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## Chinese consumers' responses to corporate social responsibility issues in advertising: An experimental design to investigate holistic thinkers in advertisement processing

Zhengfeng Li

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**UNIVERSITY OF  
WOLLONGONG**



**School of  
Management, Operations and Marketing**

**Chinese Consumers' Responses to Corporate Social  
Responsibility Issues in Advertising**

An experimental design to investigate holistic thinkers in advertisement  
processing

**Zhengfeng Li**

"This thesis is presented as part of the requirements for the award of the Degree of  
Doctor of Philosophy of the University of Wollongong"

Nov. 2014



## Certification

I, Zhengfeng Li, declare that this thesis, submitted in fulfilment of the requirement for the award of Doctor of Philosophy, in the School of Management, Operations and Marketing, Faculty of Business, University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualifications at any other academic institution.

Zhengfeng Li

10/11/2014

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## List of abbreviations and special names

- $A_a$ : attitude to advertising
- $A_{ad}$ : attitude to/toward the advertisement
- $A_b$ : attitude to/toward the brand
- $A_{csr}$ : attitude to corporate social responsibility
- AIC: Akaike information criterion
- ANOVA: analysis of variance
- $A_p$ : attitude to/toward the advertised product
- BIC: Bayesian information criterion
- CA models: cognition affect models
- $C_{ad}$ : advertisement cognitions
- $C_b$ : brand cognitions
- CEA models: cognition experience affect models
- CFI: Comparative Fit Index
- CSR: corporate social responsibility
- $CSR_1$ : green consumer values
- $CSR_2$ : global attitudes to CSR
- CSR-CA : corporate social responsibility-company ability
- df: degree of freedom
- ECA models: experience cognition affect models
- ELM: elaboration likelihood model
- Guanxi: relationships
- $I_b$ : purchasing intention
- ISO: International Organization for Standardization
- Mianzi: face

PDI: purchasing decision involvement

PE: picture editing

PI: purchasing intention

RMSEA: Root-Mean-Square Error of Approximation

SA 8000: Social Accountability 8000

TLI: Tucker-Lewis index

WTO: World Trade Organization

Yang: male

Yin: female

## Abstract

This dissertation examines how companies can effectively communicate their corporate social responsibility (CSR) activities to consumers using visual and verbal information in print advertising. Prior research suggests that after the exposure of an advertisement, consumers will process the information from both cognitive and affective perspectives. Consumers' attitudes to the advertisement and advertised product, and purchasing intentions will be generated after the processing procedure. This study first examined, whether CSR advertisements can raise consumers' positive attitudes and purchasing intentions; second, which combination of verbal and visual information is most effective to Chinese consumers in the context of CSR advertising. A 2×3+1 experiment which includes two written messages (weak and strong CSR argument), three images (neutral, positive, and comparison pictures), and a neutral advertisement with no CSR information was employed to collect data. Consumers' attitudes to advertising, attitudes to CSR, purchasing decision involvement, and trial intentions were collected and included in the hypothesized model based on the literature review. The results suggest that Chinese consumers rely more on CSR written messages to generate attitudes and purchasing intentions instead of visual images, but whether the visual image was edited in the advertisement contributes significantly to the consumers' reactions. Moreover, Chinese consumers employ holistic cognitive processes when processing advertisements. Consumers' attitudes to advertising and attitudes to CSR work as independent variables not moderators to generate attitudes to advertisements. In addition, several paths were suggested to add to the Dual Mediation Model to refine this advertising model.

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# Chapter 1 Introduction

This dissertation examines how companies can effectively communicate their activities to Chinese consumers in fulfilling corporate social responsibility (CSR) using written messages and visual images in print advertising. More specifically, the influence of written messages and visual images in an advertisement on consumers' attitudes to the advertisement and product, and their purchasing intentions were tested to see which combination of written and visual information communicate CSR most effectively.

The first chapter of the dissertation introduces the study, defines terms used, presents the background of the study, specifies the problem of the study, describes its significance, and points out the limitations of the study.

## 1.1 The background

With the establishment of the People's Republic of China in 1949, China applied the Planned Economic System and gradually severed its economic ties until 1978 with countries which applied the Market Economic System. Since then, Deng Xiaoping, the first vice premier and member of the National People's Congress of P. R. China at that time, started a revolution that reinstates the Market Economic System in the country and gradually opened China's market to the world to improve the economic performance of the country. From 1978 onwards, China increased its economic size nearly 20-fold in US dollar terms over 30 years (Arora & Vamvakidis, 2011) and became the world's second largest economy in the second quarter of 2010. The country's "real GDP growth has averaged 10% annually, with the implication that GDP has doubled every 7–8 years.....China's rapid growth has contributed to an increase in its share of world GDP from 2.2% (purchasing power parity basis) in 1980 to 12.9% in 2009" (Arora & Vamvakidis, 2011, pp.31-32). At the same time, the economic growth of China has increased the general population's income. The working class' revenue has grown constantly: the average growth of workers' compensation is more than 9% per year from 2002 to 2006, and over 11% in urban areas; and migrant workers' real wages rose by 17.3% in 2009 (*The Economist*, 2010). The middle class has risen from almost

zero in 1978 to around 300 million at present, with some 500 million more due to join in within a few years (Lippit *et al.*, 2011, p.5).

However, the rapid economic growth of China has exacted huge costs on environment and society. According to the World Bank,

Land degradation is worsening; natural forests are declining; biodiversity resources are under stress; water quality is deteriorating in most areas and new threats are developing, such as discharge from intensive livestock operations; and the explosive growth of motor vehicles presents a significant new problem in air pollution control (The World Bank, 2001, p. xiv).

Besides environmental pressure, many social issues have started to appear. For example, the working environments of many Chinese companies do not reach a satisfactory level and labour rights of some workers cannot be guaranteed (Cai, 2006). The quality of some products cannot pass national standards (Po, 2008). All of those problems have increased criticism of an emphasis on economic growth alone in the country.

The concept of CSR was introduced to China by multinational companies from the mid-1990s during the 'anti-sweatshop campaigns' (Chan & Ross, 2003). Academics, government, businesses, and consumers realized that this western concept could be introduced and developed in China. Thus the environmental and social problems, such as pollution and labour rights issues as a result of economic growth, could be reduced by better relationships between the enterprises and environment and between the enterprises and society. From the aspect of economic benefits, due to the intense competition among businesses in the market, businesses have found that CSR can be employed as part of their marketing strategy to gain a better reputation and achieve consumer loyalty and product differentiation. Tian *et al.* (2011) found through their empirical research that positive links existed between CSR and Chinese consumers' corporate evaluation, product association, and purchase intention.

It is becoming increasingly common for many companies, especially multinational companies and large Chinese local companies, to employ CSR content in their advertising or use it as unique topics of an advertisement compared to traditional advertisements, which mainly emphasize the product attributes or personal benefits gained by consuming that product. For example, multinational healthcare company Glaxo Smith Kline has published its philanthropic activities which help children to have a better education in some depressed areas of China in its television advertisement for Fenbid (an ibuprofen pain reliever). Local Chinese companies also use CSR in their advertisements. Nongfu Spring, a beverage company, differentiates its brand from other beverage companies in its television and print advertisements by introducing sponsorship of a philanthropic programme named 'Project Hope', which supports dropouts from impoverished families to complete compulsory education and helps the infrastructure construction of schools in depressed areas.

Nevertheless, research (Calfee & Ringold, 1994; Obermiller, Spangenberg & MacLachlan, 2005) has found that consumers are sceptical about advertising. Sceptical consumers are less attentive to or trying to ignore advertising, more critical of advertising claims and sources, and reluctant to form beliefs consistent with advertising claims (Obermiller & Spangenberg, 1998). Therefore, the result of using CSR information in a company's advertising will possibly be influenced by consumers' scepticism. But as CSR activities of a company are expected by society (Tian *et al.*, 2011), CSR advertising is expected to have a different influence to some extent from conventional advertising. Hence, the most effective way of communicating CSR activities in advertising directly to consumers needs to be studied further.

## 1.2 Definitions of key terms

This section will introduce two core definitions and concepts that have been employed in this study. The detailed discussion of various definitions will be elaborated in the following literature review chapters. The central theme of CSR is "a concept whereby companies integrate social and environmental concerns in their business operations

and in their interaction with their stakeholders on a voluntary basis.” (European Commission, 2001) This definition will be employed in this study because it displays a relatively complete picture of different perspectives of CSR and emphasizes its voluntary nature.

According to American Marketing Association (AMA), advertising is

the placement of announcements and persuasive messages in time or space purchased in any of the mass media by business firms, nonprofit organizations, government agencies, and individuals who seek to inform and/ or persuade members of a particular target market or audience about their products, services, organizations, or ideas (AMA, 2011).

Advertising media includes print and out-of-home media, broadcast media, and interactive and digital media. Print and out-of-home media includes newspapers, magazines, packaging, billboards, scrolls and other out-of-home advertising. Broadcast media are television, cinema and film entertainment, and radio. Interactive and digital media refers to internet, mobile, and email.

### 1.3 The problem statement

Many empirical studies have examined the effects of verbal and visual information in advertisements. Some researchers found that visual information is superior in recall and recognition (Guenther, Klatzby & Putnam, 1980), more effective in generating positive attitudes to a brand and in attributes’ communication (Mitchell and Olson, 1981), and superior in resulting purchasing intentions to verbal information (Cautela & McCullough, 1978). Some other researchers (Son *et al.*, 1987) found that a certain amount of correspondence between visual and verbal information can enhance consumers’ memory compared with visual or verbal information alone. Kim and Lennon (2008) explain the differences: visual information causes imagery information processing which produces a holistic evaluation of the brand and visualized decision outcomes (MacInnis & Price, 1987), whereas verbal information causes discursive information processing which produces an implicit or explicit summary of brand

features based on combination rules (MacInnis & Price, 1987).

The issue of which combination of visual images, such as neutral, positive, and comparison of positive and negative images, and written message which could be strong or weak arguments, in commercial advertising has rarely been studied. One study from Wong and Householder (2008) tested the effectiveness of different images and words in a social marketing advertisement persuading smokers to quit smoking. When people are in negative moods, negative and positive visual images are equally effective in involving central-route message processing and persuading people to quit smoking, and the argument quality of the written message also has an influence on the effectiveness of persuasion (Wong & Householder, 2008). Moreover, Wong and Householder (2008) predict that positive visual images will help more in involving central-route message processing and persuading people to quit smoking than negative visual images do if people are in positive moods. However, Wong and Householder's (2008) study uses a social marketing advertisement aimed at behaviour change rather than a commercial marketing advertisement aimed at a rise in sales, and their study emphasizes the influence of a short term factor which is current moods rather than long term factors which include beliefs of and attitudes toward particular social topics. The research objective of this study is to understand how the combination of written message and visual images can be most effective in commercial CSR advertising communication to Chinese consumers. This research will provide insights for companies to communicate their CSR activities with consumers more effectively so that consumers' behavioural intention towards companies' products or services can be strengthened.

Little research (e.g., Pomering, 2009) has been done to examine the effectiveness of CSR communication used in advertising. Moreover, little research has combined two basic executional cues, written message and visual images, to find out the combined effect of CSR advertising. This study covers this research gap by combining written message and visual images in CSR advertising to test the most effective ways of CSR communication that can be employed in print advertising. The overarching research

question is how companies can better communicate their CSR activities with consumers using print advertising in China's market. It contains six sub-research questions:

- What CSR topics do Chinese consumers care about the most?
- Which combination of CSR information and images best communicates CSR to consumers?
  - Is the strong or weak CSR argument better in CSR advertising?
  - Is the neutral image, positive image or comparison image better in CSR advertising?
  - Do the written message and visual image interact in CSR advertising?
- Do consumers' attitudes to the advertised product ( $A_p$ ) mediate the causal relationship between consumers' attitudes to the advertisement ( $A_{ad}$ ) and consumers' purchasing intentions (PI)?
- Do consumers' attitudes to advertising ( $A_a$ ) and consumers' attitudes to CSR ( $A_{csr}$ ) moderate the relationship between CSR advertising exposure and consumers' attitudes to the CSR advertisement ( $A_{ad}$ )?
- Does the trial intention mediate the relationship between consumers' attitudes to the advertisement ( $A_{ad}$ ) and consumers' attitudes to the advertised product ( $A_p$ )?
- Does purchase decision involvement (PDI) moderate the relationship between consumers' attitudes to the advertised product ( $A_p$ ) and purchasing intentions (PI)?

Chinese consumers have been chosen to be studied because firstly the Chinese and other East Asians (Koreans and Japanese) have different cognitive processes from people who have European cultural backgrounds (Morris, Nisbett & Peng, 1995; Peng & Nisbett, 1999; Ji, Peng & Nisbett, 2000), and those differences are significant in

advertisement processing (Tavassoli, 2007; Wu, 2011). The second reason is that China has the largest market in the world so that this study can provide practical benefits to all companies targeting Chinese markets and using CSR advertising.

## 1.4 The importance of this study

Although some research has studied the impact of CSR on marketing, it has only determined whether CSR activities of a company had an impact on brand value, company reputation and sales (Vaaland *et al.*, 2008). Many studies investigated enterprises' CSR communication with customers, but most of this research focused on CSR annual reports of companies (Jones, Comfort & Hillier, 2007). Although some research (Tian *et al.*, 2011) tried to reveal Chinese consumers' attitudes to and behavioural intention towards CSR issues so that company's understanding of it can be improved, no research has employed an experiment to test the real effectiveness of different combinations of written messages and visual images, which could be used by companies in reality. To date, it appears that only Pomering's (2009) study has examined consumers' scepticism toward CSR advertising, but it does not include examination of the effects of visual images as an independent variable in the study. Consequently, this research will make a contribution to the knowledge of CSR advertising by examining how written message and visual images in print advertisements should be combined to effectively influence consumers' behavioural intentions.

Because China is one of the world's largest markets with considerable business potential, many companies from around the globe are exploring their markets in China. CSR is a topic that many multinational and local companies are practising or eager to practise in order to improve their marketing performance in this country. Many corporations use CSR as part of their marketing strategies to improve their brands' images, differentiate their products from their competitors, and promote sales (Podnar & Golob, 2007). However, little research has studied the real effectiveness of using CSR advertising in China. Ellen, Webb, and Mor (2006) have found one significant difference between Chinese consumers and other consumers: Chinese consumers care more

about the impact of a company's CSR activities instead of the company's motives for the CSR actions. This study found that the most effective communication of CSR advertising in China, or with holistic thinkers, could be different from the most effective communication of CSR advertising in other cultures, or with analytical thinkers. Most existing advertising models, which are based on studies in consumers who have an European cultural background, may not apply to holistic thinkers, such as Chinese, Japanese and Korean. An advertising model, which fits the data from Chinese consumers and different from those fit Western consumers, is suggested by this study. This is the uniqueness and contribution of this study.

## 1.5 Scope and limitations

Only print advertising was used to test the effectiveness of CSR communication to consumers in this study. Print media is a traditional mode of advertising and marketing communication. It occupies a large percentage of advertising market and media spend, however, it is possible that using other advertising media, such as broadcast or digital advertisements, or other marketing communication tools, such as, public relationships, sales promotions, and the Internet, will influence the result to some extent.

As the interviews and experiment have been completed in the regional city of Xi'an, it may not represent the opinion and ideas of consumers in all provinces and cities of China. It is more representative of people who have middle income and whose attitudes to and beliefs of advertising are around the average of the Chinese population (Huang & Chen, 2006). In addition, the experiments only includes 395 respondents (one control group and six treatment groups with at least 50 respondents in each group) aged over 18 years so that some niche markets may not be included in this research. These limitations may influence the representativeness of the experiment to some extent because the experiment possibly does not contain some extreme samples of the whole population.

## 1.6 Overview of the dissertation

The introduction presents the background of research, definitions of two key terms,

the research questions, the importance of this study, and scope and limitations. This dissertation will proceed as follows. Chapter two reviews the literature on advertising and print advertising, consumers' advertising information processes, the communication effectiveness of advertising, and the similarities and differences of Chinese advertising and advertising in other cultures. Chapter three focuses on definitions and scope of CSR, CSR in China, Chinese consumers' interpretation and attitudes to CSR, and CSR advertising in China. Chapter four introduces the methodologies which comprise interviews and experiment that were employed in this research. Chapter five presents the findings of this study and chapter six discuss the findings, formulates the conclusion and suggests the future direction of research in this field.

## Chapter 2 Advertisement processing and advertising in China

This chapter will review the literature on advertisement processing theories, consumers' processing of verbal and visual information in advertisements, factors that influence advertisement processing, advertising development in China, the features of Chinese advertising, and advertisement processing by Chinese consumers.

### 2.1 Advertising and advertisement processing theories

#### 2.1.1 Definition

Definitions of advertising have been debated by various scholars. For example, O'Guinn, Allen & Semenik (2000, p.6) give a simple and short definition that "advertising is a paid, mass-mediated attempt to persuade". Some scholars define advertising in more detail. Alexander (1965, p.9) defines advertising as "any paid form of non-personal communication about an organization, product, service, or idea by an identified sponsor". Moriarty *et al.* (2009, p.9) suggest "advertising is a paid form of persuasive communication that uses mass and interactive media to reach broad audiences in order to connect an identified sponsor with buyers (a target audience) and provide information about products (goods, services, and ideas)." Another popular advertising definition by American Marketing Association (2011) is "the placement of announcements and persuasive messages in time or space purchased in any of the mass media by business firms, non-profit organizations, government agencies, and individuals who seek to inform and/or persuade members of a particular target market or audience about their products, services, organizations, or ideas". To sum up, these definitions all agree that: first, advertising is a paid communication by an identified sponsor; second, advertising involves mass media; and third, advertising needs to be persuasive. The most apt definition for this study is from American Marketing Association because it contains a relatively complete description of various advertising forms in reality.

Advertising is well known as a promotional tool in the business world. It works with

sales promotion, public relations, personal selling, and interactive marketing to form a complete promotional mix. Of course, advertising not only plays an important role in marketing, but also has other functions. Advertising delivers information that producers would like to communicate to their potential customers, brings cost efficiency to marketing, reflects fashion and design trends, and educates people to use new and improved products (Moriarty *et al.*, 2009).

Advertising can be divided into seven types: brand advertising, retail or local advertising, direct-response advertising, business to business advertising, institutional advertising, non-profit advertising, and public service advertising (Moriarty *et al.*, 2009). Retail or local advertising focuses on products/services available in a certain geographical area. This study focuses on retail advertising, and the experiment uses print advertisements by a bottled mineral water company, which is unfamiliar to Chinese consumers. The details of the advertisements used will be introduced in the methodology chapter.

### 2.1.2 Theories of advertisement processing

One important result, in which advertisers are interested, is whether the advertisement delivered the intended message and consumers responded as the advertiser had hoped. Ideally, an advertisement is effective if consumers have a positive impression of the brand, can differentiate its product from other competitors, or respond to it as intended by the advertiser, such as buying the product. Consumers' processing of an advertisement determines the effectiveness of it, so scholars in the advertising area are eager for understanding of the processing procedures of advertisements.

Most traditional models, which elaborate the advertisement processing procedures, are linear models which provide hierarchies for consumers' advertisement processing. From the earliest AIDA (attention, interest, desire, and action) model by St. Elmo Lewis in 1898 (Strong, 1925) to Think/Feel/Do model (Ray, 1973; Barry, 1987) in the 1970s, almost all models are simple linear ones. Vakratsas and Ambler (1999) conclude that

these linear models follow the cognitive stage first, to affective stage, and finally, to the behaviour stage. These models are also called C (cognition) A (affect) models. The cognition stage refers to the information processing in a participant's mind and encompasses the mental functions, mental processes, and states of intelligence entities (Blomberg, 2011); while the affective stage refers to the experience of feeling or emotion (Hogg, Abrams & Martin, 2010). Some scholars (e.g., Harmon-Jones, Gable & Price, 2013) considered the affective stage as part of cognitive processes. In this study, they are considered as interactive stages, so both cognitive and affective responses were collected.

Colley (1961), McGuire (1976) and Rogers (1995) provide several representative CA models. Colley presents the Defined Advertising Goal for Measured Advertising Results (DAGMAR), which traces the process from unawareness, progresses to awareness, comprehension, conviction, and then action. McGuire suggests the Hierarchy of Effects Model which starts from awareness, moves to knowledge, liking, preference, conviction, and purchase at the end. Rogers advances the Product Adoption Model for new products and ideas, which starts from awareness, progresses to interest, then evaluation, trial, and finally adoption.

One of the most persuasive CA models is the Elaboration Likelihood Model (ELM) (Petty & Cacioppo, 1981a, b; 1986). The ELM introduces two distinct types of processing routes: the central route (high-involvement) and the peripheral route (low-involvement) (Petty & Cacioppo, 1986). If the audience processes the information after careful scrutiny and promotes high elaboration, then the person is using a central route and his/her cognitive response will determine the persuasive result. The information will be accepted if he/she thinks the information is reliable, well-constructed, and convincing, but will reject the information if he/she considers it unfavourable. However, consumers, who use the peripheral route, accept or reject a message based on irrelevant cues, such as environmental characteristics, and do not actively think about the issue. Repetitions of different versions of an advertisement have a positive effect on low-involvement consumers but no effect on high-involvement consumers (Cacioppo & Petty, 1985). In reality, sometimes people choose a mixture of central and

peripheral route processes under moderate elaboration. A person's motivation and ability can highly influence his/her choice of the route (Petty & Cacioppo, 1986; Petty & Wegener, 1999). Hansen (1997) modified the ELM to Elaboration Likelihood Advertising Model (ELAM) (See Figure 2.1). In his model, central information processing of advertisements focuses on product and brand relevant information, so the route after central processing starts from brand awareness, and moves to product/brand perception, then to product/brand preferences and finally to buying intention. Peripheral processing of advertisements generates attitude to the advertisement ( $A_{ad}$ ) and emotional responses, and raise consumers' ad-liking, finally moves to buying intention. Hansen (2001) analysed the responses from 18 standardised advertising pre-tests in Denmark from 1998 to 1999 and concluded that: firstly, better communication results are achieved when central information processing is generated; secondly, 75% of information processing of fast-moving consumer goods advertising is peripheral; and thirdly, emotional responses in peripheral route are very important. Because the product used in this study is bottled mineral water, which belongs to fast-moving consumer goods, several indicators from both the central and peripheral routes will be collected for analysis.

Based on the Petty and Cacioppo's ELM theory, Meyers-Levy and Malaviya (1999) proposed a third route for advertisement processing, which is called experiential processing strategy. If consumers use this strategy for information processing, they are based on feelings prompted by the processing procedure (Strack, 1992). The experiential processing strategy needs the lowest level of cognitive resources or the capacity of employing cognition process is severely constrained. Moreover, Meyers-Levy and Malaviya (1999) also suggest a judgment correction process after the initial judgement, based on research results of Alba, Marmorstein, and Chattopadhyay (1992) and Schmitt and Zhang (1998). When consumers are aware that contextual or irrelevant data affected their judgements and are willing to expend the cognitive resources needed in the correction process, they may correct their initial judgements (Meyers-Levy & Malaviya, 1999).

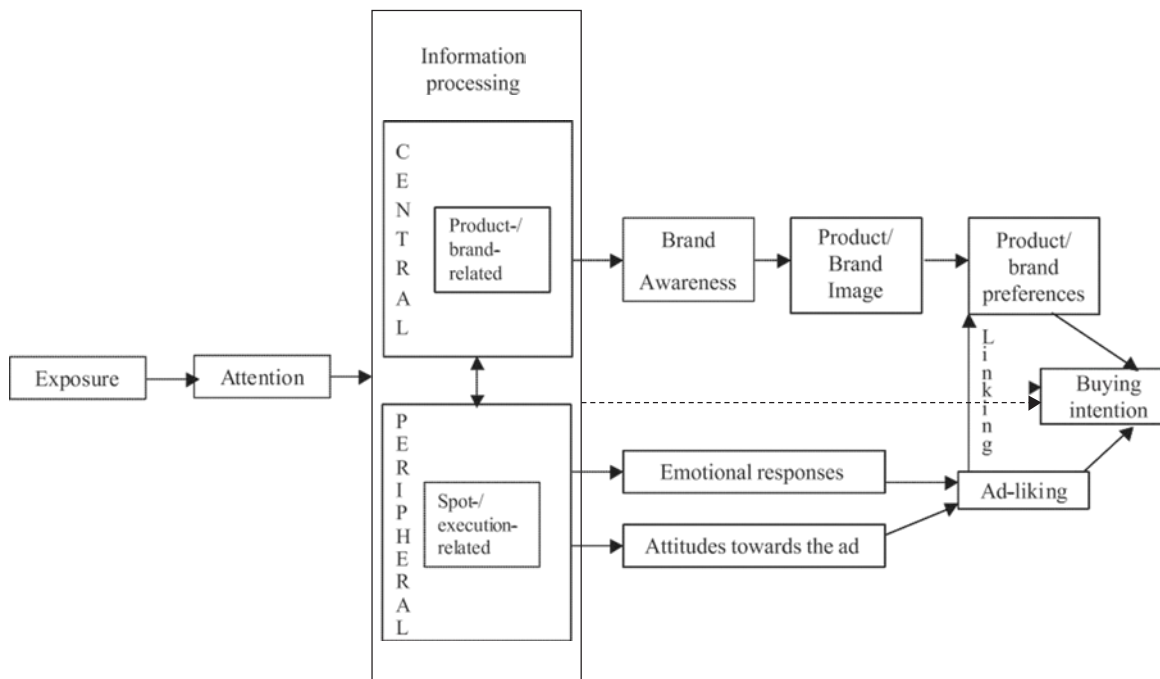


Figure 2.1 Elaboration Likelihood Advertising Model (Hansen, 1997)

C (cognition) E (experience) A (affect) models are developed based on CA models and become another group of hierarchy models. The experience step refers to the consuming experience of the advertised product. Ehrenberg (1974) suggests that the advertisement processing procedure starts from awareness, progresses to trial and to reinforcement at last. The trial experience is the dominant factor in the procedure. Levin and Gaeth (1988) found that advertisement exposure after usage experience makes the advertisement more effective. Kempf and Smith (1998) tested an advertising model which includes the real free trial step and found that the product trial has an effect on consumers' attitude to the brand through the following process: from consumers' thoughts of the trial, to expected value from experiential attributes of the product, and finally to evaluation of the brand's performance.

Recently another popular group of models is E(experience) C(cognition) A(affect) models, and a representative one is proposed by Bruce, Peters, and Naik (2012). The model is based on advertising, sales, and consumer processing data collected over five years on a soft drink brand sold in European markets. They found that there are relationships between current and previous cognition, affect, experience and sales. Equation 2.1 expresses the lagged integrated ECA model.

$$\begin{bmatrix} C_t \\ A_t \\ E_t \\ S_t \end{bmatrix} = \begin{bmatrix} \gamma_{11} & 0 & \gamma_{13} & \gamma_{14} \\ \gamma_{21} & \gamma_{22} & 0 & \gamma_{24} \\ 0 & 0 & \gamma_{33} & \gamma_{34} \\ 0 & \gamma_{42} & 0 & \gamma_{44} \end{bmatrix} \begin{bmatrix} C_{t-1} \\ A_{t-1} \\ E_{t-1} \\ S_{t-1} \end{bmatrix} + \begin{bmatrix} \beta_1 g(u_t) \\ \beta_2 g(u_t) \\ \beta_3 g(u_t) \\ \beta_4 g(u_t) \end{bmatrix} + \begin{bmatrix} w_{1t} \\ w_{2t} \\ w_{3t} \\ w_{4t} \end{bmatrix} \quad (\text{Equation 2.1})$$

Where  $C_t$  is consumers' cognition of the advertisement in time period  $t$ ;  $A_t$  is consumers' affect of the advertisement in time period  $t$ ;  $E_t$  is consumers' experience of the brand in time period  $t$ ;  $S_t$  is the sales of the brand in time period  $t$ ;  $C_{t-1}$ ,  $A_{t-1}$ ,  $E_{t-1}$  and  $S_{t-1}$  are the same variables' value in time period  $(t-1)$ ;  $\gamma_{11}$ ,  $\gamma_{21}$ ,  $\gamma_{22}$ ,  $\gamma_{42}$ ,  $\gamma_{13}$ ,  $\gamma_{33}$ ,  $\gamma_{14}$ ,  $\gamma_{24}$ ,  $\gamma_{34}$  and  $\gamma_{44}$  are the carry over effect from past cognition, affect, experience, and sales to current  $C$ ,  $A$ ,  $E$ , and  $S$ ;  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ , and  $\beta_4$  are the current advertising effect;  $g(u_t)$  is the diminishing returns to advertising and  $g(u_t) = \sqrt{u}$ ; and  $w_{1t}$ ,  $w_{2t}$ ,  $w_{3t}$ ,  $w_{4t}$  are the error and  $w_t \sim N(0, W)$ .

This model shows that advertising triggers cognition, affect, experience, and sales simultaneously through  $(\beta_1, \beta_2, \beta_3, \beta_4)'$ .  $(\beta_1, \beta_2, \beta_3)'$  ignite the intermediate effects of cognition, affect, and experience, and  $\beta_4$  indicates the direct effect of advertising on sales. The elements  $\gamma_{14}$ ,  $\gamma_{24}$ , and  $\gamma_{34}$  measure the purchase reinforcement of cognition, affect and experience; and  $\gamma_{11}$ ,  $\gamma_{22}$ , and  $\gamma_{33}$  capture cognition, affect, and experience dynamics into future periods. The element  $\gamma_{13}$  indicates that prior experience influences current cognition,  $\gamma_{21}$  shows that prior cognition drives current affect, and  $\gamma_{42}$  indicates that prior affect induces brand sales. This ECA model which is based on empirical data is the most fitting model compared with all other possible models which include cognition, affection, and experience process, such as CEA, EAC, CAE, AEC, and ACE models. However, as the data was gathered only from one soft drink company, this model may not apply to all product categories or brands. Both CEA and ECA models emphasize the importance of trial experience in strengthening consumers' cognition or affection responses to an advertisement, so the trail intention is also considered in this study.

All of the above advertisement processing hierarchies are advanced by advertising psychologists, but some neuroscientists (Rose, 1993; Sutherland, 1993) provide

evidence that a human's brain receives cognitive and affective information in a parallel fashion, not a linear fashion. Researchers (Hansen, 1981; Sperry, 1982) suggest that the left brain focuses on conscious, verbal, analytical, sequential, and arithmetic information processing (including cognitive information processing), and the right brain involves unconscious, nonverbal, synthetic, holistic, geometrical or spatial information processing (including affective information processing). All sensory information, except smell, goes to the thalamus first and then simultaneously goes to the neo-cortex (where cognitive functions work) and the limbic system (where affective functions work). Their findings suggest both cognitive process and affective process are most probably working simultaneously and interactively (Rose, 1993; Sutherland, 1993).

Moriarty *et al.* (2009) proposed a model that follows the research result of neuroscientists and enlarges the concept that processing occurs simultaneously. The model has six facets: 'see/hear', 'think/understand', 'feel', 'connect', 'believe', and 'act/do'. All facets work together to make up a consumer's response to an advertising message. 'See/hear' is the step where a consumer notices one advertisement and assigns meaning to it. The factors that influence audience's perception in the 'see/hear' facet are: exposure, selection and attention, interest and relevance, awareness, and recognition (Moriarty *et al.*, 2009). 'Think/understand' is the cognitive facet which is driven by consumers' needs, cognitive learning, differentiation ability and recall. 'Feel' is the affective facet that is influenced by consumers' wants, feelings, liking the brand and advertisement, and resonates with the advertisement. 'Connect' uses symbolic connections between a brand and desirable characteristics and qualities, people, situations and lifestyle. Therefore, symbolism, conditioned learning ("a group of thoughts and feelings become linked to the brand, through repetition of the message" (Moriarty *et al.*, p.116)), and transformation (when the product takes on special meaning) are the main drivers of 'connect' facet. It is the 'believe' aspect of the persuasion process of the advertising which creates or changes consumers' attitudes and creates conviction. Consumers' motivations, environment influences, consumers' involvements in the advertisement, advertisement conviction, consumers' preferences and intentions to try or buy, and consumers' loyalty are important in the persuasion process. The 'act' component of the process includes different types of action: try, buy,

contact, advocate and refer, and prevent. Moriarty *et al.* suggest that all of these six facets work together to create a response to a brand message. The effects are holistic and lead to an integrated perception. However, exposure of an advertisement must occur first so that consumers can process the advertisement and actions because of it could happen later. This study follows the research results of both scholars in advertising area and neuroscientists and hypothesizes a process hierarchy. In the hypothesized hierarchy, the see/hear step happens first, cognitive and affective processing occur with information gathering actions (such as checking websites) simultaneously in the advertisement processing step, and consumers' responses to the advertisement, such as attitude to the advertisement ( $A_{ad}$ ), attitude to the advertised product ( $A_p$ ), trial intention, and purchase intention (PI), are generated lastly following several paths. The hypothesized model will be elaborated in detail in chapter 2.4.

### 2.1.3 Measurements of cognitive and affective responses

Because the above discussed advertisement processing theories, such as CA, CEA, ECA models, elaborate the functions and importance of cognitive and affective processing to  $A_{ad}$  and behavioural intentions to the advertised product, cognitive and affective responses to the advertisement will be collected in this study by relevant scales so that consumers' perception and feelings of the advertisement can be understood. Edell and Burke (1987) suggest a set of 65 items which describe consumers' affective feelings after seeing an advertisement. Those items are separated into three groups: upbeat feelings, negative feelings, and warm feelings. Upbeat feelings and warm feelings are positive affective responses to an advertisement, and negative feelings are negative affective responses to an advertisement. Edell and Burke (1987) conclude that positive and negative feelings can co-occur after seeing one advertisement and those affective feelings can explain consumers' attitudes to the advertisement, especially the negative feelings.

Furthermore, Schlinger (1979) develops the Viewer Response Profile (VRP) which intends to gauge consumers' affective reactions to advertisements from seven dimensions: entertainment, confusion, relevant news, brand reinforcement, empathy,

familiarity, and alienation. Entertainment refers to the pleasurable, enjoyable, and fun to watch/listen to an advertisement. Confusion is the degree to which viewers feel that an advertisement is difficult to read/follow. Relevant news refers to whether the advertisement has told viewers something important and interesting about the brand. Brand reinforcement is whether the advertisement reinforces existing positive attitudes toward the brand. Empathy refers to the extent to which viewers participate vicariously in events, feelings and behaviours that are shown in an advertisement. Familiarity relates to consumers' feelings of the unusual and difference of the advertisement in general or when compared with advertisements from the same product category. Alienation is the degree that consumers feel the content of an advertisement is irrelevant or irritating. Schlinger's (1979) scales provide more detail of a consumer's reactions to the advertisement compared with Edell and Burke's (1987) scales. However, some dimensions examined in Schlinger's scales are combined reactions of both affective and cognitive processing of information. For example, confusion, relevant news, and alienation dimension, to a large extent, are based on viewers' cognitive understanding of the information transmitted by an advertisement. The familiarity dimension is based on viewers' comparison of the cognitive understanding of one advertisement with the cognitive understanding of other advertisements in the same product category. Therefore, these dimensions in VRP were used to gather some detailed cognitive responses to an advertisement in this study.

Puto and Wells (1984) developed a 23 items scale to analyse consumers' cognitive understanding of the content in an advertisement. The scale divides advertisements into informational and transformational content. The informational advertisement "provides factual, relevant brand data in a clear and logical manner so that consumers have greater confidence in assessing the merits of buying the brand" (Puto & Wells, p.638), whereas a transformational advertisement "associates the experience of using the advertised brand with a unique set of psychological characteristics" (Puto & Wells, p.638). This research used one item that evaluates the level of informational content and three items that evaluate the level of transformational contents to analyse the cognitive understanding of an advertisement.

#### 2.1.4 Advertisement processing results

After consumers have processed an advertisement, there are five responses that are most frequently studied by advertising scholars (Coulter & Punj, 2004): attitude toward the advertisement; advertisement cognition; attitude toward the brand; brand cognition; and purchase intention. MacKenzie, Lutz and Belch (1986) compared four nesting hypotheses (Affect Transfer Hypothesis, Dual Mediation Hypothesis, Reciprocal Mediation Hypothesis, and Independent Influences Hypothesis) which propose different causal relationships among these responses and attitudes. They designed two experiments to examine the fitness of those four hypotheses and found that Dual Mediation Hypothesis (DMH) is the most fit one (see Figure 2.2). After MacKenzie, Lutz and Belch's (1986) examination, the comparison of four models has been implemented by other scholars in experiments, such as Homer (1990), and DMH was also proved to be the most fit model. Therefore, the main causal relationships in DMH will be hypothesized and assessed in this study.

In DMH (Lutz & Swasy, 1977), five processing responses: advertisement cognitions ( $C_{ad}$ ), brand cognitions ( $C_b$ ), attitude toward the advertisement ( $A_{ad}$ ), attitude toward the brand ( $A_b$ ), and purchasing intentions ( $I_b$ ), and their relationships are established. MacKenzie,

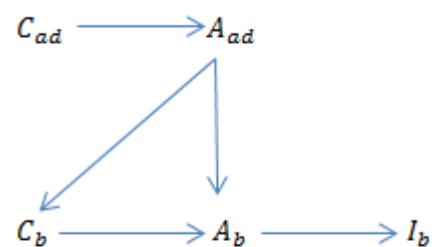


Figure 2.2 Dual Mediation Hypothesis  
(From Lutz & Swasy, 1977)

Lutz and Belch (1986) explain that  $C_{ad}$  and  $C_b$  are cognitive responses after processing the advertisement, and  $A_{ad}$  and  $A_b$  are affective responses. However, because the  $C_{ad}$  contributes to  $A_{ad}$  directly and  $A_{ad}$  contributes to  $A_b$ ,  $A_{ad}$  and  $A_b$  are actually the mixed responses which combine the responses of cognitive and affective processing. Shimp (1981) supports this combination view that consumers' attitudes to an advertisement are composed of both cognitive and affective dimensions, while others, such as Madden, Allen, and Twible (1988), prefer to focus on the affective dimension only. This study employs the combination view of  $A_{ad}$  and  $A_b$ , and treat  $A_{ad}$ ,  $A_b$ , and

$I_b$  as the results of an integrated processing of both cognitive and affective perspectives.

Figure 2.2 shows that  $C_{ad}$  has a direct effect on  $A_{ad}$ , and  $A_{ad}$  has both a direct effect on  $A_b$  and an indirect effect through  $C_b$ . Lastly,  $A_b$  contributes to purchasing intention directly. This model is regarded as superior when compared with the other three models based on MacKenzie, Lutz and Belch's (1986) examination. Moreover, DMH fits the available data well. However, MacKenzie, Lutz and Belch's results also suggest that  $A_{ad}$  has a strong effect on  $A_b$  and a moderate effect on  $C_b$ , but the path from  $C_b$  to  $A_b$  has no appreciable significance. Therefore, the mediating effect of  $C_b$  between  $A_{ad}$  and  $A_b$  is not included in the proposed theoretical model of this study.

In conclusion, the synthesis of DMH and MacKenzie, Lutz and Belch's (1986) examination recommends that perceptions of advertising messages lead to consumers' attitudes to the advertisement, which is a combination of cognitive and affective reactions to the content of the message and governs attitude to the brand. The more favourable consumers' attitude toward the advertisement, the more receptive they are to the advertised brand and product. The significant paths in DMH are hypothesized and tested in this study to examine the advertisement processing results from Chinese consumers:

$H_1$ : Consumers' attitudes to the advertised product (refers to the attitude to brand in DMH) mediate the causal relationship from consumers' attitudes to a CSR advertisement to consumers' purchasing intentions to the product.

In DMH, attitude to and purchase intention toward brand actually refer to attitude to and purchase intention toward the advertised product. The term 'attitude to brand' was not used in this study is because the word 'brand' has a range of meanings and associations (Aaker, 1996), which does not only refer to the advertised product. The brand and the products/services it offers are separate entities, so 'attitude to the advertised product' ( $A_p$ ) rather than 'attitude to the brand' was used in this study.

## 2.2 Processing of written messages and visual images in advertisements

Most advertisements include both verbal and visual information, and their functions in forming memory of, and attitudes to, advertisements have been analysed by many researchers. Guenther, Klatzby and Putnam (1980) analysed the effects of visual and verbal information on memory and suggest that visual information is superior to verbal information in recall and recognition. Son, Reese and Davie (1987) found that memory is enhanced when there is a certain amount of correspondence between visual and verbal information. Mitchell and Olson (1981) studied the influence of visual and verbal stimuli on attitudinal responses and conclude that the visually oriented advertising is more effective in generating positive attitudes to a brand and in attributes communication than verbally oriented advertisement.

Multiple studies suggest that verbal and visual information lead to different processing routes. According to Kim and Lennon (2008), visual information causes imagery information processing whereas verbal information causes discursive information processing. Imagery information processing represents sensory information in working memory that discursive information processing does not have (MacInnis & Price, 1987). MacInnis and Price claim that discursive processing may cause an implicit or explicit summary of brand features based on combination rules, but imagery processing may cause a holistic evaluation of the brand and is easier to visualize decision outcomes. In addition, some studies found that imagery processing is superior in resulting purchasing intentions. Cautela and McCullough (1978) found that in a clinical context, imagery processing is more influential in affecting behavioural intentions than discursive processing. The reason might be that imagery processing may lead to a stronger emotional sensory experience than discursive processing, and increases desire for product (MacInnis & Price). Furthermore, the sensory experience evoked by imagery processing provides some of the enjoyment, satisfaction, or stimulation feeling from actual consumption (Holbrook & Hirschman, 1982; Lindauer, 1983).

Although the above research discovers certain trends in verbal and visual information processing in advertising, some researchers (Yoon, 1997; Pham, 1998; Mantel & Kardes, 1999) argue that information processing skills, goals, prior knowledge, and strategies vary greatly among individuals so that some trends may only apply to certain groups of consumers. Sojka and Giese (1997) suggest that there are four groups of consumers based on their need of cognition and affect processing of information: (i) thinker, an individual has a high need for cognition but a low need for affect; (ii) feeler, a person has a high need for affect but a low need for cognition; (iii) combiner, an individual has both a high need for cognition and high need for affect; (iv) alternative processor, a person has a low need for cognition and low need for affect. Sojka and Giese (2001) surveyed more than 300 university students to examine the differences between those four groups. They found that: firstly, thinkers express a greater preference for verbal information than feelers; secondly, feelers express a greater preference for visual information than thinkers; thirdly, combiners have a greater preference towards visual information than thinkers or alternatives; and fourthly, combiners have a greater preference towards verbal information than feelers and alternatives. Sojka and Giese (2001) point out that because combiners can act 'androgynously' and choose to process either verbal or visual information, the affective and cognitive systems can be interactive (Burke & Edell, 1989).

The research by Paivio (1971) and Katz, Paivio and Marschark (1986) in the information processing field provides more insights into the relationship between human's processing of visual images and written messages. Paivio proposes a Dual Coding Theory which views cognition activities as a result of two mental subsystems: an imaginal system which processes nonverbal events, and a verbal system which processes verbal events. Both systems form three discrete levels of processing for incoming stimuli: representational processing, referential processing and associative processing. Representational processing involves the direct activation of either verbal or imaginal systems. Referential processing establishes connections between the verbal and imaginal system. Associative processing happens when verbal or visual stimuli are associated with other verbal or visual stimuli. The imaginal system and the verbal system are supposed to be separate but are still interconnected through referential

connections. The verbal system facilitates sequential processing and the imaginal system facilitates parallel processing.

H<sub>2</sub>: The interaction of the written message and visual image has a direct effect on consumers' attitude to the advertisement ( $A_{ad}$ ).

Goossens (1994) formulated the Mental Imagery Processing Model based on the Dual Coding Theory. Goossens (1994) argues that imagery processing involves a continuous interaction between the imaginal system and the verbal system, and high imagery advertisements activate both the verbal and image system and lead to more in depth cognitive processing of the advertisements. Unnava and Burnkrant (1991) also support Goossens' (1994) findings of the interaction process. They point out that the high- or low- imagery verbal information given in an advertisement could impact the effectiveness of image in advertisement processing. When the verbal information is of high imagery, self-generated images could minimize the effect of externally provided pictures on the recall of verbal information (Unnava & Burnkrant, 1991).

However, the Propositional Representation Theory (Anderson & Bower, 1973) explains verbal and visual information processing differently from Dual Coding Theory. This theory claims that images occur as a result of other cognitive processes because knowledge is represented in the form of propositions, which illustrate the relationships between concepts (Sternberg, 2003). Lang (1979) argues that the image network includes information about perceptual responses and psychological processing factors, so processing verbal information may form images in minds. However, merely discursive cognition occurs when semantic structures are activated. The Propositional Representation Theory contains more detail about how visual information is formed based on verbal information when perception is involved, but not much detail about how verbal information is formed based on visual information. Therefore, Dual Coding Theory is employed in this study.

In summary, according to Paivio and his colleagues (1971, 1986), visual information could cause both imagery information processing, which may result in a holistic evaluation of the brand, and discursive processing; whereas verbal information could

cause discursive information processing, which may result in an implicit or explicit summary of brand features, but hardly elicit imagery processing. Dual Coding Theory (Paivio, 1971, 1986) further recommends that the imaginal system and verbal system are interconnected through referential connections. Although some research supports that the visual information is more effective in generating positive attitudes to a brand and in attributes communication to verbal information (Mitchell & Olson, 1981) and the imagery processing is superior in resulting purchasing intentions (Cautela & McCullough, 1978). Other studies (Yoon, 1997; Pham, 1998; Mantel & Kardes, 1999) suggest that such trends may only apply to certain groups of consumers. Sojka and Giese (1997) separate consumers into four groups: thinkers, feelers, combiners, and alternative processors. Visual information may be superior to verbal information in feelers' processing of information.

## 2.3 Factors influencing advertisement processing

Five factors that might influence the procedure or results of advertisement processing will be elaborated in this section: consumers' motivations to process an advertisement, opportunities to process an advertisement, abilities to process an advertisement, general attitude to advertising, and purchasing decision involvement in the advertised product.

### 2.3.1 Motivations, opportunities, and ability

According to MacInnis, Moorman and Jaworski (1991), consumers' motivation, opportunity, and ability to process advertisements will greatly influence the results of advertising communication. Motivation refers to "consumers' desire or readiness to process brand information in an advertisement" (MacInnis, Moorman & Jaworski, p.34). Opportunity is "the extent to which distractions or limited exposure time affect[s] consumers' attention to brand information in an advertisement" (MacInnis, Moorman & Jaworski, p.34). Ability means "consumers' skills or proficiencies in interpreting brand information in an advertisement" (MacInnis, Moorman & Jaworski, p.34). MacInnis, Moorman and Jaworski (1991) argue that enhancement of motivation, opportunity, and the ability to process advertisements will improve the effect of

advertising communication.

To enhance consumers' motivation, advertisers can use more executional cues that appeal to hedonic needs, more novel executional cues, more figural/prominent executional cues, and a complex array of executional cues. Advertisers can also enhance the relevance of the brand to consumers themselves in executional cues or design the executional cues to elicit consumers' curiosity about the brand (MacInnis, Moorman & Jaworski, 1991). Because this study employed an advertising experiment, which invited potential consumers at random, all respondents participated on a voluntary basis, were ready to process a print advertisement, and completed survey questionnaires. To increase consumers' opportunity to process advertisements, advertisers may increase the use of redundant brand information within and between advertisements, increase consumers' control over the rate of brand information presentation and/or the length of exposure to brand information, or increase the use of brand-related executional cues that are suitable for gestalt processing (MacInnis, Moorman & Jaworski, 1991). Print advertising was employed in the experiment as stimuli due to its familiarity to consumers, concise nature, and flexible processing rate. The logo and packaging design were also provided in the advertisement to increase brand information. Moreover, all respondents completed the survey questionnaire in high streets, where the noise and distractions are almost the same to the print advertisement exposure in reality. To enhance ability, advertisers can increase the use of brand-relevant context, or increase the use of brand-related executional cues that promote exemplar-based learning (MacInnis, Moorman & Jaworski, 1991). In order to increase consumers' ability to process the information provided by a print advertisement, the product chosen to be advertised is bottled mineral water. Almost all consumers have experience of consuming this product, and consumers' choice rules are relatively constant compared with other products.

