

Information Handling Styles, Advertising and Brand Attitude: A Chinese Brand Case Study

Tang Chaoying
Graduate University of the Chinese Academy of Sciences

Sun Jian
Graduate University of the Chinese Academy of Sciences

Francis R. Ille
International University of Monaco

The purpose of this paper is to examine the effect of mixed advertising on brand attitude for a Chinese brand in the telecommunication services industry. Previous studies indicate that emotional advertising contributes to increasing positive customer brand attitude. An individual's recognition needs and information processing styles both have an influence on the advertising perception. However, few empirical studies so far have monitored the effect of mixed advertising on brand attitude. The "Qingqin 1+" advertisement is taken as the example analyzing both the effect of ad perception on brand attitude and the interactive effects of an individual's information processing style on advertising perception and brand attitude. The findings will help to reveal the effect of advertising perception on brand attitude, namely that emotional advertisements are more efficient than rational ones in the case that is studied. Brand developers should keep in mind the effect of mixed advertising when designing their communication campaign. Few studies have been published on the effect of Chinese brand advertising on consumers, hence this has a significant value for Chinese brand managers.

INTRODUCTION

Emotional advertising gives a brand some of its specific characteristics (Aaker, 1995), which impact the brand differentiation and the customers' decision-making process. One of the differences between rational advertising and emotional advertising lies in the advertising appeals (Gierl & Praxmarer, 2007; Albers-Miller, & Stafford, 2007; Dens & De Pelsmacker, 2010). Rational advertising aims at persuading customers by using reason, logic and objective information, which include product/service functions and how to match customer needs. On the other hand, emotional advertising focuses on the specific psychological experience: it sends information about self-satisfaction, social identity and sensual stimulation and relates to self-

improvement and emotional appraisal (Puto & Wells, 1984; Ratchford, 1987; Heath & Feldwick, 2007).

The process of customer brand attitude is a process of perception and acceptance. Advertising can affect the brand attitude (Andrew, 1986; Fisher, 1998; Keller, 1998), therefore the customer perception of an advertising appeal is an important component of brand attitude (Ruiz, 2004). The perception of advertising appeal can be divided into two perceptions: the perception of emotional information and the perception of rational information, which can both influence the customer's brand attitude through different channels (Petty *et al.*, 1983). However, in real life, a large part of advertising messages belong to the mixed advertising category. But so far, little serious study has been made to understand how mixed advertising affects brand attitude (Ruiz, 2004).

A customer's perception of advertising is influenced by his/her individual profile (Edson & Stern, 2003; Page, Aaron *et al.*, 2005). Research on this topic has found that the features of individual profiles include a person's information handling characteristics and need for cognition (which refers to the tendency of an individual to invest effort in thinking about and handling information) (Sojka & Giese, 1997). Experimental studies found that when the individual's information handling style matches the advertising style, advertising can contribute to a greater degree to brand attitude (Ruiz, 2004). Compared with the need for cognition and preference for affect, the individual's information handling style is also an important variable that may affect the relationship between the advertisement and brand attitude, and possibly a more stable variable. Until now, few studies have empirically studied this modulation effect.

The sample advertisement used for this paper is a printed media advertising of a telecommunication service product, known as "Qingqin 1+" in Chinese. Conveyed by three printed pictures, the advertisement is translated into English as "the whole family cares about each other" and belongs to the mixed advertising group category. This paper empirically studies the modulation effect of individual information perception styles on the perception of advertising appeal and brand attitude. In the case of "Qingqin 1+," the results reveal that customer's perception of emotional information of telecommunication service product advertising significantly and positively affect brand attitude, while the perception of rational information has no such significant effect. In addition, the individual's information handling style influences the relationship between the perception of information and brand attitude. The results of this paper will help us amplify the understanding of advertising and brand attitude.

LITERATURE REVIEW

Rational Advertising and Emotional Advertising

Based on previous studies, we have used information content analysis to distinguish rational advertising from emotional advertising by using three sets of criteria. As suggested by Resnik & Stern (1977), if the advertisement contains one of the following information cues, then it can be regarded as rational advertising. The coding categories of the information content include some of the following information cues (first set of criteria): product/service price, quality, function, material, purchasing time and place, sales promotion information, information on taste, product nutrition, packaging, promise to customer, product safety, independent research results and new product concept as researched by the company. If the advertising contains none of the above information content, then it can be considered as emotional advertising.

