

The effects of multiple-ads and multiple-brands on consumer attitude and purchase behavior

Lefa Teng

Department of Marketing and Consumer Studies, University of Guelph, Ontario, Canada

Michel Laroche

Department of Marketing, John Molson School of Business, Concordia University, Montreal, Canada, and

Huihuang Zhu

Business School, Sun Yat-sen University, Guangzhou, China

Abstract

Purpose – The purpose of this research is to show how the dual mediation model has been used to explain consumer responses toward an ad and a brand. This study attempts to incorporate ad affect and competition into the framework and examine the effects of advertising on consumers' attitudes and purchase intentions in multiple-ad and multiple-brand environments.

Design/methodology/approach – A total of 165 usable data (54 percent female, mean age = 36.2) were collected from an experiment conducted in North America.

Findings – The findings revealed that the higher level of affective responses to a focal ad significantly leads to a higher evaluation of that ad. Our findings also indicated that information about a competing ad and brand is processed comparatively and that evaluations of the competing ad and brand negatively influence evaluations of a focal ad and brand.

Originality/value – Important theoretical contributions of this study are that ad affect is an important determinant in the formation of ad attitude and it can be incorporated into the dual mediation model to explain the effects of advertising on consumer behavior. Our research also challenges the dual mediation model by incorporating competition into the model. Managerial implications of these results were discussed.

Keywords Cognition, Brands, Competitive strategy, Consumer behaviour, Advertising, North America

Paper type Research paper

An executive summary for managers and executive readers can be found at the end of this article.

Introduction

The dual mediation model has been widely used to explain consumer attitudes toward an ad (Aad) and a brand (Ab), as well as the formation of purchase intention (PI) (Brown and Stayman, 1992; MacKenzie and Lutz, 1989; MacKenzie *et al.*, 1986), but it misses ad affect (AFFad) and competition. First, ad affect is a key construct which determines the formation of Aad. Exposure to an ad can induce feelings. Individuals with good feelings may have favorable ad attitudes (Edell and Burke, 1987; Gardner, 1985). Second, any advertisement does not operate in a vacuum. Competing ads and brands may have detrimental effects on consumers' selection of a focal brand in a focal ad. However, existing information processing theory suggests that consumers process attribute information independently for different brands and compare the values summated across all relevant attributes (Fishbein and Ajzen, 1975), which limits the ability of the dual

mediation model to discover the real marketing phenomenon, because competition is not taken into account (Laroche, 2002). Therefore, the purpose of this study is to incorporate ad affect and competition into the dual mediation model, and contribute to the literature on the understanding of the effects of advertising on consumer attitude and purchase intention in multiple-ad and multiple-brand environments.

Research framework and hypotheses

MacKenzie *et al.* (1986) used the distinction between the central and peripheral routes to analyze the theoretical relationships in their dual mediation model. They tested four alternative hypothesized models. Their data was most consistent with the dual mediation explanation. Under the dual mode persuasion process, Aad and Cb directly influence Ab, whereas Cad indirectly impacts Ab through Aad. Aad is also expected to have an indirect influence on Ab through Cb. The relationship between ad and brand attitudes represents the peripheral route, whereas the path from brand cognitions to attitudes reflects the central route. Brown and Stayman's (1992, pp. 44-45) meta-analyses of 47 independent samples reported in 43 articles provided further support for the dual mediation model. However, Brown and Stayman concluded that "...research is necessary to account for the variation

The current issue and full text archive of this journal is available at www.emeraldinsight.com/0736-3761.htm



Journal of Consumer Marketing
42/2 (2011) 27-35
© Emerald Group Publishing Limited [ISSN 0736-3761]
[DOI 10.1108/07363760710720966]

The authors gratefully acknowledge the financial support of the Social Sciences and Humanities Research Council of Canada and the John Molson School of Business at Concordia University.

between ad attitude and the two outcome variables of brand attitudes and purchase intentions. Although four of our moderators significantly influenced each of these relationships, together they could not account for all of the variation found, suggesting that other potential moderator variables not included in the models exists”.

There continue to be concerns that have not yet been resolved. For example, research has shown that AFFad plays an important role in the formation of Aad (Edell and Burke, 1987; Gardner, 1985; Homer, 1990; Mitchell, 1986; Mitchell and Olson, 1981). In addition, some researchers have demonstrated that different brands in a consideration set compete with each other. Evaluations of the competing ad and brand negatively influence evaluations of a focal ad and brand (Laroche, 2002). Given these concerns, it would be helpful to incorporate AFFad and competition in the dual mediation model. Thus, our research proposes a new model to examine the effects of advertising on consumer attitude and purchase behavior (Figure 1). In order to simplify the proposed model, Figure 1 only shows the competitive effects of a competing ad and brand on a focal ad and brand. This model is applicable in multiple-ad and multiple-brand environments.