### 2.3.2 Attitudes to advertising

Many scholars (Beales, Craswell, & Salop, 1981; Calfee & Ringold, 1988) argue that consumers' distrust of advertising is quite important because it impedes advertising

credibility and reduces advertisement efficiency. In other words, consumers' attitudes to advertising can influence their attitudes to an advertisement. Obermiller, Spangenberg and MacLachlan (2005) support that consumers' scepticism toward advertising moderates consumers' attitude toward an advertisement. Therefore, it is hypothesized in this study that:

H<sub>3</sub>: Consumers' attitudes to advertising moderate the causal relationship between the advertisement exposure and consumers' attitudes to the CSR advertisement such that more positive attitudes to advertising will lead to higher levels of attitudes to the CSR advertisement but less positive attitudes to advertising will lead to lower levels of attitudes to the CSR advertisement.

Reid and Soley (1982) and Sandage and Leckenby (1980) argue that there are two factors that influence consumers' attitudes to advertising: advertising is able to meet some needs from personal uses and utilities, and advertising also has social and cultural effects on a society. Based on these two factors, Pollay and Mittal (1993) further develop a comprehensive 2-dimensional model to evaluate consumers' attitudes to advertising. The first dimension is 'personal uses' dimension, which includes 'product information', 'social role and image', and 'hedonic/pleasure' factor. 'Product information' refers to the value and importance of product relevant information provided by the advertisement. 'Social role and image' is whether the advertisement creates product meaning (Tharp & Scott, 1990), such as brand image or personality, and self-image (Richins, 1991), such as portrayal of typical or idealized users, life style imagery, and associated status or prestige. 'Hedonic/pleasure' refers to consumers' feeling of pleasure upon exposure or in recollection. The second dimension is 'societal effects' dimension, which includes 'good for economy', 'materialism', 'value corruption', and 'falsity/no sense' factor. 'Good for the economy' refers to the function of advertising in the economy of a country, such as accelerating the acceptance of new goods and technologies, and promoting a healthy competition between producers. 'Materialism' is the degree that advertising leads to consumers' consideration of commercial concerns, which is a set of belief structures that sees consumption as the route to most satisfaction. 'Value corruption' refers to the extent that advertising reinforces deadly sins, such as greed and gluttony, more than virtues, such as prudence

and temperance. 'Falsity/no sense' is the degree that advertising misleads consumers or advertisements are not fully informative or confusing.

However, Pollay and Mittal's (1993) model does not consider another important factor, scepticism toward advertising, in measuring consumers'  $A_{ad}$ . Scepticism toward advertising can be a basic marketplace belief that helps to shape responses to advertising (Obermiller & Spangenberg, 1998). Obermiller and Spangenberg (p.159) define scepticism as "the general tendency toward disbelief of advertising claims". Highly sceptical consumers are more likely to disbelieve advertisements and less sceptical consumers are more likely to believe advertisements. According to Obermiller and Spangenberg (1998), consumers' scepticism, which could be regarded as one dimension of consumers'  $A_{ad}$ , is influential to the persuasion of advertisements in terms of literal truth of advertisement claims, motives of the advertisers, or the value of information. They develop a uni-dimensional, 9 items scale to measure the degree of consumers' advertisement scepticism. Because of the importance of scepticism as part of consumers'  $A_{ad}$ , several items will be used as part of the scale to measure consumers' attitudes to advertising in this study.

### 2.3.3 Purchasing Decision Involvement

Mittal (1989) argues that the final aim of marketing activities is to differentiate a brand from competing brands, bring the purchase task into focus and also bring to front of mind the notion of 'buying'. Thus, Mittal (1989) suggests considering consumers' purchasing decision involvement rather than product involvement in ascertaining whether a situation calls for a high- or a low-involvement strategy. Product involvement refers to the degree of interest in an object and includes both product importance such as involvement in utilitarian products (Lastovicka & Gardner, 1977) and enduring involvement such as involvement in hedonic products (Bloch, 1981). Purchase decision involvement, however, is "the extent of interest and concern that a consumer brings to bear upon a purchase decision task" (Mittal, p.150), and concerns a consumers' mind-set about an anticipated purchase decision. Thus a low purchase decision involvement describes the situation when consumers are not concerned too

much information before buying behaviour. A high purchase decision involvement describes the situation when consumers require all information prior to making the purchase decision. Mittal (1989) produced a uni-dimensional scale which includes four questions regarding the degree of caring, perceived brand differences, importance of right brand selections, and concern with the outcome. As purchasing intentions were examined as a dependent variable after seeing an advertisement in this study, PDI was assessed to understand the level of consumers' processing involvement of information provided by the advertisement. It is hypothesized that:

H<sub>4</sub>: Consumers' purchasing decision involvement moderates the relationship between consumers' attitude to the advertised product and purchasing intention.

## 2.4 The hypothesized advertisement processing model

The advertisement processing models were developed from the earliest Cognitive Affective models to Cognitive Experience Affective models and Experience Cognitive Affective models in recent years. Empirical studies, (e.g., Edell & Burke, 1987; Rose, 1993; Sutherland, 1993) support the idea that the cognitive and affective processing of an advertisement happens simultaneously in the exposure procedure of an advertisement. Moreover, consumers' actions such as contacting and browsing a website may be practised with the cognitive and affective processing (Moriarty *et al.*, 2009). After consumers' processing, results such as  $A_{ad}$ ,  $A_p$  and PI, are produced. In addition, consumers'  $A_{ad}$  may be influenced by consumers' attitudes to advertising (Beales, Craswell & Salop, 1981; Calfee & Ringold, 1988), and it was hypothesized as a moderator of the causal relationship between advertisement exposure and exposure results. In Figure 2.3, the oval, which represents the procedure of consumers' advertisement processing in their minds, is not the main focus of this study. The main reason is that there is a paucity of literature systematically examines human cognitive and affective processing procedures of advertisements. Most available scales can only collect cognitive and affective responses after processing an advertisement. The other reason is that no instrument is available to measure the psychological processes of holistic thinkers, such as the Chinese. The commonly used psychological procedures

such as ‘categorization’, ‘inductive inference’, ‘logical reasoning’, or ‘attribution processes’ may only apply to people raised in an European cultural background (Nisbett *et al.*, 2001). Therefore, the main focus of this study is whether various CSR advertisements that customers were exposed to can raise different reactions, such as  $A_{ad}$ ,  $A_p$  and PI. Consumers’ cognitive and affective responses were collected to better understand how consumers perceive and respond to those CSR advertisements. The rectangular, which includes see/hear the verbal and visual information and the interactive procedure of cognitive and affective processing, expresses the hypothesized advertisement exposure procedure.

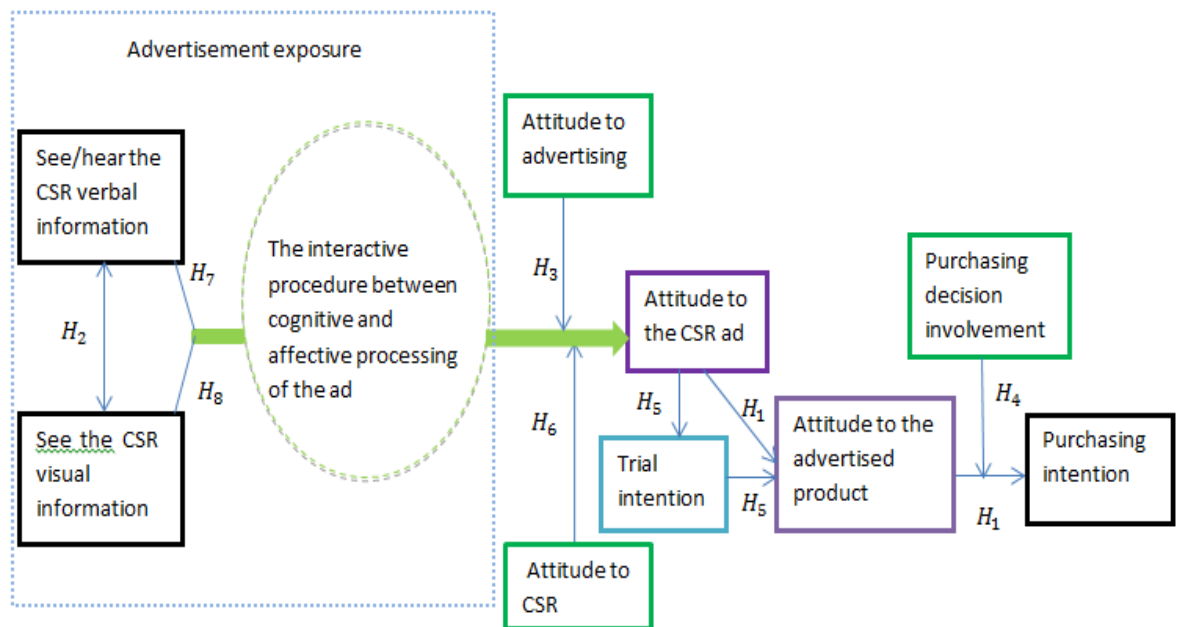


Figure 2.3 The Advertisement Processing Procedure and Results

MacKenzie, Lutz and Belch (1986) compared four possible paths among consumers’ responses after processing an advertisement, and found the Dual Mediation Hypothesis from Lutz and Swasy (1977) to be the most effective. It suggests that consumers’ attitude to the brand mediates the relationship between  $A_{ad}$  and purchasing intention. As discussed in Chapter 2.1.4, ‘attitude to the advertised product’ ( $A_p$ ) rather than ‘attitude to the brand’ was used in this study for a clear meaning and it was hypothesized to mediate the relationship between  $A_{ad}$  and PI.

Many advertisement processing models, such as CEA models and ECA models, studied the function of consuming experience in forming consumers' reactions to an advertisement. The Information Integration Response Model (IIRM) (Smith & Swinyard, 1982) tests the role of trial in forming consumers' attitude to the advertisement. It suggests that if the trial of low-involvement products is easy and inexpensive, advertising is more likely to affect weakly held (lower order) brand/product beliefs whereas strongly held (higher order) brand/ product beliefs are formed only after many purchases. If the trial of high-involvement products is risky and expensive, strongly held (higher order) brand/product beliefs are formed not only based on advertising but also based on word-of-mouth, magazine articles, and prior experience. The author chose a product, bottled mineral water, for this study to use as the object in advertisements, because it is a moderate purchasing involvement product in the Chinese market. Hence, whether the free trial intention works as a mediator between  $A_{ad}$  and consumers' attitude to the advertised product will be examined in this study. It is expected that

$H_5$ : Consumers' trial intention mediates the relationship between consumers' attitude to the advertisement and consumers' attitude to the advertised product.

Figure 2.3 shows the hypothesized advertisement processing procedure which combines the findings of the literature discussed above. All literature is based on empirical studies in Western countries (analytical thinking societies) where European culture is their main culture backgrounds. It is very hard to find any relevant literature based on studies in holistic thinking societies, such as China, Japan, and Korea. Therefore, the researcher hypothesizes that holistic thinker process advertisements and generate attitudes and behavioural intentions the same as analytical thinkers do. The discussion of the hypothesized moderator consumers' attitudes to CSR issues ( $H_6$ ), CSR written message ( $H_7$ ), CSR images ( $H_8$ ) will be elaborated in next chapter.

## 2.5 Advertising in China

The Chinese word for 'advertising' (广告) means 'let people know'. Based on this

meaning, China has a long history of advertising which can be dated back to the Western Zhou Dynasty (from 1100 BC to 771 BC). The major forms of advertising at that time were displays of goods and street hawking (Xu, 2005; Zhao, 2005). The variety of advertising has increased since then, and signage in the form of wine banners to indicate restaurants or bars, lanterns in front of business fields, pictures, signboards, and decorated structures were common in Tang Dynasty (AD 618-907) (Xu, 2005; Zhao, 2005). Printed advertisements became available after printing was invented in Song Dynasty (AD 960) (Xu, 2005; Zhao, 2005). The existing earliest Chinese advertisement was found on a copperplate (about 44 cm<sup>2</sup>) which was used to make print advertisements for a store selling sewing needles in North Song Dynasty (from AD 960-1127) (Guo & Yang, 1997). The advertisement includes a pictorial logo, sponsor's name, product description, and retail and wholesale methods (Guo & Yang, 1997).

Commercial advertising, however, was almost stopped after 1965 when the Cultural Revolution started and it only recommenced in China from 1979 after the economic reopening of the country. China's advertising market was worth CN¥ 10 million (\$US 6.6 million) in 1979 (Fan, 2004) and increased faster than 10% every year to reach CN¥ 312.5 billion (\$US 48.36 billion) in 2011 (Guang, 2006; Yang, 2013). By 2012, China became the third largest advertising market in the world after United States and Japan (Zhang, 2012).

### 2.5.1 Advertising development in China

China is an attractive market to many advertisers and agencies because it is the most populous country in the world (*China Economic Review*, 2006) and the second largest economy. Moreover, China has around 300,000 advertising companies that employ nearly two million people (Zhang, 2012). Guang (2006) concludes that China's advertising industry has entered 'a period of adjustment' as growth in the advertising industry has slowed, and other marketing activities, such as public relations, direct sales, and interactive marketing have increased.

### **Contemporary development**

Modern advertising started to appear in Chinese-language newspapers from 1861 in *Shanghai News* (*Shanghai Xinbao*), and in Chinese-language magazines from around 1901 in *Eastern Miscellany* (*Dongfang Zazhi*) (Xu, 1990). Radio advertisements came later in 1922 after radio stations were established in China (Xu, 1990). The first advertising agency in China was founded by Bruno Perme, an Italian, in 1915 (Xu, 1995), and many large and influential advertising agencies were established after that. The advertising industry grew very fast in 1930s and many other advertising media such as billboards, posters, booklets, calendars, and streetcars became popular. Advertising development slowed with World War II and the Civil War (1945-1949) in China. After 1949 when the People's Republic of China was established, advertising still existed until the middle of the 1960s. During the Cultural Revolution (1966-1976), advertising was very limited to some media outlets, like the *People's Daily*, mainly for industrial products and raw materials (Swanson, 1996; 1997).

Commercial advertising started again from 1979 when economic development became the core object of the Chinese and the Chinese Government. Market mechanism was introduced to China and integrated with the planned economy in the country with advertising seen as 'a socialist experiment' (Cheng, 1996). The Chinese Government decided to legitimize advertising in the early 1980s, encouraged industry to learn from Western countries and also learn the possible negative social effects of advertising (Gao, 2003). Advertising companies appeared again and its market share gradually increased to around 40% to 45% (Fan, 2004; Annual statistical figures, 2006). According to the World Trade Organization (WTO) agreement, China's advertising market totally opened to foreign companies from December 2005. Since then, multinational advertising companies have built subsidiary companies, and took over, merged or acquired Chinese advertising companies (Liao, 2011). Today multinationals have large revenue bases and a large market share compared with most Chinese companies (Zhang, 2012). In sum, following the boom of the advertising industry in China after 1979 and its fusion with the global advertising industry after 2005, advertising has becomes one of the most common communication tools by corporations and an important information source for Chinese consumers.

### 2.5.2 Advertising Media

Television, radio, newspapers, and magazine are four traditional mass media channel used for advertising, and they account for nearly 50% of the advertising spend in China (Xu & Ma, 2011). Besides, many new advertising media have become popular in the 21st century, such as the Internet, mobile devices, and digital TV (Ma & Qiu, 2011).

Except for the years 1993 and 1994, television has been the largest advertising medium in China since 1991 (Cheng, 1996; Fan, 2004; Xu & Ma, 2011). In 2011, the TV advertising spend in China was approximately CN¥ 72.44 billion (\$US 11.21 billion) (Zhan, 2012). China Central Television (CCTV) which has 24 channels is the most dominant TV network across the country, and its annual auction to sell airtime every year attracts all of the multinational advertisers that intend to sell their products across the whole country (Madden, 2005). Several local television networks now challenge CCTV's dominance with their popular and influential programmes, including Jiangsu TV, Hunan TV, and Shanghai TV.

Newspapers were the largest advertising medium in China from 1980 to 1990 and the second largest from 1995 to 2010. The newspapers advertising spend in 2011 was CN¥ 45.36 billion (\$US 7.02 billion) (Zhan, 2012). The newspapers' advertising spend decreased for the first time in 2004 and its market share dropped from 23% in 2003 to 18% in 2004 (Xu & Ma, 2011). Newspapers advertising market share was almost stable from 2004 to 2010 (Liang, 2006). Magazines' advertising market share fluctuates between 1.5% and 2.26% from 2002 (Xu & Ma, 2011), which is not high, but they have many loyal and regular readers (Shen & Deng, 2006).

Online advertising as the new advertising medium has become the fastest-growing medium among all communication channels in China and exceeded newspapers to become the second largest advertising medium from 2011. In 2012, China had 564 million Internet users of which 75% also used a mobile device for accessing the Internet (CNNIC, 2013). China's online advertising revenue reached CN¥ 72 billion (\$US 11.41 billion) in 2012 (Liu, 2013). Popular Chinese websites provide various advertising

forms: banners, links, logos, wallpapers, spots, email, super pop-under, navigations, and videos. Besides, podcasts, Internet search engines, e-magazines, online games, social networking services are important media for today's placement of advertisements (Ma & Qiu, 2011).

Out-of-home advertising is another important advertising channel in China. Its revenue reached CN¥ 34 billion (\$US 4.90 billion) in 2008 (Wang, Hu & Zhao, 2011). The forms increased from posters on walls, painted buses, billboards, advertisements at rail stations, shopping malls, and airports to mobile billboards, liquid crystal displays (LCD), light emitting diode (LED) displays, and digital TV in buses, lifts, and taxis. The biggest out-of-home advertising company, Focus Media, accounts for more than 95% of the market, and has more than sixty thousand displays in about 75 cities in China (*China Daily*, 2006).

The advertising type that was employed in this study is print advertising. It is mainly published in newspapers and magazines, and appears frequently in out-of-home advertising. Sometimes it is also used in online advertising when banners, logos, wallpapers, and print advertisements in emails and e-magazines are applied. Therefore, Chinese consumers can access print advertising under various circumstances and hence it is familiar to consumers of different ages, educational backgrounds, occupations, and income levels.

## 2.6 The features of Chinese advertising

Many scholars argue that all manifestations of culture, to some extent, are reflected in advertising (Zhang & Neelankavil, 1997; Gao, 2003; De Mooji, 2005). There is no doubt that Chinese advertising has been influenced by Chinese culture and the cognitive processing style of Chinese people in many ways, and it is reflected in many creative dimensions, such as design (word/picture/video/music choice), media choice, and image representative.

### 2.6.1 Chinese culture

Culture could be defined as “a learned, shared, compelling, interrelated set of symbols, whose meanings provide a set of orientations for members of society” (Terpstra & David, 1991, p.131). Cateora and Graham (2007) point out that the origins of culture come from geography, history, technology, political economy and social institutions, and there are five elements that comprise culture: values, rituals, symbols, beliefs, and thought processes.

Hofstede and Hofstede (2005) propose five indicators of cultural influence (‘power distance’, ‘individualism versus collectivism’, ‘femininity versus masculinity’, ‘uncertainty avoidance’, and ‘long-term orientation’) and their research can be demonstrated to understand some of the characters of Chinese culture. The concept of ‘power distance’ is “the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally” (p.45). China ranks highly around 12th -14th in more than 100 countries or regions that were studied, which means power distance in Chinese culture is high. The extent that Chinese people expect and accept unequally distributed power is high. ‘Individualism versus collectivism’ shows the relationship between the individual and the group. The ‘individualism’ concept pertains to “societies in which the ties between individuals are loose: everyone is expected to look after himself or herself and his or her immediate family” (p.74), and China is ranked around 56th-61st of all of the countries studied. Thus besides collectivism, Chinese culture also hold an individualism view to some extent, although it is not very high. The ties between individuals are moderately tight, and individuals may be expected to consider a larger society under some circumstances. ‘Femininity versus masculinity’ index assesses the social and emotional implications of having been born as a boy or a girl. A society is called masculine when “emotional gender roles are clearly distinct: men are supposed to be assertive, tough, and focused on material success, whereas women are supposed to be more modest, tender, and concerned with the quality of life” (p.117). China is ranked 11th-13th in the ‘masculinity’ index, therefore, males receive more attention in China’s society and are expected to undertake a larger role in a family situation. The concept of ‘uncertainty avoidance’ reflects ways of dealing with uncertainty and ambiguity, which are related to the control of aggression and the expression of emotions. The culture, which always

tries to avoid uncertainty, is aggressive, active, emotional, compulsive, security seeking, and intolerant. The culture, which is weak in uncertainty avoidance, is less aggressive, contemplative, unemotional, relaxed, accepting of personal risks, and relatively tolerant. China is ranked 68th-69th in uncertainty avoidance index among all of the countries, so Chinese are not keen to avoid uncertainty and allow flexibility in daily lives compared with people in other countries. 'Long-term orientation' stands for "the fostering of virtues oriented toward future rewards, in particular, perseverance and thrift" (p.210). China is ranked 1st in this index, indicating that the Chinese do emphasize long-term orientation thinking which may lead to rewards in the future, even if the long-term orientation may influence current living standards negatively or require strenuous works. In summary, the high ranking of 'long-term orientation', 'masculinity', and 'power distance' index and moderate ranking of 'individualism' and 'uncertainty avoidance' index provide several perspectives for people who have a European cultural background to understand some elements of the Chinese culture. More studies from psychological, philosophical and religion aspects of Chinese culture, which might influence advertising and advertisement processing in China, will be introduced in the following paragraphs.

According to Nisbett *et al.* (2001), East Asians (Chinese, Japanese, and Koreans) demonstrate a different psychological cognitive process compared with Westerners (people from countries in which European culture is their main culture background). The East Asians' cognitive process is holistic, which involves "an orientation to the context or field as a whole, including attention to the relationships between a focal object and the field, and a preference for explaining and predicting events on the basis of such relationships"(p.293). The Westerners' cognitive process is analytical, which involves "detachment of the object from its context, a tendency to focus on attributes of the object to assign it to categories, and a preference for using rules about the categories to explain and predict the object's behaviour" (p.293). Therefore, compared with people who have European cultural background, Chinese and other East Asians attend more to the field, invoke situational factors more frequently in explaining events, consider more potential causal candidates, are less surprised by any given outcomes that might be influenced by complex potential factors, group objects and

events based on functional relationships and part-whole relationships, rely more on prior beliefs in judging the soundness of formal arguments, seek compromise solutions to problems, and try to reconcile or transcend seeming contradictions (Nisbett *et al.*, 2001). Nisbett *et al.* (2001) concluded that even though some important cognitive processes are universal, other important processes may be highly alterable and Western psychologists' experiments on 'categorization', 'inductive inference', 'logical reasoning', or 'attribution processes' may only apply to people raised in a European culture. Wu (2011) found that holistic thinking style is employed in advertisement processing of Chinese consumers. Therefore, four perspectives of holistic thinking (Choi, Koo, & Choi, 2007) will be tested in this study and Chinese consumers' reactions will be analysed using holistic cognitive processes. Because the Chinese implement holistic thinking in the whole process of cognition, it is the foundation of information processing of the Chinese rather than an impact from one variable which contributes to the cognitive processes of the Chinese. Hence, holistic thinking will not be used as one variable which contributes to the results of advertisement processing by Chinese consumers in this study, but be used as the instrument to analyse and explain the advertisement processing results of Chinese consumers.

To fully understand Chinese culture and consumers, it is also essential to understand Confucianism, Daoism and Buddhism (Chang & Cheng, 2009). Fan (2000) claims Confucianism is the foundation of Chinese cultural tradition. One core theme of Confucianism is related to relationships and duties that one person holds due to his/her roles in various environment and with different people. There are five key relationships: ruler to minister, father to son, husband to wife, older brother to younger brother, and friend to friend. Those relationships illustrate the importance of hierarchy, holism and family in Chinese society, the cultivation of morality and self-restraint, and hard work and achievement. The hierarchies and relationships in this core theme reflect the 'power distance', 'collectivism' and 'masculinity' indicators that were studied by Hofstede and Hofstede (2005). Moreover, the relationships between people also reflect Chinese foci on the relationships between an object and its field, and preferences for explaining and predicting events on the basis of such relationships (Nisbett *et al.*, 2001).

Daoism (Taoism) is another important philosophy and also a religion in China's society. Daoists believe that to obtain harmony, *yin* (female) and *yang* (male) energy have to be balanced in everything at any given time. The balance between *yin* and *yang* energy restores a natural order which is important to persons and events. This theme regarding energy and balance explains Nisbett *et al.*'s (2001) findings that the Chinese seek compromise solutions to problems and try to reconcile or transcend seeming contradictions. Because of the importance of balance in everything at any given time, compromises are always welcome to resolve contradictions and promote the establishment of balance. In addition, Daoism does not encourage a pioneering spirit, but rather, passivism and believes that people are not significant compared with the nature's vastness (Doctoroff, 2005). Therefore, Chinese hold 'collectivism' thoughts (Hofstede & Hofstede, 2005) to some extent, which reflects the smallness of an individual compared with the vastness of nature or groups of people. Due to the vastness and unpredictability of nature, the Chinese have to consider many issues in a 'long-term orientation' (Hofstede & Hofstede, 2005), otherwise the results might be far from expectations. The belief about vastness of nature also contributes to a Chinese holistic thinking style in which people attend more to the field and invoke situational factors more frequently in explaining events (Nisbett *et al.*, 2001).

The influence of Buddhism on Chinese people and society has been that "by distancing themselves from society, however, the sects of renouncers never tried to change the world or initiate revolution" (Allik & Realo, 2004). Instead, Buddhism provides Nirvana as an outlet for people's frustrations. Buddhism does not encourage people to solve contradictions or conflicts by offensive and revolutionary actions but by peaceful and defensive actions. Therefore, the Chinese try to seek compromise solutions to problems and reconcile or transcend contradictions (Nisbett *et al.*, 2001). Distancing themselves from society and becoming a Buddhist is one of the peaceful and defensive actions that the Chinese can employ to solve contradictions or conflicts encountered.

"Chinese culture, influenced by Confucianism, Daoism and Buddhism, values hierarchy of relations, harmonious family life and group mentality (collectivism)" (Chang &

Cheng, 2009, p.98). Hence, there are two important concepts in Chinese culture: *guanxi* (relationships) and *mianzi* (face). *Guanxi* refers to the “connections between an individual and a network of others in personal relationships” (Chang & Cheng, p.98). It can be seen as one person’s social capital and “enables one to exert influence over others or to exert influence on behalf of another in the network” (Chang & Cheng, p.98). *Guanxi* itself reflects the theme of ‘collectivism’ in Chinese society. One person can influence others because he/she is a member of a group of people, and some of the benefits he/she obtained can be a potential *guanxi* resource to help others from the group in the future. *Mianzi* refers to ‘face’, which can be understood as a person’s power and influence. Saving face and giving face are important for Chinese because they can show power and influence, but losing face has to be avoided and may lead to loss of authority. Therefore, people who are from the top of a hierarchy generally have more *mianzi* than those from the bottom.

Of course, Chinese society itself is still changing and influenced by other cultures and values. Inglehart and Welzel (2005) found some characteristics of Chinese society in their World Value Research. Chinese people hold survival values and have relatively high secular rational values. Survival values emphasize economic and physical security. The aim of ‘long-term orientation’, which manifests perseverance and thrift characteristics in Chinese, is to ensure the security of economic and physical resources. Secular rational values place less emphasis on religion, traditional family values and authority. On the contrary, divorce, abortion, euthanasia and suicide are seen as relatively acceptable in secular rational societies (Inglehart & Welzel, 2005). The influence of Western culture, modernization, and scientific development in the 20th century contribute to the secular rational values of the Chinese.

## 2.6.2 The influence of Chinese culture on advertisements

Research shows that both Chinese and Western cultural values influence China’s advertising, and Western cultural values such as ‘modernity’ and ‘scientific technology’ have the strongest affect. Cheng (1994) studied 572 magazine advertisements from 1982 to 1992 and concluded that ‘modernity’, ‘scientific technology’ and ‘quality’ were

three core cultural values in 1980s' China. Moreover, six values which increased the most are: 'modernity', 'courtesy', 'patriotism', 'respect for elderly', 'youth focused', and 'sex appeal'. In these six increased values, 'courtesy', 'patriotism', and 'respect for elderly' are Chinese cultural values and 'modernity', 'youth focused', and 'sex appeal' are Western cultural values. In the 1990s, Cheng (1997) analysed 483 Chinese TV commercials from 1990 to 1995, and found that 'modernity', 'scientific technology', and 'youth focused' are three core cultural value in China's TV commercials. Six cultural values rose the most significantly in 1995 compared with 1990: 'competition', 'courtesy', 'enjoyment', 'individualism', 'patriotism', and 'tradition'. Besides emphasizing 'modernity' and 'scientific technology' in advertisements, 'youth focused' 'courtesy', and 'patriotism' are popular both in 1980s and 1990s Chinese market. Therefore, Western culture strongly influenced advertising of China from 1980s, and simultaneously Chinese traditional culture has also shown an influence on advertising.

Several more recent studies have shown similar results. Zhang and Shavitt (2003) analysed 240 magazine advertisements and 223 TV commercials and concluded that 'modernity' and 'individualism' are the most popular values in China, especially in magazine advertisements; 'tradition' and 'collectivism' are used more frequently in TV advertisements. Zhang and Harwood (2004) analysed 664 TV commercials in 2000, and the most frequent values are 'quality/efficient', 'family', and 'modernity'. Feng (2004) analysed 119 advertisements in nine popular Chinese websites and found that Western values were used more frequently than Chinese values in Internet advertisements.

Consumers' foci on 'modernity', 'scientific technology' and 'youth focused' in 1980s and 1990s are reflections of secular rational values of the Chinese, and their foci on 'courtesy' and 'patriotism' indicate the importance of 'collectivism' and *guanxi* (relationships) to the Chinese. More indicators of Chinese traditional culture, such as 'tradition', 'collectivism' and 'family', used in the 21st century illustrate a Chinese holistic thinking style in which people organize their worlds in terms of relationships among events in the environment, and group objects and events based on part-whole relationships (Nisbett *et al.*, 2001). In addition, due to the economic growth of the country and strong cultural influence from Western countries in many perspectives,

Chinese start to value their 'tradition' in recent years and try to maintain both Chinese and Western cultural influences which could contribute to the improvement of living standards in current lifestyles of the Chinese.

## 2.7 Advertisement processing in Chinese consumers

The fast economic growth in China has produced more 'sophisticated, careful and fickle' Chinese consumers (Ariga, 1997; Li, 1998). More and more middle-class families would like to spend on their education, cars, houses/apartments and vacations, making China one of the most attractive markets for many goods and services (Orr, 2004). Nevertheless, as many cross-cultural psychological studies have shown (Morris *et al.*, 1995; Peng & Nisbett, 1999; Ji *et al.*, 2000), the Chinese have different cognitive processes from people who have European cultural backgrounds. Even though some important cognitive processes are universal, their differences are significant in advertisement processing. The details will be introduced in the following review of the extant advertisement processing literature.

### 2.7.1 Chinese Consumers' attitude to advertising

Studies suggest that Chinese consumers generally have a neutral attitude to advertising and use advertising as an important information source. In 2000, the China Consumer Association conducted a survey with 3,358 respondents from all over the country and found that the majority of the respondents viewed advertising as a useful tool for gathering information, and over half respondents disagreed that advertising made them buy things they did not want (Chang & Cheng, 2009). The majority of the respondents agreed that advertised products are related to their daily life. Across all types of the advertising, the TV commercial (63%) is the most favoured advertising type, especially for female consumers, followed by magazine advertising (16%)(Chang & Cheng, 2009).

Consumers' ages, educational backgrounds and income levels may also impact their attitudes to advertising. Based on a survey by British Market Research Bureau Limited in China (Crellin, 1998)., consumers aged between 15 and 35 feel positive toward

advertising, but consumers over 35 feel negative toward advertising. Better educated young people (under 35 years) are more skeptical toward advertising compared with those poorly educated, and young consumers are confident that their purchasing decisions will not be misled by advertisers (Chang & Cheng, 2009). Huang and Chen (2006) analysed the data collected by 'IMI consumer behaviour and life pattern year book' from 1998 to 2005, and they found that consumers in Chinese cities rely on some information from advertisements when they make purchasing decisions, but do not believe that advertising information is all true. This study focuses on people who live in urban areas, and they account for 53.7% of the total population of China at the end of 2013 and are still increasing in 2014 (National Bureau of Statistics of China, 2015). The reason is that most available literature is based on studies in urban areas. Future research could investigate people who live in rural areas and compare the results with those from urban areas of China. Four groups of people believe advertising the most: first, people who have low income and follow other consumers; second, people who have high income and consume frequently; third, people who always want 'fashion' goods; and last, people with a tolerant personality type.

In addition, Chinese consumers pay different attention to advertising when they consume different products. Cosmetic, healthcare products, and beverage advertisements receive high attention from consumers; food, daily product, car, household appliance advertisements receive some attention; and restaurant and clothes advertisements receive the lowest attention (Huang and Chen, 2006). Similar results were obtained by a survey (Horizon Research Company, 1997) which shows that household appliance, beverage and medicine advertisements receive highest attention; tourism, furniture, and snack advertisements receive some attention; and clothes, magazine and newspaper, and stationary advertisements receive the lowest attention. 'IMI consumer behaviour and life pattern year book' (2006) also reports that the most favourable advertisements in China are advertisements for new products, advertisements from famous international corporations, and advertisements (commercial) introducing good behaviour. The least favourable advertisements are advertisements for medicine, medical services, and health care products, advertisements for cosmetics, and advertisements that do not respect Chinese culture,

value and history. Because beverage advertisements are part of those receive highest attention in China's market, bottled mineral water, which is in the beverage industry, may attract more attention from Chinese consumers compared with many other product types. Hence, bottled mineral water is a suitable product to be advertised in the experiment. Thus bottled mineral water, which is categorized in the beverage industry, may attract more attention from Chinese consumers compared with many other product types, and therefore is a suitable product to be advertised in the experiment.

### 2.7.2 Advertisement processing differences

Choi, Koo, and Choi (2007) developed a scale, analytic versus holistic thinking, to examine a person's tendency to employ holistic or analytical thinking. The scale considers four perspectives: *locus of attention*, *causal theory*, *perception of change*, and *attitude toward contradictions*. In the *locus of attention perspective*, holistic thinkers pay their attention to the relationship between objects and the field of objects rather than the object itself (Choi, Koo, & Choi, 2007). In contrast, analytical thinkers focus attention more on a central object itself and its attributes (Choi, Koo & Choi, 2007). Holistic thinkers hardly separate an object from its field but detect the relations among objects in a background field. In the *causal theory* perspective, holistic thinkers assume complex causalities and focus on the relationships and interactions between factors rather than consider the internal dispositions of a factor (Choi, Koo, & Choi, 2007). On the contrary, analytical thinkers see behaviour as a product of the actor's dispositions and ignore important situational determinants of the behaviour. Therefore, holistic thinkers are less likely to make the fundamental attribution error (Nisbett *et al.*, 2001). In the *perception of change* perspective, holistic thinkers assume constant fluctuations in predicting future events rather than expect similar patterns of change or stability (Choi, Koo, & Choi, 2007). In contrast, analytical thinkers assume that the essence of an object does not dramatically change over time and expect similar patterns of changes or stability in the near future (Choi, Koo & Choi, 2007). Holistic thinkers possess a cyclical view on future events and assume constant fluctuations almost on everything. In the *attitudes toward contradictions* perspective,

holistic thinkers tend to pursue a compromised middle ground rather than choose one of the two opposite propositions (Choi, Koo, & Choi, 2007). On the contrary, analytical thinkers hold formal logic approach and resolve contradictions by choosing one of the two opposite propositions (Choi, Koo & Choi, 2007). One item from each perspective of the scale will be selected to understand consumers' responses to the advertisement in this study.

Based on the findings of Nisbett and his colleagues (2001), there are differences between holistic and analytical thinkers in their cognitive processes. Wu (2011) compared some advertisement processing differences between Chinese and American students. She examined whether students retain information from big and small text fonts of the same advertisement differently in their native languages, and found that (i) Americans remember large font information better than small font, (ii) Chinese remember large and small font information about the same, and (iii) Chinese remember the information given in the small fonts better than American subjects. Wu (2011) argues that culture highly influences the cognitive process of consumers to advertisements. The differences of locus of attention between American and Chinese students contribute to the above results. American students pay more attention to the large font information which is the key information that advertiser would like to emphasize. It is the reflection of paying attention to an object itself by analytical thinkers. However, Chinese as holistic thinkers pay their attention to all information given in an advertisement, including both big and small text fonts, because the small font information provides a context for reader to understand the large font information. The object (large font text) and its field (small font text) are both important information to holistic thinkers.

Moreover, Hunt and Agnoli (1991) argue that each language poses different challenges and also provides differential support for cognition compared with other languages. Tavassoli (2007) studied the differences between using Chinese language and using English language in marketing and advertising. Chinese as a logographic language has many different features compared with using English, which is an alphabetic language (Tavassoli, 2007). Logographs are visually rich but sound poor, whereas alphabetic

languages are visually poor but sound rich. In Chinese, names have meanings and they can influence consumers' memory and evaluation (Tavassoli, 2007). A brand name translated both in terms of original sound and category meaning is more favourable.

In addition, colour, logos and images are probably able to impact consumers' attitudes to an advertisement. Chinese consumers pay more attention to a brand name's colour (Tavassoli, 2007). They evaluate a new brand more positively if it was printed by high-quality colours. Visual elements such as logos and images are potent retrieval cues in Chinese advertisements (Tavassoli). Tavassoli (2007) suggests that effective advertisement design needs to consider both the deleterious and the facilitating effects of non-linguistic elements during advertisement exposure. Engaging visual images in non-linguistic elements may be relatively more detrimental in Chinese (Tavassoli, 2007). The function of visual images and written messages will be examined in this study and other features, such as logo and packaging design, will be assessed in the selection of stimuli process to ensure they do not influence the effects of the advertisements.

## 2.8 Summary

This chapter introduced the definition of advertising, advertisement processing theories, consumers' processing of visual images and written message in advertisements, factors influencing advertising results and the hypothesized model based on these theories. The advertisement processing theories developed from simple CA models (e.g., Colley, 1961; Petty & Cacioppo, 1986; Barry, 1987; Rogers, 1995) to more complex linear models, such as CEA (e.g., Ehrenberg, 1974) and ECA (e.g., Bruce *et al.*, 2012) models. This study hypothesized a parallel processing of cognitive and affective information in consumers' brains (Rose, 1993; Sutherland, 1993), and also hypothesized that  $A_{ad}$  is established and transmit to consumers' PI through  $A_p$  (Lutz and Swasy, 1977) after the above processing.

Two executional cues in this study, visual information and verbal information, may raise different processing procedures in a viewer's mind. The processing results are also

influenced by information processing skills, goals, prior knowledge, and strategies of individuals (Yoon, 1997; Pham, 1998; Mantel & Kardes, 1999). Paivio (1986) proposes three discrete levels of processing, and the imaginal and verbal systems are supposed to be separate but still interconnected through referential connections between them.

In addition, several factors that possibly affect the results of advertisement processing were discussed: consumer's motivation, opportunity, and ability to process advertisements, consumers' attitudes to advertising, and consumers' purchasing decision involvement. Five hypotheses were proposed to examine in this study: the mediating effect of  $A_p$  between  $A_{ad}$  and PI, the interaction between written messages and visual images, the moderating effect of  $A_a$  between advertisement exposure and  $A_{ad}$ , the moderating effect of PDI between  $A_p$  and PI, and the mediating effect of trial intention between  $A_{ad}$  and  $A_p$ .

This chapter also discussed the development of the advertising industry in China, the features of Chinese advertising and advertisement processing in Chinese consumers. Chinese culture influences the procedures and results of advertisement processing. The holistic thinking style, which employs different thoughts and methods in locus of attention, causal theory, perception of change and attitude toward contradictions compared with the analytical thinking style (Nisbett *et al.*, 2001; Choi, Koo, & Choi, 2007), is the cognitive processes that Chinese and other East Asians use in their daily lives. Confucianism, Daoism and Buddhism are three important philosophies in China and have strong influence in the Chinese people's way of thinking (Chang & Cheng, 2009). Some of these cultural influences, which explain the information processing procedures and results of Chinese consumers, can be reflected by Hofstede and Hofstede's (2005) five indicators of culture influence. Based on empirical research (Cheng, 1994, 1997; Zhang & Shavitt, 2003; Zhang & Harwood, 2004; Feng, 2004), advertising in China has been influenced by both Chinese culture and Western culture. Many concepts from Western countries, such as 'modernity', 'scientific technology', and 'individualism', are employed in Chinese advertising. At the same time, traditional Chinese values, such as 'courtesy', 'tradition' and 'collectivism', are used frequently in

Chinese advertising.

Research has identified that many Chinese consumers viewed advertising as a useful tool for gathering information (Chang & Cheng, 2009). Consumers' ages, educational backgrounds and income levels may also impact on their attitude to advertising (Crellin, 1998; Huang & Chen, 2006).

In conclusion, advertising in China has been influenced by both Chinese traditional culture and Western culture simultaneously from 1980s. Nevertheless, the cognitive process differences between Chinese/East Asians and people with European cultural background determined that Chinese consumers may process advertising information differently from people with European cultural backgrounds. Therefore, Chinese consumers' cognitive and affective responses to CSR advertisements and their  $A_{ad}$ ,  $A_p$ , and PI after being exposed to CSR advertisements will be studied in this thesis to clarify holistic thinking consumers' processing of CSR advertisements and behavioural intentions. Because it is hard to find any research which systematically examines the differences in processing advertisements between analytical and holistic consumers, all hypotheses were made based on studies in analytical consumers. Hence, the results of this study will reveal the differences in processing advertisements between these two groups of consumers if some hypotheses are not accepted based on data from holistic thinkers.

## Chapter 3 Corporate social responsibility

The following literature review will cover four sections: Corporate Social Responsibility (CSR) definitions and theories, CSR in China, CSR communication and advertising, and CSR communication effects.

### 3.1 CSR definitions and theories

In recent years, CSR has gradually become a pervasive topic in both academia and practice fields all over the world. The development of the notion of corporations having a responsibility to society, and one that goes beyond mere economic contributions, is outlined by Bowen (1953), Davis (1973), Carroll (1979), Jones (1980), and Wood (1991). An early explanation of CSR by Bowen (1953) was that the social responsibilities of the businessperson “refer to the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society”. Jones (1980, p.60) explores the relationships between corporations and groups which comprise its social environment, he states: “corporate social responsibility is the notion that corporations have an obligation to constituent groups in society other than stockholders and beyond that prescribed by law and union contract”.

Despite the criticism that there is no one definition of CSR, several key contributors to the CSR discussion are noteworthy. In 1979, Carroll (p.498) gave his four perspectives definition: “the social responsibility of business encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time.” In 1998, Carroll provided a more comprehensive explanation of those four aspects of CSR. He argues that ‘economic face’ is one of the basic responsibilities of business and it is “not antithetical to good corporate social responsibility” (Carroll, 1998, p.2). Business, at least, has to earn money to cover all of its costs and fees which include employees’ wages, suppliers’ bills, taxes and other costs. Carroll explained the concept of ‘legal face’ as the codified ethics in a society. “If business is about what is right, good, and just in the commercial realm, law is designed by our lawmakers to

manifest these standards in terms of businesses' performance" (Carroll, p.3). The 'ethical face' requires corporations to engage in strong ethical values and practices so that they can bring behaviour and actions that follow the ethical standards of the society in which the company is embedded. The 'discretionary face', which was renamed the 'philanthropy face', includes "acts of community to enhance the quality of life and to ensure a better future" (Carroll, p.3).

Wood (1991, p.692) emphasized the relationship between business and society: "The basic idea of corporate social responsibility is that business and society are interwoven rather than distinct entities; therefore, society has certain expectations for appropriate business behaviour and outcomes". Matten and Moon (2005, p.324) concluded different names and definitions of CSR and pointed out its evolving nature:

CSR is a cluster concept which overlaps with such concepts as business ethics, corporate philanthropy, corporate social responsibility, sustainability and environmental responsibility. It is a dynamic and contestable concept that is embedded in each social, political, economic and institutional context.

Crane and Matten (2007) classified CSR research into four groups: instrumental, political, integrative and ethical. Instrumental theories suggest that CSR is a strategic tool to achieve economic objectives and wealth creation. There are three main groups under this theory: shareholder value maximization, achievement of competitive advantages and cause-related marketing. Shareholder value maximization means that corporate social activity should produce an increase of the shareholder value long term, otherwise it should not be accepted (Jensen & Meckling, 1976; Ross, 1973). The second group agrees that CSR is a strategy for companies to achieve competitive advantages. Companies can invest in philanthropy activities (Porter & Kramer, 2006), deploy social and ethical resources (Petrick & Quinn, 2001), and provide services for the poor to create competitive advantages (Christensen & Overdorf, 2000). Cause related marketing can help companies to differentiate its products from competitors by creating a socially responsible image (Smith & Higgins, 2000).

Political theories pay attention to the power, position and responsibilities of business in

a social context. Corporate constitutionalism, integrative social contract theory and corporate social responsibility compose the main research perspectives in this field. Integrative theories, which include issue management, public responsibility, stakeholder management and corporate social performance, indicate that companies should consider and integrate social demands in their operations to achieve social legitimacy, social acceptance and prestige. Ethical theories focus on the right thing to do to achieve a good society which meets the ethical standards of that society. Stakeholder normative theory, universal rights, sustainable development, and the common good are four main methods in academic research.

Table 3.1 CSR Theories

Groups of CSR theory	Sub-groups of CSR theory
Instrumental	Shareholder value maximization
	Achievement of competitive advantages
	Cause-related marketing
Political	Corporate constitutionalism
	Integrative social contract
	Corporate social responsibility
Integrative	Issue management
	Public responsibility
	Stakeholder management
	Corporate social performance
Ethical	Stakeholder normative theory
	Universal rights
	Sustainable development
	Common good

While definitions and research interests from different scholars vary, the central theme of CSR is “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis” (European Commission, 2001, p.6). The definition from European Union will be employed as the basis of this study because it displays a relatively complete picture of different perspectives of CSR and emphasizes its voluntary nature. Moreover, some thoughts from integrative theories and instrumental theories will be implemented in the study to understand consumers’ preference of CSR perspectives and explore better ways for companies to communicate their CSR activities.

## 3.2 CSR in China

Multinational companies brought the concept of CSR to China from the mid-1990s during the 'anti-sweatshop campaign' period (Myllyvainio & Virkkala, 2006; Zhou, 2006). This section will include CSR relevant laws and regulations, companies' CSR performance and reports, and the Chinese understanding of CSR.

### 3.2.1 Relevant laws and regulations

As the European Union definition describes, CSR in western countries refers to the corporation's voluntary concern about society and the environment from corporations. However, because China does not have a culture of CSR, but it has an environmental crisis, insufficient implementation of labour rights, low levels of product safety and many other CSR relevant problems, the Chinese Government has realized the importance of CSR (Po, 2008). The Government tried to introduce the concept of CSR and encourage the implementation of it in order to decrease or solve the problems that were brought by the lacking of CSR. The method was to introduce CSR in the country through laws and regulations so that it would cause serious concern for companies. The Chinese Government promulgated 'The Amended Company Law of the People's Republic of China' in 2006. It requires companies to abide by social ethics, business ethics, honesty, and trustworthiness and fulfilling social responsibilities. These content are only general guidance for companies in China to follow, and still provide much flexibility in implementations of CSR. For example, there is no definition for social ethics given in the law, so companies can choose the CSR topics that they perceive as part of the social ethics, set their own goals, and implement their CSR plans as companies themselves expected.

The most influential regulations about CSR were published by stock exchange markets. China has two stock exchange markets: Shanghai Stock Exchange, which managed 2372 securities and 954 listed companies, and Shenzhen Stock Exchange, which managed 2242 securities and 1537 listed companies until May 2013. In 2006, the

Shenzhen Stock Exchange published 'Social Responsibility Guidelines for Listed Companies' for companies listed on the stock exchange to follow (Shenzhen Stock Exchange website, 2006). The guidelines include listed companies' responsibilities to various objects: stockholders, creditors, employees, suppliers, customers, consumers, the environment, and society. It illustrates many perspectives of responsibilities to each object. Responsibilities to stockholders and creditors include corporate governance, general meetings of shareholders, information disclosure, allocation of profits, and fund security. Responsibilities to employees contain human resource management, human rights, employees' safety and health, salary and social security, discrimination, employee training, and labour union. Responsibilities to suppliers, customers and consumers include business standing, intellectual property, product safety, defective products, business ethics, social ethics, bribery, consumer information protection, and after sale service. Responsibilities to the environment contain environmental protection policies, human resource and funding support, resource utilization, pollution control, and company monitor. Responsibilities to society include community benefits, philanthropy activities, and public relations. At the end of the guidelines, Shenzhen Stock Exchange encourages its listed companies to establish their own CSR institution following this guideline and publish their CSR reports along with annual reports.