The second set of criteria was introduced by Geuens & Pelsmacker (1997): it is based on

advertising appeal: humour, enthusiasm, nostalgia, sex, anger, fear and other emotions. It holds that if the advertisement relates to one of the types of appeal listed above it can be regarded as emotional advertising. If not, it comprises rational advertising. If it is difficult to decide between the two categories, it belongs to the mixed advertising category.

The third set of criteria was suggested by Flint-Goor & Liebermann (1996) and includes two kinds of information content. Among them, the types of information related to rational content are price, product characteristics or make-up, function, purchase time and place, sale information, product packaging, promise of product quality, market share, research results, convenience, health and nutrition and product safety. The types of information related to emotional content are sex, position and prestige, youth, sports, beauty, gender, enthusiasm and living style. Based on this, the authors divided advertising into five categories: high rational advertising, mixed-rational advertising, mixed advertising, mixed-emotional advertising, and high emotional advertising. As this kind of criteria is suitable for analyzing mixed advertising, we selected this method for our research.

Emery and Tian (2003 and 2010) have described the significance of a fourth set of criteria coming from the cross-cultural differences of advertising perception that may influence the communication strategy of enterprises operating in many countries. The studies demonstrated that groups of Chinese and U.S. students reacted differently to advertising appeal in relationship to the Hofstede work-related values (1980). The customer's perception of advertising appeal and its impact of brand attitude have practical usage for the customer (Keller, 1998). Katz (1960) describes different aspects of brand attitude such as utility function, value expression function, self-protection function and cognitive function. Aaker (1995) points out that brand attitude can help convey customer needs satisfaction, express customer attributes and simplify the decision-making process. The process of brand attitude is a process of perception. Brand popularity is the primary source of customer brand attitude (Aaker, 1997). Advertising is an important promotion method, beyond its promotion function of the product and service. After receiving the stimulus from the advertisement, the individual will feel attraction or repulsion for a specific brand. Research by Mackenzie & Lutz (1982) corroborated that the stimulation of advertising influences brand attitude.

The Elaboration Likelihood Model (ELM), as proposed by Petty et al. (1983), supports the relationship between an advertisement and change in customer attitude. The ELM distinguishes two routes through which an advertisement may influence the customer: a central route and a peripheral route. The model explains that the effects of advertising on customer attitude are related to the degree of elaboration of the message through either a high-involvement central processing route or a low-involvement peripheral processing route. If customers are highly involved in an advertised product when exposed to the ad, they are very likely to ignite the central processing route, where customers will consume a great deal of effort in processing the message, and elaborate on ideas in the message. However, when customers are not involved in the product, then the advertisement is processed through the peripheral route. According to the Elaboration Likelihood Model theory (ELM) through the effortful reasoning process, customers integrate the information provided into their own belief structures, which may cause attitude change. On the other hand, the peripheral route involves a less effortful reasoning process that does not rely on scrutinizing the content and merits of the message.

Although the ELM posits that attitude change created through the more effortful central route will be longer lasting, more resistant, and more predictive, behaviour can also change through the peripheral route. The perception of both cognitive information and emotional information

advertising information will affect the customer's brand attitude. The central approach much more likely contributes to brand attitude through rational information, and the peripheral approach contributes to brand attitude through emotional information (Percy & Rossiter, 2006).

Based on this, we can formulate the following hypotheses:

H1: In mixed advertising, customer perception of the emotional appeal will positively affect brand attitude in a significant manner.

H2: In mixed advertising, customer perception of the rational appeal will positively affect brand attitude in a significant manner.

