be characterized by two dimensions: (1) personal/impersonal and (2) commercial/noncommercial (see Webster Jr., 1991). With the appearance of SMNs, the application of this typology is less clear, because internet-based channels are categorized as hybrid media (Van Dessel, 2010).

In the current media landscape, a key challenge for marketers is to compare various channels in terms of effectiveness (Danaher & Dagger, 2013). Commonly, B2B companies account for sales and/or awareness measures when quantifying advertising campaign results (Dwyer & Tanner, 2006); however, they do not consider endogenous issues such as message appeals or advertising channel focus. In terms of channel selection, multiple media need to communicate pre-established brand values, achieving consistency and pursuing synergic effects (Danaher & Dagger, 2013). Therefore, message appeals and channel selection should not be independent decisions. In this sense, social media sites (e.g., Facebook, LinkedIn) are more effective for B2B firms when message appeals are emotional (Brennan & Croft, 2012; Van Dessel, 2010); nevertheless, this is not a dichotomous analysis but rather it is an adjustable case-to-case decision. For example, LinkedIn is built for business professionals and Facebook and Twitter are more generic media (Brennan & Croft, 2012), which for a B2B firm gives a sense of direction for its messages. In LinkedIn, the container shipping firm Maersk uses a “more corporate, but not robotic voice,” while on Facebook a more symbolic highly emotional language about real stories is deployed (Katona & Sarvary, 2014, p. 149–151).

Based on ELM theory, ad stimuli influence the individual's brain selection of the brand processing routes (peripheral versus central), according to her level of BTI (Gilliland & Johnston, 1997). We have acknowledged that BTI is a short-term status experienced by an individual. Our literature review (see Appendix A) suggests that other factors also moderate the relationship between ad stimulus and

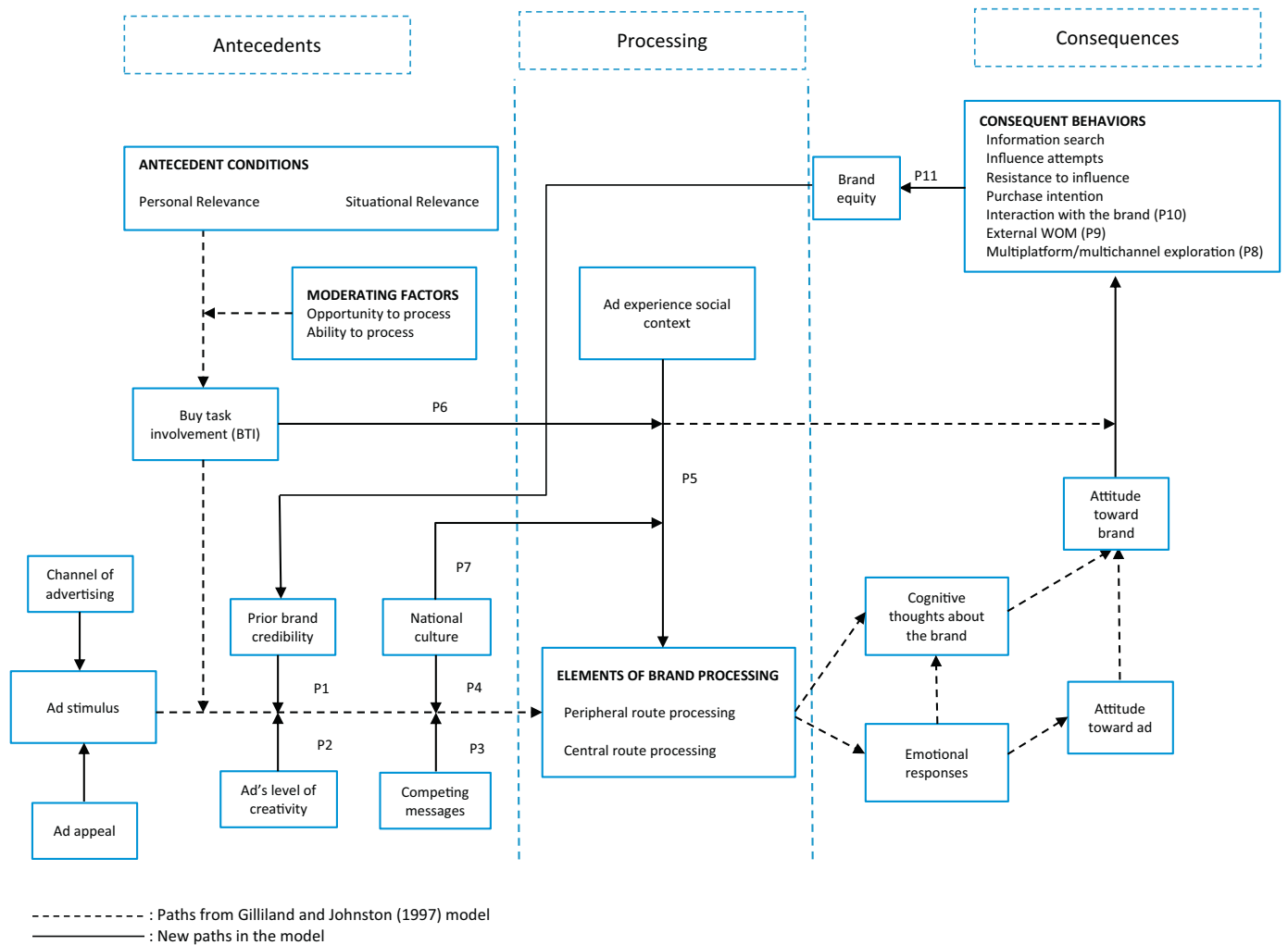


Fig. 1. Revised B2B advertising effects model.

Table 3
 Classification of message appeals.

Rational appeals		Emotional appeals			
Effectiveness	Modernity	Exclusivity	Popularity	Protection	Freedom
Convenience	Use of technologies	True to tradition	Magic	Membership	Abjection
Cheapness	Safety	Pleasure	Relaxation	Assistance	Status
Naturalness	Cleanliness	Youth	Maturity	Sociality	Upholding
Sophistication	Health	Modesty	Morality	Indomitable	Family
Productivity	Longevity	Openness	Humility	Carelessness	Beauty
Obedience	Independence	Adventure	Fragility	Sexuality	Intimacy

Note: Column 1 and 2 (rational appeals)/Columns 3, 4, 5 and 6 (emotional appeals).

Source: Albers-Miller and Stafford (1999).

elements of brand processing: (1) advertiser brand credibility, (2) ad's level of creativity, (3) level of competing messages, and (4) individual's national culture.

