

The Moderating Roles of Involvement and Heuristics on Advertising Effectiveness: A Study of Financial Advertisements

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Abstract

This study investigates the effect of advertisement appeals and the moderating effects of involvement and heuristics of 50 financial advertisements on consumers' emotional/cognitive responses, attitude and purchase intention in Taiwan. The findings indicate that consumers tend to process their emotional responses first, followed by their cognitive ones when emotional appeals are dominant. However, the process is reversed when the cognitive messages are dominant. Between the two advertising approaches, emotional appeal is identified to produce greater explained variance in the advertising effectiveness. The findings also suggest that involvement can serve as a moderator to accelerate the influence of advertising appeal on consumer responses.

Keywords: Advertising Appeal, Attitude, Heuristics, Involvement, Response

JEL Classification: M37

1. Introduction

A survey by the Brain Magazine revealed the corporate spending on advertising in Taiwan has dropped. In 2008, a total of 10.11 billion NT

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dollars¹ was spent on advertising, a reduction of 8 per cent compared to the year 2007. One of the reasons cited for the cutback was the global economic downturn and the high cost of such promotions. Further, because of the rising advertising market in China and the development of the internet, many global retailers have increased their advertising budget in these two areas, i.e. in China and internet marketing. For example, in 2007, the spending on newspaper advertisements in Taiwan fell 7.5 per cent to 13.67 billion NT dollars, while spending on outdoor media declined 8.2 per cent to 3.3 billion NT dollars, and that in magazines was around 6.4 billion NT dollars (Industrial Development Bureau, Taiwan, 2009). Nevertheless, the use of print media with regard to its impact on attitudes towards advertising and the brand has received attention (Chowdhury, Olsen, & Pracejus, 2008).

According to Fay (2000), financial institutions are realising that their market share in the financial investment sector is shrinking due to the intense competition from the traditional banking and also from the securities and insurance companies. Since budgets and resources are often limited, the financial institutions need to utilise the available marketing tools at their disposal to at least retain their share in the financial sectors.

There is a growing body of advertising literature focusing on the different types of advertisement appeals: rational versus emotional (Wang, 2008; Li, Li, & Zhao, 2009). With regard to advertising, the attitude construct has been frequently used in advertising research as a dependent variable when examining consumers' responses to marketing stimuli (Berger & Mitchell, 1989); therefore, the development of responses and attitudes to advertisements is the main concern in this study. Further, involvement and heuristics are regarded as two important variables in determining whether consumers process messages through a central or peripheral route (Chen & Lee, 2008). Hence, the moderating effects of involvement and heuristics are included in this study to demonstrate how consumers are persuaded by the advertisements of banking services or products in Taiwan.

2. Literature Review and Hypotheses Development

2.1 Responses towards advertising appeals

The Elaborator Likelihood Model (ELM) suggests that the attitude of an individual is formed based on the theory of persuasive communication (Petty & Cacioppo, 1984). According to the ELM, the extent of elaboration

¹ 1US\$ \approx 29 NT\$ (as at 26 May 2011).

received from persuasive communication ranges from no thoughts about the relevant information to complete elaboration of every argument (SanJosé-Cabezudo, Gutiérrez-Arranz, & Gutiérrez-Cillan, 2009). In a central route situation, consumers are prone to focus on the issue-related information for their decision making. On the other hand, consumers tend to use cues or heuristics in a peripheral route situation (Chen & Lee, 2008).

Rational appeals address the consumers' functional needs in relation to a product or service (Mishra, 2009). On the other hand, emotional appeals are based on the feelings of enjoyment, fun or fear (Ramaswamy & Namakumari, 2002). Johar and Sirgy (1991) categorised rational appeal as following the functional congruity route, which has been described as similar to the central processing route in the ELM. In contrast, they referred to emotional appeal as utilising the self-congruity route, which is similar to what occurs in peripheral processing. Moreover, Bagozzi, Mahesh and Prashanth (1999) and Wang (2008) have stated that rational advertisements focus on factual information to evoke the consumer's cognitive responses to the advertised brands or organisations, while emotional advertisements are aimed at appealing to the consumer's emotional responses to the advertised brands or organisations. Based on the above discussion, this study proposes the following hypotheses:

- H1: Consumers who perceive an advertisement as having more emotional messages will have a greater emotional response to it.
- H2: Consumers who perceive an advertisement as having more rational messages will have a greater cognitive response to it.