Customer Type and the Response to the Advertising Appeal

Customer behaviour studies have shown that the individual's style of information handling generates different responses when submitted to advertising stimuli (Moore *et al.*, 1995). The individual's cognitive needs and affective needs influence the handling of advertising information (Petty & Cacioppo, 1982; Mantel & Kardes, 1999; Peltier & Schibrowsky, 1994; Brett *et al.*, 2003). The empirical study found that when the information style of advertising appeal matches the advertisement audience's style of handling information, the advertising message can be more persuasive (La Barbera *et al.*, 1998). Ruiz and alumni did the experimental study of three photo product print advertisements, in a 2*2*3 multi-variable experiment design; the results showed that the match between individual information handling style and the advertisement's emotional or rational style will lead to higher advertising persuasiveness, brand satisfaction and purchasing tendency. This implies that if the individual has high cognitive needs, rational advertising is better than emotional advertising. If the individual has high affective needs, emotional advertising is preferable to rational advertising (Ruiz, 2004).

The individual's needs might influence his/her behaviour, but not definitively. Up until now, few studies have analyzed the influence of individual's information handling style on preference of advertising appeal. In personality theory, personal information handling style can be divided into two kinds: sensing style and intuitive style (Kozhevnikov, 2007).

Sensing and intuition are information-gathering (or perceiving) functions. They describe how new information is understood and interpreted. Individuals who prefer sensing are more likely to trust information that is in the present, tangible and concrete. That is, information that can be understood by the five senses. They prefer to look for details and facts. For them, the meaning is in the data. On the other hand, those who prefer intuition tend to trust information that is more abstract or theoretical, that can be associated with other information (either remembered or discovered by seeking a wider context or pattern). They may be more interested in future possibilities. They tend to trust those flashes of insight that seem to bubble up from the unconscious mind. A sensing style individual can catch the rational information of the advertising appeal more easily.

Intuitive style refers to an individual's perception of the whole picture, relationship and the possibility of receiving more insight into the specific context and handling the abstract concept of meaning and its relationship. Compared with a sensing style person, an intuitive style person will pay more attention to the complicated synthesis beyond a huge amount of information, rather than simply sensing the information.

According to a recent study, the sensing-intuitive style of MBTI (Myers Briggs Type Indicator) is similar to the concrete-abstract style of Gregorc's & Kolb's perception part of personality theory (Kozhevnikov, 2007). The emotional information content related to youth, enthusiasm and living style are much more context-based and abstract, whereas rational

information content is much more specific and concrete. Hence the intuitive style individual is more sensitive to the emotional information content than the sensing style individual. Therefore, we can hypothesize the following:

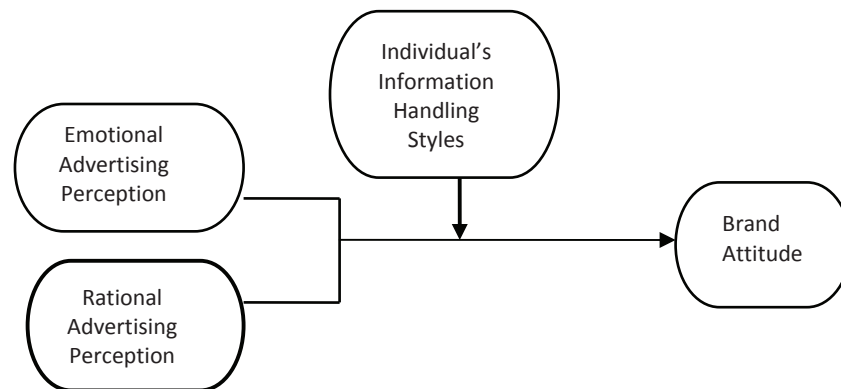
H3: In a mixed advertisement, the customer perception of the style of advertising appeal is influenced by the customer's information handling style.

H3.1: If the customer's information handling is sensing style, the perception of rational information will positively influence the brand attitude to a great degree.

H3.2 If the customer's information handling is intuitive style, the perception of emotional information will positively influence the brand attitude to a great degree.

The research framework of this study is presented in Figure 1, which means the perception of advertising appeal style will influence the brand attitude, and the customer's information handling style will modulate them.

**FIGURE 1
THE RESEARCH FRAMEWORK**



METHODOLOGY

The Background Information about “Qingqin 1+” Brand.