Competitive effects of ad cognition and affect on ad attitude

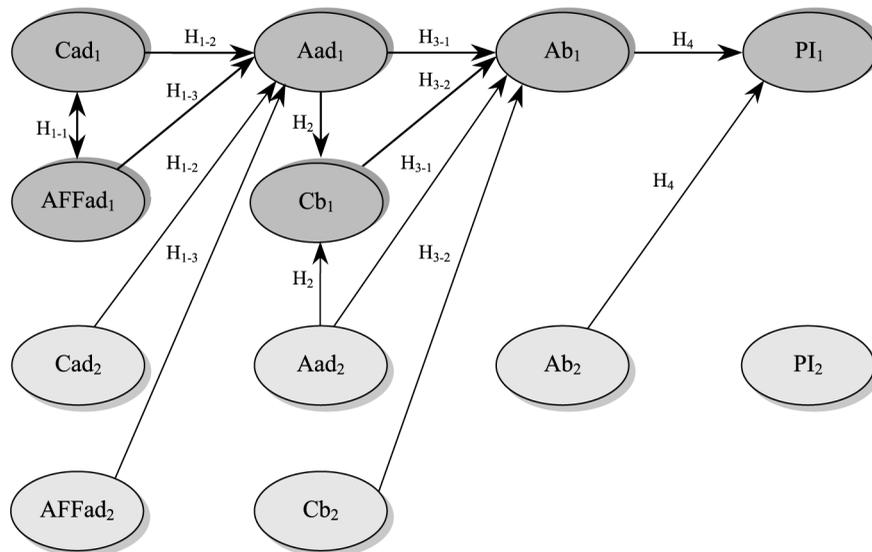
Numerous studies have stated that an ad context can influence ad evaluations (Burke and Edell, 1989; Hastak and Olson, 1989; Keller, 1991; Singh, et al., 1987; Yi, 1990). The cognitive responses are a result of the conscious processing of specific execution elements in an ad (e.g., perception of execution, copy, presentation style and so on) and the thoughts and ideas evoked by persuasive message (Brown and Stayman, 1992). The formation of cognitive responses reflects an important process leading to attitude

changes. Furthermore, the advertising context can also generate, and induce, a reader’s overall affective reactions. Feelings may not only be triggered very quickly (Zajonc, 1980), but may also influence subsequent processing (Gardner, 1985). When induction occurs, the affect can be transferred to her/his attitude toward the ad (MacKenzie et al., 1986). Research in psychology has found that affective reactions can be automatically primed by the mere presence of an object, and that these affective reactions impact subsequent perceptions and evaluations (Fazio, 1986).

However, although cognitive and affective responses are distinct, they intertwine to influence Aad, and are not separate (Burke and Edell, 1989; Lutz, 1985). For example, an attractive picture in an ad may induce an individual’s good feelings reaction to the ad as soon as s/he views it. With good feelings, the individual remembers and judges the picture easily, and she/he is more likely motivated to process more ad information. In turn, both cognitive and affective responses determine the ad evaluation. In addition, Homer and Yoon (1992) found that direct and indirect relationships between emotional responses and Aad exist. In other words, emotional responses influence Aad directly and indirectly via Cad. Thus, the correlation between cognitive and affective responses exists, but it has not been examined in the dual mediation model. Furthermore, any ad does not exist in a vacuum, and it competes with other ads, so one consumer’s general perceptions of other ads may have effects on his/her attitude toward the focal ad (Laroche, 2002). This research extends the Cad/AFFad → Aad relationships to a competitive context. Therefore, we hypothesize that:

- H1.1. Consumers’ cognitive and affective responses toward an ad are positively correlated.
- H1.2. Consumers’ attitudes toward a focal ad will depend on their cognitive reactions to that ad and competing ads.

Figure 1 Proposed consumer purchase intention model



Notes: Cad₁ = Ad Cognition for ad₁; AFFad₁ = Ad affect for ad₁; Aad₁ = Attitude toward ad₁; Cb₁ = Brand cognition for brand₁; Ab₁ = Attitude toward brand₁; PI₁ = Purchase intention toward brand₁. In order to simplify the proposed model, figure 1 only shows the competitive effects of a competing ad (2) and brand (2) on a focal ad (1) and brand (1)

H1.3. Consumers' attitudes toward a focal ad will depend on their affective reactions to that ad and competing ads.

Competitive effects of ad attitude on brand cognition

Ad attitude refers to recipients' reactions to an ad itself (Yi, 1990) while brand cognition indicates recipients' perceptions of the advertised brand in an ad (Lutz *et al.*, 1983). Researchers have demonstrated that there is a positive relationship between ad attitude and brand cognition (Biehal *et al.*, 1992; Brown and Stayman, 1992; MacKenzie *et al.*, 1986). For instance, informative arguments may result in a favorable Aad and increase the strength of existing beliefs toward the brand in the ad. In contrast, uninformative arguments decrease one's Aad and, in turn, reduce his/her strength of beliefs toward the advertised brand. Aad mediates the effect of ad content on change in Cb. Research (Yi, 1990) also indicates that affective reactions to an ad might influence affective reactions to the advertised brand. Positive or negative feelings associated with an ad may become associated with the advertised brand in the ad. This seems to be the more popular view that a positive (negative) Aad may yield more (less) favorable Cb (MacKenzie *et al.*, 1986). Incorporating competitive effects into consumer decision-making process and consistent with the theory in the dual mediation model, it is expected that consumers' attitudes toward a focal ad and competing ads will influence their cognitions toward the focal brand in the focal ad. We thus hypothesize that:

H2. Consumers' cognitions toward a focal brand in a focal ad will depend on their attitudes toward that ad and competing ads.

Competitive effects of ad attitude and brand cognition on brand attitude

The dual mediation model has indicated a strong positive relationship between Aad and Ab (Brown and Stayman, 1992; MacKenzie *et al.*, 1986). However, some researchers argue that any ad competes with other ads in the marketplace, so a consumer's generally positive responses to other ads may have an influence on his/her attitude toward the advertised brand in a focal ad. For example, consumers considering buying a new car often scrutinize car ads to determine which features various models have. A comfortable perception of the attributes of the brand in the car ad may result in a favorable attitude toward the advertised car. In addition, consumers' prior beliefs of other competing cars may also simultaneously influence their attitudes toward the particular car in the particular car ad. This is one reason why expert consumers are more likely to use their prior experience about the main attributes of different brands to discriminate a particular brand from other brands. One's attitude toward a focal brand not only depends on his/her brand cognition toward the brand, but also on his/her perceptions of competing brands in a consideration set (Laroche, 2002; Laroche *et al.*, 1996; Woodside and Clokey, 1974). Therefore, this research extends the Aad-Ab relationship to a competitive environment. It is hypothesized that:

H3.1. Consumers' attitudes toward a focal brand in a focal ad will depend on their attitudes toward that ad and competing ads.