First, at the advertiser level, perceived brand reputation reflects individual (in)coherence with a company's previous actions and future prospects (McAlister, Srinivasan, Jindal, & Cannella, 2016). A key component of brand reputation is brand credibility (Goldsmith, Lafferty, & Newell, 2000; Keller, 2013). Advertiser credibility derives from the overall value, esteem, and character of the brand in its target markets (Chaudhuri, 2002). Specifically, brand credibility is “the degree to which consumers, investors and other constituents believe in the company's trustworthiness and expertise” (Goldsmith et al., 2000, p. 43). In advertising, brands with high credibility enjoy greater

perceptual enhancement within their product category (Chaudhuri, 2002; McAlister et al., 2016). Therefore, brand credibility facilitates message content decoding from ads, working as a peripheral cue (Petty et al., 1981). The implication is that:

P1. The higher the level of advertiser's brand credibility perceived by a buyer, the more (less) likely the ad stimulus will be processed by the peripheral (central) route.

Second, at the ad level, Dwyer and Tanner (2006) stress the relevance of the creative plan for B2B advertisement design, and other authors have acknowledged its positive impact on campaign effectiveness (e.g., Baack et al., 2016; Levin, Thaichon, & Quach, 2016; Smith et al., 2008). However, Reinartz and Saffert (2013) in their study of the

German market found that adding creativity to advertisements can vary significantly in its relative effectiveness, stating that a challenge for marketers is to understand their category sensitivity to ad creativity. Besides product category differences, it is suggested that offerings that are easily understood, similar, and tied to personal preferences show a better response (direct sales) to an increase in ad creativity (Reinartz & Saffert, 2013). This implies that products with high elaboration require more attention (cognitive effort) to process information, which is in line with ELM theory. Therefore, creativity enhances complexity in ad processing. Complexity shuts down central routing, unless the buying center member has a high level of BTI. Only in this situation she yields cognitive thoughts about the brand. To be relatively more effective, a creative ad (in comparison to a non-creative ad) requires a deep understanding of the brand, people, and technical offering. This is because creativity generates discomfort for the buyer, if the arguments were not previously internalized (Baack et al., 2016). By increasing creativity, buyers may be unable to diagnose technical features of a brand and peripheral or heuristic cues are used to make inferences (MacInnis, Rao, & Weiss, 2002). Once this context is comprehended by B2B marketers, creativity can be seen as a mechanism to produce an emotional response, leading to more brand cognitions, favorable brand attitudes, and stronger intentions to purchase (Baack et al., 2016; Smith et al., 2008). We therefore expect that:

P2. The more creative the ad, the more (less) likely the ad stimulus will be processed by the peripheral (central) route.

Third, at the environmental level, communication process models suggest that extraneous elements can misconstrue or interfere with the adequate transmission of advertiser messages (e.g., Barroso & Llobet, 2012). Van Dessel (2010) indicates that external-based factors misleading the communication process are characterized as noise. For example, multiple messages competing for the receiver's attention (e.g., competitors' advertisements) can saturate the processing ability of buying center members. Early work on competing messages in advertising (e.g., Wells & Chinsky, 1965) demonstrated the neutralizing effect of competitors' efforts when buyers select from a pool of choices. For a particular brand, an increase in the share of messages or moving toward the end of the message stream before buyers make a decision, can enhance the perceived salience through actual choice (Batra & Keller, 2016; Wells & Chinsky, 1965). More recent work (e.g., Danaher, Bonfrer, & Dhar, 2008) also suggests that competitive advertisements can weaken the ad-brand link, even for well-known brands, because the environment creates interference affecting brand name recall, which is output of the buyer's central route processing. Competing messages increase ad complexity, enhancing peripheral cues. Hence, we propose that:

P3. The higher the number of competing messages reaching a buyer, the more (less) likely the ad stimulus will be processed by the peripheral (central) route.

Fourth, at the individual level, in line with regulatory fit theory (Higgins, 2002) there are long-term priorities predefined by contextual experiences such as national culture (Petersen et al., 2015). Regulatory orientation is based on an individual's particular interests that guide behavior; when people engage in decisions or choices with strategies that sustain their orientation, they feel right about what they are doing (Avnet & Higgins, 2006). Briefly, regulatory focus plays a relevant role in directing people's attention to information that matches their regulatory orientations (e.g., national culture; Deleersnyder, Dekimpe, Steenkamp, & Leeflang, 2009). Therefore, national culture values (e.g., degree of masculinity) expressed in an advertisement work as peripheral cues for individuals. When receiving a message, regulatory fit is suggested to increase decision-makers' confidence about their reactions, to increase the relevance of their reactions, and to increase their engagement in their reactions (Avnet & Higgins, 2006). Based on the prior discussion, we propose the following:

P4. The higher the fit of the ad's message content with the national culture of a buyer, the more (less) likely the ad stimulus will be processed by the peripheral (central) route.

4.2. Processing

Currently, decision-making is moving toward and relying on the "App Generation" (Gardner & Davis, 2013). Modern decision-makers pace their lives through mobile devices with digital media as a prevalent channel of communication. This behavioral trend is creating a scenario where people are connected with friends and family at work, while at the same time people are attached to work in social personal-based encounters, creating distress, especially in the latter situation. Work-family balance has been shown to be beneficial both for employees and employers (e.g., Hill, Hawkins, Ferris, & Weitzman, 2001), however, present-day reality is far from equilibrium as digital media are mixing work and personal experiences. The negative work-to-family spillover generates conflict in marriage, less knowledge of children's experiences, less involvement in housework, shorter periods of breastfeeding for mothers with full-time employment, depression, a greater chance to misuse alcohol, and an overall decrease in the quality of life (Hill et al., 2001, p. 49–50). This tension has also been covered by mass media (e.g., *New York Times*, 2015), which suggests that modern families are stressed, tired, and rushed. We define ad experience social context as human setting at the moment when the buyer sees an ad. While at work, individuals are more overwhelmed in a social context than in an individualized-isolated context, because conflicts can rise from communicational misunderstandings or differences in self-interest (Linder & Foss, 2018; Puntoni & Tavassoli, 2007). Also, practitioners make riskier decisions when in peer groups than alone due to the need to excel (Gardner & Steinberg, 2005). In this sense, Eisenhardt and Zbaracki (1992, p. 23) explain that strategic decision-making relates to the self-social interdependency of human beings and, consequently, executives are individually more rational compared with collective scenarios. In addition, interpersonal (i.e., family and friends) situations are more likely to be performed in a more automatic, intuitively determined manner; the greater the emotional involvement, the greater the influence from an experiential (less rational) thinking system (Delre, Broekhuizen, & Bijmolt, 2016; Puntoni & Tavassoli, 2007). We therefore expect that:

P5A. The more individualized-isolated an ad experience social context, the higher the likelihood of central route information processing.

P5B. The more family and friend related an ad experience social context, the higher the likelihood of peripheral route information processing.