“Qingqin 1+” is an integrated telecommunication service brand. It was created by Chinese Telecom, one of the main telecommunication service suppliers in China. Given the background of the changes to the Chinese telecommunication industry in the recent past, competition in the services market became more aggressive, and Chinese Telecom found that telephone customer turnover was increasing. In 1996, in order to deal with this serious competition, the Chinese Telecom company innovated an integrated service production system combining fixed telephone service, internet access service, mobile phone service and other value-added services. These entirely new product packages were conceived under a single brand name, known as “Qingqin 1+”. The target customer of this brand was the family customer, and the brand launched its own print media advertising campaign (see figure 2). During 2007 and 2008, the advertising expenses of this brand in Beijing comprised more than 15 million RMB yuan.

Before beginning this empirical study of “Qingqin 1+”, we completed a pre-stage survey to determine the advertising style of “Qingqin 1+”. The survey was carried out in more than thirty samples, according to the criteria suggested by Flint-Goor & Liebermann (1996). As it turned out, the style of advertising belonged to the mixed advertising category. This was later confirmed by questionnaires of 307 additional samples.

Samples

From November to December 2009, we selected 32 typical telecommunication product stores from all the eight districts in Beijing and ran a random sample survey.

FIGURE 2
CHINESE UNICOM BRAND ADVERTISING: “FAMILY1+”



All the elements of the sample were asked the following questions: “Where did you learn about “Qingqin 1+?” and “Have you use Qingqin 1+ product before?” If the former answer is “No” and latter answer is “Yes”, the element was rejected from the sample. The total size of the samples was 404, and 307 questionnaires were accepted, with an effective response rate of 76.75%. Among them 53.1% were male, 46.9% were female, with the average age equal to 35.7 years.

Measurement

We used the brand attitude measurement suggested by Chan (1995) for the following questions: “What is your general attitude to “Qingqin 1+?”” and “To what degree do you like “Qingqin 1+?”” etc. (Chan, 1995). The Cronbach's Alpha index came out to 0.776.

The popularity of the Brand is measured by asking the following question: “To what degree have you been informed about the “Qingqin 1+?””. The Cronbach's Alpha index result was 0.753.

These variables were measured by using the Likert 7 scale, with the “1” standing for “strongly disagree” and “7” standing for “strongly agree”.

When measuring the emotional and rational perceptions of advertising appeal with the method suggested by Flint-Goor and Liebermann, the Cronbach's Alpha index came out to 0.805 and 0.792. The information handling style of the individual responder was measured by the 7 MBTI items suggested by Salter (Salter *et al.*, 1997) and included the feeling style and intuitive style. These two variables were calculated by comparing the categories score. The result is the category with the bigger number. All the data were processed using SPSS16.0 software.

DATA ANALYSIS

Effect of Individual's Information Handling Style on the Relationship Between the Advertising Perception and Brand Attitude

Firstly, we used Cronbach's Alpha index to test the measure of validity. By using the SPSS16.0 software, the Cronbach's Alpha index of the entire questionnaire was 0.823; all the sub-measurements Alpha indexes were above 0.70, which means that the validity was reasonable.

In order to test hypotheses 1 and 2, the popularity of the brand was used as a controlled variable. We then conducted the regression of brand advertising appeal on brand attitude. It

turned out that the brand popularity positively influenced the brand attitude in a significant way ($r=0.505$, $p<0.001$), and the perception of rational advertising appeal had no significant effect on brand attitude.

TABLE 1
INFLUENCE OF ADVERTISING STYLE PERCEPTION
ON BRAND ATTITUDE

Dependent	Brand Attitude	
	step 1	step 2
Positive brand awareness	.505***	.459***
Perception of the rational advertising style		.034
Perception of the emotional advertising style		.165***
R ²	.255	.286
Adjusted R ²		.021***
F	104.228***	40.412***

Notes: * $p<0.05$ ** $p<0.01$ *** $p<0.001$

Hence hypothesis 1 was rejected. However, the perception of emotional advertising appeal positively influenced brand attitude to a significant degree ($r=0.165$, $p<0.001$), hence the hypothesis 2 was accepted (see table 1).