2.2 Advertising appeal, response, and attitude formation

The extant literature presents inconsistent findings on whether emotional appeal is more effective than rational appeal (Li et al., 2009; Bang, Raymond, Taylor, & Moon, 2005; Batra & Ray, 1986; Aaker, Stayman, & Hagerty, 1986). Few studies reinforced the notion that the product type (Um, 2008) and the type of media used (Li et al., 2009) will influence the effectiveness of advertising appeals. Advertising appeals will also evoke emotions and form attitudes. For example, disgust appeals will cause a more negative attitude towards the advertisement (Dens, De Pelsmacker, & Janssens, 2008). Sexual appeals can influence the consumer's attitudes towards the advertisements (Liu, Cheng, & Li, 2009). Ruiz and Sicilia (2004) also noted that informational or emotional appeals can generate more positive attitudes

when they match the consumer's processing style. Based on this, we present the following hypotheses:

- H3a: Advertisement containing a high emotional appeal will result in more favourable attitude towards the advertisement.
- H3b: Advertisement containing a high rational appeal will result in more favourable attitude towards the advertisement.

Attitude towards the advertisement is defined as a person's tendency to respond in a consistently favourable or unfavourable manner to the advertising stimulus (Pashupati, 2003; MacKenzie & Lutz, 1989), and the construct has been identified to be a significant mediator of advertising effectiveness. As mentioned, two kinds of responses can be evoked based on the different types of appeal (i.e. emotional and cognitive). There is evidence that emotional responses to an advertisement lead to both attitude towards both advertisement and brand (Janssens & De Pelsmacker, 2005; Jun, Cho, & Kwon, 2008; Chowdhury et al., 2008). Similar to emotional response, the influence of cognitive responses to advertisement on attitude towards both advertisement and brand have been widely reported (Janssens & De Pelsmacker, 2005; Li et al., 2009; Jun et al., 2008; Martin, Wentzel, & Tomczak, 2008).

Coulter and Punj (2004) suggested that consumers are likely to form their attitudes towards the brand by heuristics cues (Eagly & Chaiken, 1993) or other less demanding form of processing messages (i.e. peripheral, such as the emotional response that we proposed in H1) when the likelihood of elaboration is low. Conversely, consumers are likely to generate more brand-related thoughts, or form a brand attitude by more demanding form of processing messages (i.e. central, such as the cognitive response that we proposed in H2) when the likelihood of elaboration is high. Based on the above discussion, we thus propose the following hypotheses:

- H4: Emotional response will be positively related to the attitude towards the advertisement.
- H5: Cognitive response will be positively related to the attitude towards the advertisement.
- H6: Emotional response will be positively related to the attitude towards the brand.
- H7: Cognitive response will be positively related to the attitude towards the brand.

2.3 *Cognitive and emotional responses*

Cognitive responses refer to beliefs, judgments or thoughts associated with an attitude; whereas, affective responses refer to the emotions or feelings associated with the attitude (Harben & Kim, 2010). Schachter and Singer (1962) proposed that cognition influences affect to give meaning. However, some researchers suggest that the affective construct precedes cognition (Chang, 2008; Bower, 1991; Mathur & Chattopadhyay, 1991). In order to investigate this relationship, Flint, Hernandez-Marrero and Wielemaker (2005) undertook a research which focused on affective and cognitive responses to different conditions of procedural and distributive justice, but did not find any conclusive evidence. Given the lack of agreement in this area, the following two hypotheses are presented:

H8a: Consumers who have a greater cognitive response to the advertisement will have a higher emotional response.

H8b: Consumers who have a greater emotional response to the advertisement will have a higher cognitive response.