H3.2. Consumers' attitudes toward a focal brand will depend on their brand cognitions toward that brand and competing brands.

Competitive effects of brand attitude on purchase intention

Purchase intention is one type of judgment about how an individual intends to buy a specific brand. Variables such as considering buying a brand and expecting to buy a brand measure purchase intention (Laroche *et al.*, 1996; Laroche and Sadokierski, 1994; MacKenzie *et al.*, 1986). Forming purchase intention toward a focal brand requires making explicit overall evaluations of all brands within the consideration set.

Research has shown that attitude toward a brand significantly impact intention to buy that brand (Brown and Stayman, 1992; Homer, 1990; MacKenzie *et al.*, 1986), and there is a significant positive relationship between brand attitude and intention to buy. For example, Laroche *et al.* (1996) proposed a multi-brand model of intentions that indicates that consumers' intentions to choose a specific brand are based on the attitudes held simultaneously about all the brands in a product category. They classified the influence of attitude toward a focal brand on purchase intention toward the brand as a direct effect, and the influence of attitude toward another brand on intention to buy that focal brand as a competitive effect. Their results showed that the direct effect positively impacts intention to buy the focal brand, while the competitive effect negatively impacts intention to purchase that brand. Therefore, a consumer's intention to buy a focal brand is determined not only by his/her attitude toward the same brand, but also by his/her attitudes toward other brands within the consideration set (Laroche, 2002; Laroche *et al.*, 1996). Therefore, it is hypothesized that:

H4. Consumers' purchase intentions toward a focal brand will depend on their brand attitudes toward that brand and competing brands.

Methodology

Research design

To test the proposed model, an experiment was conducted. The objective of the experiment was to examine the interactive effects of appeals and culture-laden pictures on consumer attitude and purchase behavior in a competitive environment. It used a 2 (appeal: individualistic v. collectivistic advertising appeal) \times 2 (picture: individualistic v. collectivistic-laden advertising picture) \times 2 (competition: focal v. competing brand/ad) research design.

Two digital cameras were chosen as the stimulus product and their price was the same. Two hypothetical brands of digital cameras were presented. The print ads for the digital cameras differed in appeal, picture and attribute information, and were constructed in full color to imitate magazines ads, in order to remove the influence due to prior brand information and knowledge. The cameras in the focal and competing ad were similar in size, but different in design. Overall, however, it was difficult to identify one as better than the other based only on the appearance of the two cameras. In addition, the ad size, and layout of the advertisements for both brands were identical.

Stimuli development

As in prior research (Aaker and Maheswaran, 1997; Zhang and Gelb, 1996), North American individuals relative to Chinese individuals have more favorable attitudes toward appeals that emphasize self-expression and the achievement of

personal goals relative to those that emphasize family benefits and collective goals. Therefore, advertising appeals, which would evoke positive or negative feelings, were manipulated in the experiment. Based on prior interviews with North Americans, five individualistic appeals and five collectivistic appeals were developed. Several rounds of pretesting were done with separate groups (total sample size = 56) of North American-born and Chinese-born faculty members, staff and EMBA/MBA students at a northeastern North American university. Based on the results of the pretest, "Achieve Genuine Self-expression" was selected for the final individualistic appeal and "Share the Joy with Those You love" for the final collectivistic appeal. The two appeals indeed reflected the respective group cultural values and norms (Zhang and Gelb, 1996).

Culture-laden advertising pictures that would elicit positive or negative feelings were manipulated. The pictures were obtained from: popular photography magazines; and internet. The results of the pre-test (total sample size = 21: 10 North American-born and 11 Chinese-born participants) showed that the two pictures which were selected had been identified correctly. One picture emphasizes self-expression, differentiation, and uniqueness, while the other picture focuses on group integrity, connections, and the feeling of harmony with others.

Participants and procedure

The experiment was conducted with "real" consumers in North America. Participants from two large northeastern cities were invited to participate in the experiment in return for a gift (approximate value \$5). Data collection was conducted in small groups ($n = 3-25$), where subjects were randomly assigned into one of the design groups. A total of 165 subjects (54 percent female, mean age = 36.2) participated in the experiment.

Subjects were seated at partitioned desks and asked to read a scenario that provided a purchase goal induction. All subjects were given the same scenario to read. In the experiments, the text described "Mark", who needed a camera for performing relatively complex photography tasks. Subjects were asked to assume that Mark was a good friend of theirs and that he needed help to choose the better brand from the ads presented.

The experimenter then drew the test group's attention to two envelopes, which were placed on the top right-hand side of the subject's table. The two envelopes included two ads featuring two fictitious digital camera models. After the subjects had an opportunity to study the two ads, they were asked to rate the ads and advertised brands in terms of their attitude and purchase behavior.

Measures

We used multi-item scales to measure the model constructs. Literature from advertising, psychology, and marketing provide the basis for the measurement of the consumer brand selection process. The questionnaire was pretested several times and was refined on the basis of the pretest results. Based on Anderson and Gerbing (1988), we conducted confirmation factor analysis to assess the reliability and validity of the multi-item scales for the proposed model. In terms of construct reliability (i.e. greater than 0.60) and percentage of variance extracted by the latent construct (i.e. greater than 0.50), all the individual

scales exceeded the recommended minimum standards (Bagozzi and Yi, 1998).