Beyond the social context for the buyer, the activation of a particular processing route is dependent on the individual's state of mind (Petty & Cacioppo, 1986; Zaltman, 2003), which influences the way a person interacts with the world. For instance, short-term variables, such as BTI, and long-term factors, such as cultural background, need to be taken into consideration. First, the level of BTI from a buying center member is an internal state of arousal with intensity (i.e., level of arousal experienced), direction (i.e., target stimuli toward which the involvement is guided), and persistence (i.e., the temporal condition of the arousal) properties destined toward a specific offering in a specific purchase situation (Gilliland & Johnston, 1997). Therefore, BTI creates a tension for the practitioner, which influences her thinking. For a specific purchase at a definite time, the buyer will focus attention on rational arguments about the brand when BTI is high, but due to bounded consciousness, it is complicated to pay attention to other simultaneous phenomena (Batra & Keller, 2016; Wilson, Wheatley, Meyers, Gilbert, & Axsom, 2000). This concept is called focalism and refers to the common tendency to concentrate too much on a particular event and too little on the other events that are likely to take place

concurrently (Bazerman & Moore, 2013; Wilson et al., 2000). Focalism suggests that BTI is enhanced for high rank tasks (e.g., purchasing a specific product [A] that has a strong technical influence on the customer) in an individual context, increasing the likelihood of central route processing. Thus, buyer's attention to a relevant (e.g., critical for its operation) offering [A] should be high, prompting central cues:

P6. For buyers in an individualized-isolated ad experience social context, the higher the buy task involvement (BTI), the higher the likelihood of central route information processing.

Second, national culture works as an intrinsic motivator and thinking modifier of people, which is relevant for positioning brands and developing advertising content in different markets. Overall, customers show more favorable attitudes toward local ads, evaluating them as more interesting, irrespective of the advertiser brand origin (Amrouche & Yan, 2017; Pae, Samiee, & Tai, 2002). The dual processing proposed by ELM theory works across cultures, but key differences in thinking systems exist between individualistic and collectivistic cultures (Aaker & Maheswaran, 1997; Petersen et al., 2015). In collectivistic cultures (e.g., China), one's ideal characteristics vary by social role, and behavior is influenced by contextual factors and concrete features; while in individualistic cultures (e.g., USA) people are more autonomous and define themselves by abstract personality traits (De Mooij & Hofstede, 2010). In addition, in collectivistic cultures, a person perceives the group as an integrated-entity and every individual can strongly rely on others; whereas in absence of groupmates, uncertainty and distrust are increased, prompting rationality (Chui & Kwok, 2008). Therefore, we propose that:

P7. For buyers in an individualized-isolated ad experience social context, the more collectivist a buyer's national culture, the higher the likelihood of central route information processing.

4.3. Consequences

Gilliland and Johnston (1997) proposed several potential consequent behaviors incurred by members of a buying center after being exposed to advertising. They also acknowledge that a buyer's BTI moderates the linkage between attitude toward the brand and resultant activities, such as information search, influence attempts, resistance to influence, and purchase intention. Based on the six new topics included in this investigation, some additional buying center behaviors are explained, validating the association between BTI and attitude toward the brand.

First, beyond information search as a unified activity, there is abundant evidence that people often use several media simultaneously and marketers need to be prepared for (1) predicting which media or combination of media their target audience is likely to consume at any given time, and, (2) understanding potential substitutions and complementarities in their joint consumption (Lin, Venkataraman, & Jap, 2013; Thomas & Sullivan, 2005). The pragmatism of current mobile devices facilitates access to diverse platforms concurrently: for example, a buyer can execute a general search in Google, look for documentaries about a company in Netflix (e.g., *Dirty Money*), while reviewing its LinkedIn account and corporate website (Gardner & Davis, 2013). SMNs allow multi-platform integrative exploration and expedite the search of information (Karjaluoto, Mustonen, & Ulkuniemi, 2015; Wang et al., 2017). In addition, the expansion of online display ads is enhancing traffic to a supplier's website (Danaher & Dagger, 2013; Draganska, Hartmann, & Stanglein, 2014), being at one-click of "distance" from the digital content of a newspaper to the firm of interest. The higher the buying center member's BTI, the higher her motivation to explore multiple brand platforms. As BTI increases, analytical thinking fosters time assignment to a particular brand. Therefore, we propose:

P8. As buy task involvement (BTI) increases, the positive relationship between attitude toward the brand and channel sources of information strengthens.

Second, beyond trying to influence other buying center members, a practitioner can talk about her experience with colleagues (outside the buying center), friends, and family, but even more important, can share negative or positive information in specialized blogs, external word-of-mouth (WOM) websites (e.g., Cnet, DpReview, Epinions), and social media, which are highly visited by buyers during pre-purchase searches (Draganska et al., 2014; Gu, Park, & Konana, 2012). In addition, B2B wholesalers, such as Alibaba, allow buyers to comment and give feedback in their platforms. The online feedback mechanism emerged "as a viable mechanism for fostering cooperation among strangers in such settings by ensuring that the behavior of a trader toward any other trader become publicly known" (Dellarocas, 2003, p. 1407). Therefore, WOM can currently be articulated electronically and physically. Behind WOM, there is a need to be persuasive, interactive, and relevant for a network, which derives from the tendency to conform to the expectations of others and the tendency to accept information from knowledgeable (with real experiences) others (Akpınar & Berger, 2017). Overall, strong positive attitudes toward a brand generate the desire to share and discuss favorable information about the firm or its offerings (Batra & Keller, 2016). Such a relationship is moderated by BTI, because the higher the involvement in a task, the higher the motivation to talk about that task (Gu et al., 2012). Hence, we expect that:

P9. As buy task involvement (BTI) increases, the positive relationship between attitude toward the brand and favorable WOM strengthens.

Third, one of the most important capabilities of internet-based platforms relative to prior mass communication technologies is bidirectionality (Dellarocas, 2003; Karjaluoto et al., 2015). SMNs in B2B settings have the potential to gather valuable information, develop networks of interest, initiate two-way conversations, and cultivate relationships through communication and interaction (Keinänen & Kuivalainen, 2015; Michaelidou et al., 2011). In particular, social media are getting attention from B2B firms because they provide faster and more personalized interactions between customers and suppliers (Huotari et al., 2015, p. 761). However, B2B interactions are highly concentrated on the sales force and, when buyers' experiences are intense (positively or negatively), sales reps are often quickly informed. From the B2C literature, positive brand experiences generate repeated interactions, and as the frequency and duration of the customer-brand interaction increase, buyer-seller relationships are developed (Morgan-Thomas & Veloutsou, 2013, p. 24). BTI drives the buying center member's desire of communication and interaction with perceived close partners (Sweeney & Webb, 2007). The implication is that:

P10. As buy task involvement (BTI) increases, the positive relationship between attitude toward the brand and extended interaction with suppliers strengthens.