2.4 *Attitude towards the advertisement, attitude towards the brand, and purchase intention*

The attitude towards the advertisement is an important factor in consumer behaviour. Brown and Stayman (1992) proposed the Dual Mediation Hypothesis (DMH), and indicate that attitude towards the advertisement influences the attitude towards the brand both directly and indirectly through its effects on brand cognition and purchase intentions. In line with this argument, many studies showed empirical evidence that advertisement could give consumers a positive feeling about the brand (Pashupati, 2003; Dens et al., 2008; Liu et al., 2009; Black, Organ, & Morton, 2010). Similarly, Dimitris, Adam, and Ioannis (2007) made a study on mobile phone advertisement and indicated that consumers' attitude towards SMS advertisement directly influences their attitudes towards the brand, as well as their purchase intention. Based on these earlier studies, the following hypotheses are proposed:

H9: Attitude towards the advertisement has a positive relation with attitude towards the brand.

H10: Attitude towards the brand has a positive relation with purchase intention.

2.5 *The moderating roles of involvement and heuristics*

According to the ELM, there are two ways of attitude changes. The central route describes the process of attitude change when the level of message-relevant thinking is high, and the peripheral route describes attitude change when the level of such thinking is low (Voss, Spangenberg, & Grohmann, 2003; Petty, Cacioppo, & Schumann, 1983). Consumer involvement can be regarded as an important factor of motivation to process information (MacInnis, Moorman, & Jaworski, 1991), as highly involved individuals are more likely to evaluate the advertisement through message-relevant thinking and form stronger attitudes towards it (Petty & Cacioppo, 1986; Voss et al., 2003; Dens et al., 2008).

In addition to involvement, highly heuristic individuals tend to evaluate the advertisement through the heuristics or peripheral cues (Coulter & Punj, 2004). Morris, Woo, Geason, and Kim (2002) stated that emotion has been accepted, at the general level, as a peripheral route in a number of studies on advertising. In addition, many researchers suggested that when shoppers' experiences generate favourable emotions, the related thoughts may act as heuristic cues and be accompanied by heuristic rules (Chaiken, Liberman, & Eagly, 1989; Chen & Chaiken, 1999). Based on this discussion, the moderating effects of involvement and heuristics are hypothesised as follows:

H11: The positive relationship between rational appeal and cognitive response will be stronger for individuals with higher level of involvement.

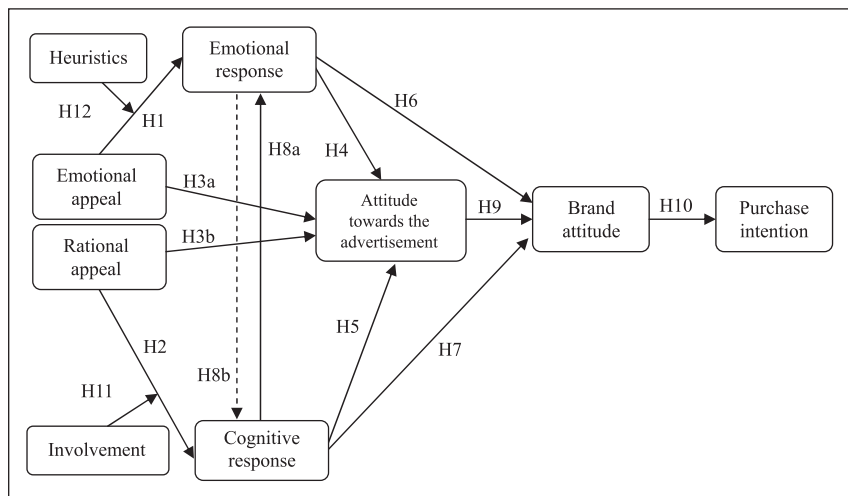
H12: The positive relationship between emotional appeal and emotional response will be stronger for individuals with higher level of heuristics.