Ad cognition (Cad)

We used a 3-item, 7-point semantic differential scale to measure Cad (very unpersuasive/very persuasive, very uninformative/very informative, and not very meaningful/very meaningful). These items were drawn from previous studies (Edell and Burke, 1987; MacKenzie *et al.*, 1986; Miniard *et al.*, 1990). The coefficient alphas of the three scales were 0.81 and 0.77 for the focal ad and competing ad, respectively.

Ad affect (AFFad)

AFFad was assessed by a 2-item scale (unpleasant/pleasant and unexciting/exciting) (Edell and Burke, 1987; Holbrook and Batra, 1987). The coefficient alphas of the two scales were 0.83 and 0.75 for the focal ad and competing ad, respectively.

Attitude toward the ad (Aad)

We used a 4-item, 7-point scale to measure Aad (1 = very bad, very unfavorable, highly uncreative, and least attractive; 7 = very good, very favorable, highly creative, and very attractive). Some of these items have been used in previous studies (Gardner, 1985; MacKenzie *et al.*, 1986; Miniard *et al.*, 1990; Zhang and Gelb, 1996). The coefficient alphas of the four scales were 0.85 and 0.79 for the two ads.

Brand cognition (Cb)

Cb was measured by a two-item scale (less salient attributes/more salient attributes, and low quality/high quality). It was scored on a 7-point Likert scale ranging from 1 to 7 for measuring subjects' beliefs (Coulter and Punj, 1999). The coefficient alphas of the two scales were 0.81 and 0.72 for the focal brand and competing brand, respectively.

Attitude toward the brand (Ab)

We used three items to measure Ab (dislike quite a lot/like quite a lot, unsatisfactory/satisfactory, and very unappealing/very appealing) with end-points labeled "1" to "7" (Gardner, 1985; MacKenzie and Lutz, 1989; Miniard *et al.*, 1990; Mitchell, 1986). The coefficient alphas of the three scales were 0.82 to 0.85 for the two brands.

Purchase intention (PI)

Four items were used to measure PI (Mathur, 1998; Yi, 1990). These items were: "I would definitely intend to buy/absolutely consider buying/definitely expect to buy/absolutely plan to buy the digital camera" (1 = strongly disagree and 7 = strongly agree). The coefficient alphas of the scales were 0.86 and 0.78 for the two brands.

Results

We first conducted initial analysis and the results indicated no treatment effects for the two hypothetical brand names ($F's < 1$). There were no treatment effects for the order in which the two ads were administered ($F's < 1$).

Manipulation checks

Consistent with the manipulation, subjects evaluated the individualistic-laden advertising appeal more favorably than the collectivistic-laden advertising appeal ($M = 5.51$ versus $M = 4.76$, $F = 9.63$, $p < 0.01$). A composite score consisting of two items was derived and used to check the manipulation

of pictures. The results showed that the scores of the individualistic-laden advertising picture, neutral picture and collectivistic-laden advertising picture significantly decreased in order ($M = 5.38, 4.98$ and $4.40, F = 11.55, p < 0.01$). Overall, our advertising appeal and picture manipulations were effective.

Test of hypotheses

The proposed model in Figure 1 was analyzed by using the data from the experiment and the maximum likelihood method (i.e. ML), with EQS software (Bentler, 1992). Assessment of the overall model fit was based on:

- the comparative fit index (CFI values > 0.90 are indicative of good fit, Baumgartner and Homburg, 1996); and
- acceptability criterion for the chi-square (less than 3 times the number of degrees of freedom, Byrne, 1994).

By applying the data of the experiment, the results of the structural analyses indicate a very good performance by the proposed model. The overall fit of the model is excellent (i.e. $\chi^2 = 815.72, 568$ df, CFI = 0.95, standardized RM = 0.11, and RMSEA = 0.05). These results suggest that the observed structure is consistent with the proposed framework.

The standardized parameters of the relationships included in the structural model with their corresponding t -values show that nineteen out of twenty-six hypothesized paths are significant (Table I). Most absolute t -test values of the

Table I Standardized coefficients for the proposed model

Paths	Estimates	t -values
Cognition ad1 \leftrightarrow Affect ad1	0.60	5.62*
Cognition ad2 \leftrightarrow Affect ad2	0.63	5.81*
Cognition ad1 \rightarrow Attitude ad1	0.30	4.49*
Affect ad1 \rightarrow Attitude ad1	0.69	8.72*
Cognition ad2 \rightarrow Attitude ad1	-0.03	-0.41
Affect ad2 \rightarrow Attitude ad1	-0.03	-0.41
Attitude ad1 \rightarrow Cognition brand1	0.59	5.93*
Attitude ad2 \rightarrow Cognition brand1	-0.21	-2.44*
Attitude ad1 \rightarrow Attitude brand1	0.46	5.10*
Cognition brand1 \rightarrow Attitude brand1	0.37	3.62*
Attitude ad2 \rightarrow Attitude brand1	-0.11	-1.11
Cognition brand2 \rightarrow Attitude brand1	-0.03	-0.28
Attitude brand1 \rightarrow Intention brand1	0.72	11.11*
Attitude brand2 \rightarrow Intention brand1	-0.21	-3.62*
Cognition ad1 \rightarrow Attitude ad2	-0.04	-0.51
Affect ad1 \rightarrow Attitude ad2	-0.07	-0.83
Cognition ad2 \rightarrow Attitude ad2	0.19	2.08*
Affect ad2 \rightarrow Attitude ad2	0.65	6.14*
Attitude ad1 \rightarrow Cognition brand2	-0.11	-1.41**
Attitude ad2 \rightarrow Cognition brand2	0.65	6.90*
Attitude ad1 \rightarrow Attitude brand2	-0.33	-3.50*
Cognition brand1 \rightarrow Attitude brand2	0.08	0.74
Attitude ad2 \rightarrow Attitude brand2	0.29	2.69*
Cognition brand2 \rightarrow Attitude brand2	0.44	3.70*
Attitude brand1 \rightarrow Intention brand2	-0.31	-4.97*
Attitude brand2 \rightarrow Intention brand2	0.63	8.96*

Notes: * p value < 0.05 ; ** p value < 0.10

coefficients of the measurement and structural equations in the model are far above 1.96 (Anderson and Gerbing, 1988).

