Department of Communication Studies Journal Articles

Department of Communication Studies

2015

How consumers perceive environmental advertising in the banking context

Kara Chan
Hong Kong Baptist University, karachan@hkbu.edu.hk

Fei Fan
Hong Kong Trade Development Council, fanfei3624@hotmail.com

APA Citation

How consumers perceive environmental advertising in the banking context

Kara Chan
(Corresponding author)
Professor
Department of Communication Studies
Hong Kong Baptist University
Tel: (852) 3411 7836   Fax: (852) 3411 7890
Email: karachan@hkbu.edu.hk

Fei Fan
New Media Executive
Hong Kong Trade Development Council
Tel: (852) 54293769
Email: fanfei3624@hotmail.com

AJBR bank ad R2.doc
June 3, 2015

How consumers perceive environmental advertising in the banking context

Kara Chan
Hong Kong Baptist University

Fei Fan
Hong Kong Trade Development Council

Abstract

A study was conducted to investigate how consumers respond to banking advertisements with environmental claims. The study adopts a 2×2×2 factorial design. Altogether 195 participants in Hong Kong, China, were asked to read an advertisement of either a well-known or a lesser-known bank, featuring either a global or a local environmental issue, and containing a substantive or an associative environmental claim. The advertisement featuring global warming generated more favorable attitudes toward the advertisement than the ad featuring air pollution in Hong Kong. Use of a substantive claim was able to generate a more favorable advertising effect than use of an associative claim. Advertising effectiveness was higher among participants who were more concerned about the environment. Lesser-known banks have the potential to leverage on environmental advertising. They should choose environmental issues with significant impact and adopt substantive claims. This is the first experimental study on effectiveness of environmental advertising used in the banking context.

Keywords: advertising effect, consumer perceptions, experimental design

Introduction

As consumers become increasingly conscious of the impact of their consumption behaviors on the environment, companies are eager to establish trust and positive brand image among them by using environmental advertising (Davis, 1994). Environmental advertising has been used mainly for products (Polonsky *et al*., 1998). In the past decade, the services industry began to adopt environmental advertising to enhance consumers' acceptance of its intangible offerings (Conlin, 2000). Several studies have examined the effectiveness of advertisements with environmental claims using experimental design. Review of the literature found that environmental claim type, the source country's green image, and product involvement were significant factors in influencing consumers' responses to environmental advertising (Chan, 2000; Chan *et al*., 2006; Hu, 2012). It is not known how environmental issue and product brand name may have impact on communication effectiveness of environmental advertising. When an advertiser considers using corporate green advertising, which environmental issue should be featured? Is featuring a global issue more effective than featuring a local issue? Will a company well-known among consumers benefit

more from environmental advertising or a company lesser-known among consumers benefit more from environmental advertising? Davis (1993) suggested that environmental claims should be specific, substantiated, and free from technical jargon. What is the difference in consumers' response to environmental advertisements using substantive or associative claims? Answers to these questions will help advertisers in developing effective communication strategies leveraging on perceived environmental contributions.

Literature Review

Environmental Advertising

Environmental advertising in the current study refers to the advertisements that use environmental claims as the central message. Davis (1993) recommended that environmental claims should follow six guidelines, namely: communicating a benefit that will help the environment; identifying the products' specific benefit; providing specific data; providing a context for evaluating the promoted environmental attributes; providing definitional support for technical terms; and providing explanation of the product attributes that result in an environmental benefit. Carlson *et al*. (1993) devised four types of information in environmental advertising, namely: the product orientation; the process orientation; the image orientation; and the environmental fact. Ottman (1993) proposed that providing concrete information on the effort made by an organization in the process of production and the environmental attributes of the final product can be considered as 'substantive claims'. On the other hand, presenting a company as having a green image without justification of tangible information can be considered as 'associative claims' (Chan, 2000). Associative claims attempt to establish an environmentally friendly impression for an organization by linking it with positive environmental information without direct mention of a specific contribution to ecological well-being (Carlson *et al*., 1996).