The Shanghai Stock Exchange published its CSR guidelines for listed companies to follow and required listed companies to include at least some CSR content in their annual reports/annual CSR reports, such as the achievements to improve employee health and safety, support to community, environmental and ecological sustainable development, and economic development (Shanghai Stock Exchange, 2008). Environmental and ecological information disclosure was emphasized in its guidelines, and the standard procedure of disclosure was introduced for companies to follow. The greatest innovation of the Shanghai guidelines compared with the Shenzhen guidelines is that it introduces the concept of 'Society Contribution Value' for companies to calculate and show their CSR efforts in a numerical way. The value is equal to the subtraction of the social cost of environmental pollution per share from

the sum of taxes paid by company, salaries paid to employees, interest expense and philanthropic expenses on earnings per share.

Another well-known and influential regulation concerning CSR arises from the State-owned Assets Supervision and Administration Commission of the State Council which supervises all the state-owned companies on behalf the Chinese Government. In 2008, the commission published the 'Guidelines to the State-owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities' (State-owned Assets Supervision and Administration Commission, 2008). Firstly, the guidelines explain the importance of CSR for state-owned companies based on the principles of stakeholder relationships, environment, society, and international communication and cooperation. Secondly, they illustrate the requirements and principles of implementing CSR that emphasize human-oriented policy, sustainable development, obeying the law, saving resources, modern enterprise system, and a corporation's competition. Thirdly, they introduce the main content of CSR which include obeying the law, making sustainable profits, product and service quality improvement, resource saving and environmental protection, innovation and technology advancement, ensuring production safety, the legal rights of employees, and participation in social welfare programmes. Lastly, the main measures of CSR are described: awareness of CSR, the measures of CSR implementation in corporations, CSR reporting, communication and international cooperation, and the support of the Communist Party of China.

In addition, many organizations and industry guilds have published their own CSR standards and implementation systems. For example, the China National Textile and Apparel Council formulated the 'China Social Compliance 9000 for Textile and Apparel Industry' in 2005, and its main content focuses on CSR to employees (China National Textile and Apparel Council, 2005). The China Business Council for Sustainable Development published its CSR standards in 2007. It contains most of the CSR perspectives discussed above along with culture diversity and embedment of the

company in the local community, which are classified as responsibilities to employees and to the local community respectively in global standards.

### 3.2.2 Chinese understanding of CSR

A simple classification of CSR content in the Chinese context by Chen and Han (2005) has three segments: basic CSR, normal CSR, and advanced CSR. Basic CSR refers to responsibilities to shareholders and employees. Normal CSR refers to the responsibilities to consumers, government, community, and the natural environment. Advanced CSR refers to philanthropy. Philanthropy and responsibilities to shareholders, employees, and the natural environment are similar to that in Western countries. Responsibilities to consumers mainly refers to providing qualified products and services, and in 2007 Chen added two more dimensions which were passing of international environmental certification (such as ISO standards) and consumer satisfaction. Responsibility to the government refers to paying tax. Responsibilities to the community include maintaining good relationships with the local community, and contributing to community development.

Due to the special cultural and social context in China, Xu and Yang (2007) investigated 686 executives in China to ascertain how the Chinese understand CSR. Most of the content of Chinese CSR is the same as CSR in Western countries but there are still a few differences. Xu and Yang (2007) found six dimensions of CSR in China are similar to that of Western countries, such as economic responsibility, legal responsibility, environmental protection, customer orientation, responsibilities to employees and charity activities. However, three dimensions with which Chinese executives and practitioners are concerned as part of CSR are not included in the Western understanding of CSR: employment, good faith, and social stability and progress. The employment dimension includes increasing job opportunities, reemploying lay-offs, easing national employment pressure, and providing jobs for the disabled people. The good faith dimension includes complying with business ethics and operating in good faith and the honouring of contracts. The social stability and progress dimension includes ensuring social stability and harmony, serving society and promoting social

progress, supporting the culture and education, possession of patriotism and promoting national prosperity. Moreover, they point out that two important dimensions in Western CSR are not included in Chinese CSR: shareholder interests (which include profitability, information disclosure, medium and small shareholders' benefits, and corporate governance), and equality (which includes race equity, sex equity, and opportunity equity). Xu and Yang (2007) explain that shareholder interests are recognized not as responsibilities to society but as liabilities to owners themselves, and equality problems do not fit the Chinese context. For example, more than 92% of Chinese believe themselves from one race (Jacques, 2009), so the concept of race equity is alien to Chinese citizens.

In summary, the content of CSR based on the Chinese understanding is shown in Figure 3.1. The horizontal axis is separated into economic, environmental, and society topics which are from the Triple Bottom Line (Elkington, 1997). The normal axis is separated into legal, economic, ethical and philanthropic facets based on Carroll's four faces of CSR. The horizontal axis expresses the expectation of CSR scope from the society side, and the normal axis illustrates the fields that a company usually implements its CSR plans. Therefore, the total area is composed of 12 small boxes which show the combination meaning of horizontal and normal axis and the scope of Western CSR. The position of each branch of CSR in China (for example: environment responsibility) shows the meaning that each branch covers. The concepts such as economic responsibility (profit that meets shareholders' expectations), legal responsibility, environmental protection, responsibilities to consumers (providing qualified products and services) and employees, and charity are shared by Westerners and the Chinese alike. The responsibility to government (paying tax) and good faith (complying with business ethics and operating in good faith and honour contracts) are not specified in Western CSR definitions but actually underpin their laws and regulations. Two CSR branches that are not totally covered by Western CSR definitions but are considered as part of Chinese CSR are employment and social stability (Xu and Yang, 2007). However, some objectives in employment and social stability can be achieved by running businesses, so these two branches in Chinese CSR have overlaps with the boxes that represent the scope of Western CSR in Figure 3.1. The areas that exceed the box

boundaries are unique in Chinese context: reemploying lays-off, providing jobs for the disabled people, ensuring social stability and harmony underline, promoting social progress, and patriotism and promoting national prosperity.

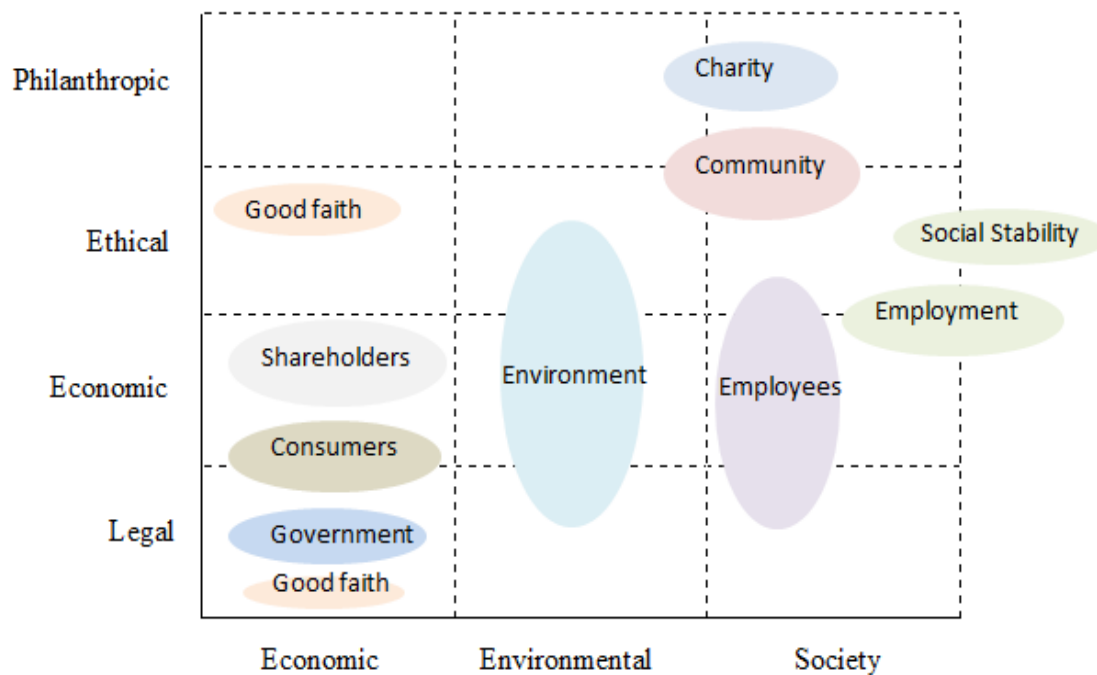


Figure 3.1 The Content of Corporate Social Responsibility in China

Another survey reveals companies' foci of CSR content in China. According to "Survey on Chinese Enterprise Operators' Growth and Development 2007" (Chinese Entrepreneur Survey System), 83.2% Chinese entrepreneurs agree that CSR is important to the firm's sustainable development, 69.7% believe that CSR will increase the overall cost to the company, 67.9% agree that the basic responsibility of firms is to create profit for shareholders, and 65.2% advocate that the main driver of CSR is to advance a company's brand image. The majority of entrepreneurs knew the concept of CSR, and some of the benefits and costs that it may raise to a company. In order to examine whether the above understanding of CSR has influenced their business practice, Pei (2006) suggested three key indicators to be assessed: productive environmental expenditures, labour and social security outlays, and tax payments.

Besides the research from the executives' perspective, some research in China studied CSR from the angle of consumers. Liu (2011) sorted the importance of different CSR topics in ordinary Chinese consumers' minds: the most important facet is environmental responsibilities such as decreasing environmental pollution and saving energy and resources. The second important topic is improving product quality and after-sales service, and the third is paying tax, while others such as CSR to employees, economic and philanthropic responsibilities are least important. Guo (2006) investigated Chinese consumers' attitudes to CSR based on Carroll's four faces of CSR but obtained different results from Liu. Guo found that the most important responsibility to Chinese consumers is legal, and then economic, ethical, and finally philanthropic. The differences between Liu's and Guo's results possibly come from the increasing concern on environmental protection issues in recent years. As more environmental problems were experienced and reported, Chinese consumers pay more attention to these issues and try to reduce the harm to the ecological environment. Liu (2011) also points out that consumers' evaluation of CSR is different from other stakeholders' evaluation of CSR. Consumers care most about responsibilities that are directly relevant to them, such as product quality (Deng & Jiang, 2011). One difference between Chinese consumers and other consumers who have been studied in Western countries is that Chinese consumers care more about the impact of a company's CSR activities instead of its motives (Ellen, Webb & Mor, 2006).

Furthermore, consumers' demographic information was analysed to see their contribution to CSR understanding. Liu (2011) found that Chinese females are more likely than males, and consumers over 36 years are more likely than those under 36 years, to avoid buying from companies that do not support CSR. Highly educated consumers and consumers with high incomes are more likely to choose products from companies that perform well in CSR areas. The demographic attributes of Chinese socially responsible consumers are similar to those of the U.S. socially responsible consumers, who are generally highly educated, married, and have middle or high income (Roberts, 1995). It shows that consumers, who are able to understand the

importance of CSR and pay for their concerns about CSR, are likely to become socially responsible consumers. However, Tian, Wang & Yang (2011) also found that Chinese consumer demographics and their CSR responses do not have linear relationships, and consumers' responses to CSR cannot be classified using a single perspective of segmentation or product category. Their research results are different from that of Roberts (1995) and Mohr, Webb & Harris (2001) who suggested that consumers who care more about CSR in their purchasing behaviour can be classified by demographic attributes. Therefore, it might be too early to analyse the demographic attributes of Chinese socially responsible consumers today, because this group is still in the formative period and these consumers' understanding about CSR are changing as more information relevant to CSR was known and learned.

### 3.2.3 Companies' CSR performance and reports

Ordinary Chinese are exposed to the terminology CSR more frequently today because of the positive attitudes of the Chinese Government and large organizations. The interest of the public to CSR issues has increased. Hence, many companies try to perform well in the CSR field. The certification Social Accountability 8000 (SA8000) is one indicator that shows the level of CSR implementation towards employees. About 410 companies in China, the third after Italy (883 companies) and India (616 companies), obtained the certification of implementing SA8000 to September 2011 (Han & Huang, 2012). Most of those companies are located in southeast China where many of them aim their products towards Western markets. Apparel, textile, and footwear are the most frequent industries in those 410 companies (Han & Huang, 2012). Thus the representativeness of SA8000 in CSR implementation in China is limited.

Many studies of CSR in China reveal the average implementation of CSR in companies is at low levels (Xu and Yang, 2009; Guan & Yu, 2009; Huang *et al.*, 2009). Many researchers (Xu & Yang, 2009; Song, Wang & Yao, 2012; Zhou, He & Li, 2012) concluded that the larger and more profitable the company is, the better it fulfils its CSR obligations. Large and profitable companies receive more social attention, have

more resource to use in CSR implementations, and have their own CSR strategies, so they perform better than small companies in fulfilling CSR. Moreover, state-owned companies and state capital holding companies perform better in implementing CSR, because they receive more attention and wish to satisfy the government, who is the only shareholder or the majority shareholder in such cases (Xu & Yang, 2009; Zhou *et al.*, 2012).

Different aspects of CSR are fulfilled on various levels. Xu and Yang (2009) investigated managers from 1071 companies in 12 cities in China, and found that the best CSR aspects that were fulfilled are 'providing correct and clear information about the product', 'meeting consumer satisfaction', 'donations to philanthropic and public welfare programmes', and 'establishing a labour union'. Some aspects are fulfilled relatively well: 'encouraging employees to take part in philanthropic and public welfare activities', 'no delay in paying salaries to employees', 'contributing to the local and state economic development', 'having ISO9001 certification', 'no exaggerated advertising', 'paid pension fund and Medicare for employees', 'having objectives to create social wealth', 'high production efficiency', 'having departments dealing with environmental protection issues', and 'investments in meeting environmental protection requirements'. Other perspectives, such as 'held philanthropic or public welfare activities', 'entered public welfare organizations', 'delivering employee training', 'improving employment status', 'having ISO140000 certification', and 'reporting environment and sustainability issues' lack implementation compared with the above two groups. In general, the economic responsibilities of CSR are fulfilled the best; CSR to employees (belongs to the legal aspect) and philanthropic responsibilities are implemented at the medium level; and the environmental responsibilities implementation ranked last. Song and Sheng (2009) obtained similar results. They analysed data from 638 companies listed on Shanghai or Shenzhen Stock Exchange and found that listed companies effectively fulfilled CSR responsibilities to shareholders and employees compared with other responsibilities. Moreover, there is a great diversity in different companies' performances.

To some extent, the performance of fulfilling CSR by a company could be understood from its CSR reports. As the CSR concept has become more popular in Chinese companies, the number of companies which publish CSR annual reports rose from 1 in 2001 to 582 in 2009 (Guan & Yu, 2009), and reached 1337 in 2012 (Guan *et al.*, 2012). In 2009, CSR reporting was most popular in manufacturing, electrical power, transportation and financial industries, and least popular in communication and culture, retail and wholesale, and agriculture, dairy and fishing industries (Guan & Yu, 2009). As the economy is more developed in East China compared with Middle and West China, there were more enterprises from East China (about 68.6%) than from Middle and West China (about 31.4%) publishing their CSR reports in 2012. In all of the CSR reports in 2012, approximately 46.8% of companies were state capital holding companies, 22.6% were private funds holding companies, 22.2% were state-owned companies, and 7.5% were companies with foreign funds (Guan *et al.*, 2012). Therefore, approximately 69% of companies which published their CSR annual reports were state owned or state capital holding companies. This corresponds to the findings that state-owned companies and state capital holding companies perform better in implementing CSR (Xu & Yang, 2009; Zhou, He & Li, 2012) so that they are willing to report their CSR performances. More than 61% of the companies which published CSR reports are listed on the Shanghai or Shenzhen Stock Exchange, and they followed the guidelines from the stock exchange market where their stocks are transacted. There are 7.7% companies which followed the guidelines from the State-owned Assets Supervision and Administration Commission (Guan *et al.*, 2012). Thus as discussed in Chapter 3.2.1, regulations from the stock exchange markets and State-owned Assets Supervision and Administration Commission are crucial impetuses of CSR adoption in China.

Guan *et al.* (2009, 2012) further analysed the details in CSR reports and evaluated these reports. They concluded that most companies are objective in their CSR reports, and 26.3% included the evaluation of CSR from stakeholder's perspectives. However, most companies did not ask a professional third party to evaluate their reports. Guan *et al.* (2012) evaluated all the CSR reports published in 2012 based on the report structure, information disclosure, comparability, creditability, novelty and readability.

Reports were classified into five levels: starting stage (32.1%), developing (40.6%), catch-up (13.8%), good (10.6%), and excellent (3%). The content of reports covered CSR to shareholders (financial information disclosure, and protecting shareholders' rights and interests), employees (employee training, pension funds, employee health and safety, following contract with employees, salary increases and labour union), customers (quality of product, quality management system and information disclosure), natural environment (pollution discharge, operation of environmental protection facilities, resource recycling and environment management system), community (philanthropic activities and improving local economy), governments (obeying laws, paying tax and philanthropic activities), and suppliers (open procurement and supplier qualification) (Guan & Yu, 2009).

Besides CSR annual reports, there are other channels for CSR information disclosure, such as company's annual reports, websites, public relationships and advertising. Song, Wang & Yao (2012) tested the relationship between CSR information disclosure and media exposure, the age of a company, or environment-sensitive industries. The willingness of a company's disclosure of its CSR information could be strengthened as a result of more frequent media exposure, age of a company, or if they operate in an environment-sensitive industry. Huang *et al.* (2009) focused on two factors that might influence CSR information disclosure: shareholder structure and industry. They analysed CSR information disclosed from various channels by the largest 100 companies in China, which include both multinational and local companies. They found that the overall management of CSR issues in power companies and state-owned companies is better than that in other industries. In addition, companies, which have a proportion of foreign capital, disclose their CSR information much less than China's state-owned companies and other companies without foreign capital. Companies operating in the energy industry, such as power and petrol companies, and chemistry, performed better than other companies in information disclosure. Different content of CSR was disclosed at various levels. Responsibilities to shareholders, customers, and suppliers are fulfilled better than responsibilities to the government, employees, community, and natural environment. In general, CSR information disclosure in the majority of the companies is not sufficient, especially about CSR to employees and the

natural environment. The information about CSR to employees is too limited to accurately judge a company's performance, and information about CSR to the natural environment is even less.

In summary, as exposure of the term CSR to ordinary Chinese increases, the public is becoming more interested in CSR implementation by companies. However, the average level of CSR implementation is low (Xu & Yang, 2009; Guan & Yu, 2009; Huang *et al.*, 2009), and different aspects of CSR are fulfilled at various levels. Xu and Yang's (2009) research reveals that the economic responsibilities of CSR are fulfilled the best; CSR and employees (belongs to legal aspect) and philanthropic responsibilities are implemented at a medium level; and the environmental responsibilities implementation ranked last. CSR reports demonstrate that three factors: industry, economic development level of the area in which the enterprise is from, and shareholder structure, contribute to the level of CSR implementation in China. Besides CSR reports, the overall extent of CSR information disclosure depends on media exposure, the age of a company, whether the industry is operating in an environment-sensitive area (Song, Wang & Yao, 2012), and shareholder structure (Huang *et al.*, 2009). CSR information disclosure in the majority of the large companies is not sufficient, especially CSR to employees and the natural environment.

### 3.2.4 Consumers' reactions to CSR

According to Bhattacharya and Sen (2004), there are two types of consumer reactions to CSR: one is internal which includes company awareness, attributions, and attachments and attitudes to the company; the other is external which includes purchasing, price premium, loyalty, word of mouth, and resilience. Academics found both types of reactions in Chinese consumers. Empirical research shows that CSR positively contributes to Chinese consumers' perception of product quality (Zhou *et al.*, 2007), product association and corporate evaluation (Tian *et al.*, 2011), corporate reputation (Li & Zhang, 2010), purchase intention (Zhou *et al.*, 2007; Tian *et al.*, 2011), and customer satisfaction and customer loyalty (Li & Zhang, 2010).

Product category and consumers' attitudes to CSR may lead to different reactions from consumers. Tian *et al.* (2011) suggests that consumers' responses to CSR vary across different product categories. Experience products are more likely to gain consumers' positive product associations and purchase support through CSR practices compared with search products or credence products (Tian *et al.*, 2011). Zhou *et al.* (2007) point out that consumers who have high CSR-CA (company ability) beliefs or high CSR-support are more sensitive to whether the company is responsible to society and the environment. The deeper consumers support CSR, the more they will be influenced in their product quality judgment (Zhou *et al.*, 2007; Zhang, Fu & Xiong, 2010).

Carrington, Neville, and Whitwell (2014) found four factors that contribute significantly to ethical buying behaviours of Western consumers: prioritization of ethical concerns, formation of plans/habits, willingness to commit and sacrifice, and modes of shopping behaviour. They argue that Western consumers with ethical consumption plans/habits, long-term commitment of ethical consumption routines, and pre-mediated and rapid shopping mode are more possibly to implement ethical buying if the product/service embodies ethical issues of primary importance to these consumers. The pre-mediated and rapid shopping mode includes an effortless decision making procedure in the shopping area. A similar result of the effortless decision making procedure was found in Chinese ethical consumers. Deng *et al.* (2011) interviewed 167 Chinese consumers and separated these consumers into five groups based on their attitudes to CSR: resistant (8%), sceptical (20%), don't care (28%), praise (32%), and supportive (12%). People who are resistant to or sceptical of CSR, generally have high education and income level compared with other groups. Thus they have high ethical consciousness and devote more ethical cognitive effort in making a purchasing decision. People who do not care about CSR are relatively young and have low institutional rationality. People who praise or are supportive of CSR are relatively mature (the majority over 40 years), highly educated and have the strongest ethical consciousness and institutional rationality of all groups. However, interestingly, they do not devote too much ethical cognitive effort when making purchasing decisions (Deng *et al.*, 2011).

One core factor that influences consumers' purchase intentions toward a product is price. Companies which implement CSR may have higher costs and therefore higher prices compared with companies which do not. Similar to the research results of Western consumers (Auger *et al.*, 2003; Mohr & Webb, 2005), some researchers (Zhou & Zhang, 2007; Zhang, Fu & Xiong, 2010) found that Chinese consumers are willing to pay more for products from companies which implement CSR at a higher level compared with others in the same industry. However, some studies show that (Tian *et al.*, 2011) Chinese consumers would not pay more for products from companies which implement CSR better. The reason could be the 'attitude-behaviour gap' (Boulstridge & Carrigan, 2000) between consumers' attitudes to CSR and their real behaviour towards products from companies which implement CSR programs. Deng *et al.* (2011) discovered the 'attitude-behaviour gap' in both positive (praise or supportive) and negative (resistant or sceptical) reaction groups. Consumers who praise CSR may not support the company in purchasing decisions and consumers who are sceptical about CSR may not refuse to buy from a company implementing CSR programs.

The reason for the existence of the 'attitude-behaviour gap' in consumers could be that CSR is not the most important criterion in purchasing decision making (Boulstridge & Carrigan, 2000). More specifically, Haws, Winterich, and Naylor (2013) analysed the issue of green consumption in which both the value of environmental protection and consumers' personal financial and physical resources were considered before making purchasing decisions. They developed a scale which includes six items to measure consumers' tendencies to express environmental protection through their consumption behaviours. This scale is more reliable in predicting consumers' purchasing intention to environmentally friendly products in comparison to scales for understanding consumers' attitudes to environmental issues because one more important perspective, personal financial and physical resources, has been considered. In addition, Haws, Winterich and Naylor (2013) suggest that consumers who hold green consumption values may also be influenced by other non-environmental attributes of the product, such as effectiveness and aesthetic appeal of the product. Their studies provide explanations of the 'attitude-behaviour gap' between consumers'

attitude to CSR and ethical purchasing. Therefore, several items from Haws, Winterich, and Naylor's (2013) scale will be used in this study to understand respondents' green consumer values and their influence to respondents' attitudes to CSR advertisements.

### 3.3 CSR communication and advertising

Today, many marketing concepts are related to CSR activities, including social marketing, environmental marketing, quality-of-life, socially responsible buying and sustainable consumption (Leigh, Murphy & Enis, 1988; Dolan, 2002). Lantos (2001) even argues that marketing should take a leadership role in the exploration of CSR. However, the external stakeholders' awareness of a company's CSR activities is low, and many companies have difficulties with CSR communication (Sen, Bhattacharya & Korschun, 2006; Du, Bhattacharya & Sen, 2007; Bhattacharya, Sen & Korschun, 2008). Moreover, CSR studies reveal little about implementation (Maignan, Ferrell & Ferrell, 2005), and CSR communication is still an emerging academic field as most research focuses on websites and annual reports and little is known about other CSR advertisements (Farache & Perks, 2010). The following literature review will describe the importance of CSR communication and research about CSR communication and advertising.

#### 3.3.1 The importance of CSR communication

The issue of CSR communication has raised researchers' attention in recent years as CSR has become popular. Morsing (2006, p.171) defined CSR communication as "communication that is designed and distributed by the company itself about its CSR efforts". Perks *et al.* (2013, p.1882) defined CSR advertising as "a technique that projects the organization's CSR image disclosing its social and/or environmental programs actions or stances". Hence, the aim of CSR communication is to let the public know how a company's efforts fulfil its CSR obligations. Jahdi and Acikdilli (2009, p.103) argue that some companies have used CSR in their marketing programmes: "there are socially responsible companies that employ ethics successfully as a marketing

strategy". Podnar and Golob (2007, p.326) also support this instrumental point of view. CSR can be viewed as "a strategy that improves the long-term performance of an organization". A firm may benefit from CSR implementation. Porter and Kramer (2006) suggest that CSR can be a potent source of innovation and competitive advantage for a company if it perceives CSR as an opportunity rather than as damage control or a public relations campaign. Bronn and Vrioni (2001, p.208) also argue that "having a pro-social agenda means having a powerful marketing tool that can build brand image and brand equity sector".

From the perspective of consumers, there is a desire to support ethical companies and punish unethical ones (Creyer & Ross, 1997; Carrigan & Attalla, 2001; Thomas *et al.*, 2002). Therefore, the effective communication of CSR information by companies matters because companies can receive benefits from consumers' positive CSR associations (Brown & Dacin, 1997): such as good brand image, increased brand equity, product differentiation, and high brand/product evaluation to some extent. For instance, Maignan and Ferrell (2001, 2004) hypothesized that CSR may help companies to market their products: "negative CSR associations can have a detrimental effect on overall product evaluations whereas positive associations can enhance product evaluations and customer loyalty". Brown and Dacin (1997) propose the possible path from CSR association to product evaluation. CSR associations influence consumers' evaluation of a company and through it, influence the evaluation of its products (Brown & Dacin). Middledeniss (2003) agrees that CSR plays an important role in providing more sustainable, long-term brand value. Furthermore, Yan (2003, p.301) suggests that CSR "marks the difference between brands that have captured the imagination of tomorrow's consumers and those that are proving to be casualties". Girod and Michael's (2003) study in retail sectors supports the idea that CSR can differentiate brands. Even though many studies advocate the function of effective CSR communication in marketing practice, the importance of price and quality of the product cannot be neglected. Some scholars (e.g., Bronn & Vrioni, 2001) point out that when price and quality are perceived as equal, many customers tend to favour socially responsible companies and products. This result corresponds to the 'attitude-

behaviour gap' theory suggested by Boulstridge and Carrigan (2000).

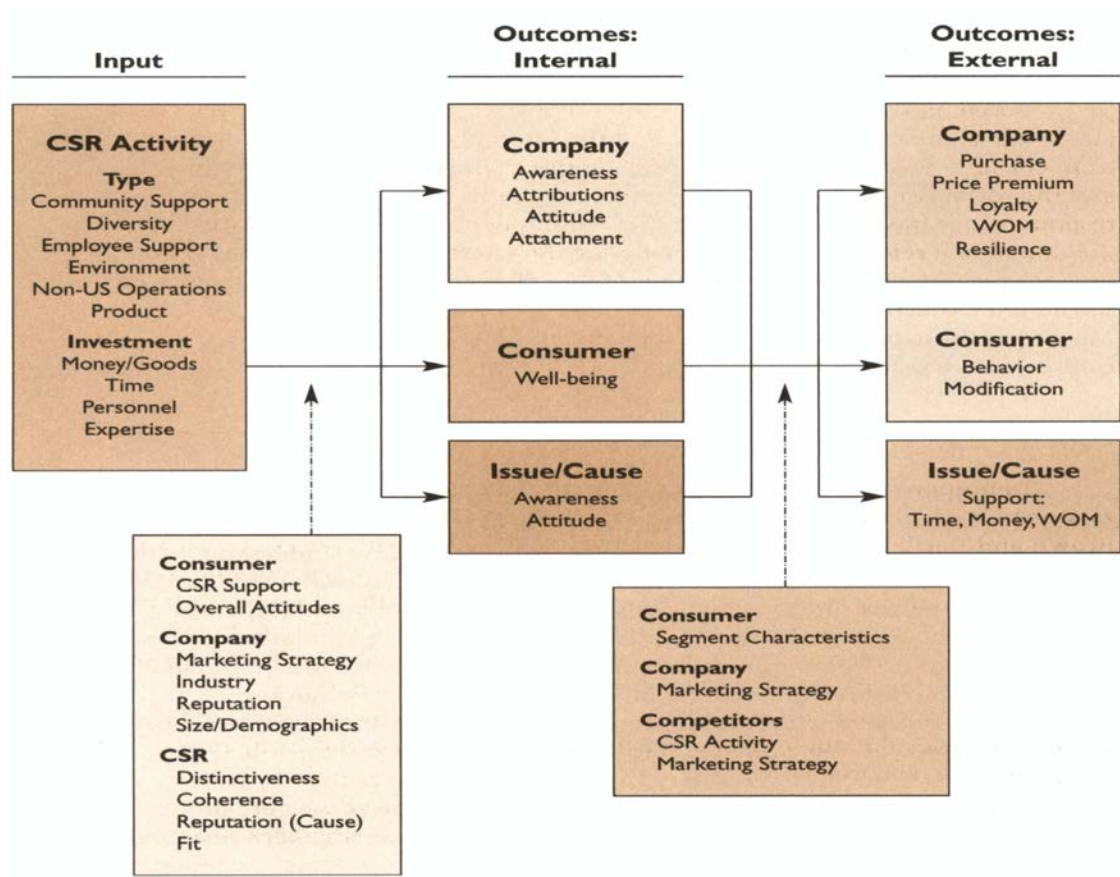


Figure 3.2 Corporate Social Responsibility Framework (from Bhattacharya and Sen, 2004)

Bhattacharya and Sen (2004) concluded the outcomes of CSR implementation and communication from a corporation to consumers. Figure 3.2 shows the detail. The inputs include the money, time, and personnel involved and CSR activities implemented. The internal and external outputs are from consumers after awareness of the CSR activities of a company. Internal outputs, such as company awareness, company attributions and consumer well-being, are mainly implicit; but external outputs, such as purchasing, price premium, consumer loyalty and word of mouth, can be reflected by consumers' behaviour in the market. Some factors can be moderators of the relationship between input and internal outcomes or between internal outcomes and external outcomes, such as consumers' attitudes to CSR, marketing

strategy, CSR fit, and consumer segment characteristics.

To sum up, CSR communication is very important to many companies in terms of survival and competition. Advertising is one of the communication tools that “have the potential to make major contributions to publicising and highlighting a transparent, consistent and socially responsible corporate image” (Jahdi & Acikdilli, 2009, p.104). It is hypothesized that

*H<sub>6</sub>*: Consumers’ attitudes to CSR moderate the relationship between the advertisement and consumers’ attitudes to the advertisement such that positive attitudes to CSR will lead to positive attitudes to the CSR advertisement but negative attitudes to CSR will lead to negative attitudes to the CSR advertisement.

### 3.3.2 CSR communication and advertising

Although CSR communication and advertising are important for many companies in terms of survival and competition, Bowd, Bowd & Harris (2006) emphasize that only a few CSR activities were known to stakeholders from limited communication channels. It was pointed out that the awareness and success of CSR communication is related to the content of communication and whether it is evident to important users (Bowd, Bowd & Harris). Du, Bhattacharya & Sen (2010) therefore recommend three key issues related to CSR communication: what to communicate, where to communicate, and understanding factors about a company and its stakeholders that influence the effectiveness of CSR communication. Thus CSR message, communication channels, and factors influence the effectiveness of CSR communication will be discussed in this section. The effectiveness of CSR will be discussed in Chapter 3.4.

#### **Message**

Du, Bhattacharya & Sen (2010) suggest that four perspectives of a company’s CSR activities can be included in CSR communication: CSR commitment, CSR impact, CSR

motives, and CSR fit. CSR commitment is a company's commitment to a social cause, such as donating funds, in-kind contributions, and providing corporate resources to a cause. CSR impact refers to the output of a company's CSR activities: the societal impact and the actual benefits to some people. CSR motives refer to the reasons why a company implements CSR. Ellen, Webb & Mor (2006) found that consumers understand multiple motives which benefit both the company and the community. Therefore, a company can emphasize the convergence of social and business interests and acknowledge that its CSR endeavours benefit both society and the company (Porter & Kramer, 2006). CSR fit is the extent of fitness of the company with the CSR issue, which is followed closely and implemented by the company. According to Cone Communications (2007), stakeholders hope that companies sponsor social issues that have a good fit or a logical association with their business.

There are many CSR relevant causes that can be chosen to support by companies and communicate with consumers. Kolk, Tulder & Welters (1999) concluded the CSR codes of conduct that have been implemented in society or studied by scholars, and the topics can be separated into three fields: society relevant, environment relevant, and generic topics. Society relevant topics include employment (employment promotion, equality of opportunity and treatment), training, working conditions (wages and benefits, conditions of working and life, safety and health), and industry relations (freedom of association and the right to organize, collective bargaining, examination of grievances, settlement of industrial disputes) (Kolk, Tulder & Welters, 1999). Environment relevant topics include management policies and systems (company's environmental vision and strategy, integrated environmental management, environment assessment, research and development), input, output and stock (inputs, process management, safety and health, risk assessment, products, outputs), finance (financial aspect, environmental liabilities), stakeholder relations (employees, legislators and regulators, local communities, distributors, suppliers, consumers and customers), and sustainable development (technology cooperation, global environment, global standards) (Kolk, Tulder & Welters, 1999). Generic topics include consumer interests (consumer needs, consumer concerns, information disclosure,

marketing practices), community interests (community involvement, community philanthropy/sponsoring), global development (global issues, fair and free trade practices, philanthropy/sponsoring in developing countries), ethics (fundamental human rights and freedom, fundamental ethical values, bribery payments), and legal requirements (legal compliance of the firm) (Kolk, Tulder & Welters, 1999).

Although all the above topics are potential CSR issues that can be addressed by a company, it is not possible to implement all the issues in one enterprise because firstly, not all topics are applicable to every enterprise and secondly, there is a limitation on financial and human resources within a corporation. Dawkins and Lewis (2003) found that in regards CSR activities, Western customers care most about the treatment of employees, community involvement, ethical and environmental issues. The CSR issue that is the best fit with a bottled mineral water company in China's context will be analysed in the pilot study and then be employed as the topic in the CSR advertising experiment. Once the CSR topic that will be used in the experiment is confirmed, both the verbal and visual information in advertisements need to express the CSR topic. In conventional advertising, a strong argument embedded in an advertisement creates more favourable responses in both Chinese and North American consumers (Teng & Laroche, 2006). It is hypothesized in this study that a strong CSR argument is more favourable than a weak CSR argument or a no CSR argument. Therefore, it is hypothesized that

*H<sub>7</sub>*: A strong argument of CSR commitment, CSR motives, and CSR impact in advertising will increase more positive attitudes to the advertisement and the advertised product, and purchasing intention to the product compared with (a) a weak argument, or (b) a no CSR argument.

Visual images used in advertisements are another source of message and may influence the effectiveness of communication. According to Miniard *et al.* (1991, p.104), "the imagery evoked by the pictures and, to a lesser extent, cognitions about picture appropriateness served as important determinants of picture-based persuasion". Pomering (2009, p.152) found in his CSR advertising experiment that

a negative and shocking image may lead to a heuristic emotional response,

consistent with a low-involvement processing approach, rather than encourage more systematic central processing of the informational content, as with a high-involvement decision-making task.

However, Maheswaran and Meyers-Levey (1990) found that the effects of message framing from many studies are mixed, and that positive framing is better when detailed processing is not needed, and negative framing is better when detailed processing is emphasized. Therefore, the effectiveness of three images: the neutral image, the positive image and the comparison image, which includes both positive and negative images, will be compared in the CSR advertising in this study. The negative image alone was not employed in this study is because a negative image illustrating non-environmental friendly inputs/products of a bottled mineral water brand probably will lead to no purchasing intentions from potential consumers. Clean and health, which will not appear in a destroyed environment, are the basic criteria that consumers consider in water consumption.

*H<sub>8a</sub>*: A positive image (showing good results when implementing CSR) in CSR advertisements will increase more positive attitudes to the advertisement and the advertised product, and higher purchasing intentions to the product compared with a no CSR information image.

*H<sub>8b</sub>*: A comparison image containing both negative and positive image (showing problems of not implementing CSR and good results when implementing CSR) in CSR advertisements will increase more positive attitudes to the advertisement and the advertised product, and higher purchasing intentions to the product compared with the positive image.

## **Channels**

Marlin and Marlin (2003) have identified three phases of CSR reporting: advertisements and annual reports, introduction of social audits, and introduction of externally set and certified standards. Hence advertising, annual reports, social audits, and certifications are the main CSR communication channels that are employed by corporations. Birth and Illia (2008) summarized that the most frequently used channels

for CSR communication are annual reports, websites, and advertising. More specifically, Jones, Comfort & Hillier (2007) found that amongst the top ten retailers in the United Kingdom (UK), booklets and leaflets, window advertisements, posters, banners, display-section and shelf-edge labels, and the packaging of own-label products are frequently used marketing communication tools to introduce their CSR activities. According to Birth and Illia (2008), certain communication channels are used for different CSR issues: external issues are communicated through external channels and internal issues are communicated through internal channels. For example, the top 300 companies in Switzerland used internal channels as the most frequent channels, followed by press, TV, prizes, events, packaging, reports, cause-related marketing, and points of sale (Birth & Illia, 2008). In addition, they concluded that these companies' emphasis on client-oriented channels is limited except for the emphasis on the company's website.

Although every marketing communication tool can be used to communicate CSR activities, some tools, such as public relations, advertising and sponsorship, are more powerful and effective than others (Jahdi & Acikdilli, 2009). Bowd, Bowd & Harris (2006) claim that the most successful methods to communicate CSR to stakeholders are highly visible on-site marketing communications: large-screen TV in the shopping centre, brochures, and actual interaction experiences of stakeholders and retailers. In this study, the suitable communication channel for CSR issues was also considered. Annual reports and CSR reports have limited readers who are mainly scholars or experts in the industry. Social audits and externally certified standards need professional knowledge to understand their meanings. Therefore, print advertising was chosen as the experimental communication tool of this study. The reasons are first, it includes both visual images and written messages that most advertising tools cover; second, the message and information it provides is clear and relatively simple so that respondents will not be influenced by non-testing factors; and third, advertising is a more direct and less passive method of communication, which is used to inform a mass audience of chosen elements of a corporation's identity, in an attempt to develop a positive corporate image.

### **Factors that influence the effectiveness of CSR communication**

Du, Bhattacharya and Sen (2010) argue that two issues emanating from the company and three issues from the stakeholders can influence the effectiveness of CSR communication. Types of stakeholders, choice of CSR issues and people's social value orientation can influence the effectiveness of CSR communication (Du, Bhattacharya & Sen, 2010). Other external potential factors such as communication strategies, appeals, and company reputation are supported by some researchers. Sohn, Han and Lee (2012) suggest that in low-fit cases, the elaborational communication strategy is more effective in enhancing perceived fit than the relational communication strategy; but in high-fit cases, the relational communication strategy is more effective in enhancing perceived fit than the elaborational communication. Scharf and Fernandes (2013) argue that CSR communication is more effective if it is performed without the use of commercial appeals. Maon, Lindgreen and Wright (2009) and Bird *et al.* (2007) explained that consumers are sensitive to the behaviour of companies so that reputation of a company is more relevant to CSR activities compared with commercial appeals.

From the internal aspect of an enterprise, the organization of CSR activities in an enterprise can also influence its communication effects. Blomqvist and Posner (2004, p.33) argue that "unless CSR becomes central to the marketing director's agenda, it will not have the desired effect and can potentially create a backlash". Pollach *et al.* (2012) analysed the organization of CSR communication in 302 large European companies and found that about 53% of companies have CSR departments which involved the CSR issues in the company. Most commonly, the chief executive officer (CEO)/president/chairman are responsible for the CSR issues. Other companies may have a committee which includes the vice president, director corporate affairs, human resource, legal affairs, or sustainability international affairs to make decisions (Pollach *et al.*, 2012). Pollach *et al.*'s study shows that the communication department and CSR department cooperate frequently in the majority of large European companies about CSR policy/visions/goals, CSR reports/websites, CSR events/initiatives, human resource related

issues, media relations, internal communication, and product recalls. The cooperation between CSR and corporate communication is formalised to some extent. The more frequently these two departments cooperate, the more formalised their cooperation is. However, the result shows that the communication department is generally aligned with the strategic management of the organization, but the CSR department is not always aligned with the top level.

### 3.4 Effectiveness of CSR communication

In reality, companies communicate their CSR activities to consumers in many forms, such as advertising, websites, and annual reports, but some companies are reluctant to publicize their actions for fear of criticism and creating expectations (Schlegelmilch & Pollach, 2005). Previous research shows that both positive and negative effects may be brought by CSR communication. Companies with good reputations or competitive positions in CSR issues will probably amplify its positive effects of CSR communication. Both effects will be discussed in this section.

#### 3.4.1 Positive effects

McWilliams, Siegel and Wright (2006) suggest that advertising effects of CSR can be separated into informative advertising effects and persuasive advertising effects. Informative effects provide information about the CSR characteristics or CSR managerial practices of the firm. Persuasive effects can positively influence consumer tastes for products with CSR attributes, therefore this type of advertising need not be firm specific. Most of the CSR advertisements in reality focus on producing informative effects, because consumers can differentiate the company and its products from others. For example, Scharf and Fernandes (2013) investigated the CSR advertisements from a large Brazilian bank and found that the bank achieves impressive brand awareness from its CSR advertisements and it is difficult to reach this level of awareness by conventional advertising.

The CSR advertisements function as an explanatory link between the company and the CSR activities the company sponsored (Sohn, Han & Lee, 2012). Much research suggests that CSR communication and advertising can improve a company's reputation (McWilliams & Siegel, 2001; Swaen & Vanhamme, 2004; Sohn, Han & Lee, 2012). Besides a company's reputation, other elements, such as brand image, brand equity and customer satisfaction, are probably also improved by CSR communication and advertising (Jones, comfort & Hillier, 2007; Hsu, 2012). For example, Hsu (2012) surveyed consumers of a large insurance company which employed CSR initiatives in their advertising and concluded that consumers, who have positive perceptions of CSR initiatives, generate high levels of corporate reputation, brand equity and customer satisfaction after being exposed to the CSR advertisement. Moreover, some research advocates that CSR communication can contribute to a company's consumer loyalty and product differentiation. Keller (1993) argues socially responsible organizations attract more customer loyalty because they show greater respect, provide timely responses to customers' claims, have high standards of security, and provide clear communication about products. APCO's (2004) study revealed CSR communication supports the ability to market a product, allowing for better differentiation and premium prices.

Many researchers (Baker & Sinkula, 2005; Berthon *et al.*, 2010) argue that consumers exposed to information on CSR have more positive attitudes to the brand and stronger purchasing intentions. Two mediators, perceived trust toward firms and attitudes toward firms, were tested by Wang (2011), who examined consumers' attitudes toward CSR advertising by mobile phone companies in the United States, to transmit the effect between CSR advertising and consumers' purchasing intentions. Research further considered two important factors that could determine purchasing intentions: price and quality of products. If the price and quality of a socially responsible product are perceived as equal to other products, the purchasing intentions of consumers to socially responsible products are higher (Bronn & Vrioni, 2001). An empirical research by Cone Communications (2007) reports that if the price and quality are equal, 87% American consumers are likely to switch from one brand to another which is associated

with a good cause; 85% consumers will consider switching to another company's products/services because of a company's negative corporate responsibility practices. One study by Auger *et al.* (2003) even suggested that consumers may be willing to pay a premium price for specific ethical product features when the right information is provided in an appropriate and effective way.

In addition, some studies considered the differences among consumer segments or message types in generating purchasing intentions. Madrigal and Boush (2008) discovered that consumers, who infer greater brand social responsibility from CSR advertising, reward environmentally friendly actions of corporations more when compared with others. Sen and Bhattacharya (2001) found out that CSR generally has a positive effect on consumers' company evaluations, and all customers seem to react more significantly on negative than positive CSR information. Consequently, various messages were designed in this study and provided to respondents in order to examine whether different written and visual information will generate different attitudes and levels of purchasing intention.

### 3.4.2 Negative effects

Many researchers (e.g., Friestad & Wright, 1994; Obermiller & Spangenberg, 1998) argue that consumers tend to doubt advertising claims in general. Forehand and Grier (2003) described consumers' scepticism to advertising as disbelief and distrust of a marketer's actions, which include the marketer's claims and motives. Consumers' scepticism tendency may vary depend on product type, claim substantiation, source characteristics, and prior knowledge (Obermiller & Spangenberg, 1998). Thus, the effects of CSR advertising might be negatively influenced and overly positive claims in advertising may evoke scepticism and reduce the legitimacy of the company (Ashforth & Gibbs, 1990; Pomering & Johnson, 2009).

According to Polonsky and Jevons (2006, p.341), "over-exuberant promotional activities extolling the firm's socially responsible behaviour may be seen to be exploitative".

Shlegelmilch and Pollach (2005) also state that excessive dissemination of CSR communication may produce consumers' distrust surrounding corporate conduct. The adoption of CSR can increase consumers' scepticism to the company, especially when the company fails to communicate its motives to implement CSR (Scharf & Fernandes, 2013). For some companies which have negative brand image (e.g. tobacco companies), improper CSR communication may further erode public perception of the company and its brand (Heugens & Dentchev, 2007).

Yoon, Gurhan-Canli and Schwarz (2006) point out that a company's motivation for engaging in CSR activities can affect consumers' willingness to reward the company. If consumers are cynical of the true motives behind a company's CSR activities, its efforts may be destroyed. The motivations of advertisements are classified as 'promotion hope' and 'prevention hope'. 'Promotion hope' focuses on achieving desirable outcomes, whereas 'prevention hope' focuses on avoiding undesirable outcomes. Poels and Dewitte (2008) tested the differences of 'promotion hope' and 'prevention hope' advertisements in persuading consumers and found that 'prevention hope' advertisements are more effective than 'promotion hope' advertisements. Kang and Kim (2012) studied in more depth whether altruistic CSR, strategic CSR, or no CSR is more effective in 'prevention hope' advertisements, and concluded that the altruistic CSR approach has the most powerful effect on purchase intentions compared with strategic CSR or no CSR. Some researchers, such as Forehand and Grier (2003), also provided possible solutions to reduce the negative effects of consumers' cynicism toward a company's motives. Corporations could introduce the strategic benefits they may enjoy as a result of their CSR initiatives and benefits to the society.

However, Ellen, Webb and Mor 's (2006) findings show that Chinese consumers care more about the impact of a company's CSR activities than of its motives. Hence, Chinese consumers may have different reactions to CSR advertising compared with Western consumers. The reason might be that the Chinese think it is reasonable that a company itself can receive benefits from its CSR activities and implementing CSR is a win-win situation for the company and its consumers. In addition, motives that only

exist in people's minds are hard to know or measure, but impact can be shown so that it is easier to see and measure than motives. Therefore, a less cynical attitude to CSR advertising is expected from Chinese consumers. Moreover, the most sceptical Chinese consumers may be those who have high education and income level, therefore they have a high ethical consciousness and devote more ethical cognitive effort in making purchasing decisions (Deng *et al.*, 2011).