3. Research Design and Methodology

3.1 *Construct measurement*

This study's hypotheses are measured using seventy-one (71) measurement items. These items are divided into nine (9) parts: advertising appeal (13 items), emotional response (10 items), cognitive response (10 items), involvement (10 items), heuristics (4 items), attitude towards the advertisement (7 items), attitude towards the brand (6 items), purchase intention (5 items), and personal information (6 items). These measurements are adopted from an extensive review of previous studies (Moriarty, 1991;

Figure 1: Research model



Watson, Clark, & Tellegen, 1988; Zaichkowsky, 1994; Chang, 2007; Mehrabian & Russell, 1974; Plutchik, 1980; Hansen, 2005; Thayer, 1978; Jun et al., 2008; Crites, Fabrigar, & Petty, 1994; Smith, Haugtvedt, Jadrach, & Anton, 1995; Dudley, 1999; LaTour & Henthorne, 1993; Bower & Landreth, 2001). In order to fit the purpose of this study, we reworded several of the items used in the previous studies. The source of measurement scales and the final version of the questionnaire items are shown in the Appendix.

3.2 Samples and procedure

The magazines selected for the study are well-known financial and management magazines in Taiwan, namely, Business Weekly, Smart, Manager Today, Business Next, Common Wealth, Business Today, 30 Magazine, and Management Magazine. The fifty (50) selected samples² were actual advertisements that appeared in these magazines and focused on products and services from seventeen (17) banks. Before conducting the formal survey, a manipulation check on these advertisements was made, and the results showed that half of them represented rational appeals and the other half represented emotional ones. The survey was conducted by using online questionnaires. A total of three hundred and sixty five (365)

² For the details of the fifty (50) advertisements selected for this study, please refer to <http://picasaweb.google.com/snowbig3136>.

participants filled out the questionnaire; three hundred and twelve (312) of which were valid responses.

4. Results and Discussion

4.1 *Characteristics of respondents*

The three hundred and twelve (312) respondents were divided about evenly between males and females. Approximately 79 per cent of the respondents were between twenty (20) and thirty nine (39) years old. In addition, 27.9 per cent of the respondents were students, and 34.3 per cent of the respondents were from the commerce and service industry. More than 57 per cent of the participants had a college degree, and 37.8 per cent had a graduate degree. Approximately 47 per cent of the participants had a monthly income of between 20,001 NT dollars³ and 50,000 NT dollars.

4.2 *Factor and reliability analyses*

The results shown in Table 1 indicated that after purification, the factor loadings for all factors were greater than 0.627, item-to-total correlation coefficients were greater than 0.459, and Cronbach's Alpha coefficients were greater than 0.723, demonstrating acceptable dimensionality and reliability. This study used the factor score to compute the weight of each measurement item for all the research factors to conduct further hypotheses testing. While exploratory factor analysis (principal component analysis) was applied to explore the structure of the data and ensure dimensionality, confirmatory factor analysis was applied to assess the construct validity and reliability of the proposed model (Hair, Black, Babin, Anderson, & Tatham, 2006). In terms of the absolute fit measures, the traditional chi-square was 1,134.278 with 600 degrees of freedom, which indicated a quotient of 1.890. The Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI) and Comparative Fit Index (CFI) reached 0.847, 0.811 and 0.955 respectively. The Root Mean Square Error of Approximation (RMSEA) was 0.054, which indicated a good fit. The results in Table 1 also showed that the variance extracted by each latent factor was higher than 0.5, which suggested adequate convergence. All the composite reliability values for the factors were higher than 0.7, which was considered as representing good reliability (Fornell & Larcker, 1981). Furthermore, the variance-extracted per centum for factor one (1) was only 20.851 per cent in the