Effectiveness of Environmental Advertising

Most of the studies examining effectiveness of environmental advertising employed experimental design. Chan (2000) conducted a 4x2 experiment to examine how type of environmental claim of a product (a shampoo) and the green image of the source country affect the communication of environmental advertising. Altogether 800 subjects from Guangzhou participated in the study. The four types of environmental claims tested were product orientation, process orientation, image orientation, and environmental fact. Results found that environmental claim type and the source country's green image had significant influence on effectiveness of the advertisements. For the subgroup of "eco-friendly image", substantive claim types (product orientation, process orientation) were significantly superior to associative claim types (image orientation, environmental fact) in generating positive attitudes toward the advertisements as well as brand attributes. For the subgroup of "eco-unfriendly image", only the associative claim (not image orientation) of environmental fact was significantly superior to the two substantive claim types (product orientation, process

orientation) in generating positive attitudes toward the advertisements as well as brand attributes.

Chan *et al*. (2006) conducted a 2x3 experiment to examine how green image of the source country and type of environmental claim of two services (hotel and fast food) affect the communication of environmental advertising. Altogether 1,200 subjects from Shanghai participated in the study. The types of environmental claims include substantive claim, associative claim, and no claim. Results found that overall speaking, use of substantive claims generated more favorable consumer responses than associative claims. The perceived image of eco-friendliness of the advertiser demonstrated a moderating effect on the claim type-effectiveness relationship.

Davis (1994) conducted a 2x3 experiment to examine consumers' attitudes toward environmental advertising. Two levels of prior perceptions of corporate environmental concern (positive and negative) crossed with three levels of corporate environmental messages (money, resources, and company specific). Results found that the money and company specific environmental messages were more successful than the resources message in generating positive responses. When consumers believed that the company was concerned about the environment, the company specific message generated the most positive response. When consumers believed that the company was not concerned about the environment, the money-focused message generated the most positive response.

Hu (2012) found that an advertisement with a substantive claim elicited more positive responses than an advertisement with an associative claim. Also, a self-expressive benefit generated more positive responses than a nature-related benefit. There is a difference in responses to hotel's environmental advertisements between high-involvement consumers and low-involvement consumers.

Han and Chan (2014) conducted a 2x2 experiment to examine consumers' responses to two hotel advertisements using environmental claims. Regarding advertising effectiveness, there was a main effect of hotel, and an interaction effect of hotel and environmental issue. Advertising effect was more favorable for participants reading the Hilton (a well-known hotel) ad than the Ibis (a lesser-known hotel) ad. For participants reading the Hilton ads, they demonstrated similar advertising effect irrespective of the environmental issue featured. For participants reading the Ibis ads, the ad featuring energy saving measure were perceived more effective than the ad featuring no single-use consumables.

Other studies used surveys to collect consumer responses. Chan (2004) surveyed 914 Chinese consumers in Beijing and Guangzhou and found that 82 percent and 68 percent of the respondents reported previous exposures to print and broadcast advertisements with environmental claims respectively. They considered print environmental ads more favorably than broadcast environmental ads. Perceived credibility of the environmental claim, relevance of the product to daily lives, education level of respondents, and media type were found to have impact on consumers' purchase intention (Chan, 2004).

To conclude, use of substantive claims in environmental advertising was found to be

more successful in generating positive consumer responses than use of associative claims. Environmental advertising works more effectively among consumers with higher concern about the environment. It was not known how the brand name of the advertiser and the environmental issue featured in the advertisement influence the advertising responses. The current study attempts to fill this gap.

Research Objectives and Hypotheses

This study aims to investigate how the bank's brand name, environmental issue featured in the advertisement, and type of environmental claim influence consumers' responses, including attitudes and purchase intentions. The results will help bank marketers to design appropriate corporate environmental advertising strategies to establish brand equity among the target audience.

The current study was inspired by the social judgment theory (Sherif and Hovland, 1961, 1964; Sherif et al., 1965). According to the social judgment theory, when a highly involved person is exposed to a message that is consistent with his or her opinion, he or she will perceive the message more positively. The reaction is labeled as an assimilation effect. Similarly, the theory posits that when a highly involved person is exposed to a message that is inconsistent with his or her opinion, he or she will perceive the message more negatively. The reaction is labeled as a contrast effect.

In view of the social judgment theory and the literature discussed above, we expect that when a consumer encounters an environmental message from an advertiser that he or she is familiar with, the consumer will find congruency and will interpret it positively. When a consumer encounters an environmental message from an advertiser that he or she is not familiar with, the consumer will not find congruency and will interpret it negatively. We therefore propose H1.