Competitive effects of ad cognition and affect on ad attitude (H1)

The standardized estimates of the structural parameters for Cad1 \leftrightarrow AFFad1 (0.60, $t = 5.62, p < 0.01$) and for Cad2 \leftrightarrow AFFad2 (0.63, $t = 5.81, p < 0.01$) suggest that Cad and AFFad are positively correlated for both the focal ad and competing ad. These findings support our expectation of correlated relationships between the constructs (H1.1).

The standardized parameters of Cad1/Cad2 \rightarrow Aad1/Aad2 (0.30/0.19, $t = 4.49/2.08, p < 0.05$) show those consumers' attitudes toward a focal ad increase while their cognitive responses to the same ad increase. Also, consumers' attitudes toward the focal ad decrease while their cognitive responses to the competing ad increase (Cad1/Cad2 \rightarrow Aad2/Aad1: $-0.04/-0.03, t = -0.51/-0.41, p > 0.10$). However, these effects are not significant. Therefore, the results partially support H1.2.

Although the standardized parameters of AFFad1/AFFad2 \rightarrow Aad1/Aad2 (0.69/0.65, $t = 8.72/6.14, p < 0.01$) show those consumers' attitudes toward a focal ad increase while their affective responses to the same ad increase, the relationships between consumers' attitude toward the focal ad and their affective reactions to the competing ad (i.e. AFFad1/AFFad2 \rightarrow Aad2/Aad1: $-0.07/-0.03, t = -0.83/-0.41, p > 0.10$) are not significant. Therefore, the results partially support H1.3.

Competitive effects of ad attitude on brand cognition (H2)

The standardized estimates of Aad1/Aad2 \rightarrow Cb1/Cb2 (0.59/0.65, $t = 5.93/6.90, p < 0.01$) show that consumers' brand cognitions toward a brand in an ad are positively influenced by their attitudes toward the same ad. These results are consistent with previous findings (Brown and Stayman, 1992; MacKenzie *et al.*, 1986). In addition, the results of Aad1/Aad2 \rightarrow Cb2/Cb1 ($-0.11/-0.21, t = -1.41/-2.44, p < 0.10$) suggest that consumers' brand cognitions toward the focal brand in the focal ad decrease while their attitude toward the competing ad increases. Therefore, our hypothesis H2 is strongly supported. These results suggest that higher attitude toward a focal ad significantly lead to higher brand cognitions toward the brand in the focal ad. In addition, higher attitude toward competing ads also lead to lower brand cognitions toward the focal brand in the focal ad.

Competitive effects of ad attitude and brand cognition on brand attitude (H3)

As expected, in addition to the direct effects on attitudes toward the focal brand (i.e. Aad1 \rightarrow Ab1, 0.46, $t = 5.10, p < 0.01$), consumers' attitudes toward a focal ad have an indirect influence on their attitudes toward the focal brand through their cognitions toward the same brand (i.e. Cb1 \rightarrow Ab1, 0.37, $t = 3.62, p < 0.01$). These results validate previous findings (Brown and Stayman, 1992; MacKenzie *et al.*, 1986). Moreover, consumers' attitudes toward the focal brand in the focal ad are negatively influenced by their attitudes toward the competing ad (i.e. Aad2 \rightarrow Ab1, $-0.11, t = -1.11, p > 0.10$) and cognitions toward the competing brand (i.e. Cb2 \rightarrow Ab1, $-0.03, t = -0.28, p > 0.10$). Although the negative relationships were found, the negative effects were not significant. Hence, H3.1 and H3.2 were partially supported.

Competitive effects of brand attitude on purchase intention (H4)

As expected, consumers' brand attitudes toward a focal brand and competing brands will both influence their purchase intentions toward the focal brand. Specifically, consumers' attitudes toward a brand positively influence their purchase intentions toward the same brand (i.e. Ab1/Ab2 → PI1/PI2, 0.72/0.63, $t = 11.11/8.96$, $p < 0.01$) while their attitudes toward the competing brand negatively influence their purchase intentions toward the focal brand (i.e. Ab2 → PI1, -0.21 , $t = -3.62$, $p < 0.01$). Therefore, our H4 was strongly supported.

Discussions, implications and future research

This research aims to contribute to literature in advertising and consumer behavior by extending the dual mediation model to include ad affective responses and competition. The results not only confirm the dual mediation model that in addition to a direct effect, ad cognition also has an indirect influence on brand attitude through brand cognition, but also indicate that the higher level of affective responses to a focal ad significantly leads to a higher evaluation of that ad. However, the higher level of affective responses to the competing ads may lead to a lower evaluation of the focal ad. These results strongly support the notion that ad affect is an important determinant in the formation of ad attitude and it can be incorporated into the dual mediation model to explain the effects of advertising on consumer behavior.