³ 1US\$ \approx 33 NT\$

Table 1: Factor Analysis, Reliability Test and Confirmatory Factor Analysis

Research factor	Factor analysis			Confirmatory factor analysis			
	Items	Factor loading	Cronbach's α	Items	Factor loading	Variance extracted	Composite reliability
Emotional appeal	4	.774-.860	.868	4	.703-.852	.661	.886
Rational appeal	6	.717-.858	.921	4	.814-.863	.611	.864
Emotional response	9	.715-.894	.948	4	.863-.913	.785	.936
Cognitive response	9	.720-.856	.928	4	.769-.814	.638	.876
Attitude towards the advertisement	7	.627-.900	.916	4	.794-.862	.690	.899
Brand attitude	6	.849-.918	.948	5	.844-.926	.767	.947
Purchase intention	5	.903-.953	.958	5	.867-.930	.811	.955
Involvement	10	.791-.895	.961	6	.860-.903	.779	.955
Heuristics	4	.627-.900	.723	2	.741-.810	.603	.752

exploratory factor analysis, and each of the variance-extracted estimates was greater than the corresponding inter-factor squared correlation estimates, indicating satisfactory discriminant validity (Fornell & Larcker, 1981).

4.3 Hypotheses testing

4.3.1 Causal relationships among the research constructs

Table 2 shows the regression weights for all models used in this study. Models 1 and 2 were based on the advertisements with emotional appeals, while Models 3 and 4 were based on those with rational ones. As illustrated in Models 1 and 2, advertisements that contained more emotional appeals would evoke greater emotional responses ($\beta=0.762\sim0.846$, $p<0.001$); thus, H1 was supported. Subsequently, advertisements using more emotional appeals would lead consumers to have a more favourable attitude towards them ($\beta=0.447$, $p<0.001$), and H3a was thus supported.

Moreover, Models 3 and 4 indicated that when rational appeal was emphasised in advertisements consumers tended to have a greater cognitive response to them ($\beta=0.792\sim0.884$, $p<0.001$); H2 was supported. On the contrary, rational advertisements did not cause consumers to have a more favourable attitude ($\beta=-0.020$, $p>0.05$), and there was no direct effect between rational appeal and attitude towards the advertisement. H3b was thus not supported.

Table 2: Comparisons of Consumer Responses Under Different Types of Advertising Appeals

Path	Model 1	Model 2	Model 3	Model 4
Emotional appeal → Emotional response	.762***	.846***		
Emotional appeal → Cognitive response	.689***	.497***		
Rational appeal → Emotional response			.198	.598***
Rational appeal → Cognitive response			.884***	.792***
Emotional response → Cognitive response		.226*		.154**
Cognitive response → Emotional response	.122*		.453**	
Emotional appeal → Attitude toward the Ad.	.447***	.447***		
Rational appeal → Attitude toward the Ad.			-.020	-.020
Emotional response → Attitude toward the Ad.	.331***	.331***	.594***	.594***
Cognitive response → Attitude toward the Ad.	.199***	.199***	.365**	.365**
Emotional response → Attitude toward brand	.082	.082	.139*	.139*
Cognitive response → Attitude toward brand	.349***	.349***	.349***	.349***
Attitude toward the ad → Attitude toward brand	.534***	.534***	.470***	.470***
Attitude toward brand → Purchase intention	.772***	.772***	.772***	.772***
Chi-square	601.836	601.836	704.619	704.619
Degree of freedom	268	268	280	280
χ^2 / df	2.246	2.246	2.516	2.516
GFI	.876	.876	.860	.860
CFI	.960	.960	.950	.950
NFI	.930	.930	.920	.920
RMSEA	.063	.063	.070	.070

Note: * Significant at 0.05 level.

** Significant at 0.01 level.

*** Significant at 0.001 level.

In addition, the results indicated that if consumers had a greater emotional response for an advertisement, they tended to have a more favourable attitude towards the advertisement ($\beta=0.331\sim 0.594$, $p<0.001$) and the brand ($\beta=0.082$, $p>0.05\sim 0.139$, $p<0.01$), and thus H4 was fully supported. However, H6 was only supported when rational appeal was emphasised in advertisements, and there was no direct effect of emotional response on attitude towards the brand with an emotional appeal. Further, if consumers showed a greater cognitive response to the advertisement, they tended to reflect a favourable attitude for the advertisement ($\beta=0.199\sim 0.365$, $p<0.001$) and the brand ($\beta=0.349$, $p<0.001$), supporting both H5 and H7. Furthermore, attitude towards the advertisement was positively related to attitude towards the brand ($\beta=0.470\sim 0.534$, $p<0.001$),

and attitude towards the brand was positively related to purchase intention ($\beta=0.772, p<0.001$), supporting both H9 and H10.