H_1: A well-known bank using environmental advertising will generate more favorable consumer responses than a lesser-known bank using environmental advertising.

Han and Chan (2014) found that an advertisement of a hotel featuring energy saving measure (an environmental issue with high impact) was perceived more effective than an advertisement of the hotel featuring no single-use consumables (an environmental issue with low impact). We therefore propose H2.

H_2: Featuring a global issue in environmental advertising will generate more favorable consumer responses than featuring a local issue in environmental advertising.

Davis (1993) argued that environmental claims should be substantiated. Chan et al. (2006) found that substantive environmental claims generated more favorable attitudes than associative environmental claims. We therefore propose H3.

H_3: The use of substantive environmental claim will generate more favorable

consumer responses than the use of associative environmental claim.

Han and Chan (2014) found that consumers' environmental concern had positive impact on the communication effects of environmental advertising. We therefore propose H4.

H_4: Subjects who are more concerned about the environment will perceive environmental advertising more favorably than subjects who are less concerned about the environment.

Methodology

Study Design

A 2×2×2 factorial design experiment was designed. The three factors were the bank's brand (a well-known bank, a lesser-known bank), environmental issue featured in the ad (global warming, air pollution), and type of environment claim (substantive, associative). Based on subjective judgment, HSBC and Bank of Communications were selected as a bank well-known among consumers and a bank lesser-known among consumers respectively. During 2011, HSBC was the top-spending advertiser in the banking sector, with a spending of 38 million Hong Kong dollars on corporate advertising. Bank of Communications, on the other hand, spent 22 million Hong Kong dollars in 2011 on corporate advertising (admanGo, 2011). The large gap in advertising expenditure was expected to result in a different degree of fame among consumers. Global warming and air pollution were selected as environmental issues that influence the environmental condition in a global or a local context respectively.

Experimental Instrument

Eight print advertisements of the two banks were created exhausting all combinations of the 2×2×2 conditions. One of the authors prepared the layout and wrote the advertising copy. All stimulus materials were developed in Chinese. The headline of the advertisement translated into English was "HSBC/Bank of Communications strives for a better future". The ad featured a melting globe on an ice-cream cone or two photos of a Hong Kong landscape in clear as well as murky air. For the substantive claim of global warming, the body copy described how the bank replaced 100 items of its central air conditioning system and reduced electricity consumption by 8 percent. For the substantive claim of air pollution, the body copy described how the bank fights air pollution in Hong Kong by planting 2000 trees. The initiative was able to help absorb over 120 tons of carbon dioxide and offer oxygen for 4000 persons per year. For the associative claim of global warming, the body copy stated that the bank cultivated the most eco-friendly solution for its energy projects. For the associative claim of air pollution in Hong Kong, the body copy stated that the bank encouraged personal change in lifestyle and participation in planting trees in Hong Kong. The ad closed with the brand's corporate identity. All advertisements had the same layout.

Pilot study

Four undergraduate students from a university were invited to read the questionnaires thoroughly and report to us whether the questions were clear and unambiguous. Minor revision was made according to their comments.

Subjects and Procedures

The data were collected in March 2012. A convenient sampling method was used. The experiment was conducted among 200 students of a university in Hong Kong. The students should all have some banking experience as most of the income and expenses activities such as scholarship and paying of tuition fees was conducted through bank transaction. The two banks selected in the study did not have branch office in the campus. Permission was obtained from instructors of four classes to distribute the questionnaires during class breaks. Participation in the study was voluntary and no incentive was given to the respondents. As nearly all students are bank customers, a university student sample is appropriate for the experiment. A previous study found that heavy green consumers were more likely to have a higher education (K. Chan, 2000). According to Calder *et al.* (1981), a university student sample demonstrated a high level of homogeneity in terms of prior brand knowledge, education level and age.

Eight sets of questionnaires were developed. Each questionnaire contained one of the eight advertisements. The questionnaires were distributed to the students randomly. Before reading the advertisements, respondents were asked about their general environmental concern. Environmental concern was measured by 5-point Likert scale using two statements, i.e. "I'm really concern about global warming/air pollution in Hong Kong." The Cronbach's alpha for environmental concern was 0.71.