To sum up, both positive and negative effects may be produced by CSR advertising. Positive effects that CSR advertising produces may include brand awareness, the company's image, the company's reputation, brand image, brand equity, consumer loyalty, product differentiation, and purchasing intentions. Negative effects may include scepticism about the company, negative company image, and negative brand image. The research interests of this study are to find which combination of written message and visual image could generate more positive effects than negative effects and higher levels of purchasing intentions that arise from CSR advertising.

### 3.5 Summary

Although definitions vary, the CSR definition from the European Union, which emphasizes integrating social and environmental concerns in business operations, is employed as the basis of this study because it displays a relatively complete picture of different perspectives of CSR and emphasizes its voluntary nature. In addition, some thoughts from integrative theories and instrumental theories of CSR (Crane & Matten, 2007) are implemented in the study to understand consumers' preference of CSR perspectives and explore better ways for companies to communicate their CSR activities.

Laws and regulations in China introduce the concept of CSR and encourage the implementation and reporting of CSR by companies. In 2006, the Chinese Government promulgated '[t]he Amended Company Law of the People's Republic of China', which includes the concept of CSR and encourages companies to follow. Two stock exchange markets, Shenzhen and Shanghai Stock Exchange, also published their CSR guidelines

for listed companies to follow. Besides, the State-owned Assets Supervision and Administration Commission of the State Council published CSR guidelines for all the state-owned companies to implement. However, the average implementation of CSR in companies is still low (Xu & Yang, 2009; Guan & Yu, 2009; Huang *et al.*, 2009). The economic responsibility of CSR is the best fulfilled responsibility; responsibilities to employees (the part that was classified into legal) and philanthropic responsibilities are fulfilled at medium levels; and environmental responsibilities are least fulfilled (Xu & Yang, 2009). Following the laws and regulations, companies in China started to report their CSR activities in annual reports or publish their annual CSR reports. Their CSR reports are at various levels: starting stage, developing, catch-up, good, and excellent (Guan *et al.*, 2012), and the content covers CSR as it relates to shareholders, employees, customers, natural environment, community, governments, and suppliers (Guan & Yu, 2009).

Chinese understanding of CSR is mainly the same as CSR in Western countries but also includes some content that is not recognized as part of CSR in Western countries. Companies' economic responsibility, legal responsibility, environmental protection responsibility, responsibilities to consumers and employees, and philanthropic responsibility are shared by Westerners and Chinese. Two CSR issues in China's context, employment and social stability, are not totally covered by a Western CSR concept (Xu & Yang, 2007). They include reemploying lay-offs, providing jobs for the disabled people, ensuring social stability and harmony, promoting social progress, and possession of patriotism and promoting national prosperity.

Positive links between CSR and Chinese consumers' corporate evaluation, product association, purchase intention, customer satisfaction, and customer loyalty do exist (Zhou *et al.*, 2007; Li & Zhang, 2010; Tian *et al.*, 2011). More specifically, consumers who have high CSR-CA (company ability) beliefs or high CSR-support are more sensitive to a company's CSR implementation (Zhou *et al.*, 2007). From the demographic perspective, Chinese people who praise or are supportive to CSR are relatively mature and highly educated, and have the strongest ethical consciousness and institutional

rationality. But they did not devote too much ethical cognitive effort in making purchasing decisions (Deng *et al.*, 2011). Chinese consumers who are resistant to or sceptical of CSR have high education and income levels, and consumers who don't care about CSR are relatively young and have low institutional rationality (Deng *et al.*). From the product type perspective, experience products are more likely to gain consumers' positive product associations and purchase support through CSR practices compared with search products or credence products (Tian *et al.*, 2011). The factor price was also considered in some studies due to its importance to purchase decisions, and the results are complicated. Some researchers (Zhou & Zhang, 2007; Zhang, Fu & Xiong, 2010) found that Chinese consumers are willing to pay more for products from companies which implement CSR better, although others (Tian *et al.*, 2011) show Chinese consumers will not pay more for products from companies which implement CSR better. Consumers who do not want to pay more may demonstrate the attitude-behaviour gap found by Boulstridge and Carrigan (2000). Deng *et al.* (2011) also found the gap in both positive (praise or supportive) and negative (resistance or sceptical) reaction groups of Chinese consumers.

Due to the importance of CSR and its influence in generating attitudes and purchasing intentions from Chinese consumers, how CSR should be communicated in advertising is an important issue that companies need to understand. The first question to consider is what CSR topics can be communicated in CSR advertising. According to Kolk, Tulder & Welters (1999), the available topics can be society relevant, environment relevant, or generic topics. The second question is where to communicate CSR. Birth and Illia (2008) concluded that the most frequently used channels for CSR communication are annual reports, websites, and advertising. Jahdi and Acikdilli (2009) point out that although every marketing communication tool can be used to communicate CSR activities, some tools (such as public relations, advertising and sponsorship) are more powerful and effective than others. Print advertising was chosen to be the communication tool of this research because: first, advertising is a direct and active method of communication; second, the information a print advertisement provided is clear and relatively simple so that respondents will not be

influenced by non-testing factors; and third, it includes both visual images and verbal messages. The third question is how to effectively communicate CSR using an advertising tool. Previous research shows that both positive and negative effects may be brought by CSR communication. Positive effects that CSR advertising produced may include brand awareness, company image, company reputation, brand image, brand equity, consumer loyalty, product differentiation, and purchasing intentions. Negative effects may include scepticism to the company, negative company image, and negative brand image.

Based on the two literature review chapters, the researcher will examine eight hypotheses in this study:

$H_1$ : Consumers' attitudes to the advertised product mediate the causal relationship from consumers' attitudes to a CSR advertisement to consumers' purchasing intentions to the product.

$H_2$ : The interaction of the written message and visual image has a direct effect on consumers' attitude to the advertisement.

$H_3$ : Consumers' attitudes to advertising moderates the causal relationship between the advertisement exposure and consumers' attitudes to the CSR advertisement such that more positive attitudes to advertising will lead to higher levels of attitudes to the CSR advertisement but less positive attitudes to advertising will lead to lower levels of attitudes to the CSR advertisement.

$H_4$ : Consumers' purchasing decision involvement moderates the relationship between consumers' attitude to the advertised product and purchasing intention.

$H_5$ : Consumers' trial intentions mediate the relationship between consumers' attitudes to the advertisement and consumers' attitudes to the advertised product.

$H_6$ : Consumers' attitudes to CSR moderate the relationship between the advertisement

and consumers' attitudes to the advertisement such that positive attitudes to CSR will lead to positive attitudes to the CSR advertisement but negative attitudes to CSR will lead to negative attitudes to the CSR advertisement.

*H<sub>7</sub>*: A strong argument of CSR commitment, CSR motives, and CSR impact in advertising will increase more positive attitudes to the advertisement and the advertised product, and purchasing intentions to the product compared with (a) a weak argument, or (b) a no CSR argument.

*H<sub>8a</sub>*: A positive image in CSR advertisements will increase more positive attitudes to the advertisement and the advertised product, and higher purchasing intentions to the product compared with a no CSR information image.

*H<sub>8b</sub>*: A comparison image containing both negative and positive image in CSR advertisements will increase more positive attitudes to the advertisement and the advertised product, and higher purchasing intentions to the product compared with the positive image.

## Chapter 4 Methodology

This study is composed of three parts: the pilot study, the selection of stimuli and the experiment. The pilot study investigates consumers' preferences for CSR topics when published by a mineral water company, consumers' attitudes to and preferences for advertising, and the important factors that influence their choice rules for deciding different brands of bottled mineral water. The selection of stimuli helps the researcher to examine the effects of advertisement design, which is based on the results of the pilot study. The advertisement designs which fit the anticipated aims of communication were chosen to be used in the experiment. The experiment examines the interaction of a written message and visual images to persuade Chinese consumers in CSR advertising. This chapter will report the methods used in the pilot study, selection of stimuli and experiment, and the findings of the pilot study and selection of stimuli.

### 4.1 Pilot study

The location of the fieldwork, Xi'an, is introduced and the research results of the pilot study are presented as they were used to inform the development of the main experiment, particularly the experimental manipulation.

#### 4.1.1 The context of Xi'an

Xi'an, which has an area of 10108 km<sup>2</sup> and population of 8.51 million (Shaanxi Provincial Bureau of Statistics, 2012), is located in the geographic centre of China and is the capital of Shaanxi Province. Xi'an is one of the oldest cities in China and the starting point of the famous Silk Road. Its GDP was around US\$69.22 billion in 2012 and is ranked as 29th of all mainland Chinese cities (not including Hong Kong and Macau). Its per capita disposable income of the year 2012 was US\$4750 (Xi'an City Bureau of Statistics, 2012). Xi'an was chosen as the location to implement this study because consumer behaviour research conducted by the Integrated Marketing Information (IMI) research group shows that consumers' attitudes to and trust in advertising in Xi'an are closest among large Chinese cities to the Chinese average (Huang & Chen, 2006).

Xi'an has five leading industries: modern services, equipment manufacturing, high-tech technology, tourism, and culture. The modern services industry included financial services, information transmission, computer services and software, realty business, logistics, and community services, and occupied 32.9% of the total GDP of Xi'an in 2011 (Xi'an City Bureau of Statistics, 2012). The equipment manufacturing industry mainly included transport and communication facilities manufacturing, electromechanical device manufacturing, general purpose equipment manufacturing, instrument and meter manufacturing, and contributed 14.7% of total GDP in 2011 (Xi'an City Bureau of Statistics, 2012). The high-tech technology industry included information, life science, new and renewable energy, and aerospace, and occupied 11.2% of total GDP of the city (Xi'an City Bureau of Statistics, 2012). The culture industry, which contributed 6.5% of the total GDP of Xi'an in 2011 (Xi'an City Bureau of Statistics, 2012), included production of radio, film and television programmes, culture and arts, press and publication, fitness and entertainment, and exhibition. The tourism industry, which occupied 8.5% of the GDP of Xi'an in 2011 (Xi'an City Bureau of Statistics, 2012), is based on the affluent resources of historical heritage in the city and suburban areas.

#### 4.1.2 Method of the pilot study

Face-to-face interviews were employed as the research method for the pilot study and 46 respondents of various ages, educational background, occupations and income levels were interviewed in Xi'an from January to February 2012. The researcher contacted potential interviewees, who were introduced by colleagues from a marketing survey company, using the telephone to introduce the content and aims of the interview, to obtain their permission to be interviewed and to arrange an appointment with each interviewee. The time and place of the interview was based on the availability of interviewees. The average time that was used for each interview was approximately 25 minutes. One respondent's interview was interrupted by calls several times and was excluded from the data. In total, 45 respondents' answers are analysed in this study.

The interviews were semi-structured, and included open-ended questions, multiple-choice questions, 6-points scale questions (0, not at all; to 5, extremely high), and some in-depth questions asking the reasons for answers to interview questions. Respondents answered questions (Appendix 1) about advertising and CSR for a mineral water company. Nineteen males and twenty-six females were interviewed. The basic demographic information of interviewees is illustrated in Table 4.1.

Table 4.1 Demographic Information of Interviewees

		No. of respondents	Percentage
Age ranges	18-25years	1	2.2%
	26-35years	20	44.4%
	36-45years	9	20.0%
	46-55years	9	20.0%
	Over 56 years	6	13.3%
	Total	45	100%
Occupations	Student	1	2.2%
	Senior manager	4	8.9%
	Professional/technician	18	40%
	Public service administrator	6	13.3%
	Service industry employee	4	8.9%
	Agriculture/forest/dairy/fishing industry employee	2	4.4%
	Manufacturing industry employee	7	15.6%
	Other occupations	3	6.7%
	Total	45	100%
Educational background	Junior high school (Year 9)	4	8.9%
	High school (Year 12)	4	8.9%
	Junior college (Diploma courses)	5	11.1%
	Undergraduate degree	24	53.3%
	Postgraduate degree	8	17.8%
	Total	45	100%
Average income per month	¥1500 (US\$ 242) or less	5	11.1%
	¥1501-3000 (US\$ 243-484)	5	11.1%
	¥3001-5000 (US\$ 485-806)	17	37.8%
	¥5001-8000 (US\$ 807-1290)	14	31.1%
	Over ¥8000 (US\$ 1290)	4	8.9%
	Total	45	100%

Nearly half of all the interviewees were young adults no older than 35 years (46.6%), 40% of interviewees were middle-aged between 36 and 55 years; and 13.3% were over

56 years of age. The occupation classification employed in this study is from the 'Occupation Classification of The People's Republic of China' (Occupation Classification Committee of P. R. China, 2006). The category 'student' was added by the researcher because it is not included in the classification list, however, students were able to participate in this study. The occupations of the 45 interviewees were: students (2.2%), senior managers in any industries (8.9%), professionals and technicians (40%), administrators/clerks in public services (13.3%), general employees in business or service industry (8.9%), general employees in agriculture, forest, dairy, or fishing industries (4.4%), general employees in manufacturing industries (15.6%), and other occupations including retired and temporarily unemployed people (6.7%). The occupation 'professional/technician' includes professionals from many industries, such as academics, engineers, agro-technicians, aircraft and ship technicians, health workers, professionals in economics, finance and law, teaching, art workers, professional coaches and referees in sports, professionals in press and culture industry, and professionals in religion. Thus those interviewees' occupations who were classified as 'professional or technician' had relatively high educational backgrounds.

In terms of educational background, the majority of the interviewees have received higher education: 53.3% interviewees hold Bachelor degrees and 17.8% hold postgraduate degrees. 8.9% interviewees have completed 9 years compulsory junior high school education, 8.9% have completed high school education, and 11.1% have completed junior college education. As the per capita disposable income of 2012 in Xi'an was US\$4750 (Xi'an Year Book, 2012), the per capita income per month in Xi'an is around CN¥3001 to 5000. Most respondents' (86%) average income per month is either in the range CN¥3001 to 5000 or in the ranges close to it, such as CN¥1501-3000 or CN¥5001-8000. The minority of respondents are in the two extremes: 11.1% is no more than ¥1500 (US\$242), and 8.9% is over ¥8001 (US\$ 1290).

#### 4.1.3 Results of pilot study

This section will introduce the results of Chinese consumers' attitudes to and preferences for print advertising and CSR issues, and their choice rules for buying

bottled mineral water.

### **Chinese consumers' attitudes to and preferences for print advertising**

The most frequent advertising media that interviewees have access to is television (95.6%) followed by outdoor advertising (57.8%), Internet (26.7%), newspapers (24.4%), radio (4.4%) and magazines (2.2%). Thus print advertising is the second most frequently used advertising channel, which includes outdoor advertising, newspapers, magazines, and sometimes the Internet in China. Interviewees' attitudes to print advertisements are shown in Table 4.2. More than 68% of respondents answered that they like or somewhat like print advertisements. The results show that the aesthetics of print advertisements is the most attractive point for consumers. Responses included 'print advertisements are beautiful' (13 interviewees), 'the design is good' (3), and 'the colour is beautiful' (3). Other reasons for a positive reception include: 'I feel relaxed reading print advertisements' (5 interviewees), and 'print advertisements are more direct in transmitting information' (4). The main reason for a dislike of print advertisements is a lack of multimedia effects, such as 'not lively' (6 interviewees), 'not having enough time to read print advertisements' (4), and 'not much information is provided by advertisements' (2). Other reasons for disliking include 'I am sceptical of print advertisements' (3 interviewees), and 'I don't read advertisements at all' (1). For interviewees who have a neutral position (neither like nor dislike) regarding print advertisements, having 'no time' (2 interviewees) and 'not interested in advertisements' (1) are the main reasons.

Table 4.2 Consumers' Attitudes to Print Ads and reasons for that

Attitude to print ads	Percentage of interviewees	Reasons commonly mentioned
Like	24.4%	Aesthetic (beautiful & good design), feeling relax, direct information transmitting
Somewhat like	44.4%	
Dislike	20%	Lack of multimedia effects (not lively, no time, and lack information), skeptical to advertisements, never read advertisements
Neither like nor dislike	11.1%	No time to read advertisements, not interested in advertisements
Total	100%	

Consumers also have preferences for where the print advertisements are located. The most popular location or form is outdoor advertisements (25 interviewees) followed by posters (19), magazine and newspaper advertisements (13), bus/car surface print advertisements (11), brochure advertisements (5), Internet print advertisements (3) and advertisements on balloon or scroll (1).

Table 4.3 Consumers' Preference for Advertising Styles

Attitude levels	Advertising styles	Liking percentage
High popularity	Humorous, life slices	Over 40%
Medium popularity	Emotional resonant, rational statement/scientific data explanation, brand advertising	20% to 40%
Low popularity	Special topic, celebrity endorsement, attractive content, demonstration	10% to 20%
Very low popularity	Advertorial, contrast, slogan,	0 to 10%
No popularity	Shocked or worrying advertising, repeating topic	0

Different styles of advertisements receive different attention and reactions among Chinese consumers. The most popular styles are humorous and life slices: over 40% interviewees like these two advertisement styles. Emotional resonance, rational statement/scientific data explanation, and brand advertising received medium popularity (20% to 40%). Advertisements with special topics or with attractive content, celebrity endorsement, and demonstration advertisements received low popularity (10% to 20%). Advertorial, contrast advertisements, and slogans received very low popularity (no more than 10%). The least popular advertising styles are shocked/worrying advertising and repeating topic advertisements (0). Table 4.3 illustrates consumers' preferences of advertising styles. Besides advertising styles, advertising content is also important to Chinese consumers. If the advertisement includes content that is bloody/merciless (31 interviewees), have predetermined positions/prejudice/discrimination (20), is not aesthetic (15), is not relevant to products/service (10) or tried to gain sympathy (10), consumers tended to dislike the advertisement. Because the theme that will be used in this study is CSR, rational

statement will be used for advertisement design. Bloody/merciless, predetermined positions/prejudice /discrimination, not aesthetic, not relevant to products/service, and tried to gain sympathy will be avoided in the design.

### **Chinese consumers' choice rules for buying mineral water**

Regarding choice rules for determining brands of bottled mineral water, consumers would consider date of production (71%), brand (62%) and price (53%) as the most important criteria. The taste (33%) and area of original production (27%) are also important to many consumers. The packaging of mineral water (16%), volume (16%), retailer (4%), and nutrition information (4%) are the least important factors. However, 67% of interviewees avoid buying mineral water with low-quality packaging, showing the importance of proper packaging (neither luxurious nor low-quality packaging) for this product. Unpleasant personal experience is another crucial factor that may undermine Chinese consumers' purchasing intentions, with 64% of interviewees avoiding buying mineral water if they have previously unpleasant consuming experience. Other factors such as low brand image (42%), extremely low/high prices (40%) and volume (20%) could also be reasons for not buying a brand. Table 4.4 summarises the importance of these indicators.

Table 4.4 Important Factors for Consumers to Consider or Avoid in Bottled Mineral Water Purchasing

Attitude levels	Factors that consumer will consider before purchase	Factors that consumer will avoid in purchase
Highly important (higher than 50%)	Date of production, brand, price	Low-quality packaging, unpleasant previous experience
Important (25% to 50%)	Taste, area of production	Low brand images, extremely low/high prices
Somewhat important (0 to 25%)	Packaging, volume, retailer, nutrition information	Volume

### **Chinese consumers' attitudes to and preferences for CSR issues**

A core part of the interview was to understand how important different CSR topics are

to Chinese consumers. Interviewees were asked which CSR topics they might consider before purchase, and how important those topics are for a mineral water company. The scale used for importance evaluation is from 0, not important at all; 1, extremely low importance; 2, low importance; 3, medium importance; 4, high importance; to 5, extremely high importance. All CSR topics asked in the interview are from the summary of Kolk, Tulder and Welters (1999) of all CSR issues which are implemented by corporations or discussed by academics. Because the average scores of all CSR topics are no higher than 4, which is 'high importance' in the scale, and the value of most topics are scattered between 0.5 and 3.5, the researcher disaggregated consumers' attitudes to CSR issues into six re-defined classifications. The new classification shows the relative importance of CSR issues to Chinese consumers: very important (scores  $\geq 3$ ), important ( $2.5 \leq \text{scores} < 3$ ), moderately important ( $2 \leq \text{scores} < 2.5$ ), somewhat important ( $1.5 \leq \text{scores} < 2$ ), of little importance ( $1 \leq \text{scores} < 1.5$ ) and nearly unimportant ( $0 \leq \text{scores} < 1$ ). However, as no CSR issues reached 4 (high importance), it reveals that CSR issues are not the most important criteria that Chinese consumers consider when they are making purchasing decisions. This result corresponds to Boulstridge and Carrigan's (2000) observation of ethical buying in Western consumers. The relative importance of CSR issues are illustrated in Table 4.5.

Table 4.5 The Importance of CSR Topics to Consumers in Bottled Mineral Water Purchasing

Attitude level	Contents of CSR	CSR categories
Very important ( $\geq 3$ )	Consumers' (3.8)/ legislators' and regulators' (3.5) evaluation of the company, legal compliance of the firm (3.4)	Stakeholder relations, legal requirements
Important ( $\geq 2.5$ and $< 3$ )	Environmental friendly inputs (2.9) / products (2.9), environmental liabilities (2.9), local community's evaluation of the company (2.9), fundamental ethical values (2.9), information disclosure (2.5), employees' health and safety (2.5)	Environmental friendly input/output inventory, environmental finance, consumers' interests, ethics, working conditions
Moderately Important ( $\geq 2$ and $< 2.5$ )	Environmentally friendly outputs (2.4), community philanthropy / sponsoring (2.4), health and safety of inventory (2.2), global standards of sustainable development (2.2)	Environmental friendly input/output inventory, community interests, sustainable development

Somewhat important ( $\geq 1.5$ and $< 2$ )	Fundamental human rights and freedom (1.8), security of employment (1.7), community involvement (1.7), process management of environmental issues (1.6), employees' (1.6) / suppliers' (1.6) evaluation of the company, philanthropy / sponsoring in developing countries (1.6)	Ethics, employment, stakeholder relationships, global development, community interests,
Of little importance ( $\geq 1$ and $< 1.5$ )	Bribery payments (1.4), technology cooperation on sustainable development (1.4), environmental assessment (1.1), global issues (1), consisting of corporate environmental management strategy and vision (1), integrated environmental management (1), global environment (1)	Ethics, global development, environmental management policy and system, sustainable development
Nearly unimportant ( $< 1$ )	Financial aspects of environmental issues (0.8), examination of grievances (0.8), fair trade (0.8), settlement of industrial disputes (0.7), research and development of environmental issues (0.7), conditions of work and life (0.7), sociopolitical setting (0.6), wages and benefits (0.4), collective bargaining (0.4), equality of opportunity and treatment (0.2), freedom of association and the right to organize (0.1), employment promotion (0.02), environmental risk assessment (0)	Environmental finance, industry relations, global development, environmental management policies and systems, environmental friendly input/output inventory, working conditions, employment

Three CSR topics obtained the highest scores in importance so they are classified as 'very important' to consumers: consumers' evaluation of the company (3.8), legislator and regulators' evaluation of the company (3.5), and legal compliance of the firm (3.4). Seven topics obtained scores between 2.5 and 3, so they are relatively 'important': environmentally friendly inputs (2.9), environmentally friendly products (2.9), environmental liabilities (2.9), local community's evaluation of the company (2.9), information disclosure (2.5), fundamental ethical values (2.9) and employees' health and safety (2.5). These two groups of topics are the main consideration of CSR topics that will be communicated in the experiment.

Eleven CSR issues were in the middle level of consumers' evaluations of importance when these issues are implemented by a bottled mineral water company. Four CSR topics were classified into 'moderately important': environmentally friendly outputs

(2.4), community philanthropy/sponsoring (2.4), health and safety of inventory (2.2) and global standards of sustainable development (2.2). Seven CSR topics were classified into the 'somewhat important' category: fundamental human rights and freedom (1.8), security of employment (1.7), community involvement (1.7), process management of environmental issues (1.6), employees' evaluation of the company (1.6), suppliers' evaluation of the company (1.6), and philanthropy/sponsoring in developing countries (1.6).

Twenty CSR issues were of little importance or no importance to consumers' evaluations, so these issues will not be considered in the experiment. Seven CSR topics were classified as of little importance: bribery payments (1.4), technology cooperation on sustainable development (1.4), environmental assessment (1.1), global issues (1), consisting of corporate environmental management strategy and vision (1), integrated environmental management (1) and global environment (1). Thirteen CSR issues were nearly unimportant: financial aspects of environmental issues (0.8), examination of grievances (0.8), fair trade (0.8), settlement of industrial disputes (0.7), research and development of environmental issues (0.7), conditions of work and life (0.7), sociopolitical setting (0.6), wages and benefits (0.4), collective bargaining (0.4), equality of opportunity and treatment (0.2), freedom of association and the right to organize (0.1), employment promotion (0.02) and environmental risk assessment (0).

Other consumers', regulators' and governments' evaluations of a company are expected to be released or published by consumers, regulators and governments respectively, not by the company. Thus, these three crucial topics cannot be used as the CSR topics in an advertisement published by a company. The same situation applies to the local community's evaluation of the company, upholding fundamental ethical values and employees' health and safety. Information disclosure cannot be reported properly in print advertisements due to the large amount of information required. Therefore, 'environmentally friendly inputs/products' were chosen as the CSR topic used in advertisements in this study.

## 4.2 The selection of stimuli

The selection of stimuli allows the researcher to test the effects of visual images and written messages that were to be used in the final experiment to ensure that the stimuli would work as expected. As discussed in Chapter 4.1.3, the results of the pilot study suggest the researcher should use 'environmentally friendly inputs/products' as the CSR theme used in the experiment, hence the images and written message that were used in the experiment will both express this theme. Three images, two CSR arguments, and one neutral argument without CSR information will be used to complete a  $2$  (two levels of CSR argument)  $\times$   $3$  (a neutral image, a positive image, and a comparison image)  $+1$  (an argument without CSR information and a neutral image) experiment. The neutral image requires a picture which does not raise consumers' emotions about 'environmentally friendly inputs/products', while the positive image requires a picture which can raise consumers' positive emotions. The comparison image requires a picture that may raise both negative and positive emotions about the same topic. The weak CSR argument transmits a weak persuasion of 'environmentally friendly inputs/products' by a bottled mineral water company, while the strong CSR argument transmits a strong persuasion.

### 4.2.1 Methods of selection of stimuli

In order to make sure consumers' decoding of the images and written message work as expected, the researcher ran two rounds of selection of stimuli. The Selection of stimuli I (see Appendix 2) was intended to select three images that can be used in the main experiment: making sure that the neutral picture is neutral to consumers, choosing one positive picture from two options so that higher level of positive feelings can be generated, and choosing one comparison picture from two options so that higher level of both positive and negative feelings can be generated. Based on the results of Selection of stimuli I, the advertisement design with one positive image, one comparison image and one neutral image were examined in the Selection of stimuli II (see Appendix 3). Moreover, the strong and weak CSR arguments were assessed in the Selection of stimuli II to ensure they work as expected. The methods and descriptive analysis of respondents' demographic information are introduced in the following

paragraphs.

### **Selection of stimuli I**

Selection of stimuli I tested five pictures, which include a neutral image, two positive images and two comparison images (including both positive and negative images), and the information transmitted by the logo and packaging design of the advertised product. The neutral image shows that water is falling into a cup and is not relevant to environmentally friendly issues. Two positive images contain a well-protected environment with clean water showing the company's efforts in implementing environmentally friendly inputs and products in their production procedure. The two comparison images contain both a destroyed environment showing the results of non-environmentally friendly production and a well-protected environment with clean water source.

Table 4.6 Age Range and Educational Background of Respondents in the Selection of Stimuli I

Age range	No. of respondents	Education background	No. of respondents
18-25 years	14	Junior high school	2
26-35 years	24	High school	9
36-45 years	8	Junior college	6
46-55 years	5	Undergraduate	21
56 or older	4	Postgraduate	17
Total	55	Total	55

The Selection of stimuli I used an online questionnaire to collect data, including 10 questions such as multiple-choice questions and 5-points scale questions (from 1, extremely low, to 5, extremely high). The questionnaire asked respondents about the information provided by the picture, the feelings raised by the picture, and consumers' decoding of the pictures. Fifty-five Chinese consumers completed the questionnaire in the Selection of stimuli I. More females than males took part in the online survey: 58% are females and 42% are males. Table 4.6 shows the age ranges and educational background of respondents. The majority (69.1%) of respondents were young adults under 35 years of age, approximately one quarter of the respondents were between 36 and 55, and 7.3% of respondents were over 56 years of age. A large percentage of

respondents had received a higher education: 38.2% of respondents hold a Bachelor degree and 31% of respondents hold a postgraduate degree. Two respondents completed junior high school education (Year 9), nine respondents completed high school education (Year 12), and six respondents completed junior college (diploma courses).

### **Selection of stimuli II**

After the Selection of stimuli I, one positive picture and one comparison picture were chosen to be used in the Selection of stimuli II because they received higher scores in expressing the ‘environmentally friendly input/product’ topic compared with the other options. The neutral image with no CSR words was further tested with several questions. One strong CSR argument and one weak CSR argument of the company’s ‘environmentally friendly inputs/products’ were examined.

Table 4.7 Age Ranges and Educational Background of Respondents in the Selection of Stimuli II

Age range	No. of respondents	Educational background	No. of respondents
18-25 years	8	Junior high school	2
26-35 years	24	High school	6
36-45 years	7	Junior college	9
46-55 years	7	Undergraduate	22
56 or older	5	Postgraduate	12
Total	51	Total	51

The Selection of stimuli II also used an online questionnaire, containing 10 questions, including multiple choice and 5-point scale questions (from 1, extremely low, to 5, extremely high). The questionnaire asked respondents’ understanding of the information provided by and feelings generated by the image, and the written message in the advertisements. Fifty-one Chinese consumers completed the questionnaire. More males (55%) than females (45%) participated in the survey. Table 4.7 illustrates the age range and educational backgrounds of respondents. More than half of the respondents were young adults: thirty respondents were between 18 and 35. Fourteen respondents were middled-aged (between 36 and 55), and five

respondents were over 56 years of age. The majority of respondents completed higher education: 22 obtained an undergraduate degree and 12 obtained a postgraduate degree. Two respondents completed junior high school education (Year 9), six completed high school education (Year 12), and nine completed junior college (diploma courses).

#### 4.2.2 Results of Selection of stimuli I and II

The results of two rounds of selection of stimuli are now discussed together in order to maintain the continuity of the discussion. Descriptive analysis and t-tests were used in the data analysis.

##### **The neutral picture and no CSR argument**

The neutral advertisement used the neutral picture and no CSR information argument, and was based on a poster from Aquafina Purified Water (a brand owned by Pepsi Corporation). The original poster only shows a cup of water, the logo of Aquafina and its slogan. In order to use the above advertising design in this study, the logo was replaced by the logo of Mountain Mineral Water, and the slogan was replaced by one sentence which introduces the area of mineral water production and product attributes. In addition, the bottle of Mountain Mineral Water (the packaging design) was added to the advertisement.

In Selection of stimuli I, the results show that consumers can clearly obtain the following information from the neutral advertisement: the product (Mountain Mineral Water), the logo, the packaging design, and area of production. Some respondents reported that the colour of water in the picture is light blue so the picture was edited by the advertiser. This editing increased their scepticism toward the advertisement. In Selection of stimuli II, whether the neutral image and no CSR argument are relevant to the company's 'environmentally friendly products/service' was examined. Most respondents (78.4%) thought the neutral image is irrelevant to the 'environmentally friendly products/services' topic, and a small number of respondents (21.6%) felt that it seems relevant because the water originated from a natural reserve. Therefore, the

information was changed from ‘the water source is in Namucuo Natural Reserve’ to ‘the water source is of Namucuo’ in the main experiment.

### **The positive pictures**

Two positive pictures were compared in Selection of stimuli I to see which picture could better communicate the expected information to Chinese consumers, so the better one was used in the experiment as the positive image. Based on the pilot study results, the aesthetic property of pictures in a print advertisement is one of the most attractive features of an advertisement. Hence the degree of authenticity of the two pictures was examined. Because the theme of the advertisement is ‘environmentally friendly inputs/products’, to what extent the pictures show a well-cared environment and clean water was examined. Moreover, the higher scoring image was further examined to determine to what extent consumers feel no pollution is expected within the picture. Feelings raised by the two images were also assessed.

Table 4.8 Respondents’ Feelings from Seeing Positive Pictures

	Positive A		Positive B	
	Mean	Std. Dev.	Mean	Std. Dev.
Authentic nature	3.9	1.139	3.9	1.149
Well-cared environment	4.0	1.106	3.9	1.145
Clean water	3.4	1.367	3.8	1.205
No pollution of people	---	---	3.8	1.064
No pollution of industries	---	---	4.0	1.095
Feelings raised	Calm, carefree, amused		Attractive, carefree, calm	

The two pictures (Positive A and Positive B) were taken from the water source area, Namucuo Natural Reserve, in Tibet by photographer A Ge (2013). Respondents were asked to see the images and then mark the images between 1 (extremely low) and 5 (extremely high) regarding different aspects of the two pictures. The results of testing pictures Positive A and Positive B are compared in Table 4.8. As both express the authentic nature and a well- cared environment of the water source, Positive A and Positive B obtained similar scores, whereas to show some clean and purified water, Positive B (3.8) is more persuasive than Positive A (3.4). Therefore, Positive B was

chosen to be further tested in the Selection of stimuli II because clean water is the most important indicator for advertising a bottled mineral water product. Regarding the extent to which consumers feel no pollution by people's activities or industries from the picture, Positive B obtained 3.8 (nearly high) and 4.0 (high). Feelings that were raised from seeing Positive A include calm (74.5%), carefree (54.5%), and amused (43.6%), and those of Positive B are attractive (49.1%), carefree (49.1%), and calm (43.6%). Because Positive B is more persuasive than Positive A in showing clean and purified water, and Positive B raises the feeling 'attractive' while Positive A does not, Positive B is more suitable to be used as the positive image in the experiment. Several respondents wrote that the picture was edited by the photographer and raised their scepticism.

### **The comparison pictures**

Two comparison pictures were assessed in Selection of stimuli I to check which picture better communicates the expected information to Chinese consumers. The better one will be used in the experiment as the comparison image. Two comparison pictures (Comparison A and Comparison B) were produced by showing both positive pictures (Positive A and Positive B) and negative pictures that display similar mountain backgrounds with dried riverbed and dead standing trees from Reclaim Turtle Island's website (2013) and Ji (2010). Pictures were designed by a professional graphic designer. The comparison image has two parts. The positive part represents a well-cared natural environment and the negative part represents a destroyed natural environment. Therefore, the extent to which positive and negative pictures can raise positive and negative feelings respectively were examined in Selection of stimuli I. The extent to which consumers felt that the natural environment has been destroyed, and the extent to which consumers felt that the natural environment needs to be protected by human beings were tested. In addition, the better comparison image in the Selection of stimuli I was also tested in Selection of stimuli II. The aim was to examine to what extent the comparison of positive and negative picture can express the company's effort to protect the natural environment. Answers about feelings raised by two comparison images were collected. The results of comparing the two comparison pictures are shown in Table 4.9.

In the first four dimensions (the positive picture raises positive feelings, the negative picture raises negative feelings, the image shows that the environment has been destroyed by people, and the image suggests that the natural environment needs to be protected), consumers marked Comparison B higher than Comparison A. The t-test results show that Comparison B is significantly better than Comparison A in three items used in the scale: 'the negative picture raises negative feelings', 'the image shows that the environment has been destroyed by people', and 'the image shows that natural environment needs to be protected'. The difference between Comparison A and Comparison B in one dimension (the positive picture raises positive feelings) is not statistically different. Table 4.10 illustrates the results of the t-test.

Table 4.9 Respondents' feelings from Seeing Comparison Pictures

	Comparison A		Comparison B	
	Mean	Std. Dev.	Mean	Std. Dev.
The positive picture raises positive feelings	3.5	1.399	3.6	1.459
The negative picture raises negative feelings	3.2	1.282	4.0	1.224
Destroyed environment	3.5	1.260	4.0	1.114
Environment protection is needed	3.7	1.193	4.2	1.056
Company's protection activity	---	---	3.5	1.331
Feelings raised	Concerned, contemplative		Concerned, contemplative	

Therefore, Comparison B was chosen to be further tested in Selection of stimuli II. To what extent Comparison B provides information that Mountain Mineral Water is helping to protect the environment was examined with a written message, with a mean of 3.5, which is between medium and high. Feelings which have been raised from seeing comparison images were both concerned and contemplative, which were different from the positive image. Thus the comparison image can be recognised as a different category in the independent variable image. The image Comparison B was chosen to be used in the experiment because it was better at transmitting the expected information to consumers than Comparison A.

Table 4.10 The T-test Results of Comparing Comparison A and B

	Mean	t	Sig. (2-tailed)
The positive picture raises positive feelings	-0.127	-0.866	0.390
The negative picture raises negative feelings	-0.745	-4.272	0.000
Destroyed environment	-0.473	-2.886	0.006
Environment protection is needed	-0.455	-3.155	0.003

### The written message

The extent to which consumers think the strong or weak CSR message worked as expected, and whether the strong CSR argument is statistically significant more informative than the weak CSR argument were examined in the Selection of stimuli II. The strong CSR argument provides more details of the company's activities undertaken to implement environmentally friendly inputs and products, whereas the weak CSR argument only provides some general description of the company's environmental protection activity. In Selection of stimuli II, the two arguments were tested to determine what extent they can express the company's aspiration of environmental protection, the content of its environmental protection activities, and fulfilling its CSR to the natural environment. The results are shown in Table 4.11. The strong CSR argument has received higher scores than the weak CSR argument in all three dimensions.

Table 4.11 Scores for the Strong and Weak CSR Argument

	Strong CSR argument		Weak CSR argument	
	Mean	Std. Dev.	Mean	Std. Dev.
Company's aspiration	4.0	0.848	2.5	0.857
Environmental protection contents	4.0	0.858	2.0	0.927
Fulfilling CSR	3.6	1.115	2.1	0.922

The differences between the strong and weak arguments are statistically significant (see Table 4.12). The t-test results reveal that the strong argument is statistically more informative than the weak argument in all three dimensions. The mean differences between the strong and weak arguments in three items are: 1.471 in illustrating

company's aspiration in protecting the environment, 1.922 in describing the environmental protection content of the company, and 1.510 in indicating that the company is fulfilling its CSR to the natural environment. Because slogan is part of the verbal information given in an advertisement, a suitable slogan for an advertising argument will enhance the effectiveness of the whole verbal message. In order to choose a suitable slogan for the strong and weak CSR arguments respectively, the researcher suggested two potential slogans in the Selection of stimuli II for respondents to choose. One slogan is strongly CSR related and the other is weakly CSR related (the CSR topic is the environmental friendly inputs/products (see chapter 4.1.3)). Most respondents (70.6%) chose the strongly CSR related slogan, 'Where is high quality water from? From the healthy nature', as the better slogan for the strong CSR argument. Half respondents chose the weakly CSR related slogan, 'Mountain Mineral Water for your healthy living everyday', as the better slogan for the weak CSR argument. Around 21.6% respondents chose the weakly CSR related slogan for the strong argument, and 43.1% respondents chose the strongly CSR related slogan for the weak argument. Other respondents (7.8% in both questions) suggested their own slogans. Due to the differences in respondents' choices of slogans for two arguments, the researcher used the strongly CSR related slogan for the strong CSR argument and the weakly CSR related slogan for the weak CSR argument in the main experiment.

Table 4.12 The T-test Results of the Strong and Weak CSR Arguments

	Mean	t	Sig. (2-tailed)
Company's aspiration	1.471	9.378	.000
Environmental protection contents	1.922	10.483	.000
Fulfilling CSR	1.510	8.282	.000

In order to decrease the potential negative influence from an unfamiliar mineral water brand on consumers' purchasing intention, the researcher provided information about international certificates the brand has obtained in the written messages. Hence, one question in the Selection of stimuli II asks consumers' attitudes to several international certificates, and whether the information about international certificates should be included in the written messages could be evaluated. Table 4.13 shows the importance of several well-known international certificates, such as ISO9001, ISO14000, and

OHSAS18001, to Chinese consumers in making purchasing decisions. About half of the respondents' (49.0%) purchasing intentions are possibly increased because international certificates increase their confidence when making purchasing decisions, while many consumers (33.3%) consider other more important factors. Consumers who are 'not influenced by international certificates at all' (7.8%) or whose 'purchasing intentions will absolutely increase after seeing international certificates' (9.8%) are both respondent minorities. Therefore the information about ISO9001, which is the quality assurance certificate of the design, development, process, production, installation, and servicing procedures of a company, was used in both the strong and weak written messages, but information about ISO14000 and OHSAS18001 were not included in the main experiment to decrease the length of wording.

Table 4.13 Respondents' Consideration of International Certificates

Attitudes to international certificates	Percentage of respondents
Do not increase my purchasing intention at all.	7.8%
Not sure, I will consider other factors first.	33.3%
Possibly, it increases my confident on the product when making purchasing decisions.	49.0%
Absolutely, international certificate is very important to me.	9.8%

## 4.3 Method: Experiment

The images and written messages that were chosen based on the two rounds of selection of stimuli were combined to produce the advertisements used in the experiment. This section will introduce the experimental design, data collection methods, subjects of the study, instruments of the experiment and treatment of the data.

### 4.3.1 Research design and data collection methods

#### Research Design

After analysis of the results of pictures and written text tested in selection of the

stimuli, a 2 (strong and weak CSR arguments)  $\times$  3 (a neutral picture, a positive picture, and a comparison picture) +1 (a neutral picture with no CSR argument) between groups experiment has been employed in the data collection phase. In order to re-confirm that the three written messages and three visual images used in the experiment were manipulated as described, four manipulation check questions were included in the experiment to re-test the effects of written messages and visual images.

A questionnaire, which includes one advertisement, pre-exposure, and post-exposure questions, was used to gather data in the experiment (see Appendix 4). Pre-exposure questions include questions that evaluate consumers' attitude toward advertising ( $A_a$ ), green consumer values ( $CSR_1$ ) and global attitudes to CSR ( $CSR_2$ ), holistic/analytic thinking styles, and purchasing decision involvement (PDI) in buying bottled mineral water. Post-exposure questions include questions about consumers' attitudes to the advertisement ( $A_{ad}$ ), their attitudes to the advertised product ( $A_p$ ), consumers' purchasing intentions toward the advertised product (PI), consumers' response profile of the advertisement, the informational/transformational advertisement contents, manipulation check questions, and basic demographic information of respondents. The details of items used will be introduced in the instruments of the questionnaire (Chapter 4.3.3) which follows.

The experiment included six treatment groups and one control group so that consumers in each group saw a different advertisement compared with consumers in other groups. Consumers' responses in each group can reflect the communication effectiveness of different advertisements. Each respondent received a booklet which first introduced the study and then began with the pre-exposure questions. Turning the page after the pre-exposure questions, respondents saw a print advertisement. After reading the print advertisement, respondents saw the post-exposure questions. The questions for each group are the same, except for the manipulation check questions examining consumers' feelings and understanding of the specific advertisement shown in the booklet. The booklets for 7 groups were mixed and given to respondents randomly. Neither the respondents nor the researcher was to know which group each respondent would participate in, so the experiment was a double

blind experiment.

### **Data collection methods**

A paper and pencil survey was employed to collect the data in Xi'an. The researcher and three volunteers chose seven high streets (Zhonglou, Xiaozhai, Dayanta, Gaoxin Road, Kangfu Road, Fengcheng Er Road and Laodong Road) in the city centre and suburban areas to hand out survey questionnaires to ordinary consumers randomly from 13th to 20th December 2013. The researcher and volunteers approached people in seven high streets to ask whether they were interested in taking part in an anonymous survey intending to understand their personal attitudes to an advertisement as consumers. Little gifts such as key rings and pens were provided as incentives for respondents who agreed to participate. Consumers, who agreed to participate in the paper based survey, read the information sheet first, and then completed the questionnaires on streets if they were satisfied with the information sheet. Approximately 1050 people were approached, and 442 people agreed to take part in the survey, but only 420 respondents finished the questionnaire and returned it to the researcher or volunteers, so the response rate was 40%. However, 25 respondents missed more than 4 questions in their questionnaires, so their answers were not included in the data set. Therefore, the number of respondents whose answers were counted in the experiment was 395. The demographic information of 395 respondents will be analysed in the next section.

All respondents took part in the survey on a voluntary basis, so the main ethical issue of this study was to protect the respondents' confidentiality. The information concerning the researcher and this study were provided to subjects with the questionnaire, such as the study aims, the researcher's name, typical questions, and risks. The issues of confidentiality and anonymity applied to the data collection, analysis and presentation phases of the research. The identity of respondents remains anonymous and findings will be presented in total so that no individual can be identified. Completed questionnaire results would only be seen by the researcher.

#### 4.3.2 Subjects of this study

The basic information of 395 respondents is reported in this section. The ratio of females to males is around 1.4 to 1. One reason is that more females than males were shopping in the high streets, and the other reason is that most of the respondents who missed more than 4 questions in the survey were males. 395 respondents' age ranges, occupation, educational background and average income are reported in Table 4.14.

Table 4.14 Demographic Information of Respondents in the Experiment

		No. of respondents	Percentage
Age ranges	18-25years	77	19.5%
	26-35years	194	49.1%
	36-45years	75	19.0%
	46-55years	31	7.8%
	56-65years	15	3.8%
	Over 65years	3	0.8%
	Total	395	100%
Occupation	Student	37	9.4%
	Senior manager	19	4.8%
	Professional/technician	110	27.8%
	Public service administrator	53	13.4%
	Service industry employee	43	10.9%
	Agriculture/forest/dairy/fishing industry employee	54	13.7%
	Manufacture industry employee	44	11.1%
	Other occupations	35	8.9%
	Total	395	100%
Educational background	Junior high school (Year 9)	22	5.6%
	High school (Year 12)	52	13.2%
	Junior college (Diploma courses)	100	25.3%
	Undergraduate degree	152	38.5%
	Postgraduate degree	67	17.0%
	Missing	2	0.5%
	Total	395	100%
Average income per month	¥1500 (US\$ 242) or less	72	18.2%
	¥1501-3000 (US\$ 243-484)	157	39.7%
	¥3001-5000 (US\$ 485-806)	136	34.4%
	¥5001-8000 (US\$ 807-1290)	24	6.1%
	Over ¥8000 (US\$ 1290)	5	1.3%
	Missing	1	0.3%
	Total	395	100%

As Table 4.14 illustrates, the majority of respondents (68.6%) were 35 years or under. Respondents were from various occupations: 37 were students; 19 were senior managers of private corporations or public bureaus; 110 were professionals or technicians in various industries; 53 were general employees in the public service sector; 43 were general employees in business/service industries; 54 were general employees in agriculture/forest/ dairy/fishing industries; 44 were general employees from manufacturing industries; and 35 were from other occupations, including retired, self-employed and unemployed people. As introduced in Chapter 4.1.2 the classification professionals or technicians may include workers from many different industries, and subsequently has the largest proportion of respondents in all occupations.

More than half of the respondents (55.5%) have completed higher education: 152 respondents have obtained an undergraduate degree and 67 have obtained a postgraduate degree. A significant portion of respondents (25.3%) have completed junior college education, which is similar to diploma courses in Australia. 13.2% of respondents have completed high school education (Year 12) and 5.6% of respondents only finished the compulsory junior high school education (Year 9). Two respondents missed the educational background question. Most respondents' average incomes per month are in the range of CNY¥ 1501-3000 (39.7% of respondents) or CNY¥ 3001-5000 (34.4% of respondents). A small percentage of respondents' revenue is relatively high: 6.1% of respondents' revenue are between CNY¥ 5001 and ¥ 8000 and 1.3% of respondents' revenue are over CNY¥ 8000. Because 37 fulltime students took part in this survey, a relatively higher percentage of respondents received no more than CNY¥ 1500 (18.2%) per month. One respondent missed the question of average income per month.

### 4.3.3 Data gathering instruments and treatment of data

#### **Instruments**

The data gathering instrument used in this experiment was a paper-based survey. The survey questionnaire included three parts: pre-exposure questions, one print

advertisement and post-exposure questions. All the question scales and items that were used in the survey questionnaire will be introduced in detail in this section.