Finally, for the causal relationship between emotional and cognitive responses, the results were dramatically different according to the type of advertising appeal used. As shown in Models 1 and 2, when emotional appeal was dominant in the advertisement, the influence of cognitive response on emotional response was significant ($\beta=0.122$). Additionally, the influence of emotional response on cognitive response was stronger ($\beta=0.226$). On the other hand, Models 3 and 4 showed that when rational appeal was dominant in the advertisement, the influence of cognitive response on emotional response was significant ($\beta=0.453$). Moreover, the influence of emotional response on cognitive response was also significant ($\beta=0.154$). H8a and H8b were thus supported.

4.3.2 The moderating effects of involvement and heuristics

To analyse the moderating effect of involvement on the influence of rational appeal, this study divided the factor score of involvement into two (2) groups, high and low, by using the mean value as the cut-point for the relevant path. Multiple group analyses were then conducted. Firstly, this study developed a baseline (unconstrained) model, while the second model was constrained with the invariance between two (2) groups. The difference of the χ^2 value between two (2) models was used to see whether the added constraint significantly diminished the fit (Hair et al., 2006). The results shown in Table 3 indicated that the baseline model had $\chi^2(610)=1199.319$, while the constrained model for involvement had $\chi^2(611)=1203.538$. There was a significance difference between these two (2) models ($\Delta\chi^2=4.219, \Delta df=1, p=0.040$). Therefore, we rejected the null hypothesis of H11 and concluded that there was a significant difference for the positive effect of rational appeal on cognitive response under high ($\beta= 0.896, p<.001$) and low ($\beta= 0.717, p<.001$) involvement. H11 was thus supported.

Similarly, to examine the moderating effect of heuristics, the baseline and constrained models with two (2) groups of high/low heuristics were examined. Table 3 also indicated that the baseline model had $\chi^2(608)=1470.806$, while the constrained model had $\chi^2(609)=1472.300$. Even though the baseline one had better fit, there was no significance for the difference between these two (2) models ($\Delta\chi^2=1.494, \Delta df=1, p=0.221$). Therefore, we could not reject the null hypothesis of H12, and thus concluded that there was no significant difference for the positive effect of emotional appeal on emotional response under high and low heuristics.

Table 3: Moderating Effects of Heuristics and Involvement

Path	Involvement		Heuristics	
	High	Low	High	Low
Baseline model	$\chi^2(610)=1199.319$		$\chi^2(608)=1470.806$	
Constrained model	$\chi^2(611)=1203.538$ $\Delta\chi^2(1)=4.219, p=0.040$		$\chi^2(609)=1472.300$ $\Delta\chi^2(1)=1.494, p=0.221$	
RAA → COR	$\beta_{HI} = .896^{***}$	$\beta_{LI} = .717^{***}$		
EMA → EMR			$\beta_{HH} = .900^{***}$	$\beta_{LH} = .813^{***}$

Note: RAA=Rational appeal; COR=Cognitive response; EMA=Emotional appeal; EMR=Emotional response.

* Significant at 0.05 level.

** Significant at 0.01 level.

*** Significant at 0.001 level.

5. Conclusions and Suggestions

5.1 Research conclusions

Several conclusions can be made based on the results of this study. Firstly, the level of emotional appeal has a positive impact on emotional response, while the level of rational appeal positively affects cognitive response. These results verify the concept that emotional advertisements are aimed at appealing to the receiver's emotional responses, while rational ones are aimed at appealing to the rationality of the receivers and evoking their cognitive responses (Bagozzi et al., 1999; Wang, 2008). In addition, our study also shows that the influence of emotional appeal is stronger on emotional rather than cognitive response, while the reverse is true for the influence of rational appeal.