After reading the advertisement, respondents answered questions about perceived brand image, attitudes toward the advertisement, and perceived advertising effectiveness. Brand image was measured for five items with a 7-point semantic scale. The items were familiar/unfamiliar, green/non-green, reliable/not reliable, an expert/not an expert, and modern/traditional. The Cronbach's alpha for brand image was 0.84. Attitudes toward the advertisement were measured for seven items with a 7-point semantic scale. The items were trustworthy/not trustworthy, convincing/unconvincing, positive/negative, creative/dull, favorable/unfavorable, informative/uninformative, and highly relevant to me/not relevant to me. The Cronbach's alpha for attitudes toward advertisement was 0.92.

Advertising effectiveness was measured by two items. They were: (1) "After reading the advertisement, I have a more positive attitude toward the bank." (2) "After reading the advertisement, I'm likely to open an account with the bank." Respondents were asked to rate their agreement with the statements on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). The Cronbach's alpha for advertising effect was 0.70. In view of the high Cronbach's alpha coefficients, composite scores were compiled for environmental concern, attitudes toward advertisement, brand image, and advertising effectiveness by taking the mean of the component items.

Manipulation Checks

The manipulation of the global and local environment issues was considered to be

appropriate based on face validity. By showing a globe in the visual, the ad represents the featuring of a global environmental issue. By showing the Hong Kong landscape in the visual, the ad represents the featuring of a local environmental issue. The manipulation of the substantive claim and the associative claim was also considered to be appropriate based on face validity, as the claims were constructed according to the operative definitions (Carlson *et al*., 1996). The manipulation of the bank variable was measured by asking how familiar the subjects find the bank with a 7-point semantic scale (1 = unfamiliar; 7 = familiar). The mean scores for HSBC and BC were 5.6 and 4.6, t (183) = -1.06, $p < .001$. The empirical evidence supported the selection of HSBC and BC to represent a well-known and a lesser-known bank respectively.

Findings

Altogether 200 questionnaires were collected. Five questionnaires were invalid due to a substantial number of incomplete questions, resulting in a final sample size of 195. Seventy-six percent of respondents were female and the remaining 24 percent were male. Half of the sample was enrolled in an undergraduate program while the remaining half was in a postgraduate program. Sixty-eight percent were students from Hong Kong and the remaining 32 percent were students from mainland China. Over 85 percent of the participants were aged 20 to 25.

Do attitudes toward the advertisements, brand image, and advertising effectiveness depend on the bank's brand, environmental issue, and the environmental claim?

Multivariate analysis of variance (MANOVA) was used to test the 2×2×2 factorial model. Table 1 summarizes the MANOVA results. Table 1 shows that the independent variables of bank and environmental issue had main effect while the independent variable of environmental claim had no effect on the three dependent variables. The three factors combined did not demonstrate a significant interaction effect on the three dependent variables.

To aid interpretation, univariate analysis of variance (ANOVA) was performed (see part b of Table 1). The bank's brand had main effect on brand image. Participants perceived a more favorable image towards HSBC (M = 5.3) than Bank of Communications (M = 4.4), F (1, 187) = 47.73, $p < 0.001$, η^2_p = 0.20. This provides empirical support for Hypothesis 1. The environmental issue featured in the ad had main effect on attitudes toward the advertisement. Participants exposed to the ad featuring global warming (M = 4.6) demonstrated more favorable attitudes toward the advertisement than participants exposed to the ad featuring air pollution in Hong Kong (M = 4.1), F (1, 187) = 8.44, p = 0.004, η^2_p = 0.04. Hypothesis 2 is therefore supported. The type of environmental claim had main effect on advertising effectiveness. The ad featuring substantive claim (M = 3.1) demonstrated a more favorable advertising effectiveness than the ad featuring associative claim (M = 2.9), F (1, 187) = 4.06, $p < 0.05$, η^2_p = 0.02. It shows that Hypothesis 3 is supported. The interaction of bank's brand, environmental issue, and type of environmental claim had no influence on all three dependent variables.