Pre-exposure questions evaluated five perspectives. The first perspective consumers'  $A_a$  was evaluated by Pollay and Mittal's (1993) 'Public Opinion toward Advertising' scale and by Obermiller and Spangenberg's (1998) 'Scepticism toward Advertising' scale. The second perspective of  $CSR_1$  was measured by Haws, Winterich, and Naylor's (2010) 'Green consumer values' scale, and  $CSR_2$  was measured by three items from the researcher. The third perspective, consumers' cognitive process styles, was evaluated by Choi, Koo and Choi's (2007) 'Analytic/Holistic Thinking' scale. The fourth perspective consumers' PDI was measured by Mittal's (1989) 'Purchasing Decision Involvement' scale. The fifth perspective consuming frequency of bottled mineral water was evaluated by a multiple-choice question from the researcher. Hence, there are 22 pre-exposure questions in the survey. Most pre-exposure questions are 7-point Likert-style scales from strongly agree to strongly disagree. Only one question, which asked about consuming frequency of bottled mineral water, is a multiple-choice question with five choices: never, once to twice per month, once per week, twice to four times per week, more than four times per week. The items that have been selected from the above scales will be introduced in the following paragraphs.

The variable consumers'  $A_a$  was evaluated by nine items in which seven items were taken from Pollay and Mittal's scale (1993) and two items were from Obermiller and Spangenberg's scale (1998). Pollay and Mittal considered most aspects of advertising that may influence consumers' attitudes to it, so most items in this study are from their scale (Cronbach's  $\alpha = 0.78$ ). A few items from Obermiller and Spangenberg's scale (Cronbach's  $\alpha = 0.85$ ) of scepticism were added to obtain a more complete picture of consumers'  $A_a$ .

Pollay and Mittal's scale includes items measuring both the 'global attitude to advertising' and two dimensions: 'personal use' dimension and 'societal effects' dimension. The 'personal use' dimension is further disaggregated into 'product information', 'social role and image', and 'hedonic/pleasure'. The 'societal effects'

dimension is further disaggregated into 'good for economy', 'materialism', 'value corruption', and 'falsity/no sense'. Two factors, 'product information' and 'hedonic', from the 'personal use' dimension, and two factors, 'materialism' and 'falsity/no sense', from the 'societal effects' dimension were chosen to be used in this study, because their contributions to  $A_a$  were consistent in several studies (Pollay & Mittal). In sum, two items from the 'product information' factor, one item from the 'hedonic/pleasure' factor, one item from the 'materialism' factor, one item from the 'falsity/no sense' factor and two items from the 'global attitude to advertising' constitute seven items from Pollay and Mittal's scale in this study. The items that have been employed are as follows. 'Global attitudes to advertising' were measured by two questions: 'my general opinion of advertising is unfavourable' and 'overall, I consider advertising a good thing'. 'Product information' was measured by two questions: 'advertising helps me keep up to date about products/services available in the marketplace' and 'advertising tells me which brands have the features I am looking for'. 'Hedonic/pleasure' was assessed by one question: 'quite often advertising is amusing and entertaining'. 'Materialism' was evaluated by one question: 'because of advertising, people buy a lot of things they do not really need'. 'Falsity/no sense' was evaluated by one question: 'in general, advertising is misleading'. Obermiller and Spangenberg's (1998) scale only considers the disbelief of advertising claims, so two items were selected to supplement the items from Pollay and Mittal. The two items comprise 'in general, advertising presents a true picture of the product being advertised', and 'most advertising provides consumers with essential information'. These two items were chosen because their expression makes allowance for flexibility, which is necessary in Chinese language communication and fits the Chinese holistic thinking style where a compromised middle ground is preferred (Choi, Koo, and Choi, 2007). Because the reliability test results suggest that two items measuring consumers' 'hedonic/pleasure' and 'materialism' factor are better to be excluded from the scale, these two items were not counted in calculating  $A_a$ . The Cronbach's  $\alpha$  of the seven items in this study is 0.68.

Consumers' attitude to CSR ( $A_{CSR}$ ) has two dimensions: Green consumer values ( $CSR_1$ ) and general attitudes to CSR issues ( $CSR_2$ ). The dimension  $CSR_1$  was evaluated by 3

items from Haws, Winterich, and Naylor (2010). Haws, Winterich, and Naylor develop the 'Green consumer values' scale (Cronbach's  $\alpha = 0.89$ ), which includes 6 items from a single dimension considering both the environmentally friendly, and physical and financial resources consumers have obtained. The three items used in this study were: 'it is important to me that the products I use do not harm the environment', 'my purchase habits are affected by my concern for our environment', and 'I am willing to be inconvenienced in order to take actions that are more environmentally friendly'. They were chosen to be used because these items connect environmentally friendly concepts closely with purchasing decisions compared with other items. The dimension  $CSR_2$  was measured by 3 items from the researcher.  $CSR_2$  was considered as the second dimension of consumers' attitudes to CSR because it is possible that consumers' general attitudes to CSR can also explain consumers'  $A_{ad}$  to a CSR advertisement. The items used were: 'corporations have responsibilities to society', 'corporations have responsibilities to the natural environment', and 'corporations should ensure that their inputs and products do not harm the natural environment'. The three items all contribute to the overall CSR theme used in the advertisements in this study. The Cronbach's  $\alpha$  of the six items in this study is 0.65.

The variable PDI was evaluated by two items from Mittal (1989). Mittal defines purchase decision involvement as the extent of interest and concern that a consumer brings to bear on a purchase decision task and uses 4 items to measure the extent of their interests and concerns (Cronbach's  $\alpha$  was not reported). The researcher chose two items regarding the degree of caring and concern with the outcome to be used in this study: 'in selecting from many types and brands of bottled mineral water available in the market, would you say that you (choose from: do not care at all, 1, to care a great deal, 7)', and 'in making your selection of bottled mineral water, how concerned would you be about the outcome of your choice (choose from: not at all concerned, 1, to very much concerned, 7)'. Because this study used an unfamiliar brand in the advertisement, the other two items relevant to the brand were not included in the questionnaire. The Cronbach's  $\alpha$  of the two items in this study is 0.62.

In addition, consumers' cognitive process styles were examined in this study in order

to better understand Chinese consumers' processing of advertisements and processing results  $A_{ad}$ ,  $A_p$ , trial intention and PI. Choi, Koo and Choi (2007) developed 24 items from four factors to measure people's thinking styles (analytic or holistic) (Cronbach's  $\alpha$  varies from 0.56 to 0.71 for four factors), so the researcher chose one item from each factor to examine consumers' thinking styles. The item 'everything in the universe is somehow related to one another' is from the factor 'causality', in which Chinese consumers assume complex causalities and focus on the relationships and interactions between factors. The item 'it is more desirable to take the middle ground than go to extremes' from the 'attitude toward contradictions' factor indicates Chinese intentions to pursue a compromised middle ground rather than choose one of the two opposite propositions. The item 'current situations can change at any time' is from the factor 'perception of change', in which Chinese consumers assume constant fluctuations in predicting future events rather than expecting similar patterns of change or stability. The item 'it is not possible to understand the parts without considering the whole picture' from the factor 'locus of attention' indicates Chinese attention to the relationship between objects and the field of objects rather than the object itself. These items were chosen because they can best describe the core themes of four factors of holistic thinking style concisely. Only one item was chosen for one perspective and the cognitive style is not used as a variable in the hypothesized model, so the Cronbach's  $\alpha$  cannot be calculated.

The construct measured post-exposure questions includes: (i), 17 words describing consumers' affective responses adapted from Edell and Burke (1987); (ii), nine items examining cognitive responses of the advertisement adapted from Puto and Wells (1984) and Schlinger (1979); (iii), three items evaluating consumers'  $A_{ad}$ ; (iv), three items evaluating consumers'  $A_p$ ; (v), one item evaluating trial intentions toward the advertised product; (vi), three items evaluating consumers' PI; (vii), three items evaluating whether picture editing has influenced consumers'  $A_{ad}$ ,  $A_p$ , and PI; (viii), four items of manipulation check questions; and (ix) five demographic questions. Hence, there are 32 post-exposure questions in the survey. Except for demographic questions, manipulation check questions, picture editing questions, and consumers'

feelings to the advertisement question, all post-exposure questions are 7-point Likert-style scale questions from strongly agree to strongly disagree. All items and questions used will be introduced in detail.

Consumers' affective responses were collected by Edell and Burke's (1987) scale of feelings toward advertisements (Cronbach's  $\alpha$  for upbeat feelings is 0.95, for negative feelings is 0.89, and for warm feelings is 0.90). Edell and Burke measured people's feelings toward advertisements by 65 description words of which 32 words are upbeat feelings, 20 words are negative feelings and 13 words are warm feelings. The researcher chose 6 upbeat feeling words (alive, amused, attractive, carefree, delighted, playful), 6 negative feeling words (angry, bad, depressed, disinterested, regretful, sad), and 4 warm feeling words (calm, concerned, contemplative, hopeful) to form a multiple choice question for consumers to choose after seeing the advertisement in the experiment. An option 'other feelings (please specify)' was also provided for consumers to specify their feelings that were not included in the above group of descriptive words. There are two reasons that the researcher chose these description words from the scale. One reason is that these words are suitable to be used for the images in this experiment, which either show the natural environment or show a cup of water. The other reason is that these words are commonly used as descriptive words in the Chinese language. All the feelings respondents chose were recorded and the most frequently chosen feelings were used to describe an image. Because the data type of affective responses is categorical, reliability cannot be tested.

Consumers' cognitive responses were collected using Puto and Wells' (1984) Informational and Transformational Contents scale and Schlinger's (1979) Viewer Response Profile scale. Puto and Wells developed a 23 item scale to evaluate the informational content and transformational content in an advertisement (Cronbach's  $\alpha$  for the information scale is 0.73, and Cronbach's  $\alpha$  for the transformation scale is 0.88). Informational content provides factual, relevant brand data in a clear and logical manner, while transformational content associates the experience of using the advertised brand with a unique set of psychological characteristics. The researcher chose one item to measure the extent of informational content: 'I can now accurately

compare Mountain Mineral Water with other competing brands on matters that are important to me'. Three items were chosen to measure the extent of transformational content of the advertisement: 'Mountain Mineral Water fits my lifestyle very well', 'Mountain Mineral Water is not really for me', and 'this advertisement leaves me with a good feeling about using Mountain Mineral Water'. These items were chosen because they fit the product, bottled mineral water, and the topic 'environmentally friendly inputs/products' advertised in this experiment. Less items for informational content were chosen compared with transformational content are because Schlinger's scale also provides items that examine informational content. Schlinger's Viewer Response Profile was also employed to gather consumers' detailed cognitive and affective responses (Cronbach's  $\alpha$  was not reported). Because this study used an unfamiliar brand and print advertising with the topic 'environmentally friendly inputs/products', two factors from the profile were not suitable to be used: brand reinforcement and empathy. The researcher chose one item from each of the other five factors: 'entertainment', 'relevant news', 'confusion', 'familiarity' and 'alienation'. 'The characteristics in the advertisement capture my attention' measures the 'entertainment' factor (This item was classified into transformational in Cronbach's  $\alpha$  calculation). 'I learned something from the advertisement that I did not know before' measures the 'relevant news' factor. 'I think this is an unusual advertisement. I am not sure if I have seen another like it' is to measure the 'familiarity' factor. 'The advertisement did not show me anything that would make me want to use their products' is to measure the alienation factor (The above three items were classified into informational in Cronbach's  $\alpha$  calculation). 'It required a lot of effort to read the ad' evaluate the confusion factor. The Cronbach's  $\alpha$  of four items from transformational scale is 0.71, and the Cronbach's  $\alpha$  of four items from informational scale is 0.60.

The researcher produced 3 questions based on commonly used items for each of the three variables: consumers'  $A_{ad}$ ,  $A_p$ , and PI. Consumers'  $A_{ad}$  was evaluated by: 'I like this advertisement', 'this advertisement is good', and 'this advertisement is attractive'. The Cronbach's  $\alpha$  of the three items is 0.88. Consumers'  $A_p$  was evaluated by: 'I like

Mountain Mineral Water', 'Mountain Mineral Water is good', and 'In my opinion, Mountain Mineral Water will be popular in the market'. The Cronbach's  $\alpha$  of the three items is 0.81. Consumers' PI was evaluated by: 'I would like to buy Mountain Mineral Water if I was buying bottled mineral water', 'I would like to buy a bottle of Mountain Mineral Water instead of other mineral waters if I see it in supermarkets/stores in the near future', and 'I would like to buy a bottle of Mountain Mineral Water if its price is similar to other mineral waters'. The Cronbach's  $\alpha$  of the three items is 0.75. One item was intended to test consumers' trial intentions toward the advertised product: 'I would like to try Mountain Mineral Water for free'. Demographic questions asked about respondents' gender, age, occupation, educational background and average income per month.

Three items evaluated whether consumers think that their attitudes to the advertisements and product, and purchasing intentions were influenced by picture editing. 'I do not like this advertisement because the picture it used was edited'. 'I do not like Mountain Mineral Water because the picture in the advertisement was edited'. 'I will not buy Mountain Mineral Water because the picture in the advertisement was edited'. The scale used is 5-point Likert scale from strongly disagree to strongly agree.

Four manipulation check questions re-test consumers' feelings raised by the images and understanding of the written messages used in the advertisement. One item examined consumers' understanding of CSR implementation by the company from the advertisement: 'the advertisement shows the company is fulfilling its responsibility to the environment and society'. Two items examined consumers' understanding of the environmentally friendly thoughts and activities of the company based on written messages in the advertisement: 'the words of the advertisement express the company's aspiration in protecting the environment' and 'the words of the advertisement describe the content and outcomes of the company's environmental protection activities'. In 6 treatment groups, these three items were tested using a 6-point scale (from none to extremely high) in order to compare the manipulation differences between these CSR advertisements. However, the control group uses a visual image and a written sentence that are not relevant to CSR, which is called

‘neutral’, and works as the benchmark in the experiment. Hence, the 6-point scale used for the above three items, which measure consumers’ perception of CSR from advertisements, was not suitable to be used because the neutral advertisement does not have CSR information at all. A 5-point Likert scale (from strongly disagree to strongly agree) was employed to examine those items in the control group. One item examined feelings raised by images in the advertisement. Because feelings (such as no feeling, positive feeling, and both positive and negative feelings) do not have a linear relationship among each other, the manipulation check item used for different images varies. The item for the positive image was (2 treatment groups): ‘the picture within the advertisement brings positive feelings about the natural environment in general’. The item for the comparison image was (2 treatment groups): ‘the picture within the advertisement brings both positive and negative feelings about natural environment’. The item for the neutral image was (2 treatment groups and one control group): ‘the picture within the advertisement does not raise my feelings about the natural environment’. To keep the consistency, in 6 treatment groups this item used a 6-point scale (from none to extremely high); but in the control group, this item uses a 5-point Likert scale (from strongly disagree to strongly agree), following the 5-point scale of items used for the written message in the control group.

The print advertisement between the pre-exposure and post-exposure questions worked as the stimuli in the questionnaire and was designed by professional graphic designers. As discussed above, seven different advertisements were used in the experiment to compare consumers’ responses to advertisements. Each advertisement is composed of a visual image and written message. Three images, two CSR arguments and one neutral message were used in advertisements. The source of images was introduced in Chapter 4.2.2. The strong CSR argument expresses the company’s aspiration, aims and methods in protecting and sustainably using the input (the water source) of the production. The weak CSR argument slightly expresses the company’s aspiration in protecting the input of the production. The neutral text only introduces the area of production and quality of the advertised product. All advertisements are illustrated in Appendix 3. The feelings generated by images and the level of CSR information provided by arguments were tested in the procedure of selection of

stimuli (Chapter 4.2) and re-tested in the experiment by the manipulation check questions. The results of the manipulation checks will be reported in Chapter 5.1.

### **Treatment of data**

The software SPSS and OpenMx (Boker *et al.*, 2011) were employed to analyse the data. Descriptive analysis was used to analyse all variables in the hypothesized model: consumers' affective and cognitive reactions, consumers' attitudes to advertising and CSR, consumers' purchasing decision involvement toward bottled mineral water, trial intentions, and consumers'  $A_{ad}$ ,  $A_p$  and PI. In addition, Chinese consumers' cognitive processes were analysed. The proportion and frequency, or mean and standard deviation of answers will be reported in the findings chapter.

The t-test was used to examine the manipulation check items of written messages. Two-way between groups ANOVA (analysis of variance) was employed in examining the manipulation check item of CSR information transferred by the advertisement as a whole. Moreover, ANOVA was used to compare consumers'  $A_{ad}$ ,  $A_p$  and PI among seven groups. Hierarchical regression analysis was used to examine the hypothesized moderating effects of consumers' attitudes to advertising, consumers' attitudes to CSR, and purchasing decision involvement in buying bottled mineral water. Regression analysis was used to examine the hypothesized mediating effects of the trial intention. Path analysis was employed to examine the initial theoretical model, and suggests a *post-hoc* model with all significant paths within it. Lastly, the specification search (Marcoulides & Drezner, 2003) process was used to modify the *post-hoc* model to a final model which fits the data at the best level.

## **4.4 Summary**

This chapter introduced the methods and results of the pilot study and selection of stimuli, and the methods used in the main experiment. The pilot study examined: firstly, consumers' preferences for CSR topics that a mineral water company could use in its advertisements (environmentally friendly inputs/products); secondly, consumers' attitudes to and preferences for print advertisements; thirdly, Chinese consumers'

preference of advertising styles; and lastly, important factors that influence consumers' purchasing decisions of mineral water. The selection of stimuli examined the executional cues that were used in the experiment: visual images and written messages. One neutral image, one positive image and one comparison image were chosen from five images to raise different feelings from consumers. A strong CSR argument and a weak CSR argument were tested to express CSR information strongly or weakly respectively. The neutral argument was tested to express no CSR information.

Based on the results of the pilot study and selection of stimuli, a 2 (strong or weak CSR argument)  $\times$  3 (neutral picture, positive picture, or comparison picture) +1 (neutral picture + no CSR argument) between groups experiment has been employed in data collection of the final experiment. Each questionnaire included 22 pre-exposure questions, 32 post-exposure questions and one advertisement. Four hundred and twenty respondents took part in the experiment and returned the booklet, and only 395 respondents' answers are calculated in data analysis. SPSS and OpenMx were the software employed in the study, and t-tests, two-way between groups ANOVA, hierarchical regression analysis, regression analysis, and path analysis have been used in the data analysis. The findings of the experiment will be elaborated in the next chapter.

## Chapter 5 Findings

This chapter presents the findings of the study and includes six sections. The first section presents the results of manipulation checks. The second section covers consumers' cognitive and affective responses to the advertisements. While the third section is a descriptive analysis of Chinese consumers' attitudes to advertising and corporate social responsibility (CSR), the extent of holistic cognitive processes in Chinese consumers, and the involvement of Chinese consumers in decisions about the purchase of bottled mineral water. The fourth section presents the comparison of consumers' attitudes to seven advertisements ( $A_{ad}$ ), attitudes to the advertised product ( $A_p$ ), and purchase intentions (PI). The fifth section covers examination of moderating and mediating effects in the hypothesized theoretical model. The last section is the results of path analysis and model modification of the theoretical model.

### 5.1 Manipulation checks

Manipulation checks of the advertisements in this study include checks of the verbal messages, visual images and of the advertisements as a whole. The following paragraphs introduce the results of examination of these executional cues.

#### 5.1.1 The verbal messages of advertisements

The verbal messages of the advertisements have three executional levels: a neutral argument with no CSR information, a weak CSR argument and a strong CSR argument. Two items in the questionnaire assessed the verbal contents: 'the written message of the advertisement expresses the company's aspiration in protecting the environment', and 'the written message of the advertisement describes the contents and outcomes of the company's environmental protection activities'. Because the neutral argument has no information relevant to CSR, respondents only need to decide to what extent they agree or disagree within the above two items. Hence, responses were recorded on a 5-point Likert scale with end points labelled 'strongly disagree' (-2) to 'strongly agree' (2). But for the weak and strong CSR arguments, it is essential to understand how much relevant information respondents perceived from the advertisements so that the level of argument strength could be compared. Therefore, a scale ranges from

0 to 5 (0, no information at all; 1, extremely low; 2, low; 3, medium; 4, high; 5, extremely high) was employed to compare the weak and strong CSR arguments.

The comparison of the weak and strong argument is analysed in this paragraph. T-tests were used to determine whether there are differences between the manipulation information provided by the weak and strong CSR arguments. Table 5.1 shows the results of these t-tests. One hundred and sixty-four respondents read the advertisements containing the weak CSR argument and one hundred and eighty-one respondents read the advertisements containing the strong CSR argument. Respondents' perception of the company's CSR aspiration is  $M=2.3$  ( $S.D. =1.08$ ) from the weak argument and  $M=3.6$  ( $S.D. =0.7$ ) from the strong argument. Respondents' perceptions of the company's CSR content and outcomes is  $M=1.8$  ( $S.D. =1.19$ ) from the weak argument and  $M=3.4$  ( $S.D. =0.61$ ) from the strong argument. The results of Levene's test show that equal variances cannot be assumed, so the t value in comparing CSR aspiration is -13.394 and the t value in comparing CSR content and outcomes is -16.191. Because both the significances of t test are  $p < 0.001$ , consumers' understandings of CSR aspiration and CSR content from the weak and strong CSR arguments are significantly different. The strong argument expresses higher level of CSR aspiration and CSR content and results than the weak argument.

Table 5.1 The T-test Results of the Weak and Strong Arguments in the Ads

	Written message	No. of respondents	Mean	Std. Deviation	T test	Sig. of T test
CSR aspiration	Weak argument	164	2.3	1.08	-13.394	0.000
	Strong argument	181	3.6	0.70		
CSR contents	Weak argument	164	1.8	1.19	-16.191	0.000
	Strong argument	181	3.4	0.61		

Only one advertisement (the control group) uses the neutral message containing no CSR information and works as a bench-mark in this study to be compared with the six CSR advertisements (treatment groups). Because it uses a different scale, the results cannot be compared with the weak and strong CSR argument. Fifty respondents saw

the neutral argument and they disagreed that the advertisement expressed any CSR aspirations ( $M=-1.0$ ,  $S.D. = 0.59$ ) or CSR content and results ( $M=-1.0$ ,  $S.D. = 0.51$ ) of the company.

### 5.1.2 The visual images of advertisements

Three versions of visual image were designed for this study: a neutral image which is not relevant to the natural environment, a positive image which raised consumers' positive feelings about the natural environment, and a comparison image of positive and negative pictures that raised both positive and negative feelings about the natural environment. Because the feelings raised by the three images do not have a linear relationship, it was not feasible to use the same item to evaluate all three images. Therefore, three items were produced to assess consumers' feelings about the three images respectively. 'The picture within the advertisement does not raise my feeling about the natural environment' was used for the neutral image. 'The picture within the advertisement brings me positive feelings about the natural environment in general' was used for the positive image. 'The picture within the advertisement brings me both positive and negative feelings about the natural environment' was used for the comparison image. In the six treatment groups, one item with a scale ranges from 0 (not at all) to 5 (extremely high) in the questionnaire examines consumers' feelings raised by the image. Consumers who saw the neutral image moderately agreed that the image does not raise their feelings about the natural environment ( $M= 3.4$ ,  $S.D. =1.26$ ). Consumers who saw the positive image moderately agreed that the image raised positive feelings about the natural environment ( $M=3.6$ ,  $S.D. =0.85$ ). Consumers who saw the comparison image moderately agreed that both positive and negative feelings about the natural environment were produced ( $M=3.4$ ,  $S.D. =0.78$ ). In order to maintain consistency with the manipulation checks of the neutral written text in the control group, the assessment of the neutral image in the neutral advertisement used a 5-point scale from -2 (strongly disagree) to 2 (strongly agree). Consumers agreed that the image does not raise their feelings about the natural environment ( $M=1$ ,  $S.D. =0.72$ ). Hence, each of the three images raised expected feelings respectively from respondents.

### 5.1.3 The CSR information transferred from advertisements

One item tested the CSR information transferred from the advertisements as a whole: 'the advertisement shows the company is fulfilling its responsibility to the natural environment and society'. In six treatment groups, this item was evaluated by a scale from 0 to 5 (0, not at all; 1, extremely low; 2, low; 3, medium; 4, high; 5, extremely high). Two-way between groups ANOVA (analysis of variance) was employed to determine whether the effects of CSR information transformation from the six advertisements were different. The results of Levene's test showed that the homogeneity of variance assumption had been violated ( $F(5, 339) = 15.994, p < 0.001$ ), so the main effects for image and written message are significant. Two-way between groups ANOVA compared the means of six advertisements, and the results suggest that there are significant effects from the written message ( $F(1, 339) = 212.060, p < 0.001$ ) and visual images ( $F(2, 339) = 8.185, p < 0.001$ ) to CSR information transfer. Therefore, the six advertisements used in six treatment groups provided various levels of CSR information to respondents. The differences among the six advertisements and also among the levels of executional cues are statistically significant. The means of CSR transfer effects of the six advertisements show that the comparison image with the strong argument ( $M=3.76$ ) have the best effect, followed sequentially by the positive image with the strong argument ( $M=3.75$ ), the neutral image with the strong argument ( $M=3.67$ ), the comparison image with the weak argument ( $M=2.63$ ), the positive image with the weak argument ( $M=2.18$ ), and finally the neutral image with the weak argument ( $M=1.62$ ). In addition, there was a significant interaction effect between the written message and visual image ( $F(2, 339) = 5.814, p = 0.003 < 0.05$ ) on consumers' understanding regarding the company's fulfilment of its CSR.

In order to maintain consistency for the ordinary commercial advertisement in the control group, a scale anchored by 'strongly disagree' (-2) and 'strongly agree' (2) was employed to examine whether the neutral advertisement is actually neutral. The respondents disagreed ( $M=-0.4, S.D. = 0.86$ ) that the neutral advertisement showed the company is fulfilling its responsibility to the environment and society.

In summary, different levels of visual image and written messages were examined to raise various feelings and provide different levels of CSR information, respectively. The combination of visual images and written messages in the seven advertisements also transferred different levels of CSR implementation or no CSR implementation in the bottled water company. Thus the results of manipulation checks advocate that all the designed stimuli worked as expected.

## 5.2 The communication effects of the advertisements

The communication effects of the advertisements include two parts: consumers' cognitive reactions and affective reactions after being exposed to the advertisements. Consumers' cognitive and affective responses to the seven advertisements will be discussed in this section.

### 5.2.1 Consumers' affective responses to advertisements

Feelings raised by each of the seven advertisements were examined by Kolmogorov-Smirnov test and the results ( $p < 0.001$  in all seven tests) suggested that the frequencies of various feelings raised by each advertisement were different. Hence, the most frequent feelings that respondents experience in each advertisement will be reported in this section. The most frequent feelings that respondents experience when seeing an advertisement with the neutral picture and no CSR information (the control group) were 'carefree' (32% consumers), 'calm' (28%), and 'alive' (24%). For respondents who saw an advertisement with a neutral picture and a weak CSR argument, feelings frequently reported were 'calm' (42% consumers), 'other feelings' (30%), such as 'sceptical feeling' and 'nothing remarkable', and 'contemplative' (24%). For respondents who saw an advertisement containing a neutral picture and a strong CSR argument, options chosen were 'carefree' (41%), 'calm' (41%), 'alive' (29%) and 'attractive' (29%).

For respondents who saw an advertisement that included a positive picture and a weak CSR argument, the most frequent feelings reported were 'carefree' (37%

consumers), 'calm' (32%) and 'attractive' (29%). For respondents who saw an advertisement showing a positive picture and a strong CSR argument, feelings frequently reported were 'alive' (41%), 'attractive' (39%) and 'carefree' (31%).

For respondents who saw an advertisement with a comparison picture and a weak CSR argument, options chosen were 'contemplative' (33% consumers), 'attractive' (33%) and 'concerned' (31%). For respondents who saw an advertisement containing comparison picture and highly informative CSR argument, feelings frequently reported were 'contemplative' (31%), 'attractive' (30%), 'alive' (26%) and 'carefree' (26%).

In summary, the most frequent feeling raised by the advertisements which employed the neutral image was 'calm'. Feelings raised by the advertisements which used the positive image were 'attractive' and 'carefree'. Feelings raised by the advertisement which employed comparison image were 'contemplative' and 'attractive'. The mixture of the strong CSR argument with three images generated 'carefree', 'alive' and 'attractive' feelings in respondents, while the mixture of the weak CSR argument with three images generated various feelings in respondents.

### 5.2.2 Consumers' cognitive responses to advertisements

Table 5.2 and 5.3 illustrate consumers' cognition of each advertisement from seven dimensions: informational content, transformational content, entertainment, relevant news, familiarity, alienation and confusion (the meaning of each term was introduced in Chapter 4.3.3).

Respondents thought that  $N_0$  was neither informative in terms of introducing the differences of the advertised product from other products ( $M=0.06$ ) nor transformative in associating the product with psychological characteristics ( $M=0.09$ ). The advertisement was not entertaining ( $M=-0.08$ ), did not provide any new knowledge ( $M=-0.60$ ), was irrelevant in providing useful information ( $M=-0.80$ ), but was easy to read ( $M=0.40$ ) and familiar to consumers ( $M=0.28$ ). Advertisement  $N_1$  received very similar results as advertisement  $N_0$ . Respondents believed that  $N_1$  was

neither informative ( $M=0.02$ ) nor transformative ( $M=-0.01$ ), not entertaining ( $M=-0.36$ ), did not provide any new knowledge ( $M=-0.56$ ), was irrelevant in providing useful information ( $M=-0.70$ ), but was easy to read ( $M=0.36$ ) and familiar to consumers ( $M=0.54$ ). Respondents reacted to  $N_2$  differently from  $N_1$  and  $N_0$ . Consumers slightly agreed that  $N_2$  was informative in terms of introducing the differences of the advertised product from other products ( $M=0.88$ ) and transformative in associating the product with psychological characteristics ( $M=0.71$ ). Advertisement  $N_2$  was entertaining ( $M=0.66$ ), provided some new knowledge ( $M=0.80$ ), provided a small amount of useful information ( $M=0.04$ ), was easy to read ( $M=0.19$ ), but was not familiar to consumers ( $M=-0.14$ ). One-way ANOVA results show that the informational content in seven advertisements is significantly different ( $F(6, 388)=3.937, p=0.001<0.05$ ); and the transformational content in seven advertisements is also significantly different ( $F(6, 388)=7.989, P<0.001$ ).

Table 5.2 Informational and Transformational Ad Content of Seven Ads

	Informational contents		Transformational contents	
	Mean	Std. Dev.	Mean	Std. Dev.
Ad $N_0$ : the neutral image with no CSR argument	0.06	1.49	0.09	0.85
Ad $N_1$ : the neutral image with weak CSR argument	0.02	1.57	-0.01	1.00
Ad $N_2$ : the neutral image with strong CSR argument	0.88	1.38	0.71	0.73
Ad $P_1$ : the positive image with weak CSR argument	0.31	1.51	0.41	1.09
Ad $P_2$ : the positive image with strong CSR argument	0.72	1.27	0.82	1.01
Ad $C_1$ : the comparison image with weak CSR argument	-0.02	1.39	0.14	0.86
Ad $C_2$ : the comparison image with strong CSR argument	0.68	1.41	0.76	0.83

Respondents received very limited information from the advertisement  $P_1$  ( $M=0.31$ ), and also very limited transformational content ( $M=0.41$ ).  $P_1$  was entertaining to a low extent ( $M=0.20$ ), familiar to consumers ( $M=0.52$ ), easy to read ( $M=0.65$ ), but did not provide any new knowledge ( $M=-0.56$ ) or useful information ( $M=-0.70$ ). Advertisement  $P_2$  received different responses compared with  $P_1$ .  $P_2$  introduced the differences

between the advertised product and other similar products ( $M=0.72$ ), and associated the product with psychological characteristics ( $M=0.82$ ). Respondents recognised that  $P_2$  was entertaining ( $M=0.80$ ), introduced some new knowledge ( $M=0.31$ ), easy to read ( $M=0.40$ ), but not familiar to consumers nor provide useful information.

Table 5.3 Viewer Response Profile after Seeing Seven Ads

	Entertainment		Relevant News		Familiarity		Alienation		Confusion	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Ad $N_0$	-0.08	1.37	-0.60	1.46	0.28	1.81	-0.80	1.54	0.40	1.46
Ad $N_1$	-0.36	1.48	-0.56	1.49	0.54	1.69	-0.70	1.49	0.36	1.55
Ad $N_2$	0.66	1.28	0.80	1.20	-0.14	1.60	0.04	1.60	0.19	1.62
Ad $P_1$	0.20	1.70	-0.40	1.65	0.52	1.61	-0.32	1.65	0.65	1.54
Ad $P_2$	0.80	1.27	0.31	1.42	0.08	1.58	0.09	1.60	0.40	1.63
Ad $C_1$	0.12	1.65	-0.40	1.49	0.21	1.67	-0.46	1.32	-0.12	1.35
Ad $C_2$	0.50	1.36	0.74	1.39	-0.50	1.47	-0.10	1.38	0.27	1.46

Respondents agreed that  $C_1$  was not informative in terms of introducing the differences between the advertised product and other products ( $M=-0.02$ ), but associated the product with psychological characteristics to a low extent ( $M=0.14$ ).  $C_1$  entertained consumers to a low extent ( $M=0.12$ ), and was familiar to consumers; but did not provide any new knowledge or useful information, and was not easy to read. Advertisement  $C_2$  received different responses compared with  $C_1$ . Respondents found that  $C_2$  was both informative ( $M=0.68$ ) and transformative ( $M=0.76$ ).  $C_2$  entertained consumers ( $M=0.50$ ), provided some new knowledge ( $M=0.74$ ), was easy to read ( $M=0.27$ ), but was not familiar to consumers ( $M=-0.50$ ) or provided useful information ( $M=-0.10$ ). One-way ANOVA compared the means of each of the five dimensions among seven groups of respondents. Respondents' perceptions of the relevant news ( $F(6, 388)=10.244$ ,  $P=0.001<0.05$ ), familiarity ( $F(6, 388)=3.136$ ,  $P=0.005<0.05$ ), and alienation ( $F(6, 388)=3.004$ ,  $P=0.007<0.05$ ) of seven advertisements are significantly different. However, their perceptions of confusion ( $F(6, 388)=1.139$ ,  $P=0.252>0.05$ ) of seven advertisements are about the same. All advertisements are between neutral to slight confusion. The entertainment dimension has different results compared with others. Because Levene's test shows that homogeneity of variance cannot be assumed ( $p=0.042<0.05$ ), Dunnett T3 was employed to compare the differences. Results suggest that  $N_0$  and  $P_2$  are significantly different ( $p=0.014<0.05$ ); and  $N_1$  is significantly

different from  $N_2$  ( $p=0.006<0.05$ ),  $P_2$  ( $p=0.001<0.05$ ), and  $C_2$  ( $p=0.041<0.05$ ) in bringing entertainment to respondents.

The above results suggest that a strong CSR argument considerably increases the informational and transformational content, entertainment and relevant news of the advertisement compared with no CSR information or a weak CSR argument. The weak CSR argument increases both the familiarity and alienation of the advertisements compared with the strong CSR argument. The positive picture increases the informational and transformational content of the advertisements compared with the neutral picture and comparison picture. The combination of the comparison picture with weak CSR argument increases the difficulty of reading the advertisements for consumers.

### 5.3 Consumers' attitudes to advertising and CSR, their cognitive processes, and purchase decision involvement

This section will introduce the descriptive analysis results of several variables in the hypothesized model and the cognitive processing style of Chinese consumers. The variables are: consumers' attitude to advertising ( $A_{ad}$ ), consumers' attitudes to CSR ( $A_{csr}$ ) and consumers' purchase decision involvement in buying bottled mineral water (PDI).

#### 5.3.1 Consumers' attitudes to advertising

As discussed in Chapter 4.3.3, the reliability test results suggest that the reliability of seven items is higher than nine items in the assessment of consumers' attitudes to advertising. Five of the items were from Pollay and Mittal's (1993) 'Public Opinion towards Advertising' scale, and two items were from Obermiller and Spangenberg's (1998) 'Scepticism towards Advertising' scale. Factor analysis results further suggest that these seven items could be separated into two dimensions. The results of Chinese consumers' attitudes towards all nine items are analysed in the following section but only seven of them will be used in calculations.

Two items examined consumers' global attitudes to advertising: 'my general opinion of advertising is unfavourable' and 'overall, I consider advertising a good thing'. Respondents' reactions to the former item were close to 'neither agree nor disagree' ( $M=-0.05$ ,  $S.D. =1.43$ ), and their reactions to the latter item were near 'slightly agree' ( $M=0.61$ ,  $S.D. =1.24$ ).

Three items assessed consumers' attitude to the 'personal use' aspect of advertising. 'Product information' was examined by two items: 'advertising helps me keep up to date about products/services available in the marketplace' ( $M=1.17$ ,  $S.D. =1.26$ ), and 'advertising tells me which brands have the features I am looking for' ( $M=1.69$ ,  $S.D. =0.84$ ). Thus respondents' attitudes to product information were positive. The question 'Quite often advertising is amusing and entertaining' examined consumers' evaluates attitudes to 'hedonic/pleasure' factor, and respondents' attitudes to it were near 'slightly agree' ( $M=0.70$ ,  $S.D. =1.47$ ).

Two items assessed consumers' scepticism towards advertising: 'in general, advertising presents a true picture of the product being advertised' and 'most advertising provides consumers with essential information'. Respondents' attitudes to the former item were almost 'neither agree nor disagree' ( $M=0.09$ ,  $S.D. =1.47$ ), and attitudes to the latter item were close to 'slightly agree' ( $M=0.86$ ,  $S.D. =1.27$ ). Thus while consumers' scepticism to advertising exists, consumers do think that advertising is an important information resource.

Two items which tested the 'social role and image' dimension of advertising in consumers' minds were not counted in the calculations of consumers' attitudes to advertising. The item 'because of advertising, people buy a lot of things they do not really need' examined consumers' attitudes to the 'materialism' factor. Respondents' attitudes to it were close to 'neither agree nor disagree' ( $M=0.11$ ,  $S.D. =1.55$ ). The item 'in general, advertising is misleading' examined consumers' attitudes to the 'falsity/no sense' factor, and respondents' answers were in between 'neither agree nor disagree' and 'slightly agree' ( $M=0.45$ ,  $S.D. = 1.47$ ). Because these two items needed reverse coding, consumers' attitudes to the 'social role' perspective were actually slightly

negative.

The reliability test results suggest that two items examined global attitudes and one item examined consumers' attitudes to 'hedonic/pleasure' factor could comprise one dimension, and the other four items could comprise the other dimension. Therefore, the values of each item were averaged to obtain the value of each dimension, and the values of two dimensions were averaged to obtain the value of consumers'  $A_a$ . The average value of  $A_a$  is 0.69 (S.D. =0.77). The results suggest that Chinese consumers have an attitude between neutral and slightly positive toward advertising in general.

### 5.3.2 Consumers' attitudes to CSR

Two dimensions of attitudes to CSR were considered in this study: 'Green Consumer Values' (Haws, Winterich, & Naylor, 2010) and consumers' 'global attitudes to CSR issues'. Three items in the 'Green Consumer Value' measurement were chosen from six items: 'it is important to me that the products I use do not harm the environment' (M=1.69, S.D. =1.17), 'my purchase habits are affected by my concern for our environment' (M=0.52, S.D. =1.48), and 'I am willing to be inconvenienced in order to take actions that are more environmentally friendly' (M=1.18, S.D. =1.42). The average of the three items is 1.13 (S.D. =1.00), thus consumers' green consumer values were 'slightly agree'.

Three items were used to understand consumers' 'global attitudes to CSR issues': 'corporations have responsibilities to the society' (M=2.37, S.D. =0.89), 'corporations have responsibilities to the natural environment' (M=2.32, S.D. =0.93), and 'corporations should ensure that their inputs do not harm the natural environment' (M=2.34, S.D. =0.70). The average of the three items is 2.34 (S.D. =0.70), therefore consumers' global attitudes to CSR were highly positive, which is between 'agree' and 'strongly agree'. The different results from the two dimensions of CSR illustrate that even though consumers' global attitudes towards CSR were highly positive, the influence of consumers' recognition of CSR concepts on purchasing behaviour, was positive but limited.

### 5.3.3 Chinese consumers' cognitive processes

Choi, Koo, and Choi (2007) suggest a 24 items scale to measure people's thinking tendencies. They split the items into 4 factors and one item from each factor was chosen to be used in the questionnaire: 'everything in the universe is somehow related to one another' ( $M=1.93$ ,  $S.D. =1.03$ ) from the causality factor, 'it is more desirable to take the middle ground than go to extremes' ( $M=1.25$ ,  $S.D. =1.22$ ) from the attitude toward contradictions factor, 'current situations can change at any time' ( $M=1.73$ ,  $S.D. = 1.09$ ) from the perception of change factor, 'it is not possible to understand the parts without considering the whole picture' ( $M=1.17$ ,  $S.D. =1.38$ ) from the locus of attention factor. Consumers' attitudes to holistic thinking of causality and change perception factors were near 'agree', and to holistic thinking of contradictions and attention locus factors were 'slightly agree'. Therefore, Chinese consumers have holistic thinking cognitive processes, especially in causality and perception of change factors. The results of using holistic thinking in those four perspectives are: Chinese consumers attend more to the context of one object, consider more potential causal candidates, group objects and events based on functional relationships and part-whole relationships, rely on prior beliefs in judging the soundness of formal arguments, and seek compromise solutions to problems (Nisbett et al., 2001).

### 5.3.4 Purchasing decision involvement of bottled mineral water

Two items from Mittal's (1989) purchasing decision involvement were chosen to test Chinese consumers' purchasing decision involvement in buying bottled mineral water: 'in selecting from many types and brands of this product available in the market, would you say that (choose from not care at all, 1, to care a great deal, 7)', and 'in making your selection of this product, how concerned would you be about the outcome of your choice (choose from not at all concerned, 1, to very much concerned, 7)'. Respondents' reactions to the former item was 'slightly care' ( $M=4.89$ ,  $S.D. =1.57$ ) and reactions to the latter item was approximately the same ( $M=4.80$ ,  $S.D. =1.66$ ). Hence, consumers' involvement in the purchasing decision of bottled mineral water is higher than the medium level ( $M=4.84>4$ ), and consumers do care which brand they

buy.

The frequency of consumers drinking bottled mineral water was asked in the questionnaire and it was revealed that only 2% of consumers never bought bottled mineral water before, 41.5% of consumers buy it around once to twice per month, 34.4% of consumers buy it approximately once per week, 17.2% of consumers buy it two to four times per week, 4.6% of consumers buy it more than five times per week, and 0.3% of consumers missed this question. Almost all respondents have had the experience of consuming bottled mineral water and over half of them consume it more than once per week. So bottled mineral water is a suitable choice of product for the study because almost all respondents have consuming experience and know which factors are important to them.

#### 5.4 Comparison of $A_{ad}$ , $A_p$ , and PI among seven groups

Consumers'  $A_{ad}$ ,  $A_p$ , and PI are the core variables that advertising scholars studied as the processing results of an advertisement. Each of consumers'  $A_{ad}$ ,  $A_p$ , and PI were measured by three commonly used items in this experiment. Consumers' responses to the above nine items are demonstrated in Table 5.4. The average of the three items were the  $A_{ad}$ ,  $A_p$ , and PI values used in data analysis.

Table 5.4 illustrates consumers'  $A_{ad}$ ,  $A_p$ , and PI after being exposed to seven CSR advertisements. The results of the three variables could be classified into three levels: low, medium, and high. Consumers'  $A_{ad}$  to three advertisements were negative and in low level:  $N_0$ (-0.14),  $N_1$ (-0.32), and  $C_1$ (-0.09). Furthermore, consumers'  $A_p$  and PI toward Mountain Mineral Water were also the lowest after being exposed to these three advertisements. Consumers'  $A_p$  from seeing  $N_0$ (-0.03),  $N_1$ (-0.14), and  $C_1$ (-0.03) are negative. Consumers' PI after seeing  $N_0$ (0.81),  $N_1$ (0.71), and  $C_1$ (0.81) are positive but relatively low compared with other advertisements. Consumers' responses to  $P_1$  was in the medium level, which is higher than  $N_0$ ,  $N_1$ , and  $C_1$ , but lower than  $N_2$ ,  $P_2$ , and  $C_2$ :  $A_{ad}$  (0.25),  $A_p$  (0.29), and PI (0.93). Consumers'  $A_{ad}$  toward  $N_2$  (0.90),  $P_2$  (0.88), and  $C_2$  (0.81) were 'slightly agree', which means respondents slightly like the

advertisements. These advertisements are in the high level compared with other advertisements. Consumers'  $A_p$  after seeing  $N_2$  (0.79),  $P_2$  (0.64), and  $C_2$  (0.68) were between 'neutral' and 'slightly agree' and were also the highest among the seven advertisements. Consumers' PI toward Mountain Mineral Water after being exposed to  $N_2$  (1.29),  $P_2$  (1.28), and  $C_2$  (1.28) were the highest, and between 'slightly agree' and 'agree'.

Table 5.4 Consumers'  $A_{ad}$ ,  $A_p$ , and PI after Exposed to CSR Ads

Items	$N_0$	$N_1$	$N_2$	$P_1$	$P_2$	$C_1$	$C_2$
I like this ad.	-0.12	-0.20	1.02	0.48	0.89	-0.25	0.66
This ad is good.	-0.12	-0.24	1.02	0.23	0.98	0.10	0.98
This ad is appealing to me.	-0.18	-0.52	0.66	0.03	0.78	-0.12	0.79
<b>The average <math>A_{ad}</math></b>	-0.14	-0.32	0.90	0.25	0.88	-0.09	0.81
I like Mountain Mineral Water (MMW).	-0.28	-0.28	0.66	0.26	0.50	-0.10	0.56
MMW is good.	-0.04	-0.1	0.95	0.50	0.75	0.29	0.89
MMW will be popular in the market.	0.24	-0.04	0.75	0.11	0.67	0.19	0.60
<b>The average <math>A_p</math></b>	-0.03	-0.14	0.79	0.29	0.64	0.13	0.68
I'd like to buy MMW if I was buying bottled mineral water.	0.46	0.24	0.91	0.65	0.97	0.48	0.90
I'd like to buy a bottle of MMW to other mineral waters if I see it in supermarkets/stores in the near future.	0.68	0.56	1.34	0.92	1.20	0.75	1.19
I'd like to buy a bottle of MMW if its price is similar to other mineral waters.	1.28	1.32	1.63	1.21	1.67	1.19	1.74
<b>The average PI</b>	0.81	0.71	1.29	0.93	1.28	0.81	1.28

To compare whether there are statistical differences among the seven advertisements in leading to consumers'  $A_{ad}$ ,  $A_p$ , and PI, analysis of variance (ANOVA) was employed. Because the ANOVA test results are  $F(6, 388) = 12.877$ ,  $p < 0.001$ , the hypothesis that consumers'  $A_{ad}$  to different advertisements are different can be accepted. The descriptive analysis results indicate that advertisements  $N_2$ ,  $P_2$ , and  $C_2$  raised the most positive  $A_{ad}$ , advertisement  $P_1$  brought in the moderate level of  $A_{ad}$ , and advertisements  $N_0$ ,  $N_1$ , and  $C_1$  brought in the lowest negative  $A_{ad}$ . Tukey's HSD test illustrates that  $N_0$ ,  $N_1$ , and  $C_1$  lead to significantly lower  $A_{ad}$  compared with  $N_2$ ,  $P_2$ , and  $C_2$ ; and  $P_1$  leads to significantly lower  $A_{ad}$  compared with  $N_2$  and  $P_2$ . Consequently, advertisements using a strong CSR argument caused significantly more positive  $A_{ad}$  than advertisements which used a weak CSR argument or no CSR argument.

To compare  $A_p$  among seven groups, the ANOVA test results are  $F(6, 388)=7.958$ ,  $p<0.001$ , so the hypothesis that consumers'  $A_p$  toward Mountain Mineral Water vary after being exposed to different advertisements can be accepted. As the results of the descriptive analysis show, advertisements  $N_2$ ,  $P_2$ , and  $C_2$  brought in most positive  $A_p$ ; advertisements  $P_1$  and  $C_1$  raised the moderate level of  $A_p$ ; and advertisements  $N_0$  and  $N_1$  brought in the lowest negative  $A_p$ . Tukey's HSD test illustrates that  $N_0$  and  $N_1$  lead to significantly lower  $A_p$  compared with  $N_2$ ,  $P_2$ , and  $C_2$ ; and  $C_1$  leads to significantly lower  $A_p$  compared with  $N_2$  and  $C_2$ . In addition,  $P_1$  did not raise different  $A_p$  compared with other advertisements. Therefore, except  $P_1$ , advertisements which used a strong CSR argument raised significantly more positive  $A_p$  than advertisements which used a weak CSR argument or no CSR argument.