The second significance of this study is to provide insight into research in information processing theory. The dual mediation model and existing information processing theory are consistent. Both suggest that consumers process attribute information independently for several different brands and compare the values summed across all relevant attributes of each brand (Brown and Stayman, 1992; Fishbein and Ajzen, 1975; MacKenzie *et al.*, 1986). However, they fail to take competition into account and incorporate competition into their models predicting consumer behavior, because information about different brands are processed comparatively and that evaluations of competing ads and brands directly influence evaluations of a focal ad and brand. The results of our study suggest that competing ads and brands have detrimental effects on consumer attitude and purchase intention toward a focal ad and brand. Specifically, consumers' ad attitudes toward a focal ad positively influence their attitudes toward the brand in the focal ad and in turn their brand attitudes positively impact their purchase intentions toward that brand. In contrast, consumers' ad attitudes toward a competing ad may negatively influence their attitudes toward the focal brand in the focal ad and their brand attitudes toward a competing brand also negatively impact their purchase intentions toward the focal brand. Therefore, our study extends the dual mediation model and existing information processing theory by incorporating competition into consumer information processing and decision-making settings.

From a practical perspective, our overall findings generate relevant insights that are more directly applicable by marketers and advertisers. For example, advertising context can induce affective reactions. Advertisements build certain mental associations with and beliefs about the brands in the advertisements, and lead consumers to buy those brands, so marketers should become increasingly cognizant of the

communication values of their advertising messages and contexts, in order to successfully attract consumers' attentions. In addition, competing ads and brands have negative effects on a focal ad and brand. As marketers, they should not only pay attention to their own ads and products, but also intimately understand their competitors' ads and products. Although competition is unavoidable and competitive environment can not be controlled, an understanding of its effects on the formations of ad attitudes and brand attitudes may have important implications for ad design, promotion strategies and sales tactics.

A couple of limitations of this study suggest potential research opportunities. First, two hypothetical brands were considered in this study. In real life, consumers may face a few alternatives while making a brand choice decision (Laroche, 2002). Future research should replicate this study using more realistic brands in order to generalize our findings. Second, in this research, only two items measured ad affect. Although there are three variables designed to measure it in the questionnaire, the results indicate the negative question was not related with positive questions well. Therefore, future research is needed to explore more questions in order to improve the measure of ad affect.

Furthermore, past research has shown that North Americans describe themselves as individualistic whereas Chinese identify themselves as part of a group or collectivistic (Gudykunst, 1997; Hofstede, 1980; Hui and Triandis, 1986). Cultural values may influence their attitude and purchase intentions (Zhang and Gelb, 1996). Further research is needed to broaden our understanding of the consumer decision-making process across cultures.

References

- Aaker, J.L. and Maheswaran, D. (1997), "The effect of cultural orientation on persuasion", *Journal of Consumer Research*, Vol. 24 No. 4, pp. 315-28.
- Anderson, J.C. and Gerbing, D.W. (1988), "Structural equation modeling in practice: a review and recommended two-step approach", *Psychological Bulletin*, Vol. 103 No. 2, pp. 411-23.
- Bagozzi, R.P. and Yi, Y. (1998), "On the evaluation of structural equation models", *Journal of the Academy of Marketing Science*, Vol. 16 No. 1, pp. 74-94.
- Baumgartner, H. and Homburg, C. (1996), "Applications of structural equation modeling in marketing and consumer research: a review", *International Journal of Research in Marketing*, Vol. 13 No. 1, pp. 139-61.
- Bentler, P.M. (1992), *EQS: Structural Equations Program Manual*, BMDP Statistical Software, Los Angeles, CA.
- Biehal, G., Stephens, D. and Curlo, E. (1992), "Attitude toward the ad and brand choice", *Journal of Advertising*, Vol. 21 No. 3, pp. 19-36.
- Brown, S.P. and Stayman, D.M. (1992), "Antecedents and consequences of attitude toward the ad: a meta-analysis", *Journal of Consumer Research*, Vol. 19 No. 2, pp. 34-51.
- Burke, M.C. and Edell, J.A. (1989), "The impact of feelings on ad-based affect and cognition", *Journal of Marketing Research*, Vol. 26 No. 1, pp. 69-83.
- Byrne, B.M. (1994), *Structural Equation Modeling with EQS and EQS/Windows*, Thousand Oaks, CA.