Table 1: Influence of bank's brand, environmental issue (EI), and type of environmental claim (EC) on attitudes toward the advertisement, brand image, and advertising effectiveness ($N = 195$)

(a) Multivariate analysis (MANOVA)

Variable	Statistics	F-value
Bank	Pillai's Trace	19.77***
	Wilks' Lambda	19.77***
	Hotelling's Trace	19.77***
	Roy's Largest Root	19.77***
Environmental issue	Pillai's Trace	3.02*
	Wilks' Lambda	3.02*
	Hotelling's Trace	3.02*
	Roy's Largest Root	3.02*
Environmental claim	Pillai's Trace	2.37
	Wilks' Lambda	2.37
	Hotelling's Trace	2.37
	Roy's Largest Root	2.37

(b) Univariate analysis (ANOVA)

Variable	Air pollution (mean value)		Global warming (mean value)		Total (mean value)			F value	
	Asso	Sub	Asso	Sub	Asso	Sub	Bank	EI	EC
AAd									
BC	4.00	4.11	4.52	4.50	4.26	4.31	0.90	8.44**	1.74
HSBC	3.97	4.40	4.52	4.86	4.25	4.63			
Total	3.98	4.25	4.52	4.67	4.26	4.47			
Brand image									
BC	4.53	4.13	4.48	4.49	4.51	4.32	47.73***	0.83	0.58
HSBC	5.22	5.32	5.41	5.30	5.32	5.31			
Total	4.89	4.71	4.97	4.86	4.93	4.79			
Ad effect									
BC	2.87	2.92	2.90	3.19	2.88	3.06	0.93	3.40	4.06*
HSBC	2.80	3.11	3.10	3.24	2.95	3.17			
Total	2.83	3.01	3.00	3.21	2.92	3.11			

Notes. BC and HSBC represent Bank of Communications, and Hong Kong and Shanghai Banking Corporation respectively. Asso and Sub represent associative claim and substantive claim respectively. AAd represents attitudes toward the advertisement, $p < 0.05$*; $p < 0.01$**; $p < 0.001$***.

Do the environmental concerns of participants have an impact on attitudes toward the advertisement, brand image, and advertising effectiveness?

A series of multiple regression analyses were conducted to predict attitudes toward the advertisement, brand image, and advertising effectiveness based on participants' environmental concern (in interval scale), bank, environmental issue, type of environmental claim, the interaction of the participants' environmental concern and the bank, the interaction of the participants' environmental concern and the environmental issue, as well as the interaction of the participants' environmental concern and the type of environmental claim. Participants' environmental concern, bank, environmental issue, and type of environmental claim were first mean centered in forming the interaction term to minimize collinearity (Aiken and West, 1991). Participants' environmental concern, bank, environmental issue, and type of environmental claim were entered in the first step, interaction of participants' environmental concern and the bank, interaction of participants' environmental concern and the environmental issue, and interaction of participants' environmental concern and the type of environmental claim were entered in the second step of the prediction analysis.

Table 2 shows a summary of the results with respect to attitudes toward the advertisement, brand image, and advertising effectiveness. Participants' environmental concern was positively associated with attitudes toward the advertisement ($\beta = 0.24$, $p = 0.001$), brand image ($\beta = 0.17$, $p = 0.011$), and advertising effectiveness ($\beta = 0.15$, $p < 0.05$). Hypothesis 4 is therefore supported. After controlling for the participants' environmental concern, bank, environmental issue, and environmental claim, interaction of participants' environmental concern and environmental issue was negatively correlated with attitudes toward the advertisement ($\beta = -0.14$, $p < 0.05$). The link between a participant's environmental concern and his or her attitude towards the advertisement was moderated by which environmental issue the participant had viewed. Among participants who viewed the ad featuring air pollution in Hong Kong, participants with higher environmental concern scores were more likely to have favorable attitudes toward the advertisement, $r = 0.40$, $p < 0.001$. In contrast, among participants who viewed the ad featuring global warming, participants' environmental concern was not associated with attitudes toward the advertisement, $r = 0.11$, $n.s.$ The interaction effect is displayed in Figure 1. No other interaction effects of the participants' environmental concern and the three independent variables on the three dependent variables were significant.

Multiple regression analyses and ANOVA revealed three similar observations. First, the ad featuring global warming generated a more favorable attitude towards the advertisement than the ad featuring air pollution in Hong Kong. Second, participants perceived the image of HSBC more favorably than that of Bank of Communications. Third, the ad using substantive claim demonstrated better advertising effectiveness than the ad using associative claim. No other main effects were significant.