We then tested hypothesis 3 (the moderator role of individual information handling style). First, the rational perceptions of the advertising and individual information handling style were mean-centred in order to reduce the multicollinearity between the main effect and the interaction variables (Aiken, 1991).

Then we used hierarchical linear regression in order to test the interaction hypotheses. Brand popularity was entered in step 1. In step 2, rational perception of the advertising and the individual's information handling style were entered at mean time.

TABLE 2
MODERATE EFFECT OF INDIVIDUAL'S INFORMATION HANDLING STYLE
BETWEEN RATIONAL ADVERTISING STYLE AND BRAND ATTITUDE

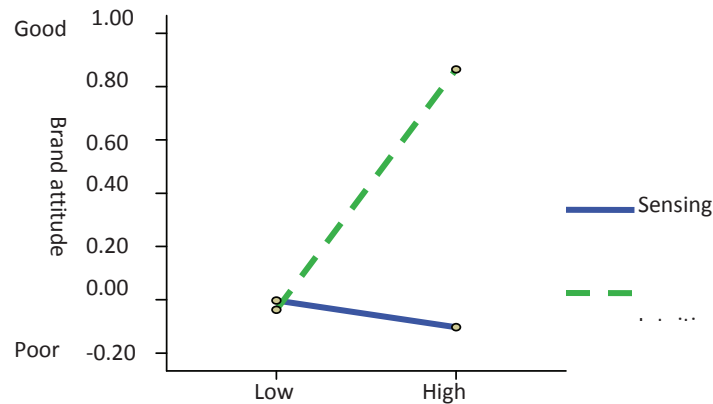
Dependent	Brand attitude		
	Step 1	Step 2	Step 3
Brand popularity	.505***	.470***	.455***
Rational perception of the advertising(X1)		.137**	.022
Individual's information handling style(X2)		.089	.237**
Interaction(X1*X2)			.256**
R ²	.255	.262	.274
Adjusted R ²		.15*	.014*
F	104.228***	37.290***	29.891***

Notes: * $p<0.05$ ** $p<0.01$ *** $p<0.001$

In step 3, the interactive variable was entered. The result showed that the interaction effect

was positively significant ($\beta=0.173$, $p<.01$). Table 2 summarizes the regression results and figure 3 demonstrates the pattern of the two-way interaction.

FIGURE 3
THE RATIONAL PERCEPTION OF ADVERTISING



The hypothesis 3.1 supports the fact that individual information handling style modulates the rational perception of advertising and the brand attitude.

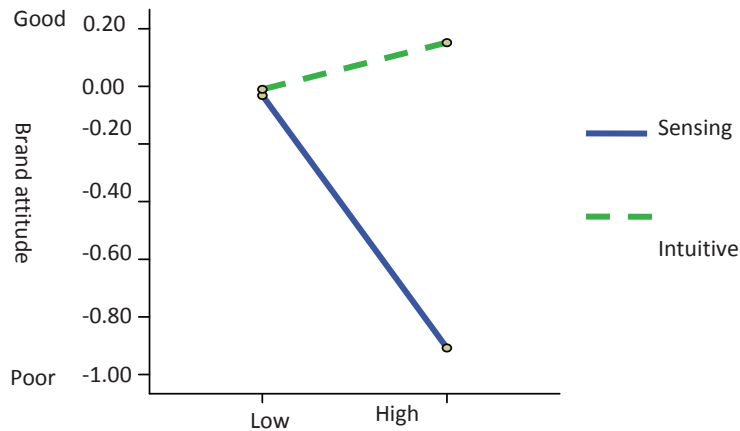
TABLE 3
MODERATE EFFECT OF INDIVIDUAL'S INFORMATION HANDLING STYLE
ON THE EMOTIONAL PERCEPTION OF BRAND ADVERTISING
AND BRAND ATTITUDE

Independent	Brand attitude		
	Step 1	Step 1	Step 1
Positive brand awareness	.505***	.456***	.432***
Rational perception of the advertising(X1)		-.076	-.142**
Individual information handling style(X2)		.217***	.092
Interaction(X1*X2)			.217**
R ²	.255	.289	.306
Adjusted R ²		.034***	.017***
F	104.228***	41.081***	33.335***

Notes: * $p<0.05$ ** $p<0.01$ *** $p<0.001$

Following the same method, it turns out that individual information handling style influences the emotional perception of advertising and brand attitude ($\beta=0.205$, $p<.01$). The regression result is summarized in table 3, and Figure 4 illustrates the pattern of the two-way interaction. The hypothesis 3.2 supports the fact that the individual's information handling style influences the emotional perception of advertising and the brand attitude.