To compare PI among seven groups, the ANOVA test results are  $F(6, 388)=4.183$ ,  $p<0.001$ , so the hypothesis that consumers' PI toward Mountain Mineral Water vary after being exposed to different advertisements can be accepted. As the results of descriptive analysis illustrate, advertisements  $N_2$ ,  $P_2$ , and  $C_2$  bring in more positive PI; advertisements  $N_0$ ,  $N_1$ ,  $P_1$ , and  $C_1$  bring in lower level of PI. Tukey's HSD test illustrates that  $N_1$  leads to significantly lower PI compared with  $N_2$ ,  $P_2$ , and  $C_2$ . In addition,  $N_0$ ,  $P_1$ , and  $C_1$  do not generate different PI compared with other advertisements. Thus the combination of the weak CSR argument and the neutral image raised significant lower PI compared with the combination of the strong CSR argument and three images.

## 5.5 The examination of moderating and mediating effects

The examination of moderating effects from three hypothesized moderators, attitudes to advertising ( $A_a$ ), attitudes to CSR ( $A_{csr}$ ), purchasing decision involvement (PDI), and the examination of mediating effects from one mediator (trial intention) are introduced in the following paragraphs. Due to the structure of the hypothesized theoretical model, the examination consists of three parts: (i) the moderating effects of  $A_a$  and  $A_{csr}$ , (ii) the mediating effects of trial intention, and (iii) the moderating effect of PDI. The mediating effect of  $A_p$  between  $A_{ad}$  and PI will be examined in

chapter 5.5.

### 5.5.1 The moderating effects of $A_a$ and $A_{CSR}$

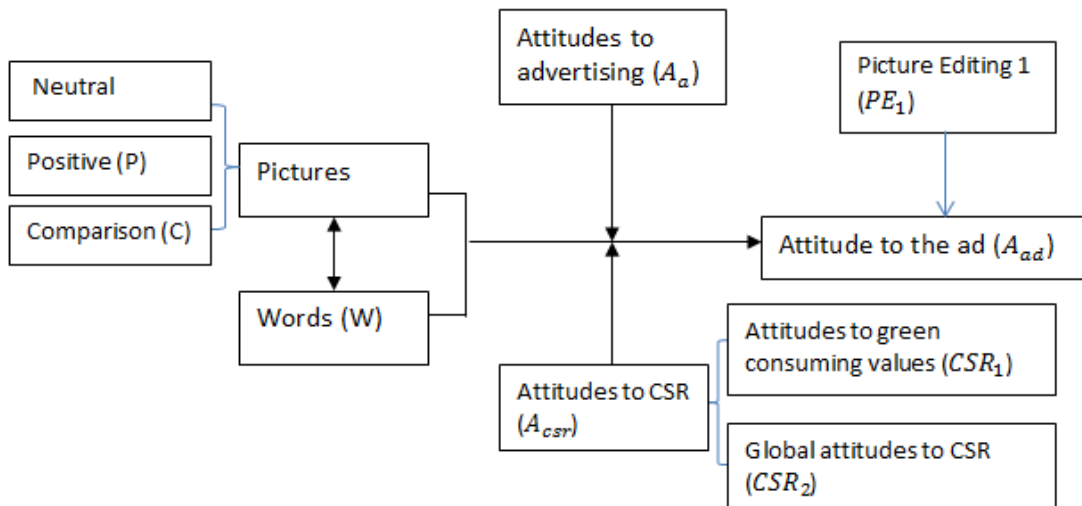


Figure 5.1 The Moderating Effects of  $A_a$  and  $A_{CSR}$

Consumers'  $A_a$  and  $A_{CSR}$  were hypothesized to moderate the relationship between independent variables, visual image and written message, and consumers'  $A_{ad}$ . The variable visual image is categorical data which includes three categories: neutral picture, positive picture and comparison picture. Hence, two dummy variables, P (positive) and C (comparison), were used in regression analysis. The variable written message is ordinal data which has three levels, no CSR argument, weak CSR argument, and strong CSR argument.  $A_a$ ,  $A_{CSR}$ , and  $A_{ad}$  are continuous data.  $A_{CSR}$  has two dimensions: consumers' green consumer values ( $CSR_1$ ), and global attitudes to CSR ( $CSR_2$ ). One control variable, picture editing, was added to the model because it influences consumers' attitudes to the advertisement. The impact of picture editing was found in the procedure of the selection of stimuli surveys (Chapter 4.2). The relationships between the variables are demonstrated in Figure 5.1. Equation 5.1 expresses the relationships shown in Figure 5.1.

$$A_{ad} = aPE_1 + b_1P + b_2C + b_3W + b_4A_a + b_5CSR_1 + b_6CSR_2 + b_7P \times W + b_8C \times W + c_1P \times A_a + c_2C \times A_a + c_3W \times A_a + c_4P \times CSR_1 + c_5C \times CSR_1 + c_6W \times CSR_1 + c_7P \times CSR_2 + c_8C \times CSR_2 + c_9W \times CSR_2 + e$$

(Equation 5.1)

Where  $A_{ad}$  represents consumers' attitudes to the advertisement.  $PE_1$  is the influence of the control variable 'picture editing' on consumers' attitudes to the advertisement.  $P$  is one dummy variable of the variable 'visual images' and when  $P=1$ , the picture in the advertisements is the positive picture.  $C$  is one dummy variable of the variable 'visual images' and when  $C=1$ , the picture in the advertisements is the comparison picture.  $W$  is the level of CSR arguments in advertisements.  $A_a$  is consumers' attitude to advertising.  $CSR_1$  is consumers' green consumer values.  $CSR_2$  is consumers' global attitudes to CSR. The notation  $a, b_1, b_2, b_3, b_4, b_5, b_6, b_7, b_8, c_1, c_2, c_3, c_4, c_5, c_6, c_7, c_8$ , and  $c_9$  are coefficients, and  $e$  is the error.

The moderating effects of  $A_a, CSR_1$ , and  $CSR_2$  were tested by hierarchical regression analysis and the results are illustrated in Table 5.5. Model 1 only includes the control variable  $PE_1$  (reverse coded) and it contributes 6.8% of the variance in  $A_{ad}$ . Model 2 includes  $PE_1$ ; independent variables  $P, C$ , and  $W$ ; interactions between pictures and written messages  $P \times W$  and  $C \times W$ ; and moderators  $A_a, CSR_1$ , and  $CSR_2$ . All of those variables contribute 14.2% of the variance in  $A_{ad}$ . Model 3 added the influence of  $A_a$  as one moderator ( $W \times A_a, P \times A_a, C \times A_a$ ), but the new variables only contribute to 0.4% of variance in  $A_{ad}$ . Because the  $F$  change is 0.629 and  $p=0.597>0.05$ , the moderating effects of  $A_a$  is not statistically significant. Therefore,  $H_3$  is not accepted. Model 4 added the influence of  $CSR_1$  as the second moderator ( $W \times CSR_1, P \times CSR_1, C \times CSR_1$ ), but the new variables only contribute to 0.2% of variance in  $A_{ad}$ . Because the  $F$  change is 0.330 and  $p=0.803>0.05$ , the moderating effects of  $CSR_1$  are not statistically significant. Model 5 added the influence of  $CSR_2$  as the second moderator ( $W \times CSR_2, P \times CSR_2, C \times CSR_2$ ), but the new variables only contribute to 0.6% of variance in  $A_{ad}$ . Because the  $F$  change is 0.967 and  $p=0.408>0.05$ , the moderating effects of  $CSR_2$  are not statistically significant. Therefore,  $H_6$  is not accepted.

Table 5.5 Model Summary of Moderating Effects Examination of  $A_a, CSR_1$ , and  $CSR_2$

Model	Variables	R square	R square change	F change	Sig. F change
1	PE <sub>1</sub>	0.068	0.068	28.626	0.000
2	PE <sub>1</sub> , P, C, W, A <sub>a</sub> , CSR <sub>1</sub> , CSR <sub>2</sub> , P×W, C×W	0.210	0.142	8.639	0.000
3	PE <sub>1</sub> , P, C, W, A <sub>a</sub> , CSR <sub>1</sub> , CSR <sub>2</sub> , P×W, C×W, W×A <sub>a</sub> , P×A <sub>a</sub> , C×A <sub>a</sub>	0.214	0.004	0.612	0.608
4	PE <sub>1</sub> , P, C, W, A <sub>a</sub> , CSR <sub>1</sub> , CSR <sub>2</sub> , P×W, C×W, W×A <sub>a</sub> , P×A <sub>a</sub> , C×A <sub>a</sub> , W×CSR <sub>1</sub> , P×CSR <sub>1</sub> , C×CSR <sub>1</sub>	0.216	0.003	0.454	0.715
5	PE <sub>1</sub> , P, C, W, A <sub>a</sub> , CSR <sub>1</sub> , CSR <sub>2</sub> , P×W, C×W, W×A <sub>a</sub> , P×A <sub>a</sub> , C×A <sub>a</sub> , W×CSR <sub>1</sub> , P×CSR <sub>1</sub> , C×CSR <sub>1</sub> , W×CSR <sub>2</sub> , P×CSR <sub>2</sub> , C×CSR <sub>2</sub>	0.222	0.006	0.964	0.410

Because the moderating effects of A<sub>a</sub>, CSR<sub>1</sub>, and CSR<sub>2</sub> are not significant, all c<sub>i</sub>=0 (i=1,...,9). The results of hierarchical regression analysis reveal that coefficient a=0.188 (t=4.046, p<0.001), b<sub>3</sub>=0.256 (t=4.173, p<0.001), b<sub>4</sub>=0.144 (t=3.119, p=0.002<0.05), b<sub>5</sub>=0.095 (t=1.980, p=0.048<0.05), b<sub>6</sub>=-0.095 (t=-1.990, p=0.047<0.05). In addition, coefficient b<sub>1</sub> (t=-0.752, p=0.452>0.05), b<sub>2</sub> (t=-0.609, p=0.543>0.05), b<sub>7</sub> (t=1.008, p=0.314>0.05), and b<sub>8</sub> (t=1.581, p=0.115>0.05) are not statistically significant. Therefore, the impact of picture on A<sub>ad</sub> is not significant, and the interaction between pictures and written messages does not have significant impact, so H<sub>2</sub> is rejected.

### 5.5.2 The mediating effect of trial intention

The mediating effect of the trial intention was examined by a series of procedures. Figure 5.2 illustrates the relationships among three variables and one control variable PE<sub>2</sub>. According to Wen, Hou, and Zhang (2005), the mediating effect can be examined by a series of procedures, which includes examination of regression coefficients and the Sobel examination (1998). The following four equations express the relationships among the three variables:

$$A_p = d_1 PE_2 + cA_{ad} + e_1 \quad (\text{Equation 5.2})$$

$$T = aA_{ad} + e_2 \quad (\text{Equation 5.3})$$

$$A_p = d_2 PE_2 + fT + e_3 \quad (\text{Equation 5.4})$$

$$A_p = d_3 PE_2 + c'A_{ad} + bT + e_4 \quad (\text{Equation 5.5})$$

Where  $A_p$  is consumers' attitudes to the advertised product;  $PE_2$  (reverse coded) is the influence of the control variable picture editing on the variable consumers' attitudes to the advertised product;  $A_{ad}$  is the consumers' attitudes to the advertisement;  $T$  is consumers' trial intention;  $d_1, d_2, d_3, c, a, b, f, c'$  refer to the coefficients; and  $e_1, e_2, e_3, e_4$  are the errors.

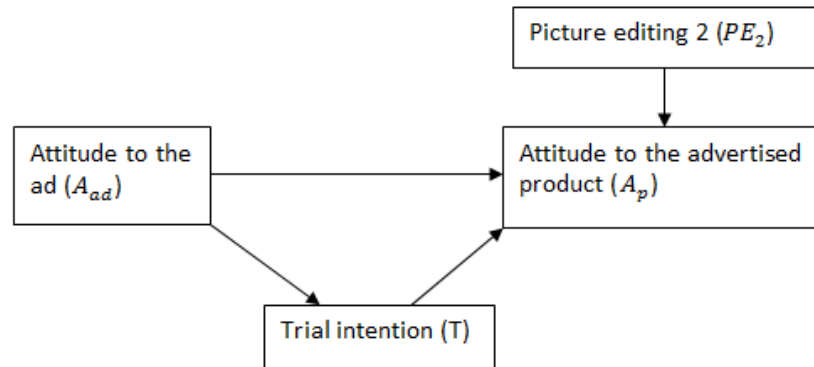


Figure 5.2 The Mediating Effect of Purchasing Decision Involvement

Wen, Hou, and Zhang (2005) suggest to examine coefficients  $c, a, b, f$ , and  $c'$  in sequence to confirm whether or not the mediating effects of trial intention exists. Regression analysis was employed to calculate the values of coefficients and the  $t$  test was used to test whether those coefficients are statistically significant. The results show that  $c=0.768$  ( $t=23.288, p<0.001$ ),  $a=0.498$  ( $t=11.390, p<0.001$ ),  $f=0.552$  ( $t=12.912, p<0.001$ ),  $b=0.254$  ( $t=7.287, p<0.001$ ),  $c'=0.652$  ( $t=18.749, p<0.001$ ), thus coefficients  $c, a, f, b$ , and  $c'$  are statistically significant. However, coefficients  $d_1$  ( $t=1.018, p=0.309>0.05$ ),  $d_2$  ( $t=1.964, p=0.050$ ), and  $d_3$  ( $t=-0.169, p=0.866>0.05$ ) are not statistically significant. Therefore, the mediating effects of the trial intention between  $A_{ad}$  and  $A_p$  exists and its value is  $ab = c - c' = 0.116$ . Thus  $H_5$  is accepted. The contribution of the mediating effects to the total effects between  $A_{ad}$  and  $A_p$  is  $\frac{ab}{c} = 0.15$ .

Table 5.6 Results of T-test for the Significance of Coefficients Examinations

Coefficients	Standardized Value of Coefficients	t value	Sig.
$d_1$	0.034	1.018	0.309
$d_2$	0.084	1.964	0.050

d <sub>3</sub>	-0.005	-0.169	0.866
c	0.768*	23.288	0.000
a	0.498*	11.390	0.000
f	0.552*	12.912	0.000
b	0.254*	7.287	0.000
c'	0.652*	18.749	0.000

Note: \* indicates that the coefficient has passed t test at the 0.05 significant level.

### 5.5.3 The moderating effects of PDI

The moderating effect of PDI was examined by hierarchical regression analysis. The relationships among  $A_p$ , PDI, PI and PE are shown in Figure 5.3 and Equation 5.6.

$$PI = b_1PE_3 + b_2A_p + b_3PDI + b_4A_p \times PDI + e \quad (\text{Equation 5.6})$$

Where PI is consumers' purchasing intention towards the advertised product; PE is the influence of the control variable, picture editing, on the variable consumers' purchasing intention;  $A_p$  is consumers' attitudes to the advertised product; PDI is consumers' purchasing decision involvement of the advertised product, bottled mineral water;  $b_1$ ,  $b_2$ ,  $b_3$ , and  $b_4$  refer to coefficients; and e is the error.

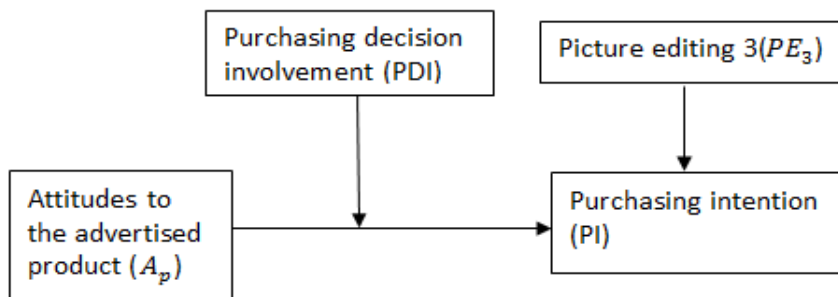


Figure 5.3 The Moderating Effects of Purchasing Decision Involvement

The results of hierarchical regression are demonstrated in Table 5.7. Model 1 only entered the control variable  $PE_3$  (reverse coded) and it contributes 5.3% of the variance in consumers' PI towards bottled mineral water. Because the F change is 21.803 and significance of F change is less than 0.001,  $PE_3$  is a significant predictor to PI. Model 2 entered variables  $PE_3$ ,  $A_p$ , and PDI, and they contribute 46.5% of the

variance in consumers' PI. The F change of model 2 to model 1 is 150.668 and the significance of the F change is less than 0.001, which is less than 0.05, hence  $A_p$  and PDI are significant predictors to PI. Model 3 entered variables  $PE_3$ ,  $A_p$ , PDI, and  $A_p \times PDI$ , and they contribute 47.3% of variance in consumers' PI. The F change of model 3 to model 2 is 5.763 and the significance of the F change is 0.017 which is less than 0.05, therefore, the moderating effects of PDI on the relationship of  $A_p$  and PI is statistically significant. Thus  $H_4$  is accepted. The coefficients of Equation 5.6 are as follows:  $b_1 = 0.090$  ( $t = 2.391$ ,  $p = 0.017 < 0.05$ ),  $b_2 = 0.940$  ( $t = 7.244$ ,  $p < 0.05$ ),  $b_3 = 0.087$  ( $t = 2.282$ ,  $p = 0.023 < 0.05$ ) and  $b_4 = -0.314$  ( $t = -2.401$ ,  $p = 0.017 < 0.05$ ). Therefore, coefficients a, b, c and d are accepted.

Table 5.7 Model Summary of Moderating Effects Examination of PDI

Model	Variables	R square	R square change	F change	Sig. F change
1	$PE_3$	0.053	0.053	21.803	0.000
2	$PE_3$ , $A_p$ , PDI	0.465	0.412	150.668	0.000
3	$PE_3$ , $A_p$ , PDI, $A_p \times PDI$	0.473	0.006	5.763	0.017

## 5.6 Path analysis of the theoretical model

Path analysis was employed to examine the significance of hypothesised causal connections in the theoretical model. The software which was used is OpenMx (Boker *et al.*, 2011). The results include two main parts: individual parameter estimates, and model test and modification. The following paragraphs will report the results of both parts.

### 5.6.1 Individual parameter estimates

The individual parameter estimates examined the significance of all hypothesised paths in the theoretical model. The Maximum Likelihood Estimate was employed in this analysis. Total observation in path analysis is 395. Table 5.9 indicates the estimates of all path coefficients in the theoretical model and the examination of their significance.

There are 26 paths which were hypothesized in the theoretical model in total. Table 5.8 shows that 15 paths pass t-test at 0.05 significant level. Hence, (i) consumers'  $A_{ad}$  and trial intention have direct effects on consumers'  $A_p$ , (ii) consumers'  $A_p$ , the interaction between  $A_p$  and PDI, and  $PE_3$  have direct effects on PI; (iii) written message (the level of CSR arguments), consumers'  $A_a$ ,  $CSR_1$ ,  $CSR_2$ , and  $PE_1$  have direct effects on consumers'  $A_{ad}$ ; (iv) the interaction between the comparison image and written message, the interaction between the comparison image and  $CSR_1$ , and the interaction between the comparison image and  $CSR_2$  have direct effects on consumers'  $A_{ad}$ ; and (v) consumers'  $A_{ad}$  has a direct effect on trial intentions.

Table 5.8 Path Coefficients Estimates of the Initial Theoretical Model

No.	Path	Standardized Path coefficient estimate	Std. error	T value	Sig.
1	$A_{ad}$ to $A_p$	0.653*	0.025	26.625	0.000
2	$A_p$ to PI	0.637*	0.027	23.522	0.000
3	Words to $A_{ad}$	0.350*	0.038	9.114	0.000
4	$A_a$ to $A_{ad}$	0.158*	0.033	4.778	0.000
5	$CSR_1$ to $A_{ad}$	0.096*	0.033	2.869	0.004
6	$CSR_2$ to $A_{ad}$	-0.110*	0.034	-3.270	0.001
7	$A_{ad}$ to trial	0.493*	0.031	15.894	0.000
8	Trial to $A_p$	0.254*	0.025	10.325	0.000
9	$A_p \times PDI$ to PI	-0.079*	0.026	-3.000	0.003
10	PDI to PI	0.061*	0.027	2.285	0.023
11	P to $A_{ad}$	0.032	0.037	0.853	0.394
12	C to $A_{ad}$	-0.042	0.038	-1.108	0.268
13	$P \times W$ to $A_{ad}$	0.045	0.036	1.258	0.209
14	$P \times A_a$ to $A_{ad}$	-0.060	0.038	-1.568	0.118
15	$P \times CSR_1$ to $A_{ad}$	-0.059	0.040	-1.491	0.137
16	$P \times CSR_2$ to $A_{ad}$	0.059	0.039	1.497	0.135
17	$C \times W$ to $A_{ad}$	0.084*	0.036	2.342	0.020
18	$C \times A_a$ to $A_{ad}$	-0.068	0.040	-1.714	0.087
19	$C \times CSR_1$ to $A_{ad}$	-0.082*	0.040	-2.042	0.042
20	$C \times CSR_2$ to $A_{ad}$	0.095*	0.039	2.429	0.016
21	$W \times A_a$ to $A_{ad}$	0.002	0.034	0.049	0.961
22	$W \times CSR_1$ to $A_{ad}$	0.061	0.036	1.695	0.091
23	$W \times CSR_2$ to $A_{ad}$	-0.011	0.033	-0.318	0.751
24	$PE_1$ to $A_{ad}$	0.197*	0.033	5.943	0.000
25	$PE_2$ to $A_p$	-0.006	0.022	-0.290	0.772
26	$PE_3$ to PI	0.091*	0.027	3.396	0.001

Notes: \* indicates the path coefficient has passed t-test at 0.05 significant level.

Eleven paths are not accepted at the significant level of 0.05. The direct effects from picture to  $A_{ad}$  and from  $PE_2$  to  $A_p$  are not accepted. In addition, the interaction between the positive image and written messages, the interaction between images and consumers'  $A_a$ , the interaction between the positive image and  $CSR_1$ , the interaction between the positive image and  $CSR_2$ , the interaction between written messages and  $A_a$ , the interaction between written messages and  $CSR_1$ , and the interaction between written messages and  $CSR_2$  do not have direct effects on consumers'  $A_{ad}$ . The path coefficients of the theoretical model are shown in Figure 5.4.

The eleven paths which did not pass t-test were deleted from the initial theoretical model so that the *post-hoc* model was established. However, three paths that passed t-test in the initial model did not pass t-test in the *post-hoc* model: the interaction between the comparison image and written messages to consumers'  $A_{ad}$ , the interaction between the comparison image and  $CSR_1$  to consumers'  $A_{ad}$ , the interaction between the comparison image and  $CSR_2$  to consumers'  $A_{ad}$ . Therefore these three paths were deleted and only twelve paths were maintained in the *post-hoc* model. Table 5.9 shows the estimates of all path coefficients in the *post-hoc* model and the examination of their significance. Figure 5.5 demonstrates the *post-hoc* model with 11 paths.

Kline (1998) summarized that standardized path coefficients less than 0.1 may indicate a small effect, between 0.1 and 0.5 may indicate a medium effect, and greater than 0.5 may indicate a large effect. The path analysis results of the *post-hoc* model indicate that the variance of level of CSR argument moderately explains the variance of  $A_{ad}$  (0.312), the variance of  $A_{ad}$  highly explains the variance of  $A_p$  (0.651) and the variance of trial intention (0.493) and the variance of  $A_p$  highly explains the variance of PI (0.637). Therefore,  $H_1$ ,  $H_{7a}$ , and  $H_{7b}$  are accepted, but  $H_{8a}$  and  $H_{8b}$  are not accepted. Other paths are relatively weak: from consumers'  $A_a$  to  $A_{ad}$  (0.153), from  $CSR_1$  to  $A_{ad}$  (0.098), from consumers'  $CSR_2$  to  $A_{ad}$  (-0.097), from trial intention to  $A_p$  (0.253), from the interaction of  $A_p$  and PDI to PI (-0.079), from PDI to PI (0.061), from  $PE_1$  to  $A_{ad}$

(0.187), and from  $PE_3$  to PI (0.091). The results also suggest that consumers'  $A_a$  and  $A_{csr}$  are not the moderators of the causal relationship between the independent variables (written words and visual images) and  $A_{ad}$ . Nevertheless, two variables, consumers'  $A_a$  and  $A_{csr}$ , work as independent variables in the prediction of  $A_{ad}$ .

Table 5.9 Path Coefficients Estimates of the *Post-hoc* Model

No.	Path	Standardized Path coefficient estimate	Std. error	T value	Sig.
1	$A_{ad}$ to $A_p$	0.651*	0.024	26.888	0.000
2	$A_p$ to PI	0.637*	0.032	23.522	0.000
3	Words to $A_{ad}$	0.312*	0.032	9.617	0.000
4	$A_a$ to $A_{ad}$	0.153*	0.033	4.734	0.000
5	$CSR_1$ to $A_{ad}$	0.098*	0.033	2.932	0.004
6	$CSR_2$ to $A_{ad}$	-0.097*	0.038	-2.917	0.004
7	$A_{ad}$ to trial	0.493*	0.031	15.894	0.000
8	Trial to $A_p$	0.253*	0.024	10.429	0.000
9	$A_p \times PDI$ to PI	-0.079*	0.026	-3.000	0.003
10	PDI to PI	0.061*	0.027	2.285	0.023
11	$PE_1$ to $A_{ad}$	0.187*	0.033	5.703	0.000
12	$PE_3$ to PI	0.091*	0.027	3.396	0.001

Notes: \* indicates the path coefficient has passed t-test at 0.05 significant level.

After the individual parameter estimates of the initial and *post-hoc* model, the researcher tested whether the data gathered in the study fits the initial model and *post-hoc* model in order to know whether these models can be accepted. Thus the  $\chi^2$ , degree of freedom (df), Akaike information criterion (AIC), Bayesian information criterion (BIC), Root-Mean-Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), and Tucker-Lewis index (TLI) were calculated for the examination. Table 5.10 shows the values of seven statistics of the initial and *post-hoc* model.

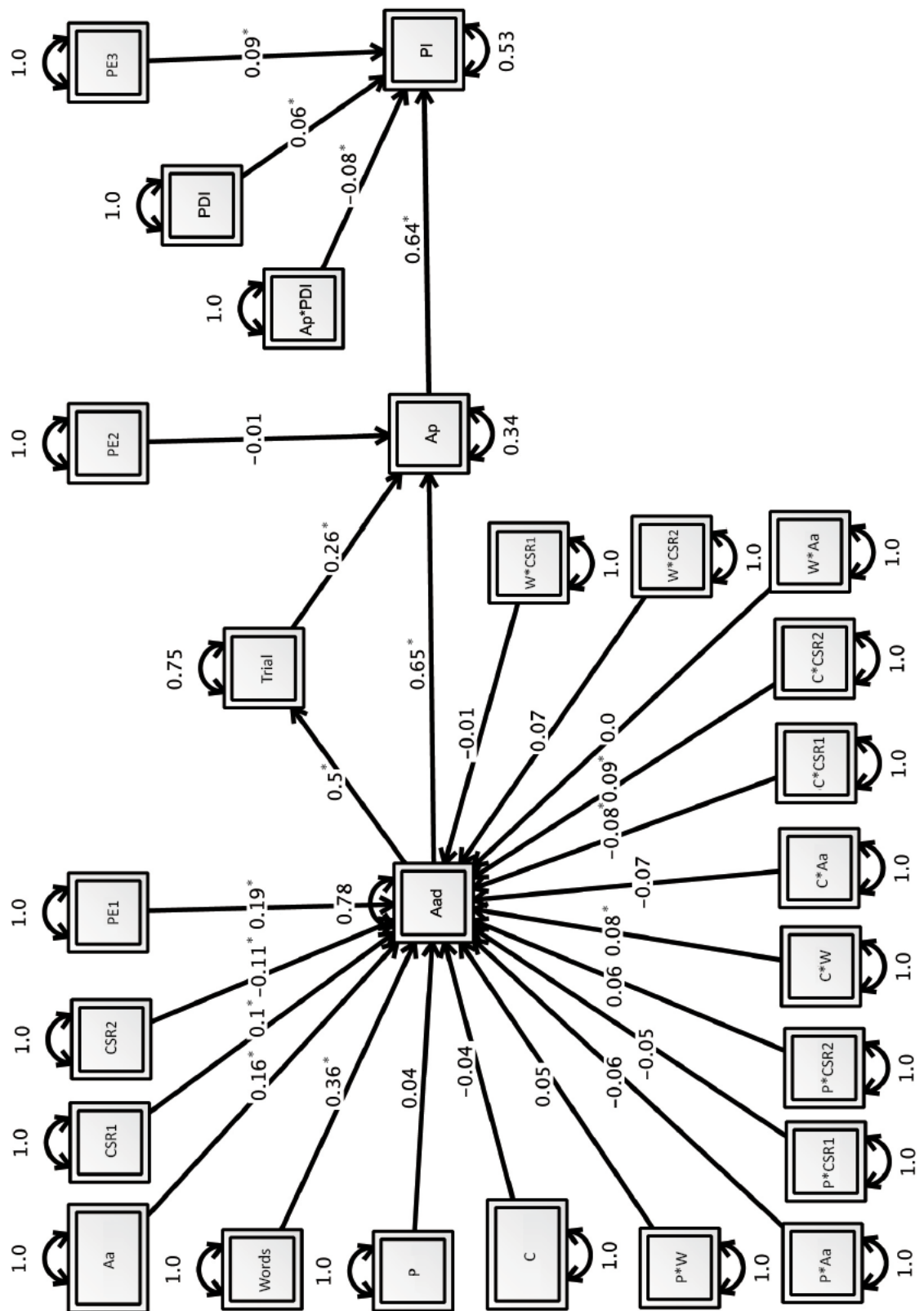


Figure 5.4 Path Analysis of the Initial Theoretical Model

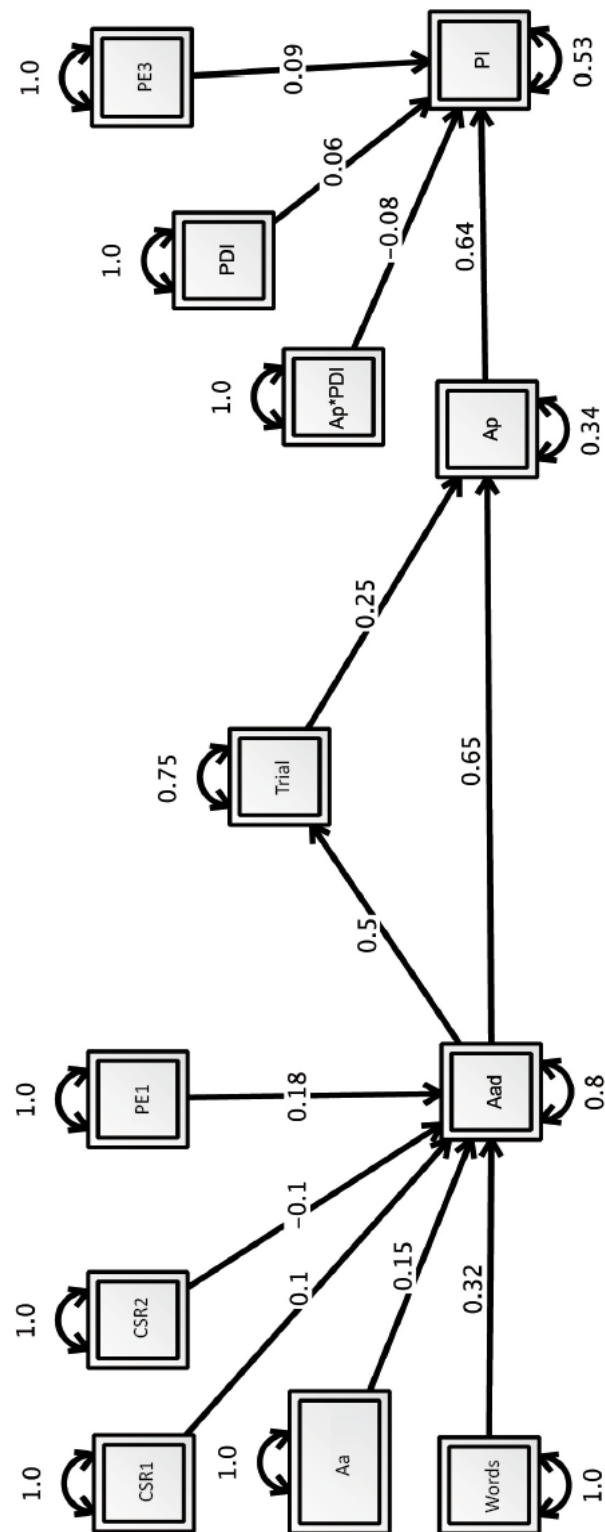


Figure 5.5 Path Analysis of the *Post-hoc* Model

Hu and Bentler (1999) recommend that a good model fit has a CFI value of no less than 0.95 and a RMSEA value of no more than 0.05. Schumacker and Lomax (2004) recommend that a good model fit has a TLI value close to 0.95. Therefore, the initial model ( $\chi^2=28130$ ,  $df=347$ ,  $p<0.01$ ) is a poor fit of the data as its RMSEA = 0.10, CFI =0.38, and TLI =0.32. The *post-hoc* model ( $\chi^2=12525$ ,  $df=74$ ,  $p<0.01$ ) is better compared with the initial model but still does not reach a good model fit (RMSEA = 0.11, CFI =0.72, and TLI =0.66). The differences between the initial model and the *post-hoc* model can be examined by the  $\chi^2$  value difference between them. Because  $\Delta\chi^2=15605$ ,  $\Delta df=273$ ,  $p<0.01$ ,  $AIC_{\text{post-hoc}} < AIC_{\text{initial}}$ , and  $BIC_{\text{post-hoc}} < BIC_{\text{initial}}$ , the *post-hoc* model is a significant improvement over the initial model. Hence, the model modification procedure was based on the *post-hoc* model.

Table 5.10 Statistics of the Initial, *Post-hoc* and Final Model

Statistics	Values of statistics of the initial model	Values of statistics of the <i>post-hoc</i> model	Values of statistics of the final model
df	347	74	49
$\chi^2$	28130	12525	10197
AIC	28190	12557	10229
BIC	28308	12620	10292
RMSEA	0.10	0.11	0.05
CFI (to independent model)	0.38	0.72	0.95
TLI (to independent model)	0.32	0.66	0.90

## 5.6.2 Model modification

In order to obtain a final model which fits the data at a good level, some modifications of the paths in the *post-hoc* model were conducted. The path from  $CSR_2$  to  $A_{ad}$  was deleted. Because the path coefficient of  $CSR_2$  to  $A_{ad}$  is negative, it means that the higher consumers' global attitudes are towards CSR, the lower consumers' attitudes are to a CSR advertisement. This result is different from previous research by Zhou and Zhang (2007), Zhang, Fu and Xiong (2010), and Tian et al. (2011), and opposite the contribution of  $CSR_1$ , so the global attitudes to CSR are not a suitable dimension in consumers' attitudes to CSR evaluation. The reason could be that consumers not only consider their global attitudes to CSR but also consider price when processing

consumption relevant information. More details will be discussed in Chapter 6.5.2. The path from trial intention to purchasing intention was added. According to Percy and Elliott (2012), when consumers have a positive attitude to the advertised product in a high involvement situation, they will then go to the trial step and determine their purchasing intention last. It is possible that trial intention will contribute to purchasing intention directly. The path from  $A_{ad}$  to PI was added to the model. Howard (1977) argues that  $A_{ad}$  itself is a reflection of reactions to one aspect of the purchase situation and thus is a potentially important contributor to purchasing intention. The final model was then examined by path analysis using maximum likelihood estimates. Table 5.11 shows the individual parameter estimates and t-test results. All paths are significant at the 0.05 level except the path from PDI to PI. Nonetheless, because the interaction between  $A_p$  and PDI has a significant direct effect on PI, which means that PDI has moderating effects on the relationship between  $A_p$  and PI, the path from PDI to PI has to be maintained in the final model. Figure 5.6 depicts the relationships in the final model.

The level of fit between the final model and the data was examined. The statistics of the final model are:  $\chi^2=10197$ ,  $df=49$ ,  $AIC=10229$ ,  $BIC=10292$ ,  $RMSEA=0.05$ ,  $CFI=0.95$ , and  $TLI=0.90$ . Compared with the *post-hoc* model, chi-square test result ( $\Delta\chi^2=2328$ ,  $\Delta df=25$ ,  $p<0.01$ ),  $AIC_{final} < AIC_{post-hoc}$ , and  $BIC_{final} < BIC_{post-hoc}$  suggest that the final model has reached a significant improvement. Moreover, because the RMSEA of the final model is 0.05, CFI is 0.95, and TLI is 0.90 (which is very close to 0.95), the final model is a good fit of the data gathered in this study as Hu and Bentler (1999) and Schumacker and Lomax (2004) suggest.

Furthermore, this final model examined the hypotheses in the theoretical model. Written messages (level of CSR argument) have a direct effect on  $A_{ad}$  with a path coefficient of 0.31, so  $H_{7a}$  and  $H_{7b}$  are accepted. Consumers' attitudes to advertising (path coefficient 0.15) and CSR (the green consumer values dimension, path coefficient 0.07) have a direct effect on  $A_{ad}$  and not a moderating effects on  $A_{ad}$ . Therefore  $H_6$  and  $H_3$  are rejected. The interaction between visual images and written messages is

not significant, so  $H_2$  is rejected. Because consumers'  $A_{ad}$  has direct effects on  $A_p$  (path coefficient 0.65), trial intention (path coefficient 0.49) and PI (path coefficient 0.11),  $A_{ad}$  has indirect effects to PI through  $A_p$  coefficient 0.33) and trial intention (path coefficient 0.42), and  $A_{ad}$  has indirect effects to  $A_p$  through trial intention (path coefficient 0.25). Therefore  $H_1$  and  $H_5$  are accepted. PDI has a moderating effect on the relationship between  $A_p$  and PI (path coefficient -0.07), so  $H_4$  is accepted. The direct effect from visual image to  $A_{ad}$  is not statistically significant, so  $H_{8a}$  and  $H_{8b}$  are not accepted. However, the control variable 'picture editing'  $PE_1$  (reverse coded) has a direct effect on consumers'  $A_{ad}$  with a path coefficient of 0.188, revealing a moderate level of influence from one aspect of the picture to  $A_{ad}$ . The above results will be discussed in detail in next chapter.

Table 5.11 Path Coefficients Estimates of the Final Model

No.	Path	Standardized Path coefficient estimate	Std. error	T value	Sig.
1	$A_{ad}$ to $A_p$	0.651*	0.024	26.888	0.000
2	$A_p$ to PI	0.330*	0.039	8.506	0.000
3	Words to $A_{ad}$	0.309*	0.033	9.486	0.000
4	$A_a$ to $A_{ad}$	0.147*	0.032	4.543	0.000
5	$CSR_1$ to $A_{ad}$	0.069*	0.032	1.980	0.048
6	$A_{ad}$ to trial	0.493*	0.031	15.894	0.000
7	Trial to $A_p$	0.253*	0.024	10.429	0.000
8	$A_p \times PDI$ to PI	-0.073*	0.023	-3.156	0.002
9	PDI to PI	0.035	0.024	1.491	0.137
10	$PE_1$ to $A_{ad}$	0.188*	0.033	5.713	0.000
11	$A_{ad}$ to PI	0.114*	0.037	3.130	0.002
12	Trial to PI	0.424*	0.028	15.071	0.000

Notes: \* indicates the path coefficient has passed t-test at 0.05 significant level.

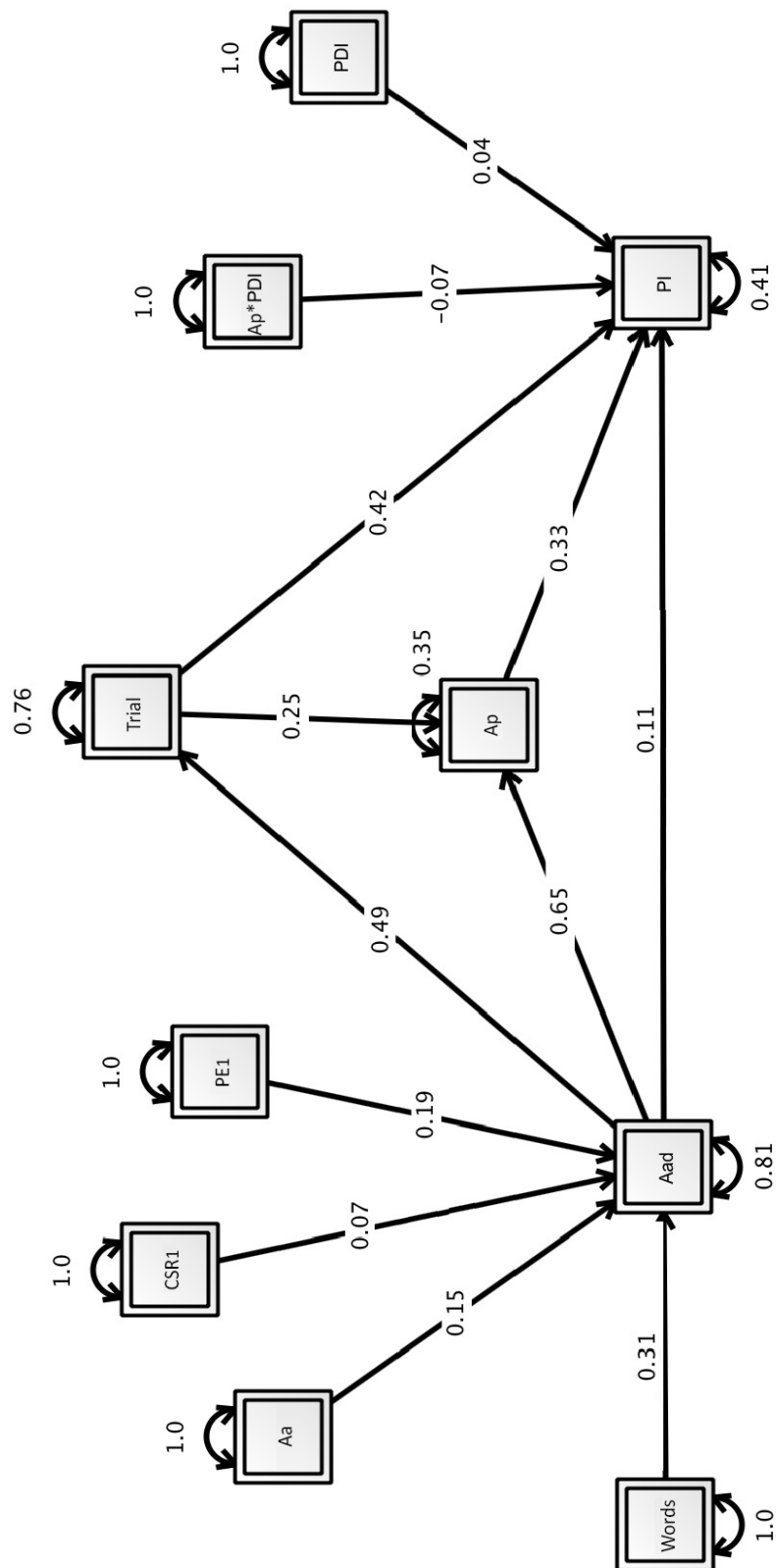


Figure5.6 Path Analysis of the Final Model

## 5.7 Summary

The manipulation checks confirmed that the three levels of written messages and three images work as expected, and the CSR information provided by seven advertisements are on various levels. Consumers' affective responses show that the neutral image raised 'calm' feeling, the positive image caused 'attractive' and 'carefree' feelings, and the comparison image generated 'contemplative' and 'attractive' feelings. The mixture of the strong CSR argument with three images produced more positive feelings than the mixture of the weak CSR argument with three images. Consumers' cognitive responses reveal that the strong CSR argument considerably increases the informational and transformational content, entertainment and relevant news of the advertisement, but the weak CSR argument increases both the familiarity and alienation of the advertisements. The positive picture increases the informational and transformational content of the advertisements. The combination of the comparison picture with the weak CSR argument increases the difficulty of reading advertisements for consumers.

Chinese consumers' attitudes toward advertising are between neutral and slightly positive, attitudes toward green consumer values are slightly positive, and global attitudes to CSR are positive. The cognitive processes that are held by Chinese people are holistic thinking. Almost all respondents have the experience of consuming bottled mineral water and their involvement in the purchasing decisions of bottled mineral water is slightly care.

The comparisons of consumers'  $A_{ad}$ ,  $A_p$ , and PI among seven groups illustrate that consumers'  $A_{ad}$ ,  $A_p$ , and PI to seven advertisements are different. Advertisements using a strong CSR argument caused more positive  $A_{ad}$  and  $A_p$  than advertisements which used a weak CSR argument or no CSR argument. The combination of the weak CSR argument and the neutral image raised significant lower PI compared with the combination of the strong CSR argument and three images. Therefore, in general advertisements using the strong CSR argument produced more favourable  $A_{ad}$ ,  $A_p$ , and PI.

The path analysis results reveal that  $H_1$ ,  $H_4$ ,  $H_5$ ,  $H_{7a}$  and  $H_{7b}$  are accepted, but  $H_2$ ,  $H_3$ ,  $H_6$ ,  $H_{8a}$ , and  $H_{8b}$  are not accepted. Because the RMSEA of the final model is 0.05, CFI is 0.95, and TLI is 0.90 (which is very close to 0.95), the final model is a good fit of the data gathered in this study. All the above results will be discussed with literature in next chapter.

## Chapter 6 Discussion

This chapter discusses the findings of the study following the presentation of findings in Chapter 5: the communication effects of advertisements, descriptive analysis of hypothesized moderators, the comparison of attitude toward an advertisement ( $A_{ad}$ ), attitude to the advertised product ( $A_p$ ), and purchasing intention (PI) after processed seven advertisements, the examination of moderating and mediating effects, and path analysis of the hypothesized model. In each of the above sections, the results are discussed with reference to the previous literature, the similarities and differences between the results of this study and the extant literature are explained, and the contributions of this study are introduced.

### 6.1 The communication effects of the advertisements

Because many advertisement processing theories (Lutz & Swasy, 1977; Petty & Cacioppo, 1986; Edell & Burke, 1987) conclude that cognitive and affective processing will occur in the exposure procedure of advertisements and could explain consumers' attitude toward an advertisement, consumers' cognitive and affective reactions were collected in order to understand consumers' attitudes to the advertisements. This section discusses the descriptive analysis of the affective and cognitive responses of Chinese consumers to the seven advertisements used in the experiment.

#### **Affective responses**

Consumers' affective responses to advertisements will be compared between those using the same visual images first and then between those using the same arguments. The neutral image was used in advertisements  $N_0$ ,  $N_1$ , and  $N_2$  with no CSR argument, weak CSR argument and strong CSR argument respectively. The most frequent feeling raised by the neutral image is 'calm'. Besides the 'calm' feeling, both no CSR argument and strong CSR argument associated with the neutral image could raise 'carefree' and 'alive' feelings, and the strong CSR argument made the advertisement be more

'attractive' to Chinese consumers. The weak CSR argument associated with the neutral image raised some consumers' 'contemplative' feelings, and 'other feelings' such as 'sceptical'. Based on the results discussed above, the weak CSR argument raised less positive feelings and more negative feelings than no CSR argument and strong CSR argument.

The positive image was used in advertisements  $P_1$  and  $P_2$  with the weak and strong CSR argument respectively. The positive image produces 'attractive' and 'carefree' feelings in consumers. When the weak CSR argument was associated with the positive image in an advertisement, it caused consumers to feel 'calm'; whereas the combination of the strong CSR argument and the positive image made consumers feel 'alive'.  $C_1$  and  $C_2$  uses the comparison image, and the weak and strong argument respectively. The results of consumers' responses to advertisement  $C_1$  and  $C_2$  illustrate that the comparison image caused 'contemplative' and 'attractive' feelings in consumers. When the weak CSR argument was associated with the comparison image, it caused consumers to feel 'concerned', but the strong CSR argument made consumers feel 'alive' and 'carefree'. Therefore, the feelings provoked by both the positive and comparison image have similarities ('attractive') and differences ('carefree' feelings from the positive image but 'concerned' from the comparison image). The positive image raised more positive feelings in respondents, and the comparison image caused respondents to think. The strong CSR argument raised similar feelings in both positive and comparison images: 'alive'; but the weak argument raised various feelings: 'calm' from the positive image and 'concerned' from the comparison image.