Finally, all consequent behaviors proposed here can help to enhance advertiser brand value. Keller (2013) relates the concept of value added from a brand to an offering as *brand equity*. Specifically, brand equity is created when a brand is well-known; it possesses strong, favorable and unique associations in a customer's mind, leveraging an individual's willingness to pay a premium (Keller, 2013; Kuhn, Alpert, & Pope, 2008). Some of the strongest world brands are B2B brands (e.g., Caterpillar, Oracle, SAP); thus, understanding the drivers of B2B brand equity is relevant and necessary. Following Kuhn et al.'s (2008) representation of B2B brand equity, advertisements contribute to the sequential process of Identity-Meaning-Response-Relationships through the consequences of generating favorable attitudes toward a brand. For example, ads foster the salience of a brand, a key element in reaching a consistent identity (Ballantyne & Aitken, 2007; McAlister et al., 2016). B2B brands serve similar purposes than in B2C settings, facilitating

identification of products and services as well as differentiating them from competition (Brennan & Croft, 2012; Kuhn et al., 2008). However, customers emphasize the B2B brand relevance on risk-reduction more than on self-enhancement expressive benefits (Mudambi, 2002). When assessing B2B brand equity, it is suggested that it be applied at the corporate or manufacturer level (Kuhn et al., 2008), even though product-level brands have been shown to be successful in industrial markets, captivating downstream end-users (e.g., Teflon and Lycra [DuPont], Pentium [Intel], Dreamliner [Boeing]). Therefore, we propose that:

P11. The more consequent behaviors of the buyer (information search, influence attempts, resistance to influence, purchase intent, interaction with the brand, external WOM, multichannel interaction), the higher the brand equity.

5. Conclusions and managerial implications

The evolving B2B marketing communications indicate the appearance of new phenomena and novel perspectives about concepts already internalized in B2C literature. By analyzing the body of literature on advertising and marketing communications developed in the last 20 years, we note the need for a theoretical framework in order to represent the current trends in B2B advertising. Six topics have been integrated into the new theoretical framework—social media, creativity and emotional appeals, national culture, brand equity and credibility, ad experience social context, and competing messages— updating the previous model of B2B marketing communications effects (i.e., Gilliland & Johnston, 1997).

Social media have the most diverse implications for our conceptual framework. First, they make evident the necessity to discuss the effect of the advertising channel on potential ad stimulus created by a particular ad. Social media networks allow for bidirectional communication and customer-to-customer interaction, which gives an immediate chance for the buyer to elaborate on thoughts about the ad and brand. Advertisements allow individuals self-awareness and symbolic behavior, enabling the conceptualization of how buying center members change through time (Batey, 2015). When decision-makers understand their emotional and intellectual characteristics, a desire for comparison and judgment about personal value is inevitable. Second, social media have confounded work and friends/family time (Gardner & Davis, 2013), which makes it harder to identify what thinking pattern is activated. Based on current inseparability of work and personal time, peripheral cues driving intuition are more relevant than in the past. Therefore, a better understanding of emotional appeals in advertising design can foster the chances of reaching higher levels of ad effectiveness. Third, social media also influence the increase of competing messages to which buying center members are exposed, diminishing their ability to cognitively decode a message, and can reach levels of information saturation, where peripheral route processing is activated. For example, digital marketing experts estimate that most U.S. practitioners are exposed to at least 4000 ads per day (Marshall, 2015). Fourth, social media influence the potential consequent behaviors from attitude toward the brand and buy task involvement. Social media networks facilitate the dissemination of experiences through online WOM, allow integration of platforms, and expedite the interaction with a brand.

Creativity and emotional appeals were traditionally rejected by B2B marketing literature (Lynch & De Chernatony, 2004). However, creative and symbolic messages have the potential to influence the way a brand is positioned in the minds of B2B buyers because they are intrinsically rewarding, they reduce counter-arguing, and they allow deeper engagement to interpret meanings from communications (Van Dessel, 2010). It is important to note that creativity is measured as an output from the receiver's perspective and is subject to heterogeneity, the degrees of divergence and relevance delivered by an ad are based on

personal experience and knowledge. Industrial buyers can create emotional responses via functional fulfillment⁶ because a successful B2B customer experience is based on freedom from problems with the supplier (Meyer & Schwager, 2007). Therefore, some consequent emotions, like trust, peace of mind, and security, can build customer relationships and lead to competitive differentiation (Baack et al., 2016). However, directed emotional content through communication (e.g., advertising) reaches a deeper connection with buyers' hearts when symbolic rhetoric is used to deliver a message, activating peripheral route processing (Van Dessel, 2010).

Cultural values are integrated into our framework due to the globalization phenomenon, where multicultural buyers often participate in a purchasing decision. National and regional culture impacts the processes of socialization, influencing the buyer relationship to the environment, guiding decisions and other behaviors (Hofstede, 2001). Advertising both reflects and affects cultural values. In general, when advertisement elements fit the national culture of the receiver, higher effectiveness is reached because the buyer's self and personality are represented in the conceptual content of the communication (De Mooij & Hofstede, 2010). The high degree of embeddedness attached to national culture works as cues for information processing, activating the peripheral route to internalize an ad stimulus. Therefore, emotional reactions are prompted and subjective content is captured by the buying center member. In addition, national culture influences the thinking system under which the buyer operates and makes decisions. From the five dimensions proposed by Hofstede (2001), the collectivistic/individualistic spectrum is characterized as influential for the activation of a certain route for information processing, depending on the level of the contextual social situation. Overall, buying center members from more collectivistic countries would tend to focus on more relational aspects (subjective) than transactional features (objective) of a supplier's offering (Nakata & Sivakumar, 2001).

Well executed advertising leads to B2B brand equity, but firms need to plan from an integrated marketing communication (IMC) approach, where brand meaning can be synergistically enhanced (Ballantyne & Aitken, 2007). Therefore, advertising needs to be complemented with other major communication platforms: (1) sales promotion, (2) events and experiences, (3) public relationship and publicity, (4) online and user-generated content marketing, (5) mobile marketing, (6) direct and database marketing, and (7) personal selling (see Batra & Keller, 2016). Particularly, B2B advertising effectiveness and efficacy depend on the characteristics of different media types in consideration of the best-aligned media and messaging options (Belch & Belch, 2017). Overall, advertising relates to early stages of the B2B customer decision journey and preferred sources of information must be investigated by market segment. Advertising fosters the propensity to create awareness and salience, an important step for cultivating brand equity, and represents a major challenge for B2B marketers (Kuhn et al., 2008).

Our research has important managerial implications. First, an extended model of B2B advertising effects offers practitioners a clearer understanding of complex messages when communicating with customers. The proposed model could help managers to be more conscious about relevant elements influencing brand processing, the most important of these being social media. While B2C products are successfully integrating social media channels into communications with buyers, B2B products need more guidance. Our model indicates where and how social media fit into advertising to customers. Resources should be assigned to measure brand value and credibility, to analyze the content of competing messages, to explore the national culture of buying center members, and to articulate different levels of ad creativity. Second, we identify the effect of ad experience social context. On the one hand, buyers may structure a pattern of consumption for B2B

⁶ Functional fulfillment refers to technical and rational evaluation of a supplier's offering.