FIGURE 4
THE EMOTIONAL PERCEPTION OF ADVERTISING



CONCLUSION AND MANAGERIAL SUGGESTIONS

Emotional advertising is better than rational advertising in promoting the telecommunication service brand. This result obtained in this study of a Chinese service brand corresponds to those coming from the previous studies on service advertising strategy. This study is one of the few existing for Chinese service bands.

The individual's information handling style can influence the relationship between the perception of advertising style and the attitude toward the brand. Intuitive style customers are more sensitive to the emotional content of advertising, and if they receive this kind of information, their attitude towards the brand will improve. On the other hand, sensing style customers prefer rational advertising content, and this type of content will help to lead to better brand attitude.

We suggest that even in the case of mixed advertising, individual information style is a key element in the process through which customers select some specific type of information. Brand attitude will be influenced by the specific information they receive. Therefore, advertising information style should be an important decision-making element for marketing managers. We find that the two kinds of information that co-exist have not hindered the way advertising contributes to the potential change in the customer's brand attitude. The mixed advertising style may be a good compromise in order to attract more populations, with individuals having different types of information handling, and it may be less risky strategy to attract both types at the same time.

One of the limitations of this study lies in the fact that we only analyzed one Chinese brand, coming from the telecommunication industry. In addition, all data are based on a self-reporting questionnaire. In the future, different types of data collecting methods should be considered to avoid common method bias (Podsakoff & Organ, 1986).

Acknowledgement: This study is supported by the Chinese Foundation of Sciences, project number: 23170872103. The authors thank the reviewers of IJCM for the suggestions and the comments they provided to revise this paper.

REFERENCES

Aaker, D. (1995). Building Strong Brands. New York: Free Press, Ninth Printing edition.

Aiken, L., Aiken, W. & <http://books.google.com/books?id=LcWLUyXcmnkC&dq=editions:ISBN0761907122&hl=zh-CN&sitesec=reviews>

Albers-Miller, N. & Stafford, M. (2007). International services advertising: an examination of variation in appeal use for experiential and utilitarian services, Journal of Child Health Care, 11 (4), pp. 323-340.

Andrew, A. (1986). The Effect of Verbal and Visual Components of Advertisements on Brand Attitudes and Attitude toward the Advertisement, Journal of Consumer Research, 13 (1), pp. 12-24.

Brett, A., Martin, B. & Wong, S. (2003). Conclusion Explicitness in Advertising: The Moderating Role of Need for Cognition (NFC) and Argument Quality (AQ) on Persuasion. Journal of Advertising, 32 (4), pp. 57-66.

Chan K. (1995). Information Content of Television Advertising in China, International Journal of Advertising, 14 (4), pp. 365-373.

Dens, N. & De Pelsmacker, P. (2010). Consumer response to different advertising appeals for new products: The moderating influence of branding strategy and product category involvement. Journal of Brand Management, 18, pp. 50-65.

Edson, E. & Stern, B. (2003). Sympathy and Empathy: Emotional Responses to Advertising Dramas. Journal of Consumer Research, 29 (4), pp. 566-578.

Emery, C. R., & Tian, R. G. (2003). The Effect of Cultural Differences on the Effectiveness of Advertising Appeals: A Comparison between China and the U.S. Journal of Transformation in Business and Economics, Vol. 2. No. 1 (3). pp. 48-59.

Emery, C. R., & Tian, K. R. (2010). China Compared with the US: Cultural Differences and the Impacts on Advertising Appeals, International Journal of China Marketing, Vol. 1(1), pp. 45-56.