In general, the combination of the strong CSR argument with three visual images has a relatively stable communication effect (more upbeat feelings were raised) compared with the combination of the weak CSR argument with three visual images. Feelings raised by advertisements  $N_2$ ,  $P_2$ , and  $C_2$  were very similar: 'carefree', 'alive' and 'attractive'. The differences are: the neutral image also brings 'calm' feeling to consumers, whereas the comparison image brings 'contemplative' feelings to

consumers. On the contrary, feelings raised by advertisements  $N_1$ ,  $P_1$ , and  $C_1$  are different between each other. The neutral and positive image both raised 'calm' feelings for consumers, the positive and comparison image both raised 'attractive' feeling for consumers, and the neutral and comparison image both raised 'contemplative' feelings for consumers. The reason the 'attractive' feeling was raised by both the positive and comparison images is that the positive image and the positive part of the comparison image were designed to elicit 'attractive' feelings from consumers. Both the simple image (neutral) and the complex image (comparison) can lead to consumers thinking of the advertisements when the images collocate with the weak CSR argument. The results suggest that consumers employ the cognitive and affective processing of advertisement information simultaneously and there are interactions between cognitive and affective processing procedures.

### **Cognitive responses**

Consumers' cognitive responses will be compared between those using the neutral image first and then between those using positive and comparison images. Advertisements  $N_0$ ,  $N_1$ , and  $N_2$  all use the neutral image.  $N_0$  and  $N_1$  were very similar in terms of leading to similar cognitive responses of consumers. Both  $N_0$  and  $N_1$  were neither informative nor transformative, and both were not entertaining, did not provide new knowledge, were irrelevant in providing useful information, but were easy to read and familiar to consumers. The strong CSR argument differentiates advertisement  $N_2$  from  $N_0$  and  $N_1$  in many aspects. Consumers slightly agreed that advertisement  $N_2$  was informative in terms of introducing the differences of the advertised product from other products and transformative in associating the product with psychological characteristics. Furthermore, advertisement  $N_2$  was entertaining, provided new knowledge and a small amount of useful information, was easy to read, but was not familiar to consumers.

The advertisements using positive or comparison images did not influence consumers' cognitive responses significantly so they will be discussed together. Similar to the function of the strong CSR argument in advertisement  $N_2$ , the strong CSR argument in advertisement  $P_2$  and  $C_2$  provided more informational and transformational content compared with the weak CSR argument in advertisements  $P_1$  and  $C_1$ . Moreover, the strong CSR argument provided new knowledge to consumers and was more entertaining than the weak argument, while the weak CSR argument was familiar to consumers. However, consumers thought that both the weak and strong CSR argument did not provide useful information according to consumers' perceptions. This result indicates, to some extent, that CSR issues are not the most important criteria in making purchasing decisions regarding bottled mineral water. This is the limitation for CSR advertising. Due to the relatively large differences between advertisements which use a strong CSR argument and advertisements which use a weak CSR argument, the written message in an advertisement is crucial to Chinese consumers in terms of leading to their cognitive responses. Moreover, the differences of consumers' cognitive responses among advertisements  $N_2$ ,  $P_2$  and  $C_2$  or among advertisements  $N_1$ ,  $P_1$  and  $C_1$  were very small, so the written message is more important in raising consumers' cognitive processing of an advertisement.

Chinese consumers tend to process written messages into details or at least treat written information and visual images with the same level of importance. Both the affective and cognitive responses from consumers to the seven advertisements indicate that the written message has a stronger impact on both affective and cognitive processing of advertisements in comparison to the visual image. The reason might be found by using Sojka and Giese's (1997) classification of consumers. The results of this study suggest that there are more thinkers and combiners in Chinese consumers rather than feelers and alternative processors. Thinkers and combiners have high need for cognition, while feelers and alternative processors have low need for cognition. Thinkers and combiners occupying a higher percentage of consumers in Chinese society compared with feelers and alternative processors might be the result of emphasizing connotation, especially connotation in language. As Choi, Koo, and Choi

(2007) claim that holistic thinkers pay attention to the relationship between objects and the field of objects rather than the object itself, Chinese people tend to use verbal information which contains much but reveals little in their oral and written communication. Thus in general Chinese have to read written messages carefully so that they can understand not only the literal meaning but also the subaudition underlying it.

## 6.2 Consumers' attitudes to advertising and CSR, their cognitive processes style, and purchase decision involvement

This section discusses three hypothesized moderators in the theoretical model, attitude to advertising ( $A_a$ ), attitude to CSR ( $A_{csr}$ ) and purchasing decision involvement (PDI), and also assesses Chinese consumers cognitive thinking style so that the results can be better explained.

### 6.2.1 Consumers' attitudes to advertising

Chinese consumers' scepticism to advertising exists, while consumers also affirm the function of advertising as an important information resource. The average respondents' reactions to three items testing consumers' global attitude is between 'neither agree nor disagree' and 'slightly agree', but closer to 'neither agree nor disagree'. Thus respondents held a neutral attitude toward advertising in general. The personal use dimension of advertising is composed of four items. Two items, which examined consumers' attitudes to the value of product information in advertisements, received an average score between 'slightly agree' and 'agree', so respondents confirmed the function of providing information of products by advertising. Two items from Obermiller and Spangenberg's (1998) scale, which assessed the degree of scepticism to advertising, were also merged in the personal use dimension of advertising based on the factor analysis results. Respondents' attitudes to the item of trustworthiness were almost 'neither agree nor disagree', and to the other item of functionality were

‘slightly agree’. Consumers’ general attitude to the four items from the personal use dimension of advertising was very close to ‘slightly agree’.

The integration of two dimensions evaluating consumers’ attitudes towards advertising shows that Chinese consumers have an attitude between neutral and slightly positive to advertising in general. On the one hand, advertising’s positive effects on personal use were confirmed; on the other hand, consumers’ scepticism to advertising exists. This result is consistent with Huang and Chen’s (2006) findings that consumers rely on some information from advertisements when they make purchasing decisions, but do not believe that advertising information is all true. The positive effects slightly surpass the negative effects toward advertising, illustrating the influence of survival values and secular rational values held by today’s Chinese (Inglehart & Welzel, 2005). Survival values emphasize economic and physical security; and secular rational values place less emphasis on religion, traditional family values and authority. Hence, Chinese consumers pay more attention to the positive effects from the personal use dimension of advertising and pay less attention to the negative effects of advertising. In addition, the British Market Research Bureau Limited (1998) found that Chinese consumers aged between 15 and 35 feel positive toward advertising, whereas consumers over 35 hold negative feelings toward advertising. Thus the high percentage of young respondents in this study might also contribute to the neutral attitude to advertising.

### 6.2.2 Consumers’ attitude to CSR

Consumers’ attitudes to CSR have two dimensions: green consumer values and global attitudes to CSR. The average of consumers’ attitudes to three items of green consumer values was ‘slightly agree’, which means that respondents slightly agreed that environmentally friendly purchasing behaviour will be implemented by them. The average of consumers’ attitudes to three items measuring consumers’ general attitudes to CSR and environmental issues was between ‘agree’ and ‘strongly agree’,

which reveals that respondents advocate that CSR issues should be considered by enterprises. The difference between consumers' attitudes to these two dimensions is large. The consideration of personal financial and physical resources is the main reason for the difference. Chinese consumers agreed that CSR issues are important, but because they hold survival values (Inglehart & Welzel, 2005), the higher costs of environmental friendly products probably decreased consumers' desire to purchase them. Therefore, the attitude-behaviour gap between consumers' attitudes to CSR topics and consumers' ethical purchasing comes from consumers' sets of purchasing decision index, which include not only CSR issues but also financial costs, effectiveness of the product, aesthetic appeal of the product, durable periods and other possible factors. The single analysis of attitudes to CSR issues or environmental protection issues is not sufficient to fully explain consumers' purchasing intentions towards environmentally friendly products. The model generating results also suggests that green consumer values is one independent variable that contributes to  $A_{ad}$ , and a better explanatory variable than consumers' attitude to CSR and environmental issues.

### 6.2.3 Purchasing decision involvement of mineral water

Two items from Mittal (1989) examining consumers' degree of caring purchasing choice, and concern with the purchasing outcome were chosen to test Chinese consumers' purchasing decision involvement in bottled mineral water. Respondents' responses to both items were 'slightly caring'. Thus Chinese consumers use the information gathered, and devote their thinking on the purchasing decision task of choosing bottled mineral water. The degree of PDI when selecting bottled mineral water is in the caring range but not high, so it is suitable to use bottled mineral water as the product in this study. There are several reasons for this. First, consumers have the motivation to process information provided by advertisements. Second, bottled mineral water can represent ordinary products which do not go to the extremes of not caring at all or caring a great deal. Furthermore, it demonstrates that the majority of respondents would process information provided by advertisements of bottled mineral water of an unfamiliar brand because consumers slightly care which brand to choose.

#### 6.2.4 Chinese consumers' cognitive processes

The holistic and analytical thinking modes have fundamental differences in four perspectives: *locus of attention* (whole vs. parts), *causal theory* (interactional vs. dispositional), *perception of change* (cyclic vs. linear), and *attitude toward contradictions* (naïve dialecticism vs. formal logic) (Choi, Koo, & Choi, 2007). One item from each perspective of the scale was employed to understand consumers' responses after being exposed to the advertisement. Respondents' attitudes to the *causality* factor and *perception of change* factor were near 'agree'. Thus Chinese consumers agree that there are complex causalities; holistic thinkers focus on the relationships and interactions between factors; and there are always constant fluctuations in future events. Respondents' *attitudes toward contradictions* and *locus of attention* factors were 'slightly agree'. Chinese consumers slightly agree that the relationship between objects and the field of objects are more important than the object itself, and choosing a compromised middle ground is better than opposite propositions.

Chinese consumer's cognitive processes are holistic, but they have slightly different attitudes to the four perspectives measured by Choi, Koo, and Choi (2007). *Causality* and *perception of change* receive relatively higher agreement, while *locus of attention* and *attitude to contradictions* receive relatively lower agreement. The distances between agreements on factors could be the impact of Western culture elements. The influence of Western culture can also be found in the survival values and secular rational values that Chinese hold today (Inglehart & Welzel, 2005). Because the holistic thinking is the fundamental instrument that Chinese use to understand and explain objects and events, it will be used to discuss the results of advertisement processing of Chinese consumers.

#### 6.3 The comparison of $A_{ad}$ , $A_p$ , and PI among seven groups

Consumers'  $A_{ad}$ ,  $A_p$ , and PI among seven groups were compared to find whether different advertisements produce significantly different reactions regarding these three variables. The ANOVA results suggest that there are differences between consumers'  $A_{ad}$ ,  $A_p$ , and PI among seven groups. In the comparison of  $A_{ad}$ , Tukey's HSD test results further indicate that advertisements  $N_0$ ,  $N_1$ , and  $C_1$ , which employ no CSR argument or the weak CSR argument, led to significantly lower  $A_{ad}$  compared with advertisement  $N_2$ ,  $P_2$ , and  $C_2$ , which use the strong CSR argument. Therefore, the written message of the advertisement is one important variable in deciding consumers'  $A_{ad}$ , and the strong CSR argument improves consumers'  $A_{ad}$  significantly compared with the weak CSR argument and no CSR argument. In the comparison of  $A_p$ , Tukey's HSD test results show that advertisements  $N_0$  and  $N_1$  led to significantly lower  $A_p$  compared with advertisements  $N_2$ ,  $P_2$ , and  $C_2$ ; advertisement  $C_1$  led to significantly lower  $A_p$  compared with  $N_2$  and  $C_2$ . In the comparison of PI, Tukey's HSD results shows that advertisement  $N_1$  led to significantly lower PI compared with  $N_2$ ,  $P_2$ , and  $C_2$ . Thus the written message of an advertisement contributes to consumers'  $A_p$  and PI. The strong CSR argument improves consumers'  $A_p$  and PI compared with the weak CSR argument. However, as Tukey's HSD test reveals that less differences of consumers'  $A_p$  and PI were found among advertisements, the extent of influence by written message on consumers'  $A_p$  and PI is not as high as its influence on  $A_{ad}$ . This may be because advertising is only part of the criteria that consumers will consider when they are forming an attitude and purchasing intention toward the advertised product.

Among all advertisements,  $N_1$  is the least popular advertisement and caused the lowest  $A_{ad}$ ,  $A_p$  and PI, whereas advertisement  $N_2$  is the most popular advertisement and produced the highest  $A_{ad}$ ,  $A_p$  and PI. It illustrates that consumers like the neutral image, which only shows a cup of water directly relevant to the product type, but not the weak CSR argument. Advertisement  $N_0$  has received slightly better results than  $N_1$ , thus no CSR argument is possibly better than a weak CSR argument. Consumers' responses to  $P_1$  is more positive than  $C_1$ , so the positive image is probably better than the comparison image when its written message is not highly persuasive. The reason

might be that the comparison image raised both positive and negative feelings. Consumers' responses to advertisement  $P_2$  were very similar to responses to  $C_2$ , so the importance of the image decreases when the written message is persuasive. However, because this ANOVA analysis did not consider the possible influence of  $A_a$ ,  $A_{csr}$ , trial intention and PDI, the influence of the images and written message will be discussed further in the discussion of the path analysis results (chapter 6.5).

## 6.4 The examinations of moderating and mediating effects

The examination of hypothesized moderators and mediators will be discussed in this section. Three moderators,  $A_a$ ,  $A_{csr}$ , and PDI, and one mediator, trial intention, were involved. The variable  $A_{csr}$  was separated into two dimensions: green consumer values ( $CSR_1$ ) and global attitudes to CSR issues ( $CSR_2$ ).

### 6.4.1 The moderating effects of $A_a$ , $A_{csr}$ , and purchase decision involvement

#### **Attitude to advertising and CSR**

The moderating effects of  $A_a$ ,  $CSR_1$ , and  $CSR_2$  were analysed by hierarchical regression and they are not statistically significant. The interaction between visual images and written messages are not significant.

The results indicate that even though  $A_a$ ,  $CSR_1$ , and  $CSR_2$  are not moderators of the relationship between advertisement exposure and  $A_{ad}$ , three variables  $A_a$ ,  $CSR_1$ , and  $CSR_2$  are independent variables which contribute to the variance of  $A_{ad}$ . Therefore, consumers do not process advertisements alone but process advertisements simultaneously with their attitudes to information media (advertising), and their attitudes to the topic of the advertisement, which is CSR and environmentally friendly consumption. In other words, considering the advertisement alone is not sufficient to

explain consumers'  $A_{ad}$ , and the degree of  $A_{ad}$  depends on a complex set of independent variables. Most previous advertisement processing studies did not consider other factors, such as  $A_a$ , in explaining  $A_{ad}$ . The results of this study suggest that holistic thinking (Nisbett *et al.*, 2001) is applied in forming Chinese consumers'  $A_{ad}$ . Chinese consumers' evaluation of an advertisement is based on a wide range of variables, which might be relevant to consumers' beliefs, the advertised product, the brand, and the corporation owning the brand. The R square of model 2 is 21%, so there could be other reasons that Chinese consumers consider simultaneously with the independent variables considered in this study. This could be the direction of future research in understanding holistic thinking in Chinese consumers' processing of advertisements. Moreover, whether consumers with Western cultural backgrounds also consider a wide range of variables when they process advertisements could be investigated in the future and compared against consumers with East Asian cultural backgrounds to see whether differences exist.

The interaction between visual images and written messages are not significant in the tests, but the analysis of affective and cognitive responses suggests that there are slight interactions between images and written messages. Paivio's Dual Coding Theory supports that the referential processing of information establishes interaction between verbal and visual messages. It could be that the content of written messages and visual images are not extremely interacted in print advertisements, so the interaction effect transmitted to consumers is slight but not statistically significant. The other possibility could be that the verbal information used in this experiment is of high imagery, so self-generated images by respondents minimize the effect of pictures used in advertisements (Unnava & Burnkrant, 1991). Hence, the interactions between the visual images and written messages were decreased to some extent.

### **Purchasing Decision Involvement**

Purchasing Decision Involvement is the moderator of the relationship between  $A_p$  and PI, so PDI is moderating the variance of PI that was raised by the variance of  $A_p$ . When PDI is constant, a 1% increase of  $A_p$  will lead to 0.558% increase of PI. The main effect of PDI to PI is positive (0.061), but the interaction effect of PDI and  $A_p$  to PI is negative (-0.079). It indicates that the more positive a consumers' PDI is, the lower the PI toward the advertised product is. Therefore, consumers' high involvement in the procedure of making purchasing decisions toward a product will decrease their purchasing intention toward the product. Consumers who are highly involved in the purchasing decision procedure may have sufficient information or consider more aspects of the product and more information from the advertisement before buying. After considering a complex range of information, high involvement consumers' criteria for choosing a product might be higher or stricter than low involvement consumers' criteria. Their purchasing intentions are therefore decreased. Crellin (1998) found that young and more highly educated people in China are more sceptical of advertising, and Chang and Cheng (2009) found that young consumers are confident that they will not be influenced by advertisers. Thus those consumers who have high PDI are probably better educated and tend to rely more on their cognition of information to make purchasing decisions compared with consumers who have low PDI.

#### 6.4.2 The mediating effect of trial intention

Consumers'  $A_{ad}$  not only directly influences consumers'  $A_p$ , but also indirectly influences consumers'  $A_p$  through trial intention. The direct effect from  $A_{ad}$  contributes to 85% of the total effect, and the indirect effect through trial intention contributes to 15% of the total effect. Therefore, consumers' positive  $A_{ad}$  will raise positive  $A_p$ , and simultaneously produce a positive trial intention, which will generate a positive  $A_p$ . For an unfamiliar brand, such as Mountain Mineral Water, the trial is able to provide a direct experience and information source for consumers to form their  $A_p$ . Because of the financial limitation of this experiment, a trial intention was examined rather than a real trial. This limitation may decrease the possible

contribution from the real trial as a mediator between  $A_{ad}$  and  $A_p$ . Because respondents have not tried the real product, it was hard to form attitudes to an unfamiliar brand based on no particular experience. However, t-test results still support the existence of the mediating effect of the trial intention, illustrating the importance of the trial in the process of forming attitudes and behavioural intentions for an unfamiliar brand. The relationship between trial intention and  $A_p$  is consistent with Kempf and Smith's (1998) examination of the causal relationship between the real trial and  $A_p$ . Whether the real trial could be produced by advertisement exposure was not tested in their research. It is the contribution of this research that trial intention could be raised by  $A_{ad}$ . Future research may assess whether the more positive  $A_{ad}$  is, the more possible that consumers will take a real trial of the advertised product.

The model generating process found that the trial intention also mediates the relationship between  $A_{ad}$  and PI. The more positive consumers'  $A_{ad}$  is, the higher the degree of trial intention is, and subsequently the higher consumers' PI is. Percy and Elliott (2012) argues that if the product is a high involvement product, consumers will generate a temporary brand attitude first and then go to the trial step, and purchase intention last; if the product is low involvement, consumers will try the product before they develop an attitude to the brand, and then a positive brand attitude will lead to a purchasing intention. Kempf and Smith's (1998) experiment proved the path from the trial to  $A_p$ , but whether the trial can cause consumers' PI directly has rarely been studied. This study indicates that consumers will employ both the paths trial intention  $\rightarrow$  PI and trial intention  $\rightarrow A_p \rightarrow$  PI after processing an advertisement of a product that consumers are involved in moderately when making purchasing decisions.

## 6.5 Path analysis of the theoretical model

Path analysis was employed to examine the significance of hypothesised causal connections in the theoretical model. This section will discuss the results of individual parameter estimates and model generating.

### 6.5.1 Individual parameter estimates

There are 26 paths which were hypothesised in the theoretical model in total and 15 paths pass the t-test at the 0.05 significance level. The significant paths will be discussed in this section. Kline (1998) summarized that standardised path coefficients less than 0.1 may indicate a small effect, between 0.1 and 0.5 may indicate a medium effect, and greater than 0.5 may indicate a large effect. Two effects are large: the direct effect from  $A_{ad}$  to  $A_p$  (0.653), and the direct effect from  $A_p$  to PI (0.637). These two effects are the main effects of advertisement processing results that the author hypothesized in this study based on the Dual Mediation Hypothesis (DMH) by Lutz and Swasy (1977). The indirect effect from attitude toward the advertisement to purchasing intention through attitude toward the advertised product ( $A_{ad} \rightarrow A_p \rightarrow PI$ ) is obtained when the two paths are combined. The standardized indirect effect of  $A_{ad}$  on PI through  $A_p$  is  $(0.653)(0.637)=0.416$ . Thus purchasing intention is expected to increase by 0.416 standard deviations given a change of one full standard deviation in attitude toward the advertisement via its effect on attitude toward the advertised product, a mediator between attitude toward the advertisement and purchasing intention. Consumers' attitude toward the advertised product is an important mediator between attitude toward the advertisement and purchasing intention. The results of this study are the same as Mackenzie *et al.*'s (1986) examination results of DMH in Western consumers. Chinese consumers also form positive attitude toward the advertised product from positive attitude toward the advertisement, and then generate positive purchasing intention based on positive attitude toward the advertised product.

Six effects in the theoretical model are medium:  $A_{ad}$  to trial intention (0.493), trial intention to  $A_p$  (0.254), written message to  $A_{ad}$  (0.350), picture editing ( $PE_1$ ) to  $A_{ad}$  (0.197), attitude to advertising ( $A_a$ ) to  $A_{ad}$  (0.158), and global attitude to CSR ( $CSR_2$ ) to  $A_{ad}$  (-0.110). The indirect effect from attitude toward the advertisement to attitude toward the advertised product through trial intention ( $A_{ad} \rightarrow \text{trial intention} \rightarrow A_p$ ) is obtained when the first two paths are connected. It illustrates the importance of the consuming experience in establishing consumers' attitude toward the advertised product. Consumers' positive attitude toward the advertisement can raise consumers' trial intentions to the advertised product, and subsequently contribute to positive attitude toward the advertised product. This is consistent with the findings of Kempf and Smith's (1998) research. Kempf and Smith tested an advertising model which included the real free trial step and found that the product trial has an effect on consumers' attitude to the brand. In this study, the moderate path coefficients from  $A_{ad}$  to trial intention and from trial intention to  $A_p$  may be generated as a result of the unfamiliar brand used. The only information source for consumers to form attitudes to Mountain Mineral Water is the advertisement they read in the experiment. Therefore consumers, who had positive attitude toward the advertisement, were eager to try the advertised product so that they can gather information from the real experience and subsequently generate attitudes to the product. It is difficult to find any studies that involving the variable trial intention in the advertisement processing models. In practice, trial intentions are encouraged by advertisers to increase sales. Hence, a contribution of this study was to examine the relationships between trial intention and consumers' attitudes and behavioural intentions after being exposed to an advertisement. A real trial behaviour could be included in future research to further develop the relationships between trial and consumers' attitudes and behavioural intentions.

The written message (the level of CSR argument),  $PE_1$ ,  $A_a$  and  $CSR_2$  all directly contribute to  $A_{ad}$ , indicating the complex set of information that consumers consider in their processing of an advertisement. Although the variable visual image (which has three categories: neutral image, positive image and comparison image) is not

significant in predicting attitude toward the advertisement, consumers do consider another variable relevant to image, which is picture editing. The variable picture editing was used as a control variable in this study, so its effects on  $A_{ad}$ ,  $A_p$ , and  $PI$  were removed before other effects were calculated. This variable was found in the process of selection of stimuli that some Chinese consumers were sensitive to whether the picture in an advertisement was edited, including all artificial changes to the original picture, such as changes of the colour saturation, colour tone, brightness, and sharpening or softening the picture. For example, the image of the neutral advertisement  $N_0$  is a professional work of advertising experts and was published by the Pepsi Corporation. The colour tone of the water in the  $N_0$  image was edited by the advertiser so that the water looks light blue, which is similar to the colour of the natural water source and different from the colour of the transparent glass cup in the advertisement. This colour tone change was pointed out by some Chinese respondents as weakening the trustworthiness of the advertisement to some extent because it is an edited picture. As picture editing is reverse coded, the higher the possibility of edited images used in advertisements is, the lower consumer's attitude toward the advertisement is. The reason is many Chinese consumers consider whether the picture in an advertisement has been edited as an important indicator of the trustworthiness of the advertisement. If the picture in an advertisement was edited, Chinese consumers tend to doubt the advertisement. If the picture was not edited, Chinese consumers tend to believe the advertisement. Chinese consumers see picture editing as cheating on purpose, therefore a large percentage of their source of scepticism toward an advertisement focuses on whether the picture was edited or not.

Chinese consumers pay considerable attention to the written message in an advertisement. The strong CSR argument receives more positive  $A_{ad}$ , and the weak CSR argument receives less positive  $A_{ad}$ . The results suggest that consumers rely heavily on the CSR written message to generate attitudes and behavioural intentions. Therefore, CSR advertising is valuable to practitioners in reality. This corresponds to Beker and Sinkula's (2005) and Berthon *et al.*'s (2010) results that consumers exposed to information on CSR have more positive attitudes and stronger purchasing intentions.

The results also suggest that strong verbal argument should be used in CSR advertising to be more persuasive. CSR is a rational thinking of business operations, so Chinese consumers expect to read a logical and reasonable argument. A strong CSR argument is more persuasive to Chinese consumers compared with a weak CSR argument. Important details, which can improve the persuasiveness of an argument, could be included in the advertisement text. Besides the usefulness of CSR advertising, this result (written message are more influential in forming  $A_{ad}$ ) is different from advertising studies in Western countries. Research in Western countries suggests that visual information is superior to verbal information in recall and recognition (Guenther, Klatzby & Putnam, 1980), and imagery processing is more influential in affecting behavioural intentions than discursive processing of verbal information (Cautela & McCullough, 1978). Holbrook and Hirschman (1982) and Lindauer (1983) found that the sensory experience evoked by imagery processing provides some of the enjoyment, satisfaction, or stimulation feeling from actual consumption, so imagery processing is superior in producing consumers' positive responses to an advertisement. Imagery processing may lead to a stronger emotional sensory experience than discursive processing, and can increase consumers' desire for the product (MacInnis & Price, 1987). However, the variable 'written message' significantly contributes to  $A_{ad}$ , but the variable 'visual image' does not significantly contribute to  $A_{ad}$  in the Chinese context. The reasons could be, first, Chinese consumers tend to doubt the picture more possibly than the written message in an advertisement because most pictures used in advertisements have been edited in some way so that the visual effect of the advertisement is strengthened; and second, Chinese consumers process verbal information more carefully compared with people with European cultural backgrounds and try to deliberate on detailed information in texts. The first reason has been elaborated in the above paragraph discussing the control variable picture editing, and the result of doubting pictures in advertisements frequently is that consumers rely less on pictures to form attitudes and generate behavioural intentions. The second reason was examined by Wu (2011) who compared advertisement processing differences between Chinese and American students. She found that Chinese consumers remember large and small font information in an advertisement to a similar degree, and Chinese consumers remember the information given in the small fonts better than

American consumers. Wu (2011) argues that culture highly influences the cognitive processing of advertisements. Because Chinese consumers have a holistic thinking style (Nisbett *et al.*, 2001), they tend to process all the information given in an advertisement, including details. Moreover, Chinese language as a logographic language has many different features compared with alphabetic languages, such as English (Tavassoli, 2007). As holistic thinkers pay attention to the relationship between objects and the field of objects rather than the object itself (Choi, Koo, & Choi, 2007), Chinese prefer their language communication to be 'containing much but revealing little'. Thus Chinese people tend to read written messages carefully so that they can understand not only the literal meaning but also the subaudition. Based on Paivio's (1971) dual coding theory, this phenomenon expresses a deeper associative processing of information in which verbal or visual stimuli are associated with other verbal or visual stimuli respectively. Furthermore, because Chinese is a logographic language, Chinese characters contain pictorial information themselves. The amount of pictorial information in different characters varies due to the specific development process of the character from creation to recent years. Some verbal texts, which contain abundant pictorial information, may elicit more imagery processing than other verbal texts, which contain little pictorial information. This may also contribute to the emphasis of processing verbal information in Chinese language communication. However, the result does not indicate that Chinese consumers do not pay attention to images in advertisements or Chinese consumers pay more attention to a written message than visual images. From the existence of the control variable  $PE_1$ , it is clear that Chinese consumers do care about images in advertisements and have strict standards for evaluating images in advertisements. Because of the strict standards of picture evaluation and cognitive processing habits, Chinese consumers rely less on visual images and more on written messages in advertisements to form attitudes and behavioural intentions.

The variable  $A_a$ , attitude to advertising, was hypothesized to be a moderator, which contains interacted effects between it and words/images to attitude toward the advertisement ( $A_a \times \text{words} \rightarrow A_{ad}$  and  $A_a \times \text{images} \rightarrow A_{ad}$ ). However, the result suggests

that the interacted effects are not statistically significant, and attitude to advertising has a direct positive effect on attitude toward the advertisement. Consumers' attitude toward the advertisement is predicted to improve by 0.158 standard deviations given a change in  $A_a$  of one standard deviation and no change on other variables also specified to affect attitude toward the advertisement. Thus attitude to advertising works as an independent variable to attitude toward the advertisement. The result suggests that consumers consider  $A_a$  when they are processing advertisements. In other words, consumers' subjective  $A_a$  is involved in their processing of advertising information. This might only apply to holistic thinking consumers as they assume complex causalities and focus on the relationships between factors (Choi, Koo, & Choi, 2007). All information relevant to an advertisement will be processed simultaneously in holistic thinkers' perception of the advertisement. But this processing method may also apply to analytical thinking consumers to some extent because several studies have provided evidence for it. For example, MacKenzie and Lutz (1989) argue that consumers' attitudes toward advertisers, advertisement perceptions, and advertisement credibility could impact consumers' attitude toward the advertisement directly in the context of United States' consumers. Future research could examine whether other analytical thinking consumers also involve their own  $A_a$  in advertisement processing as one independent variable. If analytical thinking consumers do not involve their own  $A_a$  or other subjective elements as an independent variable into forming their  $A_{ad}$ , their processing procedure reflect the analytical thinking style which focuses on the advertisement itself.

The variable  $CSR_2$ , consumers' global attitude to CSR, was hypothesized to be one dimension of the moderator CSR which contains interacted effects with words/images to  $A_{ad}$  ( $CSR_2 \times \text{words} \rightarrow A_{ad}$  and  $CSR_2 \times \text{images} \rightarrow A_{ad}$ ). Nonetheless, the results suggest that the interacted effects are not statistically significant, and  $CSR_2$  has a direct negative effect on consumers' attitude toward the advertisement. Moreover,  $CSR_2$  negatively affects attitude toward the advertised product and purchasing intention indirectly through attitude toward the advertisement. This is adverse to Tian *et al.*'s (2011), Zhou and Zhang's (2007), and Zhang, Fu and Xiong's (2010) research results.

Tian *et al.* (2011) found that positive links between CSR and Chinese consumers' product associations and purchase intentions do exist, and experience products (such as bottled mineral water) are more likely to gain consumers' positive product associations and purchase support through CSR practices compared with search products or credence products. Zhou and Zhang (2007) also found that CSR has a positive influence on purchasing intention. The higher support that consumers provide to CSR, the higher the level of impact CSR has on product quality judgment (Zhou and Zhang, 2007; Zhang, Fu & Xiong, 2010). Because of the differences between the results of this study and previous literature, the variable global attitude to CSR might not be suitable to estimate consumers'  $A_{ad}$ ,  $A_p$  and PI. The reason may come from the methodology used in this study. This study used an experiment introducing a particular product and relevant visualized details for consumers to evaluate, but other studies used survey questionnaires which did not provide a particular product and asked general questions. The context provided by this study is closer to the real context, so consumers in this study may consider more about the financial and physical resources they are willing to pay for the environmentally friendly product instead of focusing on CSR topics only. Hence, consumers' evaluation of  $A_{ad}$ ,  $A_p$  and PI in this study are closer to those in a real context compared with other studies. Items in global attitude to CSR, which do not include consumers' consideration of financial and physical resources, are not suitable to predict  $A_{ad}$ ,  $A_p$  and PI. Therefore CSR<sub>2</sub> was not included in the final model. However, the variable consumers' green consumer values (CSR<sub>1</sub>), which contains both perspectives, is a more accurate variable to express the real importance of CSR issues in consumers' generation advertisement and product association and behavioural intention. The positive path coefficient from CSR<sub>1</sub> to  $A_{ad}$  in this study also corresponds to the research results of Tian *et al.*'s (2011), Zhou and Zhang's (2007), and Zhang, Fu and Xiong's (2010).

Seven effects in the theoretical model are small: green consumer values (CSR<sub>1</sub>) to  $A_{ad}$  (0.096),  $A_p \times PDI$  to PI (-0.079), PDI to PI (0.061), comparison image  $\times$  words to  $A_{ad}$  (0.084), comparison image  $\times$  CSR<sub>1</sub> to  $A_{ad}$  (-0.082), comparison image  $\times$  CSR<sub>2</sub> to  $A_{ad}$

(0.095), and picture editing ( $PE_3$ ) to PI (0.091). The variable  $CSR_1$  was hypothesized to be one dimension of the moderator CSR which contains interacted effects with words/images to attitude toward the advertisement. But the moderating effect is not significant, which is the same as variable  $CSR_2$ . Green consumer values work as an independent variable which has a small direct positive effect on  $A_{ad}$ . Thus, consumers who have stronger green consumer values have a more positive attitude to advertisements which employ environmental protection issues as the topic, and subsequently generate more positive  $A_p$  and PI. This corresponds to the literature (Tian *et al.*, 2011; Zhou and Zhang, 2007; Zhang, Fu & Xiong, 2010) investigating the influence of Chinese consumers' CSR attitudes on product association and purchase intention. The different directions of  $CSR_1$  and  $CSR_2$  affected  $A_{ad}$  come from an additional factor in the variable  $CSR_1$ , personal financial and physical resources, which is important to Chinese consumers. The influence of this factor can be seen from different attitudes to  $CSR_1$  and  $CSR_2$ . Chinese hold strongly positive attitudes to CSR and environmental protection issues ( $M_{CSR_2}=2.34$ ), but only slightly positive attitudes regarding consumption of environmentally friendly products ( $M_{CSR_1}=1.13$ ). The reason is that Chinese people hold survival values which emphasize economic and physical security (Inglehart & Welzel, 2005). Moreover, Chinese consumers' holistic thinking style assumes constant fluctuations in predicting future events rather than expecting similar patterns of change or stability (Choi, Koo, & Choi, 2007). The assumption of constant fluctuations adds more weight to the value of maintaining economic and physical security. The financial and physical resources factor is one of the most important factors in Chinese consumers' consideration of forming attitudes and generating purchasing intention. Therefore,  $CSR_1$  is more suitable to be used to predict consumers'  $A_{ad}$ ,  $A_p$  and PI.

The variable PDI not only has a positive direct effect on purchasing intention, but also interacts with attitude toward the advertised product and negatively affects purchasing intention. When both effects are combined, PI is expected to decline by 0.018 standard deviations given a change in PDI of one full standard deviation with no

change on other variables. Thus the deeper consumers are involved in purchasing decisions of an environmentally friendly product, the lower their purchasing intentions toward the product are. This result can be explained by Deng *et al.*'s (2010) findings. Deng *et al.* (2010) found that Chinese consumers who are laudable or supportive of CSR have the strongest ethical consciousness and institutional rationality, but they did not devote too much ethical cognitive effort in making purchasing decisions. Therefore, people who are most likely to consume environmentally friendly products are not too concerned about the purchasing decision rather they habitually purchase environmentally friendly products. But Chinese consumers who are resistant to or sceptical of CSR, generally have a high ethical consciousness and devote more ethical cognitive effort in making purchasing decisions (Deng *et al.*, 2010). Hence, people who are reluctant to consume environmentally friendly products have a higher level of interest and concern in their purchasing decision of such products. They devote more cognitive effort in making purchasing decisions compared with consumers who are praiseful or supportive to CSR, and tend to doubt CSR related information provided by the production company. Even though PDI itself does not contribute highly to PI, it reveals that high processing involvement of information in making purchasing decisions may lead to lower purchasing intentions.

The variable picture editing ( $PE_3$ ) also has a small positive effect on purchasing intention, so the control variable picture editing also influences purchasing intention. As  $PE_3$  is reverse coded, the more possible consumers think that the advertisement image was edited, the lower consumer's PI is. If the picture in an advertisement was edited, Chinese consumers are less likely to purchase the advertised product; if the picture was not edited, Chinese consumers are more likely to purchase the advertised product. The effect of picture editing to PI is lower than the effect of picture editing to  $A_{ad}$ , but higher than the effect of picture editing to  $A_p$ . The effect of picture editing to  $A_p$  is not statistically significant. Hence, Chinese consumers connect picture editing with attitude toward the advertisement and purchasing intention, but do not consider picture editing in forming attitude toward the advertised product.

The interaction between the comparison image and written message, the interaction between the comparison image and  $CSR_1$ , and the interaction between the comparison image and  $CSR_2$  are three significant paths to  $A_{ad}$  in path analysis of the initial model. However, these three paths are not significant in the *post-hoc* model after eleven hypothesized paths were deleted from the initial model. Therefore, these paths are too weak to be statistically significant. The variable visual image is not a significant independent variable which contributes to attitude toward the advertisement, and the interacted effects between visual image and other independent variables, such as the written message, green consumer values, and global attitude to CSR, are not significant. In other words, Chinese consumers do not respond significantly differently to the neutral image, positive image, or comparison image. After analysing feelings raised by the comparison image, such as ‘contemplative’ and ‘concerned’ feelings, the comparison image might raise the highest level of cognitive processing of the advertisement compared with the positive and neutral image. But the estimated path coefficient of the interaction between the comparison image and green consumer values to attitude toward the advertisement is negative. The negative part of the comparison image may lead to consumers, who have a high level of green consumer values, forming a less favourite attitude to the advertisement. Therefore, the comparison image does not make a significant change of  $A_{ad}$  compared with the neutral and positive image. As discussed in the control variable picture editing, Chinese consumers rely less on image in an advertisement to form attitudes or generate purchasing intentions, and rely more on written messages.

Eleven paths are not accepted at the significant level of 0.05. The direct effect from all images to  $A_{ad}$  are not accepted, so the neutral, positive, or comparison image does not bring significant differences in consumers’ attitude toward the advertisement, and through  $A_{ad}$  to  $A_p$  and  $PI$ . But the variable picture editing, which is relevant to image, is influential to  $A_{ad}$ . This result is different from research in Western countries that visual images are superior to written messages in raising product association and

purchasing intentions. It has been discussed in previous paragraphs that, first, Chinese consumers tend to doubt the picture more possibly than the written message in an advertisement; and second, Chinese consumers process verbal information more carefully and thoroughly compared with people from European cultural backgrounds, and try to deliberate on detailed information in written texts. In addition, the interaction between the positive image and written messages, between images and consumers'  $A_a$ , between the positive image and  $CSR_1$ , between the positive image and  $CSR_2$ , between written messages and consumers'  $A_a$ , between written messages and  $CSR_1$ , and between written messages and  $CSR_2$  do not have direct effects on consumers'  $A_{ad}$ . Hence, the interaction between images and written messages is not significant, and  $A_a$ ,  $CSR_1$ , and  $CSR_2$  are not moderators of the causal relationship from visual image to  $A_{ad}$  or from written message to  $A_{ad}$ . This result corresponds to the hierarchical regression results of those hypothesized moderators.

The direct effect from picture editing to attitude toward the advertised product is not accepted, which means that Chinese consumers do not evaluate a product directly based on whether pictures used in its advertisements were edited. Chinese consumers consider other variables, such as trial intention and  $A_{ad}$ , in forming  $A_p$ .

### 6.5.2 Model modification

The statistics, such as the  $\chi^2$ , degree of freedom (df), Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC), Root-Mean-Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), and Tucker-Lewis Index (TLI), were calculated for the examination of models. The hypothesized initial model has a significant  $\chi^2(347) = 28130$ , which indicates that the fit of this initial model is significantly worse than if it had 347 more paths; and the *post-hoc* model has a significant  $\chi^2(74) = 12525$ , which indicates that the fit of the *post-hoc* model is significantly worse than if it had 74 more paths. AIC and BIC are modifications of the standard goodness-of-fit  $\chi^2$  statistic that includes a 'penalty' for complexity. If two non-hierarchical models are compared, the one with the lowest AIC/BIC is preferred. Because  $\Delta\chi^2=15605$ ,  $\Delta d=273$ ,  $p<0.001$ ,

$AIC_{post-hoc} < AIC_{initial}$ , and  $BIC_{post-hoc} < BIC_{initial}$ , the hypothesized initial model has been improved after eleven paths were deleted. However, the *post-hoc* model does not reach a good fit to the observed data, as its  $RMSEA=0.11$ ,  $CFI=0.72$ , and  $TLI=0.66$ .  $RMSEA$  indicates the closeness of the covariance matrix that was created based on the theoretical model to the sample covariance matrix. As Schumacker and Lomax (2004) suggest that  $RMSEA \leq 0.05$  is acceptable, the  $RMSEA_{post-hoc} = 0.11$  indicates a poor fit of the model.  $CFI$  indicates the proportion in the improvement of the overall fit of the researcher's model relative to a null model, the relative overall fit of the *post-hoc* model is 72% better than that of the null model estimated with the same sample data.  $TLI$  is similar to  $CFI$  but includes a correction for model complexity. Both  $CFI$  and  $TLI$  values are expected to be close to 0.95 (Schumacker & Lomax, 2004), so the value of  $CFI$  and  $TLI$  of the *post-hoc* model are improved compared with the initial theoretical model, but do not reach a good fit of the sample covariance matrix. Model modifications might allow the covariance matrix to achieve a better fit to the sample variance.

The final model was obtained based on some modifications of the *post-hoc* model: two paths were added and two paths were deleted from the *post-hoc* model. The path coefficient from  $CSR_2$  to  $A_{ad}$  is negative, which means that the more positive consumers' global attitudes to CSR are, the lower consumers' attitudes to a CSR advertisement are. As discussed in chapter 6.5.1, this result is different from previous research (Zhou & Zhang, 2007; Zhang, Fu & Xiong, 2010; Tian *et al.*, 2011) so that the path from  $CSR_2$  to  $A_{ad}$  was deleted but the path from  $CSR_1$  to  $A_{ad}$  was maintained. According to Percy & Elliott (2012), in high involvement purchasing decisions, consumers will try the product first and then develop purchasing intentions, so the path from trial intention to PI was added. Howard (1977) argues that  $A_{ad}$  itself is a reflection of reactions to one aspect of the purchase situation and thus is a potentially important contributor to purchasing intention. The path from  $A_{ad}$  to PI was added. The path from  $PE_3$  to PI was not significant after the above modifications, so it was deleted from the model. The path from PDI to PI is not significant. Nonetheless, because the interaction between  $A_p$  and PDI has a significant direct effect on PI, which means that

PDI has moderating effects on the relationship between  $A_p$  and PI, the path from PDI to PI has to be maintained in the final model.

The statistics of the final model are:  $\chi^2=10197$ ,  $df=49$ ,  $AIC=10229$ ,  $BIC=10292$ ,  $RMSEA=0.05$ ,  $CFI=0.95$ , and  $TLI=0.90$ . Compared with the *post-hoc* model, chi-square test result ( $\Delta\chi^2=2328$ ,  $\Delta df=25$ ,  $p<0.001$ ),  $AIC_{final} < AIC_{post-hoc}$ , and  $BIC_{final} < BIC_{post-hoc}$  suggest that the final model has reached a significant improvement. Moreover,  $RMSEA_{final}$  is 0.05,  $CFI_{final}$  is 0.95, and  $TLI_{final}$  is 0.90, which is very close to 0.95. Across this particular set of model fit indices, the conclusion is that the data-to-model fit of the final model is on a good level. Two new added paths,  $A_{ad}$  to PI (0.114) and trial intention to PI (0.424), will be discussed in the following paragraphs.

The direct effect from  $A_{ad}$  to PI shows that when consumers have a positive attitude toward the advertisement, they may directly generate purchasing intentions based on attitude to the advertisement. This result corresponds to Gorn's (1982) empirical study of consumers' attitudes to an advertisement will influence consumers' product purchasing choice directly. Thus this study and Gorn's (1982) study support Howard's (1977) argument that attitude toward the advertisement is a potentially important contributor to purchasing intentions. In this study, the direct effect from  $A_{ad}$  to PI is small to moderate, but it is probably that the extent of the effect is different if other product types or advertising media were used in the experiment.

Because of the financial limitation of the experiment, trial intentions were measured in this study instead of a real trial. The direct effect from trial intention to PI is on a moderate level. When a consumer has a trial intention to an advertised product, the consumer might have a positive expectation of the product. In this case, the trial intention works as a mediator between  $A_{ad}$  and PI, and the mediating effect is  $(0.493)(0.424)=0.209$ . Percy and Elliott (2012) concludes some psychological research

of purchasing decision making that consumers, who are in the 'high involvement' of purchasing decisions to a given product, will try the product first and then buy it if the experience of the trial is good. Consumers, who are in the 'low involvement' of purchasing decisions to a given product, will try the product so that they can form the attitude to the product, and then generate purchasing intentions (Percy & Elliott, 2012). This study employs a moderate purchasing decision involvement product (to Chinese consumers), bottled mineral water. Both the direct effect from the trial intention to purchasing intention and the indirect effect through  $A_p$  exist. Therefore, it is possible that both routes exist in the processing procedure of one product. In the advertisement processing procedure of high involvement products, the direct effect might be stronger than the indirect effect; and in the procedure of low involvement products, the direct effect might be lower than the indirect effect.

The final model suggests four routes between  $A_{ad}$  and PI:  $A_{ad} \rightarrow PI$ ,  $A_{ad} \rightarrow A_p \rightarrow PI$ ,  $A_{ad} \rightarrow \text{trial intention} \rightarrow PI$ , and  $A_{ad} \rightarrow \text{trial intention} \rightarrow A_p \rightarrow PI$ . The complexity of these routes illustrates that consumers' attitude forming and purchasing intention generation procedures do not follow a straightforward single path as many previous studies suggested, such as 'Affect Transfer Hypothesis' (Mitchell & Olson, 1981), 'Dual Mediation Hypothesis' (Lutz & Swasy, 1977), 'Independent Influences Hypothesis' (Howard, 1977). However, several causal relationships suggested by those models are combined, to contribute to the purchasing intention. For example, the paths  $A_{ad} \rightarrow A_p \rightarrow PI$  are advocated by the 'Affect Transfer Hypothesis' and 'Dual Mediation Hypothesis', the path  $A_{ad} \rightarrow PI$  is suggested by the 'Independent Influences Hypothesis', the paths  $\text{trial intention} \rightarrow A_p \rightarrow PI$  and  $\text{trial intention} \rightarrow PI$  are supported by many psychological studies of purchasing decision making (Percy & Elliott, 2012). Figure 6.1 illustrates the final model. Written messages in advertisements, picture editing, and consumers'  $A_a$  and  $CSR_1$  (the theme of the advertisement) all work as independent variables and contribute to  $A_{ad}$  after processing the advertisement in consumers' minds. Consumers'  $A_{ad}$  then contributes to PI,  $A_p$ , and trial intention

simultaneously.  $A_p$  contributes to PI directly and is moderated by PDI. Trial intention contributes to PI both directly and indirectly through  $A_p$ .