- Coulter, K.S. and Punj, G. (1999), "Influence of viewing context on the determinants of attitude toward the ad and the brand", *Journal of Business Research*, Vol. 45 No. 5, pp. 47-58.
- Edell, J.A. and Burke, M.C. (1987), "The power of feelings in understanding advertising effects", *Journal of Consumer Research*, Vol. 14 No. 4, pp. 421-33.
- Fazio, R.H. (1986), "How do attitudes guide behavior?", in Sorrentino, R.M. and Higgins, E.T. (Eds), *The Handbook of Motivation and Cognition: Foundations of Social Behavior*, Guilford Press, New York, NY, pp. 204-43.
- Fishbein, M. and Ajzen, I. (1975), *Beliefs, Attitude, Intention, and Behavior: An Introduction to Theory and Research*, Addison-Wesley, Reading, MA.
- Gardner, M.P. (1985), "Does Attitude toward the ad affect brand attitude under a brand evaluation set?", *Journal of Consumer Research*, Vol. 10 No. 2, pp. 45-61.
- Gudykunst, W.B. (1997), "Cultural variability in communication", *Communication Research*, Vol. 24 No. 4, pp. 327-48.
- Hastak, M. and Olson, J.C. (1989), "Assessing the role of brand-related cognitive responses as mediators of communication effects on cognitive structure", *Journal of Consumer Research*, Vol. 15 No. 2, pp. 444-56.
- Hofstede, G. (1980), "Motivation, leadership and organization: do american theories apply abroad?", *Organization Dynamics*, Vol. 9 No. 1, pp. 42-63.
- Holbrook, M.B. and Batra, R. (1987), "Assessing the role of emotions as mediators of consumer responses to advertising", *Journal of Consumer Research*, Vol. 14 No. 4, pp. 404-20.
- Homer, P.M. (1990), "The mediating role of attitude toward the ad: some additional evidence", *Journal of Marketing Research*, Vol. 27 No. 2, pp. 78-86.
- Homer, P.M. and Yoon, S.G. (1992), "Message framing and the interrelationships among ad based feelings, affect and cognition", *Journal of Advertising*, Vol. 21 No. 1, pp. 19-33.
- Hui, C.H. and Triandis, H.C. (1986), "Individualism-collectivism: a study of cross cultural researchers", *Journal of Cross-Cultural Psychology*, Vol. 17 No. 2, pp. 225-48.
- Keller, K.L. (1991), "Cue compatibility and framing in advertising", *Journal of Marketing Research*, Vol. 28 No. 1, pp. 42-57.
- Laroche, M. (2002), "Selected issues in modeling consumer brand choice: the extended competitive vulnerability model", in Woodside, A.G. and Moore, E. (Eds), *Essays by Distinguished Marketing Scholars of the Society for Marketing Advances*, Elsevier Science, Kidlington, pp. 69-114.
- Laroche, M. and Sadokierski, R.W. (1994), "Role of confidence in a multi-brand model of intentions for a high involvement service", *Journal of Business Research*, Vol. 29 No. 1, pp. 1-12.
- Laroche, N., Kim, C. and Zhou, L. (1996), "Brand familiarity and confidence as determinants of purchase intention: an empirical test in a multiple brand context", *Journal of Business Research*, Vol. 37 No. 10, pp. 115-20.
- Lutz, R.J. (1985), "Affective and cognitive antecedents of attitude toward the ad: a conceptual framework", in Alwitt, L. and Mitchell, A. (Eds), *Psychological Processes and Advertising Effects*, Lawrence J. Erlbaum, Hillsdale, NJ, pp. 45-65.
- Lutz, R.J., MacKenzie, S.B. and Belch, G.E. (1983), "Attitude toward the ad as a mediator of advertising effectiveness: determinants and consequences", in Bagozzi, R.P. and Tybout, A.M. (Eds), *Advances in Consumer Research*, Association for Consumer Research, Ann Arbor, MI, pp. 532-9.
- MacKenzie, S.B. and Lutz, R.J. (1989), "An empirical examination of the structural antecedents of attitude toward the ad in an advertising pre-testing context", *Journal of Marketing*, Vol. 53 No. 1, pp. 48-65.
- MacKenzie, S.B., Lutz, R.J. and Belch, G.E. (1986), "The role of attitude toward the ad as a mediator of advertising effectiveness: a test of competing explanations", *Journal of Marketing Research*, Vol. 23 No. 2, pp. 130-43.
- Mathur, A. (1998), "Incorporating choice into an attitudinal framework: cross-cultural extension and additional findings", *Journal of International Consumer Marketing*, Vol. 10 No. 4, pp. 93-110.
- Miniard, P.W., Bhatla, S. and Rose, R.L. (1990), "On the formation and relationship of ad and brand attitudes: an experimental and causal analysis", *Journal of Marketing Research*, Vol. 27 No. 3, pp. 290-303.
- Mitchell, A.A. (1986), "The effect of verbal and visual components of advertisements on brand attitudes and attitude toward the advertisement", *Journal of Consumer Research*, Vol. 13 No. 2, pp. 12-24.
- Mitchell, A.A. and Olson, J.C. (1981), "Are product attribute beliefs the only mediator of advertising effects on brand attitude?", *Journal of Marketing Research*, Vol. 19 No. 3, pp. 318-32.
- Singh, S.N., Gilbert, A. and Churchill, G.A. (1987), "Arousal and advertising effectiveness", *Journal of Advertising*, Vol. 16 No. 1, pp. 4-10.
- Woodside, A.G. and Clokey, J.D. (1974), "Multi-attribute/multi-brand models", *Journal of Advertising Research*, Vol. 14 No. 5, pp. 33-40.
- Yi, Y. (1990), "Cognitive and affective priming effects of the context for print advertisements", *Journal of Advertising*, Vol. 19 No. 2, pp. 40-8.
- Zajonc, R.B. (1980), "Feeling and thinking: preferences need no inferences", *American Psychologist*, Vol. 35 No. 1, pp. 151-75.
- Zhang, Y. and Gelb, B.D. (1996), "Matching advertising appeals to culture: the influence of products' use conditions", *Journal of Advertising*, Vol. 25 No. 3, pp. 29-46.

About the authors

Lefa Teng is Assistant Professor of Marketing, Department of Marketing and Consumer Studies at University of Guelph, Ontario, Canada. He received his PhD in Marketing from Concordia University and MSc from the University of Science and Technology, Beijing. He has published articles in *Journal of Business Research*, *Journal of Services Marketing* and *Advances in Health Care Management*. His research interests include advertising, consumer behavior, cross-culture research and retailing

Michel Laroche is the Royal Bank Distinguished Professor of Marketing at Concordia University, Montreal, Canada, a Fellow of the Society for Marketing Advances, and the Academy of Marketing Science and the 2000 Concordia University Research Fellow. He received his MPh and PhD in Marketing from Columbia University, an MSE from

Johns Hopkins, a DIng from Ecole Centrale (Paris) and a DShc from the University of Geuelph. He has co-authored 27 books, including *Consumer Behaviour: A Canadian Perspective* and *Canadian Retailing*, more than 100 refereed articles and is currently serving as Managing Editor of the *Journal of Business Research*. His research interests include several aspects of consumer behaviour, particularly ethnicity, persuasion, information processing and models of decision making, as well as services marketing, retailing and ecological marketing. He is the corresponding author and can be contacted at: laroche@jmsb.concordia.ca.