Table 2: Influence of participants' environmental concern (Con), bank's brand, environmental issue (EI), and type of environmental claim (EC) on attitudes toward the advertisement, brand image, and advertising effectiveness

Predictor	AAd Step 1 β	t	AAd Step 2 β	t	Brand image Step 1 β	t	Brand image Step 2 β	t	Ad effect Step 1 β	t	Ad effect Step 2 β	t
Con	0.24	3.45**	0.24	3.45**	0.17	2.56*	0.17	2.58*	0.15	2.14*	0.16	2.21*
Bank	0.03	0.43	0.03	0.45	0.42	6.54***	0.42	6.43***	0.05	0.63	0.04	0.56
EI	0.19	2.71**	0.18	2.69**	0.05	0.76	0.04	0.69	0.12	1.74	0.12	1.76
EC	0.08	1.11	0.08	1.19	-0.06	-0.93	-0.06	-0.98	0.14	1.91	-0.14	-2.05*
Con× Bank			-0.01	-0.16			0.06	0.95			0.10	1.41
Con × EI			-0.14	-2.00*			-0.05	-0.79			-0.06	-0.79
Con × EC			0.05	0.71			0.05	0.78			0.08	1.18
R^2	0.11		0.13		0.23		0.24		0.07		0.09	
ΔR^2	0.11		0.02		0.23		0.01		0.07		0.03	

Notes. AAd represent attitudes toward the advertisement. Bank: Bank of Communications = 0, HSBC = 1. Environmental issue: air pollution = 0, global warming = 1. Environmental claim: associative claim = 0, substantive claim = 1. $p < 0.05*$; $p < 0.01**$; $p < 0.001***$
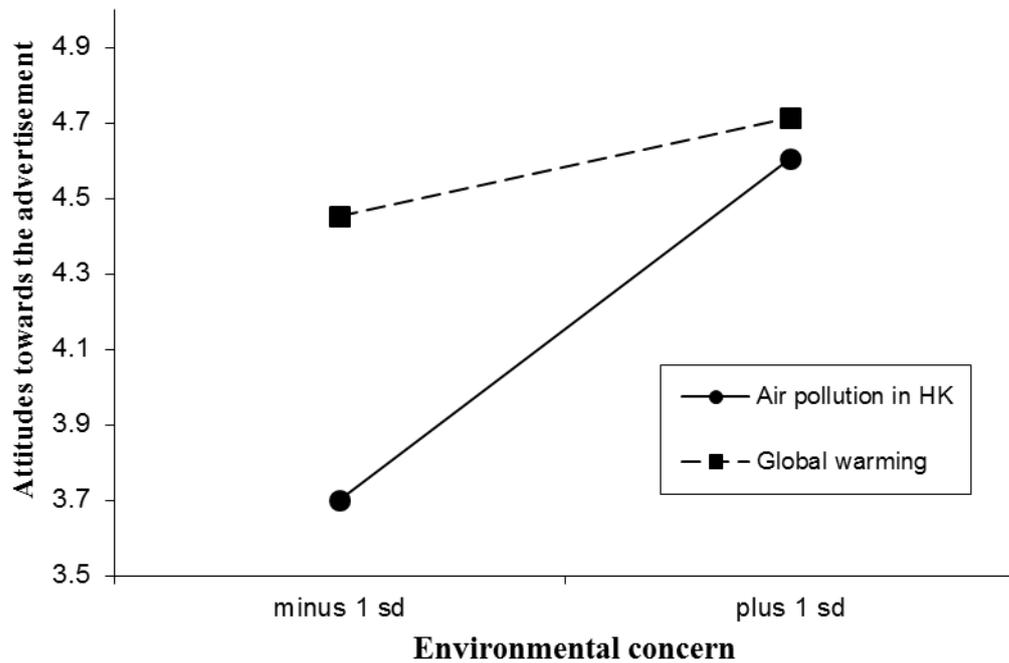

Figure 1. Relationship between environmental concern and attitudes toward the advertisement as a function of environmental issue.