Fig. 2. B2B advertising effects matrix.

advertising to be aware of scenarios where peripheral route processing is activated. On the other hand, B2B marketers can map the advertising consumption experience of buyers to select a particular advertising content for each brand processing situation. Third, the additional consequent behaviors (i.e., interaction with the brand, external WOM, and multiplatform/multichannel exploration) contribute to expanding the advertising measurement control by B2B marketers. Consequently, firms advertising should establish multiple key performance indicators (KPIs), beyond traditional short-term sales effects. Fourth, our model shows that the proposed consequent behaviors affect the advertiser brand equity. Thus, B2B marketers should connect their advertising decisions with financial marketing performance. Practically, this recommendation implies that the brand equity concept should be understood by C-level executives and boards.

6. Agenda for future research

We have developed a detailed model of B2B advertising effects. Future research should also examine the relationship between BTI and the information processing route. Fig. 2 represents our initial expectations of how buyers perceive the relationship between BTI and the processing route. The focus of this analysis is short-term behaviors, without discarding potential carryover effects but recognizing that advertising suffers from short-term validation in firms (Danaher & Dagger, 2013). We label each of the four quadrants as follows: Economic action (ad stimuli processed by central route/high buy task involvement level), Informative action (ad stimuli processed by central route/low buy task involvement level), Interactive action (ad stimuli processed by peripheral route/low buy task involvement level), and Influential action (ad stimuli processed by peripheral route/high buy task involvement level). Next, we briefly examine previously established consequent behaviors and their classification on these four cells.

First, when an ad stimulus has permeated the buyer's mind through central route processing, enhancing favorable attitudes toward the brand in a context of high buy task involvement, we expect an economic action from the buying center member. As a consequence, the B2B marketer can control the effectiveness of an ad through traditional sales measures such as revenue and profitability. Second, for certain advertisements processed through critical thinking based on argument quality, buyers can also experience a low buy task involvement level while creating a positive attitude toward the brand. Therefore, we expect an informative action from the buying center member. Accordingly, the B2B marketer can control the effectiveness of an ad by means of the number of inquiries per channel, time spent per channel, and number of total channels used by the buyer. Third, when an ad stimulus has penetrated the buyer's mind through peripheral route processing, enhancing favorable attitudes toward the brand in a context of low buy task involvement, we expect an interactive action from the buying center member. As a consequence, the B2B marketer can control the effectiveness of an ad via social media sentiment analysis, evaluation of perceived brand values, and comparative measures of brand image in a geographic region. Fourth, for some advertisements, the cues

processed and the high involvement experienced by the buyer will invoke strong guiding rules or inferences, which can affect judgments, even if there are no arguments to process (Petty & Cacioppo, 1986). The emotional arousal in the buying center member will be high and will lead to influential action, driven by intuitive right-brain functions. Accordingly, the B2B marketer can control the effectiveness of an ad through identification of potential brand ambassadors, measures of agreement within a buying center, and positioning analysis across buying centers. Overall, the B2B advertising effects matrix can be tested using an experimental design.

The primary challenge to keep advancing the field of B2B advertising research is to provide additional meaningful insights by testing the suggested model over a period of time and across industries. To our knowledge, extant B2B literature is silent empirically regarding the elements of brand processing. This situation is largely due to researchers' instrumental limitations in investigating buying center members with neurological tools. Electroencephalography (EEG) and functional magnetic resonance imaging (fMRI) are recommended to examine processes difficult to detect using behavioral measurements alone (Kounios & Beeman, 2009).⁷ Since multiple advertisements from a focal supplier and competitive forces are, in essence, fluctuating, it would be interesting to use data across multiple time periods to evaluate the time-varying effects of particular ad stimuli on attitude toward the brand, and attitude toward the brand on the consequent expected behaviors of buying center members. Moreover, a quantitative study can offer the means to account for the level of ad saturation that buying center members can manage, before diminishing the motivation to pay attention and blocking the activation of central route processing. In addition, controlling by industry is also suggested because sensitivity to subjective elements, such as emotional appeals and creativity, can vary across customers (Reinartz & Saffert, 2013), which can be taken into consideration by allowing heterogeneity in an empirical analysis.

Due to the extensive scope of the proposed model, exhaustive analyses regarding each construct domain should be rigorously tested to corroborate the existence, direction, and strength of the causal linkages (Gilliland & Johnston, 1997). Selective (i.e., partial) testing of the model is an efficient alternative to generate powerful explanatory validation. For example, academicians can focus on the BTI role as a moderator for the relationship between an ad stimulus and the activation of a specific information processing route. A set of experiments may be developed to simulate purchasing tasks and BTI level could be manipulated via priming. Developing adequate measures (i.e., scale items) and nomological validation would require complementing extant advertising literature with in-depth field research. To provide a better understanding of buying center members' life at work and capture real dynamics between suppliers' communications and buyers, an ethnographic approach is suggested. This is the only method that enables a researcher to spend long enough in the field, to experience and discern hidden behaviors of subjects, and to grasp unwritten rules of how things should work (Myers, 2013). Therefore, despite its difficulty, the researcher can obtain a deep understanding of buying center members and their "advertising culture."

Beyond the research directions that have emerged for the conceptual condition of our proposed model, we offer several other research opportunities. These topics were not explored here due to space limitations, analytical complexity, and the identified priorities from practitioners. First, it would be interesting to investigate additional aspects that enhance or hinder the strength of consequent behaviors. For instance, (positive) mood at the time of learning has been shown to improve recall of (positive) material at a later point in time, regardless of the mood state at the time of recall (Bagozzi, Gopinath, & Nyer, 1999, p. 196). Second, buying center members' cultural background is not only dependent on national culture, it can also come from

⁷ Peripheral [central] processing stimulates the right [left] side of the brain.

educational formation. For example, brand attributes that please purchasing managers with a profound economic background may be quite different from the values deemed important by manufacturing managers with an intense engineering background (Lynch & De Chernatony, 2004). Third, advertising new disruptive products or services can be an arduous challenge, because the high degree of novelty impacts both supplier and customers. Advertising has been acknowledged as the most effective channel to create awareness for industrial buyers (Webster Jr., 1991). However, more research is needed to understand the complementarity with other communication channels (e.g., sales force) and explore the effectiveness of literal versus symbolic rhetoric when launching new offerings. Initial evidence suggests that brand-buyer communication requires some degree of understanding and trust, before the advertiser's messages can be represented by symbolic rhetoric (Brennan & Bahn, 2006). Fourth, due to the proliferation of online search websites (e.g., Google) and display ads, website design and search engine optimization (SEO) are gaining more relevance. SEO is the process of maximizing the number of visitors to a particular website

by ensuring that the site appears high on the list of results returned by a search engine. Therefore, more research is needed to understand what types of brand expressions in B2B companies' websites match the content that current and potential customers are looking for. Fifth, non-traditional B2B communication activities, such as product-placement or sport sponsorships, have received little attention in the industrial marketing literature. Based on the inseparability of the buying center member from being a purchaser and an individual consumer, our model suggests exploring practices commonly linked to the B2C domain, due to their potential effect in leveraging brand equity. Finally, practitioners from an international B2B marketing seminar suggest that B2B advertising effectiveness could be better understood by investigating the impact of (1) regulation and ethics and (2) demand cycles and financial impact. We propose a list of research questions related to the extra topics suggested in this section (see Appendix C). Based on the proposed model and the richness of the agenda for further research, the prospective B2B advertising stream is auspicious.