Secondly, the literature is inconclusive as to whether emotional appeal is more effective than rational appeal, or vice versa (Batra & Ray, 1986; Aaker et al., 1986). From the results of this study, emotional appeal causes consumers to have more favourable attitudes towards financial advertisements. This result is consistent with the argument made by Ruiz and Sicilia (2004) that emotional appeals can generate more favourable attitudes towards the advertisement. However, there is no significant direct influence of rational appeal. Consumers must have cognitive responses first in order to form a more favourable attitude. In addition, the consumer's emotional response has a significant influence on attitude towards both advertisement and brand. These results are consistent with previous studies which have demonstrated the effect of emotional response on attitude

towards the advertisement (Janssens & De Pelsmacker, 2005; Jun et al., 2008; Chowdhury et al., 2008). The results also show that cognitive response has a significant influence on attitude towards the advertisement and brand. The findings of this study are consistent with those in Jun et al. (2008) and Li et al. (2009). With regard to the relationships among attitude towards the advertisement, attitude towards the brand and consumer purchase intention, this study finds that attitude towards the advertisement is positively related to attitude towards the brand, and consequently affects purchase intention. These findings confirm those in Dimitris et al. (2007).

Thirdly, emotional responses and cognitive responses influence each other. When the rational appeal is dominant, the influence of cognitive response on emotional response is stronger than the influence of emotional response on cognitive response.

The fourth conclusion relates to the validation of the moderating effects of involvement and heuristics in this study. The results indicate that the positive influence of rational appeal on response is stronger for consumers with a higher level of involvement. This result confirms the central route of the Elaboration Likelihood Model (Petty et al., 1983), which claims that in a high involvement situation, consumers tend to evaluate advertisements through message-relevant thinking. Although the directional moderating effect of heuristics is confirmed, the statistical test is not significant. This result is different from those of previous studies, which suggested that consumers' experiences may generate more favourable emotions through heuristics cues (Chen & Chaiken, 1999; Chaiken et al., 1989). One of the possible reasons for this may be the sample profile used in this study, with the majority of the respondents aged between 20 and 39. At this stage in life, the main aims for most people are to find a good job and earn a good living, and thus they may focus more on the practical elements in advertising, such as the benefits or monetary rewards that banks offer with their services. Furthermore, with regard to the product attributes, bank products are normally related to financial investments, and a higher level of information processing is required when consumers select such items. However, we acknowledge that these variables may still be influential factors for information processing, and this issue is subject to further validation in future studies.

5.2 Implications

This study utilises the Elaboration Likelihood Model in investigating the effectiveness of advertising appeal. Based on the principles of ELM principles, it is expected that both the central and peripheral routes to

persuasion are possible. The major academic contribution of this study is that it verifies that both informational and emotional appeals can generate more attitude, which also leads to purchase intention, when they match the consumer's processing style. The levels of consumer involvement can leverage the influence of advertising appeals on their responses. The results of this work also widen the opportunities for further research in a domain that is of growing theoretical and practical importance.

Several managerial implications can also be drawn from this study. In order to increase the effectiveness of advertising in the banking industry, the results of this study suggest that an advertisement that produces an emotional appeal is better than one that invokes rational appeal, as the former will increase the level of favourable attitude towards the advertisement. However, if the aim of marketing is to create a favourable brand attitude towards the bank, then utilising rational appeal seems to be a more effective approach.

Furthermore, it is also important to increase both the emotional or cognitive responses of consumers. To evoke the former, advertisements should carry more emotional messages, such as using the images of celebrities, illustrating prosperous lives or the high quality services provided by the bank. In addition, to induce consumers' cognitive responses, advertisements should focus on factual information by embedding the benefits of a product, such as information about its quality, price, features (Muller, 1991), and other benefits (Kotler & Armstrong, 1994). For a bank, such benefits could be high savings interest rate and updated market analysis, or even favourable comparisons with other banks.