Discussions

An experimental study was conducted to examine how the bank's brand, the environmental issue featured in the advertisement, and the type of environmental claim influenced consumers' responses to the advertisements. The multivariate and univariate analyses found that the bank's brand name, the environmental issue featured in the advertisement, and the type of environmental claim had an impact on attitudes toward the advertisement, perceived brand image, and advertising effectiveness. Among three independent variables, the influence of type of environmental claim was the lowest. Results of hypothesis testing found that all four proposed hypotheses were supported.

Based on the research findings, we have four observations. First, the advertisement featuring an environmental issue in a global context was found to generate better advertising effectiveness than the advertisement featuring an environmental issue in a local context. The result was similar to Han and Chan's (2014) study that a hotel advertisement featuring an environmental practice perceived to have high impact in the environment was found to generate more positive advertising effectiveness than a hotel advertisement featuring an environmental practice perceived to have low impact on the environment. This suggests that the global warming issue was perceived to have a higher environmental impact than the issue of air pollution in Hong Kong indicating that when environmental advertising is used, consumers pay much attention to the specific environmental issue featured in the advertisement. By featuring an environmental issue that is able to make a big impact, the advertiser is more likely to be perceived favorably. The second observation is that use of substantive claim was able to generate more favorable advertising effectiveness than use of associative claim. The result was consistent with previous findings (Chan and Lau, 2004; Chan *et al.*, 2006; Hu, 2012). Advertisers should therefore employ substantive claim in the environmental advertisements.

The third observation is that brand image is a stable characteristic. It is less affected by the environmental issue, the type of environmental claim, the consumers' environmental concern, or their interactions. In the current study, brand image was only affected by the brand name. Among all the univariate analyses, the mean difference was the greatest between the brand image of HSBC and Bank of Communications. The finding indicates that the current image of the bank held by the participants had the greatest influence on brand image only, but not on attitudes toward the ad or its advertising effectiveness. For banks that are lesser-known among consumers, this is good news. It shows that even small or medium-sized banks have the potential to employ environmental advertising to generate positive consumer responses. The use of environmental advertising should not be restricted to well-known banks.

Fourth, consumers' environmental concern had an impact on attitudes toward the advertisement only for the environmental issue of air pollution in Hong Kong, and not for the environmental issue of global warming. It was observed that when an advertisement featured global warming, participants' attitudes toward the

advertisement had been favorable, irrespective of participants' environmental concern. However, when an advertisement featured air pollution in Hong Kong, it only generated a similar level of favorable attitudes toward the advertisement among those with high environmental concern. This result again points to the importance of featuring an environmental issue with high environmental impact. This finding however, is contradictory to Han and Chan's (2014) study that consumers who had a higher concern for the environment were more affected by an ad featuring an environmental issue with high impact than consumers who had a lower concern for the environment. Further studies are needed to solve this inconsistency. The current study focuses on the bank industry. Further studies can be conducted in other services industry such as transport services or medical services industries.

Limitations

As the current study was carried out in a laboratory setting, it may not represent how consumers respond to environmental advertising when these ads are placed in the commercial media, competing for attention with other advertisements. The study did not collect information about the subject's banking experience with the specific banks in the study. Prior banking experience with these two banks may affect the results. Another limitation is the country-of-origin of the bank. HSBC can be perceived as a global bank while Bank of Communications can be perceived as a regional bank. Furthermore, it was difficult to construct advertisements of similar level of creativity. The advertisement of a melting globe for global warming adopts a visual metaphor. It may create better impression than the advertisement that does not employ a visual metaphor.

Conclusion

A study was conducted to investigate how the bank's brand name, environmental issue featured in a corporate advertising, and type of environmental claim may influence consumers' responses. Results found that the corporate bank advertisement featuring global warming generated more favorable consumer attitudes toward the advertisement than the ad featuring air pollution in Hong Kong. Use of a substantive claim was able to generate a more favorable advertising effect than use of an associative claim in both advertisements featuring global warming as well as featuring air pollution. Environmental advertising in the banking sector benefits both a well-known bank and a less-known bank.