Appendix A. List of reviewed articles ($n = 140$)

Paper title	Author(s)	Year	Journal
National brand's local advertising and wholesale-price incentive under prior versus no prior information	Amrouche & Yan	2017	IMM
Crisis management strategies and the long-term effects of product recalls on firm value	Liu, Shankar, & Yun	2017	JM
Riding the waves: Revealing the impact of intra-year category demand cycles on advertising and pricing effectiveness	Gijzenberg	2017	JMR
Organizational structure, innovation performance and customer relationship value in the Greek advertising and media industry	Dekoulou & Trivellas	2017	JBIM
Comparative price and the design of effective product communications	Allard & Griffin	2017	JM
Sounds big: The effects of acoustic pitch on product perceptions	Lowe & Haws	2017	JMR
Valuable virality	Akpinar & Berger	2017	JMR
TV channel search and commercial breaks	Yao, Wang, & Chen	2017	JMR
A new method to aid copy testing of paid search text advertisements	Rutz, Sonnier, & Trusov	2017	JMR
A meta-analysis of marketing communication carryover effects	Köhler, Mantrala, Albers, & Kanuri	2017	JMR
Demand for "healthy" products: False claims and FTC regulation	Rao & Wang	2017	JMR
Advertising effectiveness: The moderating effect of firm strategy	McAlister, Srinivasan, Jindal, & Cannella	2016	JMR
Advertising spillovers: Evidence from online field experiments and implications for returns on advertising	Sahni	2016	JMR
Brand buzz in the echovese	Hewett, Rand, Rust, & van Heerde	2016	JM
The effects of shared consumption on product life cycles and advertising effectiveness: The case of the motion picture market	Delre, Broekhuizen, & Bijmolt	2016	JMR
Thin slice impressions: How advertising evaluation depends on exposure duration	Elsen, Pieters, & Wedel	2016	JMR
The impact of creative competence and project management on longevity of the client-advertising agency relationship	Levin, Thaichon, & Quach	2016	JBIM
Harnessing marketing automation for B2B content marketing	Järvinen & Taiminen	2016	IMM
Does ingredient advertising work? Some evidence on its impact	Giakoumaki, Avlonitis, & Baltas	2016	JBIM
Advertising to businesses: Does creativity matter?	Baack, Wilson, van Dessel, & Patti	2016	IMM
Integrating marketing communications: New Findings, new lessons, and new ideas	Batra & Keller	2016	JM
Is top 10 better than top 9? The role of expectations in consumer response to imprecise rank claims	Isaac, Brough, & Grayson	2016	JMR
Customer acquisition and retention spending: An analytical model and empirical investigation in wireless telecommunications markets	Min, Zhang, Kim, & Srivastava	2016	JMR
Consumers' response to commercials: When the energy level in the commercial conflicts with the media context	Puccinelli, Wilcox, & Grewal	2015	JM
The role of digital channels in industrial marketing communications	Karjaluoto, Mustonen, & Ulkuniemi	2015	JBIM
Profit-sharing between an open-source firm and application developers — Maximizing profits from applications and in-application advertisements	Fukawa & Zhang	2015	IMM
Marketing communication strategies and consumer financial decision making: The role of national culture	Petersen, Kushwaha, & Kumar	2015	JM
Using single-neuron recording in marketing: Opportunities, challenges, and an application to fear enhancement in communications	Cerf, Greenleaf, Meyvis, & Morwitz	2015	JMR
Targeted online advertising: Using reciprocity appeals to increase acceptance among users of free web services	Schumann, von Wagenheim, & Groene	2014	JM
Internet versus television advertising: A brand-building comparison	Draganska, Hartmann, & Stanglein	2014	JMR
Should tweets differ for B2B and B2C? An analysis of Fortune 500 companies' Twitter communications	Swani, Brown, & Milne	2014	IMM
Assessing the greenness of environmental advertising claims made by multinational industrial firms	Leonidou, Leonidou, Hadjimarcou, & Lytovchenko	2014	IMM
The economic and cognitive costs of annoying display advertisements	Goldstein, Suri, McAfee, Ekstrand-Abueg, & Diaz	2014	JMR
Supplier-selected referrals	Hada, Grewal, & Lilien	2014	JM
Business to business digital content marketing: Marketers' perceptions of best practice	Holliman & Rowley	2014	JRIM
Storytelling as a success factor in Chinese B2B marketing communication	Huang	2014	IJCM
Asymmetric roles of advertising and marketing capability in financial returns to news: Turning bad into good and good into great	Xiong & Bharadwaj	2013	JMR
Competence integration in creative processes	Öberg	2013	IMM
Spreading the word through likes on Facebook: Evaluating the message strategy effectiveness of Fortune 500 companies	Swani, Milne, & Brown	2013	JRIM
Developing India-centric B2B sales theory: An inductive approach using sales job ads	Mantrala, Sridhar, & Dong	2012	JBIM
Spatiotemporal allocation of advertising budgets	Aravindakshan, Peters, & Naik	2012	JMR