Huihuang Zhu is Associate Professor of Marketing at the Business School, Sun Yat-sen University, Guangzhou, China. He received his PhD and MSc from Sun Yat-sen University. He has involved a number of research projects and published in many conference proceedings. His research interests include advertising, branding strategies, consumer behavior, and international marketing.

Executive summary and implications for managers and executives

This summary has been provided to allow managers and executives a rapid appreciation of the content of this article in toto to take advantage of the more comprehensive description of the research undertaken and its results to get the full benefit of the material present.

In this study, Teng *et al.* investigate the impact of advertising on consumer attitude and purchase intention towards a specific brand within a multi-advertisement and multi-brand setting.

Key issues

Previous models have assumed that:

- strong links exist between consumer attitudes to an advertisement and their attitude towards the brand featured in the advertisement;
- consumer attitude towards an advertisement and perceptions of a brand directly influence their attitude towards that brand;
- perception of an advertisement indirectly influences attitude towards a brand through the consumer's attitude towards that advertisement; and
- attitude towards an advertisement can influence consumer attitude to a brand through the consumer's knowledge or perception of that brand.

However, the authors point out that this research does not consider the impact of advertisement affect, which they argue is the determinant of consumer attitude. Specifically, they say that advertisement exposure "can induce feelings" and that positive feelings can lead to "favorable advertisement attitudes". Others have also suggested this link, believing that both positive and negative emotional responses to an advertisement can subsequently become associated with the brand being promoted. Another important point made is that competing advertisements and brands may have a detrimental effect on consumer attitude towards the chosen advertisement and brand. Existing theories and models state that consumers separately process information about different brands before making comparisons.

Various other studies have also concluded that the context of an advertisement can significantly influence consumer perception or evaluation of the advertisement. The definition of context here includes such as execution, style, copy and the impact of the message itself. Researchers claim that ad context plays a crucial role in determining the effect on an observer's emotions. While cognitive and affective responses are different, analysts agree that they are also closely related.

Previous investigations have concluded that presenting instructive arguments may help improve consumer attitude towards the advertisement and reinforce any existing opinions about the brand. Marketers should be aware that the reverse is also true when the advertisement is uninformative.

It is widely acknowledged that consumers generally only make purchase decisions after careful evaluation of all brands under consideration. Research has indicated that intention to buy a specific brand or not is heavily determined by the consumer's attitude towards the brand. Other studies have shown agreement with the authors by extending this belief to state that purchase intention also depends on the consumer attitude to competing brands. Attitude to a specific advertisement and brand is said to have a "direct effect" on purchase intention and attitude to other advertisements and brands a "competitive effect". Researchers claim that direct effect has a positive effect, while competitive effect has a negative impact.

As part of their aim to revise previous models, Teng *et al.* conduct an experiment in which they test various hypotheses. In the study, 165 respondents from two North American cities were presented with a purchase situation where they had to help a friend buy a new camera. The participants had to choose one of two hypothetical brands, which were identical in price and of similar size but different in attributes and design. Based on appearance, however, the cameras were of similar quality.

Respondents were of North American or Chinese origin and the authors noted that North Americans value self-expression and personal success, while the Chinese cultural norms attach more importance to helping the family and collective achievement. The advertisements used in the experiment were thus controlled to ensure that respondents were presented with appropriate information and pictorial stimuli. The investigation used relevant scales to measure ad cognition, advertisement affect, ad attitude, brand cognition, brand attitude and purchase intention.

The study provided significant support for the authors' belief that advertisement affect plays a significant part in determining consumer response to the advertisement. Findings corroborated the assumption that higher levels of emotional attachment to a focal advertisement leads to a substantially higher evaluation of that advertisement. However, it was also concluded that lower evaluation of the focal advertisement is a likely outcome when the consumer's affective response to a competing ad increases. Furthermore, there was evidence to show that consumer evaluation of competing advertisements and brands have a detrimental effect on consumer attitude towards a specific advertisement and brand, and subsequently to intention to purchase the brand.

Implications and future research

Teng *et al.* conclude that marketers can in fact stimulate consumer emotions through the ad context. Others had previously commented that feelings are often quickly aroused

and that this influences subsequent processing of the advertisement and attitude towards the brand. One conclusion of this study is that context can help ensure that the consumer develops positive “mental associations” with the brand that can lead to stronger belief and ultimate purchase. Promoters should therefore become more aware of the need to capture consumer interest through a combination of message and context.

The need to pay closer attention to competitor advertisements and products is also strongly emphasized. Competition is an unfortunate fact of life, as is having a limited scope to control the competitive environment. However, the authors believe organizations and marketers that increase their knowledge about the composition and impact of opposing advertisements and brands will be better positioned to respond using superior ad formats, promotional campaigns and sales tactics.

The brands in this study were hypothetical and Teng *et al.* state that findings should not be generalized until investigations have been carried out using genuine brands. Likewise, consumers invariably select from many more alternatives than the two included in this study. The authors also note the significance of using respondents from different cultural backgrounds perceived to be respectively individualistic and collectivist in nature. They suggest further studies in this area may reveal the extent that culture influences the decision making process. It is also pointed out that additional research may be required to improve the measuring of advertisement effect.

(A précis of the article “The effects of multiple-ads and multiple-brands on consumer attitude and purchase behaviour”. Supplied by Marketing Consultants for Emerald.)