5.3 Limitations and future research directions

Several limitations of this study are noted. The first limitation relates with the financial advertisements used in the present study. Although the use of actual advertisements increased the realism of this work (Smith et al., 1995), it may have lead to some biasness due to the respondents' inherent preferences for certain brands. Accordingly, it is suggested that future research can work with a large number of advertisements for one company from different periods to avoid problems associated with brand preferences. Secondly, the construct of heuristics in the study includes four types of heuristics, which are availability, anchoring, adjustment, and affect heuristics. However, Finucane, Alhakami, Slovic and Johnson (2000) suggest that consumers' reliance on the affect heuristics seems to be exposed more clearly when their opportunity for analytic deliberation is reduced. Therefore, to investigate the moderating role of heuristics, the term of affect

heuristics may be more suitable. Thirdly, as this study used convenience sampling via e-mail invitation and web-based questionnaire, there may be problems with the representativeness of the sample and the generalisability of the findings.

Another direction for future research is the application of new media. New media is viewed as new interactive communication forms that have been developed by the creative use of technology. Further, the service-dominant logic of marketing (Vargo & Lusch, 2004) suggests that traditional firm-, product- or brand-oriented measures of advertising effectiveness are inadequate in capturing the degree to which audiences derive value from the experience of co-producing or co-creating meaning, brand identification and/or entertainment. Accordingly, it is suggested that future research is needed to assess how advertising effectiveness can be promoted by enhancing the pleasure or fulfillment consumers derive from their interaction with advertisements.

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Appendix 1: The questionnaire items used in this study

Advertising Appeal: adopted from Moriarty (1991) and Watson et al. (1988)

Emotional Appeals

- (1) Enthusiastic
- (2) Humor
- (3) Inspire
- (4) Alert
- (5) Proud
- (6) Adventure

Rational Appeals

- (7) Quality
- (8) Ease of use
- (9) Multiple-use
- (10) Profitable
- (11) Convenience
- (12) Safety
- (13) Time-saving

Involvement: adopted from Zaichkowsky (1994)

- (1) Unimportant – Important
- (2) Boring – Interesting
- (3) Irrelevant – Relevant
- (4) Unexciting – Exciting
- (5) Means nothing – Means a lot to me
- (6) Unappealing – Appealing
- (7) Mundane – Fascinating
- (8) Worthless – Valuable
- (9) Uninvolving – Involving
- (10) Not needed – Needed

Heuristics: adopted from Chang (2007)

- (1) I make purchasing decisions based on the results of past experiences
- (2) I make purchasing decisions based on my intuition
- (3) I make purchasing decisions based on comparisons to a reference
- (4) I make purchasing decisions based on my feelings about advertisement

Emotional Response: adopted from Mehrabian & Russell (1974), Plutchik (1980), Hansen (2005), Watson et al. (1988), Thayer (1978)

- (1) Excited
 - (2) Pleasure
 - (3) Comfortable
 - (4) Happy
 - (5) Surprised
 - (6) Aroused
 - (7) Hopeful
 - (8) Vigorous
 - (9) Amusement
 - (10) Relief
-

Appendix 1: The questionnaire items used in this study (Continued)

Cognitive Response: adopted from Jun et al. (2008) and Crites et al. (1994)

- (1) Useful
- (2) Beneficial
- (3) Safe
- (4) Perfect
- (5) Familiar
- (6) Recognize
- (7) Focus
- (8) Complex
- (9) Unique
- (10) Curious

Attitude toward the advertisement: adopted from Smith et al. (1995), Dudley (1999), and LaTour & Henthorne (1993)

- (1) Distinctive
- (2) Interesting
- (3) High quality
- (4) Appealing
- (5) Attention
- (6) Effective
- (7) Good

Attitude toward the brand: adopted from Smith et al. (1995), Dudley (1999), and LaTour & Henthorne (1993)

- (1) Distinctive
- (2) Appealing
- (3) High quality
- (4) Satisfactory
- (5) Beneficial
- (6) Good

Purchase Intention: adopted from Bower & Landreth (2001)

- (1) I am eager to check out the product because of this advertisement
 - (2) I intend to try this product
 - (3) I am interested in seeing how the product helps me
 - (4) I plan to buy this product
 - (5) I would consider purchasing this product
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