When is ours better than mine? A framework for understanding and altering participation in commercial sharing systems	Lamberton & Rose	2012	JM
The impact of advertising on media bias	Gal-Or, Geylani, & Yildirim	2012	JMR
How disgust enhances the effectiveness of fear appeals	Morales, Wu, & Fitzsimons	2012	JMR
Marketing to the American entrepreneur: Insights and trends from mass-market print magazine advertising	Abrahams, Coupey, Rajivadekar, Miller, Snyder, & Hayden	2012	JRME
The use of social media in B2B marketing and branding: An exploratory study	Brennan & Croft	2012	JCB
Advertising and consumer awareness of new, differentiated products	Barroso & Llobet	2012	JMR
Digital and social media marketing usage in B2B industrial section	Järvinen, Tollinen, Karjaluoto, & Jayawardhena	2012	MMJ
When do third-party product reviews affect firm value and what can firms do? The case of media critics and professional movie reviews	Chen, Liu, & Zhang	2012	JM
A latent instrumental variables approach to modeling keyword conversion in paid search advertising	Rutz, Bucklin, & Sonnier	2012	JMR
Usage, barriers and measurement of social media marketing: An exploratory investigation of small and medium B2B brands	Michaelidou, Siamagka, & Christodoulides	2011	IMM
Stock market reaction to unexpected growth in marketing expenditure: Negative for sales force, contingent on spending level for advertising	Kim & McAlister	2011	JM
If the supplier's human capital walks away, where would the customer go?	Biong & Ulvnes	2011	JBBM
The sources and consequences of the fluent processing of numbers	King & Janiszewki	2011	JMR
The repetition-break plot structure makes effective television advertisements	Loewenstein, Raghunathan, & Heath	2011	JM
Advertising bans and the substitutability of online and offline advertising	Goldfarb & Tucker	2011	JMR
Cross-selling the right product to the right customer at the right time	Li, Sun, & Montgomery	2011	JMR
Choice set heterogeneity and the role of advertising: An analysis with micro and macro data	Draganska & Klapper	2011	JMR
Should firms spend more on research and development and advertising during recessions?	Srinivasan, Lilien, & Sridhar	2011	JM
Is the changing status of African Americans in the B2B buying center reflected in trade journal advertising?	Stevenson & Swayne	2011	JA
Why do firms invest in consumer advertising with limited sales response? A shareholder perspective	Osinga, Leeflang, Srinivasan, & Wieringa	2011	JM
Consumer response to drug risk information: The role of positive affect	Cox, Cox, & Powell	2010	JM
Raising the BAR: Bias adjustment of recognition tests in advertising	Aribarg, Pieters, & Wedel	2010	JMR
Do digital video recorders influence sales?	Bronnenberg, Dubé, & Mela	2010	JMR
Emotional compatibility and the effectiveness of antidrinking messages: A defensive processing perspective on shame and guilt	Agrawal & Duhachek	2010	JMR
Customer satisfaction heterogeneity and shareholder value	Grewal, Chandrashekar, & Citrin	2010	JMR
Branding alters attitude functions and reduces the advantage of function-matching persuasive appeals	LeBoeuf & Simmons	2010	JMR
The direct and indirect effects of advertising spending on firm value	Joshi & Hanssens	2010	JM
A control function approach to endogeneity in consumer choice models	Petrin & Train	2010	JMR
Response of buying-center participants to B2B product placements	Lord & Gupta	2010	JBIM
The malleable brand: The role of implicit theories in evaluating brand extensions	Yorkston, Nunes, & Matta	2010	JM
Emotionality and semantic onsets: Exploring orienting attention responses in advertising	Nielsen, Shapiro, & Mason	2010	JMR
Networked narratives: Understanding word-of-mouth marketing in online communities	Kozinets, de Valck, Wojnicki, & Wilner	2010	JM
Marketplace footprints: connecting marketing communication and corporate brand	Spotts & Weinberger	2010	EJM
The orientation-matching hypothesis: An emotion-specificity approach to affect regulation	Labroo & Rucker	2010	JMR
Predictors of the gap between program and commercial audiences: An investigation using live tuning data	Schweidel & Kent	2010	JM
The stopping power of advertising: Measures and effects of visual complexity	Pieters, Wedel, & Batra	2010	JM
The debate over doing good: Corporate social performance, strategic marketing levers, and firm-idiosyncratic risk	Luo & Bhattacharya	2009	JM
Why do consumers buy counterfeit luxury brands?	Wilcox, Kim, & Sen	2009	JMR
Brand experience: What is it? How is it measured? Does it affect loyalty?	Brakus, Schmitt, & Zarantonello	2009	JM
The role of national culture in advertising's sensitivity to business cycles: An investigation across continents	Deleersnyder, Dekimpe, Steenkamp, & Leeflang	2009	JMR
Impact of mad money stock recommendations: Merging financial and marketing perspectives	Karniouchina, Moore, & Cooney	2009	JM
Field dependency and brand cognitive structures	Ng & Houston	2009	JMR
Channel negotiations with information asymmetries: Contingent influences of communication and trustworthiness reputations	Srivastava & Chakravarti	2009	JMR
Does advertising spending influence media coverage of the advertiser?	Rinallo & Basuroy	2009	JM
The political participation puzzle and marketing	Shachar	2009	JMR
Product innovations, advertising, and stock returns	Srinivasan, Pauwels, Silva-Risso, & Hanssens	2009	JM
Advertising to bilinguals: Does the language of advertising influence the nature of thoughts?	Noriega & Blair	2008	JM
The effect of competitive advertising interference on sales for packaged goods	Danaher, Bonfren, & Dhar	2008	JMR
An analysis of B2B ingredient co-branding relationships	Erevelles, Stevenson, Srinivasan, & Fukawa	2008	IMM
Brand portfolio promotions	Aribarg & Arora	2008	JMR
Moving from free to fee: How online firms market to change their business model successfully	Pauwels & Weiss	2008	JM
Dogs on the street, pumas on your feet: How cues in the environment influence product evaluation and choice	Berger & Fitzsimons	2008	JMR
Art infusion: The influence of visual art on the perception and evaluation of consumer products	Hagtvedt & Patrick	2008	JMR
It's not your magazine ad: Magnitude and direction of recent changes in advertising style	McQuarrie & Phillips	2008	JA
Planning of online and offline B2B promotion with conjoint analysis	Jensen	2008	JTMAM
When old is gold: The role of business longevity in risky situations	Desai, Kalra, & Murthi	2008	JM
Advertising, research and development, and systematic risk of the firm	McAlister, Srinivasan, & Kim	2007	JM
Branding in B2B markets: Insights from the service-dominant logic of marketing	Ballantyne & Aitken	2007	JBIM
Low attention advertising processing in B2B markets	Bach Jensen & Lund Jepsen	2007	JBIM
Social context and advertising memory	Puntoni & Tavassoli	2007	JMR
Optimal pricing and advertising strategy for introducing a new business product with threat of competitive entry	Gupta & Di Benedetto	2007	IMM
Marketing communication drivers of adoption timing of a new e-service among existing customers	Prins & Verhoef	2007	JM
Monitoring the dynamics of brand equity using store-level data	Sriram, Balachander, & Kalwani	2007	JM
Winning hearts and minds: business-to-business branding and the role of the salesperson	Lynch & De Chernatony	2007	JMM
Broadening the scope of reference price advertising research: A field study of consumer shopping	Howard & Kerin	2006	JM
An empirical investigation of signaling in the motion picture industry	Basuroy, Desai, & Talukdar	2006	JMR
It just feels good: Customers' affective response to touch and its influence on persuasion	Peck & Wiggins	2006	JM
Outdoor advertising for business markets	Lichtenthal, Yadav, & Donthu	2006	IMM
The effect of word of mouth on sales: Online book reviews	Chevalier & Mayzlin	2006	JMR
Marketing's credibility: A longitudinal investigation of marketing communication productivity and shareholder value	Luo & Donthu	2006	JM