Fisher, R. (2005). Gender Differences in Responses to Emotional Advertising: The Effect of the Presence of Others. Advances in Consumer Research. 31 (4), pp. 850-858.

Flint-Goor, A. & Liebermann Y. (1996). Message strategy by product-class type: A. Matching Model. Journal of Research in Marketing, 13, pp. 237- 249.

Geuens, M. & De Pelsmacker, P. (1997). Product Category Involvement and the Reaction of

Polish and Belgian Consumers to Different Types of Advertising Appeals. European Advances in Consumer Research, 3, pp. 33-41.

Gierl, H. & Praxmarer, S. (2007). The effects of a value-oriented advertising strategy on brand attitude. Der Markt, 46 (4), pp. 148-156.

Heath, R. & Feldwick, P. (2007). Fifty years using the wrong model of advertising. International Journal of Market Research, 50 (1), pp. 29-59.

Hofstede, G. (1980). Culture's Consequences: International Differences in Work-Related Value. Beverly Hills, CA: Sage Publications.

Katz, D. (1960). The Functional Approach to the Study of Attitudes. Public Opinion Quarterly, 24, pp. 163-204.

Keller, K. (1998). Strategic Brand Management. Prentice Hall. Upper Saddle River, NJ.

Kozhevnikov, M. (2007). Cognitive styles in the context of modern psychology: Toward an integrated framework of cognitive style. Psychological bulletin, 133 (3), pp. 464-481.

La Barbera, P., Weingard, P. & Yorkston, E. (1998). Matching the message to the mind: advertising imagery and consumer processing styles. Journal of Advertising Research, 38 (5), pp. 29-41.

MacKenzie, S. & Lutz, R. (1982). Monitoring Advertising Effectiveness: A Structural Equation Analysis of the Mediating Role of Attitude Toward the Ad. Working Paper No. 117, Centre for Marketing Studies, UCLA, Los Angeles, CA.

Mantel, S. & Kardes, F. (1999). The role of direction of comparison, attribute-based processing, and attitude-based processing in consumer preference. Journal of Consumer Research, 25 (March), pp. 335-52.

Moore, D., Harris, W. & Chen, H. (1995). Affect intensity: an individual difference response to advertising appeals. Journal of Consumer Research, 22 (2), pp. 154- 64.

Padsakoff, P. & Organ, D. (1986). Self-reports in organizational research: Problem and Prospects, Journal of Management, 12 (4), pp. 531-544.

Page, R. & Aaron, B. (2005). Age-Related Differences in Responses to Emotional Advertisements. Journal of Consumer Research; 2005, 32, pp. 343-354.

Peltier, J. & Schibrowsky, J. (1994). Need for cognition, advertisement viewing time and memory for advertising stimuli. Advertising Consumer Research, 21(1), pp. 244-50.

Percy, L., & Rossiter, J. (2006). A Model of Brand Awareness and Brand Attitude Advertising Strategies. Psychology and Marketing. 9 (4), pp. 263-274.

Petty, R. E., Cacioppo, J. T & Schumaun, D. (1983). Central and Peripheral Routes to Advertising Effectiveness: The Moderating Role of Involvement. Journal of Consumer Research, 10 (2), pp. 135-146.

Puto, C. P., and Wells, W. D. (1984). Informational and transformational advertising: The differential effects of time. Advances in Consumer Research. 11, pp. 638-643.

Ratchford, B. (1987). New insights about the FCB grid. Journal of Advertising Research. 27 (4), pp. 24-38.

Resnik A & Stern B. (1977). An Analysis of Information Content in Television Advertising. Journal of Marketing; 41 (1), pp. 50-53.

Ruiz, S. & Sicilia, M. (2004). The impact of cognitive and/or affective processing styles on consumer response to advertising appeals. Journal of Business Research. 57 (6): 657– 664.

Salter, D., Evans, N. & Forney, D. (1997). Test-retest of the Myers—Briggs Type indicator: An examination of dominant function. Educational Psychology Measurement. 57 (4):590-597.

Sojka, J. & Giese, J. (1997). Thinking and/or feeling: an examination of interaction between processing styles. Advertising Consumer Research. 24, pp. 438-442.