Implications for Business Marketing Practice

The above findings provide useful insights to bank advertisers for promoting their services among consumers. The influence of environmental issue is more important than the influence of type of environmental claim on consumers' responses to environmental advertising. Bank advertisers should select environmental issues that are perceived as having high impact on the environment among their prime target

customers. This can be supported by a qualitative study on the perception of the impact of various environmental issues among the key stakeholders. Bank marketers should employ substantive claims that can illustrate their environmental contribution in specific and concrete ways. Attitudes toward the advertisement as well as advertising effectiveness were similar between ads for HSBC and ads for Bank of Communications. This indicates that advertising effect is not affected by brand names. The implication is that lesser-known bank advertisers can also benefit from environmental advertising. Small and medium-sized banks should consider employing environmental advertising in establishing a favorable image among their current and potential consumers.

There are many ways that banks can contribute to the environment and sustainability, including introduction of sustainable measures in the banking operations, taking environmental protection into account in making lending decisions, developing green products and services, as well as providing support for environmental community activities (Canadian Bankers Association, 2014). Further studies can use experimental design to compare the impact of different types of environmental initiatives on consumers' attitudes and perceived brand equity. Qualitative studies can also be conducted to examine what environmental banking services mean to the consumers.

Acknowledgement

References

admanGo. (2011). Report: Ad spending of banks, Retrieved from: http://www.admanGo.com. (by subscription)

Aiken, L.S., & West, S.G. (1991). *Multiple regression: Testing and interpreting interactions*, Thousand Oaks, CA: Sage.

Calder, B.J., Phillips, L.W., & Tybout, A.M. (1981). Designing research for application, *Journal of Consumer Research, 8*(2), 197-207.

Canadian Bankers' Association (2014). Banks and the environment, retrieved from: http://www.cba.ca/en/component/content/category/62-banks-and-the-environment

Carlson, L., Grove, S.J. & Kangun, N. (1993). A content analysis of environmental advertising claims: A matrix method approach, *Journal of Advertising, 22*(3), 27-39.

Carlson, L., Grove, S.J., Kangun, N., & Polonsky, M.J. (1996). An international comparison of environmental advertising: substantive versus associative claims, *Journal of Macromarketing, 16*(2), 57-68.

Chan, K. (2000). Market segmentation of green consumers in Hong Kong, *Journal of

International Consumer Marketing, *12*(2), 7-24.

Chan, K., & Han, X. (2014). Effectiveness of environmental advertising for hotels, *Services Marketing Quarterly*, *35*(4), 289-303.

Chan, R.Y.K. (2000). The effectiveness of environmental advertising: the role of claim type and the source country green image, *International Journal of Advertising*, *19*(3), 349-75.

Chan, R.Y.K. (2004). Consumer responses to environmental advertising in China, *Marketing Intelligence and Planning*, *22*(4), 427-37.

Chan, R.Y.K., & Lau, L.B.Y. (2004). The effectiveness of environmental claims among Chinese consumers: Influences of claim type, country disposition and ecocentric orientation, *Journal of Marketing Management*, *20*(3/4), 273-319.

Chan, R.Y.K., Leung, T.K.P., & Wong, Y.H. (2006). The effectiveness of environmental claims for services advertising, *Journal of Services Marketing*, *20* (4), 233-50.

Conlin, J. (2000). Green-hotel concept sprouts ardent following, *Hotel and Motel Management*, *215*(6), 61-63.

Davis, J.J. (1993). Strategies for environmental advertising, *Journal of Consumer Marketing*, *10*(2), 19-36.

Davis, J.J. (1994). Consumer response to corporate environmental advertising, *Journal of Consumer Marketing*, *11*(2), 25-37.

Hu, H.S. (2012). The effectiveness of environmental advertising in the hotel industry, *Cornell Hospitality Quarterly*, *53*(2), 154-64.

Ottman, J. (1993). *Green marketing: Challenges and opportunities for the new marketing age*. Lincolnwood, IL: NTC Business Books.

Polonsky, M.J., Bailey, J., Baker, H., Basche, C., Jepson, C., &Neat, L. (1998). Communicating environmental information: are marketing claims on packaging misleading?, *Journal of Business Ethics*, *17* (3), 281-94.

Sherif, C.E., Sherif, M., & Nebergall, R.W. (1965). *Attitude and attitude change: The social judgment-involvement approach*. Philadelphia, PA: Saunders.

Sherif, M., & Hovland, C. (1961). *Social judgment assimilation and contrast effects in communication and attitude change*. New Haven, CT: Yale University Press.

Sherif, M., & Hovland, C. (1964), *Social judgment*. New Haven, CT: Yale University Press.