A three-stage model of integrated marketing communications at the marketing-sales interface	Smith, Gopalakrishna, & Chatterjee	2006	JMR
Characteristics of B2B adoption and planning of online marketing communications	Jensen	2006	JTMAM
Strategy-driven B2B promotions	Hellman	2005	JBIM
Incumbents in a dynamic internet related services market: Does customer and competitive orientation hinder or help performance?	Perry & Shao	2005	IMM
Distinguishing between the meanings of music: When background music affects product perceptions	Zhu & Meyers-Levy	2005	JMR
The role of selling costs in signaling price image	Shin	2005	JMR
The role of spokescharacters as advertisement and package cues in integrated marketing communications	Garretson & Burton	2005	JM
Direct-to-consumer advertising and drug therapy compliance	Wosinska	2005	JMR
Managing marketing communications with multichannel customers	Thomas & Sullivan	2005	JM
Temporal differences in the role of marketing communication in new product categories	Narayanan, Manchanda, & Chintagunta	2005	JMR
Selling the niche: A qualitative content analysis of cable network business-to-business advertising	McDowell	2004	IJMM
The power of emotion: Brand communication in business-to-business markets	Lynch & De Chernatony	2004	JBM
Mass-communicated prediction requests: Practical application and a cognitive dissonance explanation for self-prophecy	Spangenberg, Sprott, Grohmann, & Smith	2003	JM
Interdependence and its consequences in distributor-supplier relationships: A distributor perspective through response surface approach	Kim & Hsieh	2003	JMR
The impact of content and design elements on banner advertising click-through rates	Lohtia, Donthu, & Hershberger	2003	JAR
Assessing when increased media weight of real-world advertisements helps sales	McInnis, Rao, & Weiss	2002	JMR
Satisfaction with channel communication strategies in high vs. low context cultures	Larsen, Rosenbloom, & Smith	2002	JBBM
Riding the saddle: How cross-market communications can create a major slump in sales	Goldenberg, Libai, & Muller	2002	JM
Effects of implicit memory on memory-based versus stimulus-based brand choice	Lee	2002	JMR
Can repeating a brand claim lead to memory confusion? The effects of claim similarity and concurrent repetition	Law	2002	JMR
Absence makes the mind grow sharper: Effects of element omission on subsequent recall	Sengupta & Gorn	2002	JMR
A method for the selection of appropriate business-to-business integrated marketing communications mixes	Garber & Dotson	2002	JMC
Advertising agency activities used to attract new clients in Australia	Waller, Cusick, Matheson, & Miller	2001	JBIM
Recruiting the wrong salespeople: Are the job ads to blame?	Mathews & Redman	2001	IMM
The moderating role of commitment on the spillover effect of marketing communications	Ahluwalia, Unnava, & Burnkrant	2001	JMR
The PISCESM Process: Guiding clients to creative positioning strategies	Vardis & Vasa-Sideris	2000	JBIM
Color usage in international business-to-business print advertising	Clarke III & Honeycutt Jr.	2000	IMM
Getting the piper to play a better tune: Understanding and resolving advertiser-agency conflicts	Devinney & Dowling	1999	JBBM
Is industrial advertising still sexist?: It's in the eye of the beholder	LaTour, Henthorne, & Williams	1998	IMM

JA: Journal of Advertising; JRIM: Journal of Research in Interactive Marketing; JTMAM: Journal of Targeting, Measurement and Analysis for Marketing; JRME: Journal of Research in Marketing and Entrepreneurship; MMJ: Marketing Management Journal; JCB: Journal of Customer Behaviour; JAR: Journal of Advertising Research; IJCM: International Journal of China Marketing; EJM: European Journal of Marketing; JMM: Journal of Marketing Management.; IJMM: International Journal on Media Management; JBM: Journal of Brand Management; JMC: Journal of Marketing Communications.

Appendix B. List of themes

Selected themes	Other processing elements	Other consequence elements
Social media	Language	Financial impact
Creativity & emotional appeals	Visual art & design complexity	Firm risk
National culture	Offering expectations	Advertising budgeting
Brand equity & credibility	SEO, display, & paid search advertising	
Ad experience social context	Music	
Competitive advertising	Spokesperson	
	Regulation & ethics	
	Demand cycles	
	Advertising exposure duration	
	Firm news/announcements	
	Multiple-brand promotions	
	New offerings	
	Offering placements	

Appendix C. Additional themes and research questions for developing B2B advertising theory

Themes	Potential research questions
Contingent factors affecting consequent behaviors	<ul style="list-style-type: none"> What advertising processing element is enhanced when a buyer is in a positive mood? Do the advertising consequences vary across the members of a buying center? How to track the advertising effects on a particular individual that changed her role in a buying center? Can the buying center be better represented in the current B2B advertising effects model? What consequences are worsened when advertising does not match buyer experience?
Buyer's education	<ul style="list-style-type: none"> What buyer educational background enhances a central brand processing? How do advertising effects vary across decision-makers with different educational background in a particular industry? Do advertising media related to the educational past of buyers modify consequent behaviors? Is education level an intensifier of central brand processing?
Disruptive offerings	<ul style="list-style-type: none"> What degree of novelty in new offerings affects the route of brand processing? What type of visual art and complexity is preferred for highly disruptive new offerings? Is advertising less effective for new disruptive offerings? What other communicational channel is the best complement to advertising when launching new disruptive offerings?
Search engine optimization (SEO) & paid search advertising	<ul style="list-style-type: none"> How to match advertising with SEO? What type of appeals is suggested for online advertising linked to the supplier's website? How can social media advertising display better B2B advertising? Are buyers sensitive to online displays? Are advertised brands in Google search selected by buyers? What and when paid search advertising are preferred by buyers?
Non-traditional activities	<ul style="list-style-type: none"> How can placements be improved at the role design? What social contexts for placements increase effectivity? What movie elements increase the effectivity of placements? What behavioral consequences are affected by sponsorships in comparison to other communication channels? What are negative effects of sponsorships for B2B brands?

Regulations & ethics

- How can advertising be used effectively to respond to changes in regulations? How can B2B global advertisers adjust to local regulations without losing effectivity? What ethical conditions of buyers differentiate advertising effectiveness? How can a B2B supplier include a competing brand in its advertising without generating legal disputes? Are there any ethical issues in using competing brands in B2B advertising from buyer perspective?

Demand cycles & financial impact

- Are buyers brand processing elements affected by demand cycles? How can end-user advertising be implemented to improve brand positioning in times of crisis? What are the main short- and long-term financial results of advertising in comparison with other communication channels? What channels of advertising create higher financial impacts holding all other conditions? How to manage demand cycles and financial results from advertising?

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Roberto Mora Cortez (Ph.D. Georgia State University), former research director of the Center for Business and Industrial Marketing, Georgia State University. His research focuses on B2B relationships management, business intelligence, marketing insights, digitalization, and sales force performance. He has published in *Industrial Marketing Management*, *International Business Review*, and others.

David I. Gilliland (Ph.D. Georgia State University) focuses his research on governance and control characteristics of inter-organizational exchange, including channels of distribution and business-to-business relationships. His work in these and other topics such as electronic commerce and business advertising, has appeared in the *Journal of Marketing*, *Industrial Marketing Management*, and others.

Wesley J. Johnston (Ph.D. University of Pittsburgh) is the director of the Center for Business and Industrial Marketing in the Robinson College of Business at Georgia State University. He is also the CBIM RoundTable Professor of Marketing and teaches courses in sales management, business-to-business marketing and customer relationship management. He has published in the *Journal of Marketing* among others.