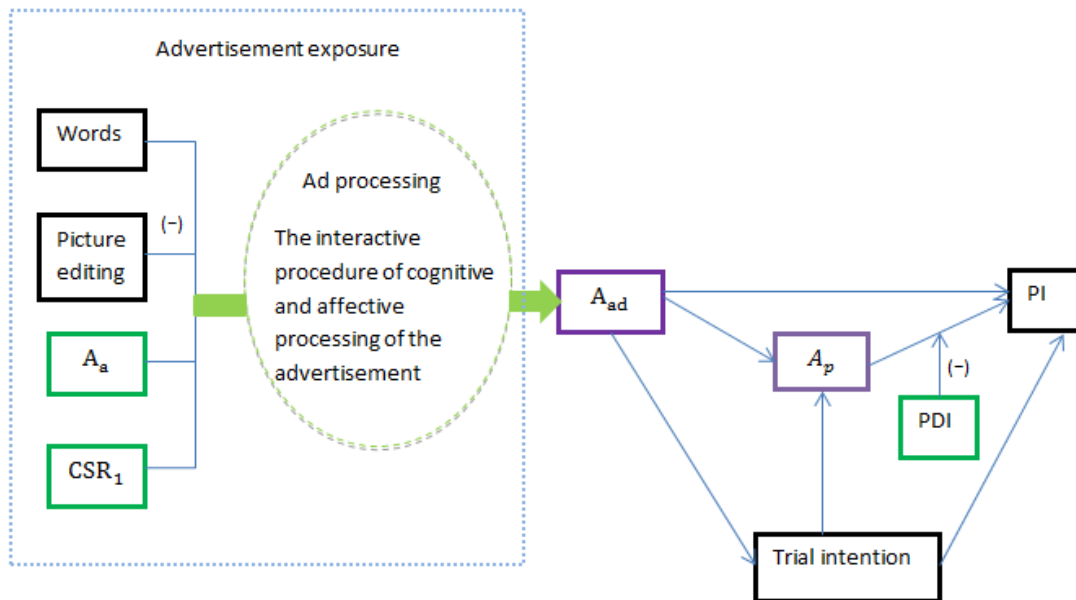


Figure 6.1 The Final Model of Advertisement Processing and Processing Result

Because the final model is a modified model based on the *post-hoc* model, some path coefficients were changed because of the modification. The direct effect from  $A_{ad}$  to  $A_p$  is still large (0.651), but the direct effect from  $A_p$  to PI is moderate (0.330) in the final model. Besides the paths that have moderate effects in the *post-hoc* model, two new added paths also have a moderate effect: from trial intention to PI (0.424), and from  $A_{ad}$  to PI (0.114). Three paths have small effects: from  $CSR_1$  to  $A_{ad}$  (0.069), the interaction between  $A_p$  and PDI to PI (-0.073), and from PDI to PI (0.035). Hence, the direct effect from  $A_p$  to PI is undermined when the direct effect from the trial intention and  $A_{ad}$  to PI are counted. This result suggests that producing strongly attractive advertisements, or raising consumers' trial intention or real trial behaviour is very important in enhancing consumers' purchasing intentions. Consumers' green consumer values have a small effect on  $A_{ad}$  because the theme of the advertisement is introducing an environmentally friendly product. Consequently, consumers' attitudes

toward the theme of an advertisement, such as CSR issues, and their consideration of the financial aspect work together to influence consumers'  $A_{ad}$ .

## 6.6 Summary

The results of this study are consistent with Mackenzie, Lutz & Belch's (1986) examination of DMH in Western consumers. The causal relationships  $A_{ad} \rightarrow A_p \rightarrow PI$  were confirmed in holistic thinkers (Nisbett *et al.*, 2001). The path  $A_{ad} \rightarrow PI$  proposed by Howard (1977) was also significant in this study. However, there are several findings that probably are unique in Chinese consumers or holistic thinkers. The first is that Chinese consumers treat written CSR information and visual images with the same level of importance in advertisement processing. Path analysis and analysis of affective and cognitive responses results all indicate that the written CSR message has a stronger impact in comparison to the visual image. CSR advertising is valuable in China, especially the written message. The reason could be that thinkers and combiners occupying a higher percentage of consumers in Chinese society compared with feelers and alternative processors (Sojka & Giese, 1997). From the perspective of written information processing, Chinese have to read written messages carefully so that they can understand not only the literal meaning but also the subaudition underlying it. The path  $words \rightarrow A_{ad}$  is significant. From the perspective of visual image processing, Chinese consumers are sensitive to whether the picture in an advertisement was edited. Picture editing is seen as cheating on the purpose, therefore a large percentage of Chinese consumers' scepticism toward an advertisement focuses on whether the picture was edited. The path  $PE_1 \rightarrow A_{ad}$  is significant. Because of the strict standards of picture evaluation and cognitive processing habits, Chinese consumers rely less on visual images and more on written messages to form attitudes and behavioural intentions. The second is that all information relevant to an advertisement will be processed simultaneously in holistic thinkers' perception of the advertisement. Consumers' attitudes to advertising and green consumer values are considered simultaneously with the written and visual messages in advertisements. The paths  $A_a \rightarrow A_{ad}$  and  $CSR_1 \rightarrow A_{ad}$  are significant.

The importance of trial intention was examined in this study. The paths  $A_{ad} \rightarrow \text{trial intention} \rightarrow A_p \rightarrow \text{PI}$  and  $A_{ad} \rightarrow \text{trial intention} \rightarrow \text{PI}$  are significant. The relationship  $\text{trial intention} \rightarrow A_p$  corresponds to the results of Kempf and Smith's (1998) experiment. Consumers, who had positive  $A_{ad}$ , were eager to try the advertised product so that they can gather information from the experience and subsequently generate attitudes to the product and raise purchase intentions. Consumers' PDI moderate the causal relationship between  $A_p \rightarrow \text{PI}$ . The more consumers involved in the purchasing decisions of an environmentally friendly product, the less consumers' purchasing intentions toward the product are.

The final model including the above eleven paths (see Figure 6.1) is a good fit of the data compared with the *post-hoc* model. Because  $RMSEA_{final}$  is 0.05,  $CFI_{final}$  is 0.95, and  $TLLI_{final}$  is 0.90, which is very close to 0.95, the data-to-model fit of the final model is on a good level.

## Chapter 7 Conclusion

### 7.1 Overview of study

This section will summarize the results of consumers' cognitive and affective responses first and then the significant causal relationships in the final model. Both the affective and cognitive responses from consumers to the seven advertisements in this study indicate that the written message has a stronger impact on Chinese consumers on both affective and cognitive processing of advertisements than a visual image. According to Sojka and Giese's (1997), it suggests that there are more thinkers and combiners (who have a high need for cognition) amongst Chinese consumers rather than feelers and alternative processors (who have a low need for cognition). Chinese people tend to use verbal information which contains much but reveals little in oral and written communication. Consequently, in general, Chinese have to read written messages carefully so that they can understand not only the literal meaning but also the subaudition underlying it.

The paths  $\text{words} \rightarrow A_{ad} \rightarrow A_p \rightarrow PI$  and  $\text{words} \rightarrow A_{ad} \rightarrow \text{trial intention} \rightarrow PI$  obtained relatively high path coefficients in the final model, revealing the importance of these paths. A verbal message is very important in persuading Chinese consumers using advertising, and it directly contributes to consumers'  $A_{ad}$ . A more informative CSR argument (the strong CSR argument) is preferred to an argument with little CSR information (the weak CSR argument), and receives more positive  $A_{ad}$  from Chinese consumers. The more positive consumers'  $A_{ad}$  is, the more positive consumers'  $A_p$  is and the higher the trial intention is. Positive  $A_p$  and high trial intentions will lead to high purchase intentions from consumers. The paths  $A_{ad} \rightarrow A_p \rightarrow PI$  also applied to Western consumers (Lutz & Swasy, 1977; Mackenzie, Lutz & Belch, 1986), who are analytical thinking consumers, and are the crucial hypothesized paths in this study. Thus the indirect effect from  $A_{ad}$  to  $PI$  through  $A_p$  is also confirmed by this study in holistic thinking consumers.

Most prior research did not involve the variable free trial intention in their advertising models. Because this study employed an unfamiliar brand to avoid influences from not-testing factors (such as previous consuming experience and brand reputation), trial intentions might be important for consumers to generate attitudes and purchasing intentions based on an advertisement. Therefore, the variable trial intention was included in the hypothesized model and the paths  $A_{ad} \rightarrow \text{trial intention} \rightarrow PI$  were significant in the path analysis. The variable trial intention has strong impact upon purchasing intention, hence trial intention can be considered in advertising models which includes the variable purchasing intention. Besides the mediating effect of trial intention between  $A_{ad}$  and  $PI$ , trial intention also has a mediating effect between  $A_{ad}$  and  $A_p$ . Therefore the more positive consumers'  $A_{ad}$  is, the higher the consumers' trial intention is, and subsequently the more positive the consumers'  $A_p$  is. Some research, (e.g., Ehrenberg, 1997) suggests that the path  $\text{trial} \rightarrow PI$  applies to low involvement product and the path  $\text{trial} \rightarrow A_p$  applies to high involvement products. This study found that both paths may apply to the same product, the path coefficient of trial intention  $\rightarrow PI$  (0.42) is higher than that of trial intention  $\rightarrow A_p$  (0.25). It is possible that the path coefficient of trial intention  $\rightarrow PI$  tends to be higher than the path coefficient of trial intention  $\rightarrow A_p$  in low involvement products, and the path coefficient of trial intention  $\rightarrow A_p$  tends to be higher than the path coefficient of trial intention  $\rightarrow PI$  in high involvement products. Consumers' level of involvement in making purchasing decisions may impact which path is more significant than the other.

The variable visual image is not a statistically significant independent variable which contributes to  $A_{ad}$  directly. However, a variable relevant to the visual image, picture editing, has a moderate effect on consumers'  $A_{ad}$  ( $PE_1 \rightarrow A_{ad}$ ). Chinese consumers consider whether the picture in an advertisement has been edited as an important indicator of the trustworthiness of the advertisement. If the picture in an advertisement was edited, Chinese consumers tend to doubt the advertisement. If the picture was not edited, Chinese consumers tend to believe the advertisement. Chinese consumers see picture editing as cheating on the purpose, therefore their main

scepticism toward an advertisement focuses on whether the picture was edited. Future research could test whether picture editing is a more decisive factor to  $A_{ad}$  compared with the image itself in Chinese consumers. Moreover, whether this factor is important to other holistic thinkers, such as Korean and Japanese, in generating their  $A_{ad}$  could also be investigated.

Consumers'  $A_a$  and  $CSR_1$  contribute to  $A_{ad}$  directly as independent variables instead of moderators proposed by some academics (Beales, Craswell, & Salop, 1981; Calfee & Ringold, 1988; Bhattacharya & Sen, 2004). The more positive consumers'  $A_a$  or  $CSR_1$  is, the more positive consumers'  $A_{ad}$  is. As Chinese consumers are holistic thinkers, they assume complex causalities and focus on the relationships between factors. Analytical thinkers assume simple causalities and focus on the object itself (Nisbett *et al.*, 2001; Choi, Koo, & Choi, 2007). Therefore, all the information relevant to  $A_{ad}$ , such as  $A_a$  and  $CSR_1$ , is processed simultaneously with the advertisement in the Chinese consumers' mind. Future research could examine whether this way of processing also applies to analytical thinking consumers in advertisement processing.

The final model suggests a moderate effect from consumers'  $A_{ad}$  to consumers' PI directly. The more positive consumers'  $A_{ad}$  is, the higher consumers' PI is. This path is suggested by Independent Influences Hypothesis (Howard, 1977) that  $A_{ad}$  is a potentially important contributor to purchasing intention. In this study, the direct effect from  $A_{ad}$  to PI is around small to moderate, but it is probably that the path coefficient will be different if other product type or advertising media were used in the experiment. Future research could examine if other product types or advertising media make a difference on the direct effect from  $A_{ad}$  to PI.

The variable PDI moderates the causal relationship from  $A_p$  to PI. Because the interaction effect between PDI and  $A_p$  to PI is negative, the more consumers are involved in the purchase decision task of environmentally friendly products, the lower

consumers' PI is. This corresponds to Deng *et al.*'s (2011) findings. Chinese consumers, who are in praise or are supportive of CSR issues, do not devote too much ethical cognitive effort in making purchasing decisions (Deng *et al.*). They are accustomed to choose an environmentally friendly product. However, Chinese consumers, who are resistant to or sceptical of CSR, devote more ethical cognitive efforts in making purchasing decisions (Deng *et al.*). They tend to doubt CSR related information provided by the production company. This result reveals that high processing involvement of information in making purchasing decisions may lead to lower purchasing intention.

In summary, the above discussed eleven paths that are statistically significant in the final model. The statistics of the final model are:  $\chi^2=10197$ ,  $df=49$ ,  $AIC=10229$ , and  $BIC=10292$ . Compared with the post-hoc model, chi-square test results ( $\Delta\chi^2=2328$ ,  $\Delta df=25$ ,  $p<0.01$ ) and the comparisons of AIC and BIC values ( $AIC_{final} < AIC_{post-hoc}$ ,  $BIC_{final} < BIC_{post-hoc}$ ) suggest that the final model has reached a significant improvement. Moreover, the  $RMSEA_{final}$  is 0.05, the  $CFI_{final}$  is 0.95, and the  $TLI_{final}$  is 0.90, which is very close to 0.95. Across this particular set of model fit indices, the conclusion is that the data-to-model fit of the final model is on a good level. Based on the final model,  $H_1$ ,  $H_4$ ,  $H_5$ ,  $H_{7a}$  and  $H_{7b}$  are accepted. Consequently,  $A_p$  mediates the causal relationship from  $A_{ad}$  to PI; PDI moderates the relationship between  $A_p$  and PI; Consumers' trial intentions mediate the relationship between  $A_{ad}$  and  $A_p$ ; A strong argument of CSR commitment, CSR motives, and CSR impact in advertising will increase more positive  $A_{ad}$ ,  $A_p$ , and PI to the product compared with (a) a weak argument, or (b) a no CSR argument.  $H_2$ ,  $H_3$ ,  $H_6$ ,  $H_{8a}$ , and  $H_{8b}$  are not accepted.

## 7.2 Contributions and limitations

### 7.2.1 Contributions of the study

This study first examined whether written messages and visual images in CSR advertisements contribute to consumers'  $A_{ad}$  and  $A_p$ , and PI toward the advertised

product in the context of Chinese consumers. The experimental results show that CSR written messages have a direct effect on  $A_{ad}$ , an indirect effect on  $A_p$  through  $A_{ad}$ , and indirect effects on PI through four paths: via  $A_{ad}$ , via  $A_{ad}$  and  $A_p$ , via  $A_{ad}$  and trial intention, and via  $A_{ad}$ , trial intention, and  $A_p$ . Visual images in the CSR advertisement do not have a direct effect on  $A_{ad}$ , but a variable relevant to visual image, picture editing, has a direct effect on  $A_{ad}$ . It leads to the same paths as written messages do but the direction is opposite. Because picture editing was reverse coded, the more possible consumers think picture editing was used, the more negative consumers'  $A_{ad}$  and  $A_p$  are and the lower PI is. Trial intentions are also lower as a result of using picture editing. Therefore, Chinese consumers rely more on the written message rather than the visual image to generate attitudes to CSR advertisements and purchase intentions toward a product from a company which fulfils its CSR. The findings that the written message is superior to a visual image in generating consumers' attitudes and purchase intentions in CSR advertising is different from previous research results of conventional advertising in Western consumers, such as research by Holbrook and Hirschman (1982), Lindauer (1983), and MacInnis and Price (1987). This research fills several research gaps relating to CSR advertising in the Chinese context. First, it compared the functions of visual and verbal information in CSR advertising. The results suggest that consumers rely heavily on the CSR written message to generate attitudes and behavioural intentions. The concept of CSR considers the business practice from a broad view, which involves the interests of the society and environment in the whole process of operation, therefore a rational thinking of business operations. Consumers expect to read a logical and reasonable argument, in the advertisement text. A strong CSR argument is more persuasive to Chinese consumers compared with a weak CSR argument. Therefore, a simple claim of fulfilling CSR is not sufficient to differentiate a brand/product from competing brands/products in advertising. Important details, which can improve the persuasiveness of an argument, could be included in the advertisement text. Teng and Laroche's (2006) study supports that the strong argument is preferred in conventional advertising in both Chinese and North American consumers. Second, this study compared the functions of visual and verbal information in advertising in a holistic thinking society, where people have different cognitive

processes compared with people in analytical thinking society (Nisbett *et al.*, 2001). The results indicate that the differences of cognitive processes between holistic and analytical thinking consumers may contribute to their processing of advertisements. It is highly probable that holistic thinkers rely more on written messages to generate attitudes to the advertisement and purchase intentions towards the advertised product. Further research about completed comparisons of holistic and analytical consumers' processing of advertisements is needed to reconfirm the contribution of each cognitive process. Previous research which only used data from analytical thinkers is not sufficient to make a universal conclusion of advertising models. Third, it examined one new variable, picture editing, which is crucial to Chinese consumers' scepticism toward an advertisement. Chinese consumers see picture editing as cheating on the purpose, therefore their main scepticism toward an advertisement focuses on whether the picture was edited. If the degree of picture editing in an advertisement is low, Chinese consumers' scepticism toward an advertisement will be low. This finding also provides empirical support for advertising practice in China's market. Picture editing should be cautiously used and controlled under an acceptable level in order to decrease Chinese consumers' scepticism.

This research tested the significant paths in Dual Mediation Hypothesis (DMH) proposed by Lutz and Swasy (1977) (MacKenzie, Lutz & Belch, 1986). Furthermore, the path from  $A_{ad}$  to PI, and one new variable, trial intention, were suggested to be included in order to improve the model. The experiment's results confirmed the existence of paths  $A_{ad} \rightarrow A_p \rightarrow PI$  after Chinese consumers were exposed to a CSR advertisement, supporting the result of MacKenzie, Lutz and Belch's examination of DMH in Western consumers. The model modification results also advocate that the path  $A_{ad} \rightarrow PI$  suggested by Independent Influences Hypothesis (IIH) (Howard, 1977) is statistically significant and hence could be added on the DMH model to improve it. Moreover, the variable trial intention is important in forming consumers'  $A_p$  and PI to an unfamiliar brand. The findings advocate that one route for high involvement products and one route for low involvement products suggested by Ehrenberg (1974, 1997) may both exist for the one product. According to Ehrenberg, low involvement

products may go from trial to PI directly, whereas high involvement products may raise positive  $A_p$  based on trial first and then progress to PI. Although the trial intention is not equivalent to the real trial, it is the budding stage of a real trial and reflects consumers' interests in the product. The existence of causal relationships between trial intention and  $A_p$ /PI may lead to the existence of causal relationships between the real trial and  $A_p$ /PI. Kempf and Smith's (1998) experiment supports the path trial  $\rightarrow A_p$ , and there is a paucity of research which investigates the path trial  $\rightarrow$ PI. This study provides empirical support for both paths trial intention  $\rightarrow A_p \rightarrow$ PI and trial intention  $\rightarrow$ PI, so the author argue both paths may exist in consumers' advertisement processing results of one product. The researcher predicts that low involvement product may have higher path coefficients of trial intention  $\rightarrow$ PI than trial intention  $\rightarrow A_p \rightarrow$ PI, while high involvement products may have higher path coefficients of trial intention  $\rightarrow A_p \rightarrow$ PI than trial intention  $\rightarrow$ PI. In summary, it is one of the contributions of this research to suggest that both routes are implemented by consumers simultaneously. Future research could examine whether the path coefficients of those paths may vary for low or high involvement products.

This study examined the hypothesized moderating effects of  $A_a$  (Beales, Craswell, & Salop, 1981; Calfee & Ringold, 1987),  $A_{csr}$  (Bhattacharya & Sen, 2004), and PDI (Mittal, 1989) in reality. Most prior research only provides scholars' hypotheses of the relationships between variables, but this study first assessed those relationships in one model using data in the Chinese context, where consumers employ holistic thinking styles. The results suggest that consumers'  $A_a$  work not as a moderator but as an independent variable which contributes to consumers'  $A_{ad}$  directly. The more positive consumers'  $A_a$  is, the more positive consumers'  $A_{ad}$  is. Consumers'  $A_a$  was processed simultaneously with the written messages and consumers' perception of the degree of picture editing of the visual images. This result is different from some scholars' hypotheses (Beales, Craswell, & Salop, 1981; Calfee & Ringold, 1987) that  $A_a$  works as a moderator between advertisement exposure and  $A_{ad}$  based on analytical thinking styles of Western consumers. The variable  $A_{csr}$  was separated into two dimensions:  $CSR_1$  and  $CSR_2$ . This research found that  $CSR_1$ , which considers both consumers'

attitudes to CSR issues and personal physical and financial resources, is more suitable to measure Chinese consumers' attitudes to ethical buying behaviour compared with  $CSR_2$ , which only evaluates consumers' attitudes to CSR issues. The result confirmed the existence of the attitude-behaviour gap (Boulstridge & Carrigan, 2000) in holistic thinking consumers so that the gap may exist universally. This finding could be applied in future studies, which are interested in understanding the relationships between consumers' attitudes and behavioural intentions, hence predictions of the behavioural intentions could be improved. Furthermore, the study also found that  $CSR_1$  was processed simultaneously with the written and visual information of the advertisement being exposed to consumers. This study reveals the possible differences of advertisement processing between holistic and analytical thinkers. It is highly probable that holistic thinkers process advertisements simultaneously with their subjective attitudes to advertising and the theme of an advertisement. Analytical thinkers, however, may process such relevant information as moderators of forming their  $A_{ad}$ . Further research is needed in analytical thinkers to determine whether the differences are significant.

The variable PDI moderates the relationship between  $A_p$  and PI. When consumers'  $A_p$  is constant, the higher consumers' PDI is, the lower consumers' PI is. This result contributes to the advertising practice and confirms Deng *et al.*'s (2011) research results. Deng *et al.* found that relatively mature and highly educated Chinese consumers, who did not devote much ethical cognitive effort in making purchasing decisions, are laudatory or supportive to CSR; whereas high income and highly educated Chinese consumers, who devote more ethical cognitive effort in making purchasing decisions, are resistant to or sceptical about CSR. Therefore, companies could employ different advertising practices in order to satisfy various market segments. For consumers who are resistant to or sceptical about CSR, detailed information or scientific analysis may need to be provided in order to decrease their scepticism. For consumers who are laudatory or supportive to CSR, simple and impressive written message and visual image may receive better results.

### 7.2.2 Limitations of the study

This study has several limitations. First, this research studied the advertisement processing results of an unfamiliar bottled mineral water brand using print advertising. Therefore, many factors that were not considered in this study may need to be included in advertising models for familiar brands or other advertising media. For example, brand image (Hansen, 1997) and previous consuming experience (Bruce & Petters, 2012) may need to be included in the model to understand consumers'  $A_{ad}$ ,  $A_p$ , trial intention and PI. According to MacKenzie and Lutz (1989), consumers' attitudes toward advertiser can also contribute to consumers'  $A_{ad}$  and  $A_p$ . Thus if consumers'  $A_{ad}$ ,  $A_p$ , trial intention and PI toward a familiar brand are studied, more factors should be considered and the model will be more complex compared with the final model in this study. The contributions of various factors may also change when more factors are considered. In addition, the result that consumers rely more on the written message in advertisements may be different for a few product categories in which the visual effect is the most/ the only important factor to consumers, such as fashion and luxury products.

Second, this research only investigated the relationships between advertisement exposure and consumers'  $A_{ad}$ ,  $A_p$ , trial intention and PI in China, which is not the only holistic thinking society in the world. Whether consumers also employ  $A_a$  and attitudes to the theme of an advertisement ( $CSR_1$ ) as independent variables instead of moderators in Korea and Japan could be examined to re-examine that holistic thinkers employ holistic cognitive processes in advertisement processing. Moreover, if future research could confirm that Western consumers (from countries which mainly have European culture backgrounds) use analytical cognitive processes in advertisement processing, different versions of advertising models need to be established to fully understand advertisement processing in various culture backgrounds.

Third, the trial intention rather than the real trial were tested because of financial constraints. There might be gaps between intentions and real behaviour so that the accuracy of predictions may be decreased to some extent if real behaviours are expected to be measured in a study. In addition, because there is no scale for the trial intention in previous research, the researcher used one clear item to measure consumers' free trial intention. More items could be developed to examine the function of the trial intention in the future.

Fourth, because of the constraints of questionnaire length, variables  $A_a$ ,  $A_{csr}$  and PDI were measured by limited items rather than full scales. Hence, the reliabilities of variables in this study are between 0.6 and 0.7, which is not as high as full scales. Moreover, the culture differences between Western and Chinese may also influence the reliability of the original scale. Consumers' cognitive styles and cognitive responses were evaluated by several items but only one item was chosen for one perspective, so the reliability test cannot be applied.

Last, the data was collected in Xi'an, where consumers' attitudes to advertising activities are very close to the average of China (Huang & Chen, 2006), thus the data may not cover some extreme situations. Moreover, the economic development of the city and consumers' average income are around the medium in China (Xi'an City Bureau of Statistics, 2012). This research intends to understand the general trend of Chinese consumers' responses after being exposed to a CSR advertisement, so the research results may not be applied to extreme examples in China. Furthermore, more than half respondents in this study were young adults under 35 years and many of them received good education, therefore the results are possibly a better representation of the mainstream of future Chinese consumers with relatively good educational backgrounds than old Chinese consumers who received little education.

### 7.3 Suggestions for future research

Based on the findings of this study, the researcher has several suggestions for future research directions. First, academics could examine whether consumers in other holistic societies, such as Japan and Korea, rely more on the written message rather than the visual image to generate attitudes and purchase intentions in CSR advertising. If most holistic consumers rely more on the written message, it confirms the conclusion that the style of cognitive processes contribute significantly to consumers processing results of a CSR advertisement. Moreover, academics could also examine whether consumers in analytical societies, such as European countries, rely more on the visual image rather than the written message to generate attitudes and purchase intentions in CSR advertising. If most analytical consumers rely more on the visual image, the differences between holistic and analytical thinkers in advertisement processing are significantly large. Therefore, advertising models for consumers who employ different cognitive processing styles may need to be adjusted, and a single advertising model may hard to be accepted universally. In addition, four dimensions of holistic thinking may contribute to advertisement processing differently, so future research could examine the impact of each dimension on advertisement processing. The results will help advertising practice in holistic thinking societies.

Second, marketing scholars could systematically study the relationships between cognitive and affective processing of an advertisement based on findings of neuroscientists. A simple understanding of cognitive and affective responses or classification of responses may not be able to clearly and correctly explain the mechanism of advertisement processing procedures.

Third, because all independent variables in the study explain 21% of the variance of  $A_{ad}$ , future research could find other potential factors that are influential to holistic thinkers'  $A_{ad}$ . For example, MacKenzie and Lutz (1989) found that consumers' attitudes toward the advertiser may contribute to  $A_{ad}$ . The advertising model could be improved if most factors, which have direct effect on  $A_{ad}$ ,  $A_p$  and  $PI$ , can be found.

Last, but not least, future research could assess whether both trial intention  $\rightarrow A_p \rightarrow \text{PI}$  and trial intention  $\rightarrow \text{PI}$  paths work for one product. Moreover, scholars can also test whether the coefficients of trial intention  $\rightarrow A_p \rightarrow \text{PI}$  are higher than the coefficient of trial intention  $\rightarrow \text{PI}$  when the product is high involvement, and whether the coefficient of trial intention  $\rightarrow \text{PI}$  is higher than the coefficients of trial intention  $\rightarrow A_p \rightarrow \text{PI}$  when the product is low involvement. The researcher argues that consumers' responses after processing an advertisement are complicated and may not follow a simple and linear relationship as some prior research hypothesized. More potential factors, which contribute to consumers' attitudes forming and behaviour generation, should be considered and all possible paths should be tested in the future.

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## Appendix 1 Interview structure of the pilot study

### Part 1: Questions about Advertising

- Do you see/hear advertisements frequently?
- What kind of advertisement styles do you like most? (Humorous, life slice, emotional resonant, rational statement/scientific data explanation, celebrity endorsement, shocked/worrying, demonstration, advertorial, contrast, slogan and brand advertising etc.)
- Do you like print advertising? Why?
- Which media do you like to see a print advertisement? (Newspaper/magazines, posters, Internet, brochures/leaflets, bus/car surface and balloon etc.)
- What kind of advertisements do you dislike? (Fear appeals, guilt appeals, etc.)

### Part 2: Questions about Corporate Social Responsibility

When you are making the purchasing decisions about bottled mineral water/ choosing bottled mineral water from several brands, what are the important CSR issues to you? Please specify the importance using the scale from 0 to 5 (0, not at all; 1, extremely low; 2, low; 3, medium; 4, high; 5, extremely high).

- Equal opportunities and treatments for employees, working place safety, employee training
- Employees' salary and welfare, working and life conditions, safety and health
- The company has vision and strategies about environmental management, has environment assessment, or has financial support to solve environmental issues
- The relationship between the company and its employees, local community, distributor, consumers, or other stakeholders
- Does the company care about global environment or applied global standards in its business operation?
- Information disclosure
- Participation in social activities, or philanthropic activities
- Does the company care about global issues, social and political environment, free trade, philanthropy in developing countries, human rights and freedom, or basic ethical standards?
- Does the company abide laws applied to it?

### Part 3: Questions about the product, bottled mineral water

- What are the most important factors to you when you buy bottled mineral water?  
(Price, brand, packaging, taste, distributor etc.)
- What kind of bottled water will you avoid to buy?

### Part 4: Basic information of interviewees

- Age: 18-25, 26-35, 36-45, 46-55, 56 or older
- Gender: Female, Male
- Average Income per month:
  - No more than 1500, 1501-3000, 3001-5000, 5001-8000, 8001 or higher
- Educational Background:
  - Junior high school (Year 9), High school (Year 12), Junior college (Diploma courses), Undergraduate degree, Postgraduate degree

## Appendix 2: Selection of stimuli I

Please see the advertisement below and answer the following questions:



1. The advertised product is \_\_\_\_\_, and I feel \_\_\_\_\_ about this picture.
2. Is the following information clear in the above advertisement?

	Clear	Not clear
Logo		
Packaging		
Area of production		

Please see the picture below (positive A) and answer the following questions:



3. To what extent do you think the following information is transmitted by the above picture?

	Extremely low	Low	Medium	High	Extremely High
It shows an authentic nature.					
It shows a well-cared environment.					
It shows clean water.					

4. What do you feel after watching the picture?

A. alive B. amused C. attractive D. carefree E. delighted

F. hopeful G. playful H. calm I. other feelings \_\_\_\_\_

**Please see the picture below (positive B) and answer the following questions:**



5. To what extent do you think the following information is transmitted by the above picture?

	Extremely low	Low	Medium	High	Extremely High
It shows an authentic nature.					
It shows a well-cared environment.					
It shows clean water.					

6. What do you feel after watching the picture?

A. alive B. amused C. attractive D. carefree E. delighted  
F. hopeful G. playful H. calm I. other feelings\_\_\_\_\_

**Please see the picture below (comparison A) and answer the following questions:**



7. To what extent do you think the following feelings or information are transmitted by the above picture?

	Extremely low	Low	Medium	High	Extremely High
The positive part of the picture raised my positive feelings.					
The negative part of the picture raised my negative feelings.					
The natural environment has been destroyed.					
The natural environment needs to be protected by human.					

8. What do you feel after watching the picture?

A. alive B. amused C. attractive D. carefree E. delighted  
 F. angry G. bad H. depressed I. disinterested J. regretful  
 K. calm L. concerned M. hopeful N. other feelings\_\_\_\_\_

Please see the picture below (comparison B) and answer the following questions:



9. To what extent do you think the following feelings or information is transmitted by the above picture?

	Extremely low	Low	Medium	High	Extremely High
The positive part of the picture raised my positive feelings.					
The negative part of the picture raised my negative feelings.					
The natural environment has been destroyed.					
The natural environment needs to be protected by human.					

10. What do you feel after watching the picture?

A. alive B. amused C. attractive D. carefree E. delighted  
 F. angry G. bad H. depressed I. disinterested J. regretful  
 K. calm L. concerned M. hopeful N. other feelings \_\_\_\_\_

## Appendix 3: Selection of stimuli II

**Please read the written text (argument W) and answer the following questions:**

Pure and natural are the essence of water. Mountain Mineral Water is taken from premium-grade natural spring water in Namucuo Nature Reserve, Tibet. Our company supports protecting the unique ecosystems in the water source area.

The high quality Mountain Mineral Water contains plentiful mineral ions that can contribute to your health. It is your best choice of drinking water. Mountain Mineral Water helps you to enjoy the taste of nature and live healthy every day.

The company has obtained ISO9001 certificate, ISO14001, and OHSAS18001 to guarantee the quality of our products.

1. To what extent do you think the above written message transmitted the following information?

	Extremely low	Low	Medium	High	Extremely high
It expresses the company's aspiration in protecting the environment.					
It contains the company's environmental protection content and results.					
It reveals the company's activity in fulfilling its responsibility to the environment.					

2. Which headline do you think is better to match the above words? If neither is good, please suggest one.

- A. Where is high quality water from? From the healthy nature.
- B. Mountain Mineral Water for your healthy living every day.

3. Do you think having the international certificate, such as ISO 9001 and ISO 14000, will increase the possibility for you to buy an unfamiliar product?

- A. Not at all
- B. Not sure, I will consider other more important factors first
- C. Possibly, having international certificates increases my confidence in making purchasing decisions.
- D. Absolutely, having international certificates is very important to me.

**Please read the written text (argument S) and answer the following questions:**

Mountain Mineral Water is taken from premium-grade natural spring water in Namucuo Nature Reserve, Tibet. It contains plentiful mineral ions that can contribute to your health.

The company is dedicated to protecting the unique plateau wetlands ecosystems, which includes glacier, grassland and rivers, and the home of precious organism, such as wild yak and ceratoides latens. We sponsor the natural reserve 2% of net profits per year and only collect no more than 8% spring water from the headwaters to.

The company has obtained ISO9001, ISO14001, and OHSAS18001 certificate to guarantee the quality of our products and be environmentally friendly.

4. To what extent do you think the above written message transmitted the following information?

	Extremely low	Low	Medium	High	Extremely high
It expresses the company's aspiration in protecting the environment.					
It contains the company's environmental protection content and results.					
It reveals the company's activity in fulfilling its responsibility to the environment.					

5. Which headline do you think is better to match the above words? If neither is good, please suggest one.

A. Where is high quality water from? From the healthy nature.

B. Mountain Mineral Water for your healthy living every day.

6. Do you think the mineral water company should make sure that the environment of water source is very good?

A. Yes      B. No

**Please read the advertisement (positive B) and answer the following questions:**



## 好水哪里来？ 来自健康的大自然！

高山矿泉水，取自西藏纳木错自然保护区，含有丰富的矿物质离子。

公司致力于保护水源地的生态环境（高原湿地，涵盖冰川、草原等）和珍惜的动植物资源（野牦牛、驼绒藜等）。每年赞助自然保护区纯利润的2%，仅使用涌出泉水的8%。高山矿泉水与您一起保护大自然！

本企业已通过ISO9001质量体系认证。

高山矿泉水，取自西藏纳木错自然保护区，含有丰富的矿物质离子。

公司致力于保护水源地的生态环境（高原湿地，涵盖冰川、草原等）和珍惜的动植物资源（野牦牛、驼绒藜等）。每年赞助自然保护区纯利润的2%，仅使用涌出泉水的8%。高山矿泉水与您一起保护大自然！

本企业已通过ISO9001质量体系认证。

7. Does the water shown in this picture look like water that you feel safe to drink after production of the mineral water company?

A. Yes                      B. No

8. To what extent do you think the picture make you feel as the item described ?

	Extremely low	Low	Medium	High	Extremely High
I feel that the environment has not been polluted or destroyed by people's activities.					
I feel that the environment has not been polluted or destroyed by industries' activities.					

Please read the advertisement (comparison B) and answer the following questions:

**高山矿泉水**  
**健康生活每一天!**

水之真谛，在于纯净，天然！高山矿泉水，是取自西藏纳木错的优质天然矿泉水。本公司支持维护水源地的生态环境。高山矿泉水，含有丰富的矿物质离子，

质量上乘，是您饮用的最佳选择。好水源来自生命之泉，让您享受自然的味道，健康生活每一天！

本企业已通过ISO9001质量体系认证。

9. To what extent do you think the picture in the advertisement shows that Mountain Mineral water is protecting the environment of its water source?
- A. Extremely low B. Low C. Medium D. High E. Extremely high

Please read the advertisement (neutral) and answer the following questions:



10. Do you think the above advertisement or picture transmitted any information to make you feel that 'Mountain Mineral Water is protecting the environment'?

A. Yes, because \_\_\_\_\_

B. No, I don't think the advertisement or picture provide any information relevant to environment protection activities by the company.

## Appendix 4 Experiment questionnaires

### **A survey of consumer's attitude to an advertisement**

**This anonymous survey will require approximately 5-8 minutes to complete. All the survey questions are asking for your personal opinion as a consumer, please choose the answer that most fits to yourself. Thank you very much for taking part in this survey!**

**Please turn to next page to read the participation information sheet.**



## PARTICIPATION INFORMATION SHEET

TITLE: *Corporate Social Responsibilities (CSR) Advertising in China*

### PURPOSE OF THE RESEARCH

This is an invitation to participate in a study conducted by researchers at the University of Wollongong. The purpose of the research is to understand which CSR advertising communication to consumers is the most effective one. This research will provide insights for companies to communicate their CSR activities with consumers more effectively so that consumers' behavioural intention towards their companies' products or services can be strengthened.

### INVESTIGATORS

A.Prof. Gary Noble (Team Leader)  
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Ms. Zhengfeng Li  
Faculty of Business  
61-02-4221 5286  
[zl161@uowmail.edu.au](mailto:zl161@uowmail.edu.au)

### METHOD AND DEMANDS ON PARTICIPANTS

If you choose to be included, you will be asked to participate in a 5-8 mins anonymous paper survey. Some questions will be asked to ascertain your opinion about a print advertisement for a mineral water company. Typical questions in the interview include: To what extent do you agree or disagree with the following statements: quite often advertising is amusing and entertaining, my general opinion of advertising is unfavorable, it is important to me that the products I use do not harm the environment, it is not possible to understand the parts without considering the whole picture, the characters in the ad capture my attention, the ad did not show me anything that would make me want to use their products.

### POSSIBLE RISKS, INCONVENIENCES AND DISCOMFORTS

Apart from the 5-8 minutes of your time for the survey, we can foresee no risks for you. Your involvement in the study is voluntary and you may withdraw your participation from the study at any time and withdraw any data that you have provided to that point. Refusal to participate in the study will not affect your relationship with the University of Wollongong.

### FUNDING AND BENEFITS OF THE RESEARCH

This study is funded by HDR students' research funding of University of Wollongong. This research will provide a basis for future decisions on CSR Advertising. Findings from the study will be published in student's PhD thesis and possibly published in marketing journals. Confidentiality is assured, and you will not be identified in any part of the research.

### ETHICS REVIEW AND COMPLAINTS

This study has been reviewed by the Human Research Ethics Committee (Social Science, Humanities and Behavioural Science) of the University of Wollongong. If you have any concerns or complaints regarding the way this research has been conducted, you can contact the UOW Ethics Officer on (02) 4221 3386 and [rso\\_ethics@uow.edu.au](mailto:rso_ethics@uow.edu.au).

Thank you for your interest in this study!

**1. To what extent do you agree or disagree with the following statements? Please indicate your level of agreement with the following statements (tick or circle the attitude you choose for each statement), using the scale provided:**

	Strongly disagree	disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
In general, advertising is misleading.							
It is important to me that the products I use do not harm the environment.							
Quite often advertising is amusing and entertaining.							
My purchase habits are affected by my concern for our environment.							
Advertising persuades people to buy things they should not buy.							
I am willing to be inconvenienced in order to take actions that are more environmentally friendly.							
Advertising tells me which brands have the features I am looking for.							
Companies have responsibilities to the society.							
In general, advertising presents a true picture of the product being advertised.							
Companies have responsibilities to the natural environment.							

**2. To what extent do you agree or disagree with the following statements? Please indicate your level of agreement with the following statements (tick or circle the attitude you choose for each statement), using the scale provided:**

	Strongly disagree	disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
Everything in the universe is somehow related to one another.							
Advertising helps me keep up to date about products/services available in the marketplace.							
It is more desirable to take the middle ground than go to extremes.							
Most advertising provides consumers with essential information.							
Current situations can change at any time.							
My general opinion of advertising is unfavorable.							
It is not possible to understand the parts without considering the whole picture.							
Overall, I consider advertising a good thing.							

**3. Please indicate your level of agreement with two statements for each question. If you agree more with the left statement, please choose a number near to the left (such as 1, 2, 3); if you agree more with the right statement, please choose a number near to the right (such as 5, 6, 7); if your attitude is in the middle of two statements, please choose 4. The nearer you choose to left side (right side), the more you agree with the left statement (right statement).**

1. In selecting from many types and brands of bottled mineral water available in the market, would you say that:

I would not care at all as to which one I buy. 1 2 3 4 5 6 7 I would care a great deal as to which one I buy.

2. In making your selection of mineral water, how concerned would you be about the outcome of your choice?

Not at all concerned. 1 2 3 4 5 6 7 Very much concerned.

**4. How often do you buy bottled mineral water?**

- A. Never
- B. Rarely (no more than three times in a month)
- C. Sometimes (about once per week)
- D. Often (twice to six times per week)
- E. Always (at least once a day)

**Please read the ad in next page carefully and then answer questions (only one of the seven advertisements was shown in the each booklet, and they are all illustrated in this appendix to save space).**

Advertisement N<sub>0</sub>



高山矿泉水，取自西藏纳木错的优质天然矿泉水，水质纯净，含有丰富矿物质离子，是您饮用的最佳选择。



## Advertisement N<sub>1</sub>



**高山矿泉水**  
**健康生活每一天!**

水之真谛，在于纯净，天然！高山矿泉水，是取自西藏纳木错的优质天然矿泉水。本公司支持维护水源地的生态环境。

高山矿泉水，含有丰富的矿物质离

子，质量上乘，是您饮用的最佳选择。好水源来自生命之泉，让您享受自然的味道，健康生活每一天！

本企业已通过ISO9001质量体系认证。



## Advertisement N<sub>2</sub>



**好水哪里来？  
来自健康的大自然！**

高山矿泉水，取自西藏纳木错自然保护区，含有丰富的矿物质离子。

公司致力于保护水源地的生态环境（高原湿地，涵盖冰川、草原等）和珍惜的动植物资源（野牦牛、驼绒藜等）。

每年赞助自然保护区纯利润的2%，仅使用涌出泉水的8%。高山矿泉水与您一起保护大自然！

本企业已通过ISO9001质量体系认证。



## Advertisement $P_1$



The advertisement features a large, scenic photograph of a mountain range with snow-capped peaks and a river flowing through a valley. In the foreground, there are colorful, low-lying plants. To the right of the main image, a bottle of Gao Shan Mineral Water is shown next to a glass of water. The background is a light blue gradient with water droplets.

**高山矿泉水，健康生活每一天！**


水之真谛，在于纯净，天然！高山矿泉水，是取自西藏纳木错的优质天然矿泉水。本公司支持维护水源地的生态环境。

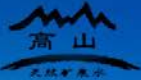
高山矿泉水，含有丰富的矿物质离子，

质量上乘，是您饮用的最佳选择。好水源来自生命之泉，让您享受自然的味道，健康生活每一天！

本企业已通过ISO9001质量体系认证。

## Advertisement P<sub>2</sub>



高山  
天然矿泉水

好水哪里来？  
来自健康的大自然！

高山矿泉水，取自西藏纳木错自然保护区，含有丰富的矿物质离子。

公司致力于保护水源地的生态环境（高原湿地，涵盖冰川、草原等）和珍惜的动植

物资源（野牦牛、驼绒藜等）。每年赞助自然保护区纯利润的2%，仅使用涌出泉水的8%。高山矿泉水与您一起保护大自然！

本企业已通过ISO9001质量体系认证。

## Advertisement C<sub>1</sub>



The advertisement is divided into two main visual sections. The left section is a black and white photograph of a rugged mountain range with a riverbed in the foreground and a piece of driftwood. The right section is a color photograph of a similar mountain range with a flowing river and a bottle of Gao Shan Mineral Water in the bottom right corner. The bottle has a blue label with the brand name '高山' and a mountain logo. In the top right corner of the right image, there is a small logo with the characters '高山' and '天然矿泉水' below it.

• **高山矿泉水**  
**健康生活每一天!**

水之真谛，在于纯净，天然！高山矿泉水，是取自西藏纳木错的优质天然矿泉水。本公司支持维护水源地的生态环境。

高山矿泉水，含有丰富的矿物质离子，

质量上乘，是您饮用的最佳选择。好水源来自生命之泉，让您享受自然的味道，健康生活每一天！

本企业已通过ISO9001质量体系认证。

## Advertisement C<sub>2</sub>



• 好水哪里来?  
来自健康的大自然!

高山矿泉水，取自西藏纳木错自然保护区，含有丰富的矿物质离子。

公司致力于保护水源地的生态环境（高原湿地，涵盖冰川、草原等）和珍惜的动植物资源（野牦牛、驼绒藜等）。每年赞助自然保护区纯利润的2%，仅使用涌出泉水的8%。高山矿泉水与您一起保护大自然！

本企业已通过ISO9001质量体系认证。

**5. What do you feel after seeing the ad? Please choose the ones you feel.**

- A. alive      B. amused      C. attractive      D. carefree  
 E. delighted      F. angry      G. bad      H. depressed  
 I. disinterested      J. regretful      K. sad      L. calm  
 M. concerned      N. hopeful      O. contemplative      P. playful  
 Q. other feelings (please specify\_\_\_\_\_)

**6. To what extent do you agree or disagree with the following statements? Please indicate your level of agreement with the following statements (tick or circle the attitude you choose for each statement), using the scale provided:**

	Strongly disagree	disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	agree	Strongly agree
The characters in the ad capture my attention.							
Mountain Mineral Water fits my lifestyle very well.							
I learned something from the ad that I didn't know before.							
Mountain Mineral Water is not really for me.							
I think this is an unusual ad. I'm not sure I've seen another like it.							
I can now accurately compare Mountain Mineral Water with other competing brands on matters that are important to me.							
The ad did not show me anything that would make me want to use Mountain Mineral Water.							
This ad leaves me with a good feeling about using Mountain Mineral Water.							
It required a lot of effort to read the ad.							

**7. To what extent do you agree or disagree with the following statements? Please indicate your level of agreement with the following statements (tick or circle the attitude you choose for each statement), using the scale provided:**

	Strongly disagree	disagree	Slightly disagree	Neutral	Slightly agree	agree	Strongly agree
I like this ad.							
I like Mountain Mineral Water.							
I would like to try Mountain Mineral Water for free.							
I would like to buy Mountain Mineral Water if I was buying bottled mineral water.							
This ad is good.							
Mountain Mineral Water is good.							
I would like to buy a bottle of Mountain Mineral Water to other mineral waters if I see it in supermarkets/stores in the near future.							
This ad is appealing to me.							
In my opinion, Mountain Mineral Water will be popular in the market.							
I would like to buy a bottle of Mountain Mineral Water if its price is similar to other mineral waters.							

**8. To what extent does the ad expresses the information in the following statements? Please indicate your level of understanding (tick or circle the level you choose for each statement), using the scale provided:**

**(Questions only for respondents seeing advertisement  $N_0$ )**

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The written message of the ad expresses the company's aspiration in protecting the environment.					

The written message of the ad describes the content and outcomes of the company's environmental protection activities.					
The ad picture has nothing to do with the natural environment.					
The ad shows the company is fulfilling its responsibility to the environment and society.					

**(Questions only for respondents seeing advertisements  $N_1$  and  $N_2$ )**

	None	Extremely low	Low	Medium	High	Extremely high
The written message of the ad expresses the company's aspiration in protecting the environment.						
The written message of the ad describes the content and outcomes of the company's environmental protection activities.						
The ad picture does not raise my feelings about the natural environment.						
The ad shows that the company is fulfilling its responsibility to the environment and society.						

**(Questions only for respondents seeing advertisements  $P_1$  and  $P_2$ )**

	None	Extremely low	Low	Medium	High	Extremely high
The written message of the ad expresses the company's aspiration in protecting the environment.						
The written message of the ad describes the content and outcomes of the company's environmental protection activities.						
The ad picture brings me positive feelings about the natural environment in general.						
The ad shows that the company is fulfilling its responsibility to the environment and society.						

(Questions only for respondents seeing advertisements  $C_1$  and  $C_2$ )

	None	Extremely low	Low	Medium	High	Extremely high
The written message of the ad expresses the company's aspiration in protecting the environment.						
The written message of the ad describes the content and outcomes of the company's environmental protection activities.						
The ad picture brings me both positive and negative feelings about the natural environment.						
The ad shows that the company is fulfilling its responsibility to the environment and society.						

**9. To what extent do you agree or disagree with the following statements? Please indicate your level of agreement with the following statements (tick or circle the attitude you choose for each statement), using the scale provided:**

	Strongly disagree	disagree	neutral	agree	Strongly agree
I dislike the ad because it has been edited.					
I dislike Mountain Mineral Water because the ad has been edited.					
I have no purchasing intention to Mountain Mineral water because the ad has been edited.					

**10. Your age is**

A. 18-25    B. 26-35    C. 36-45    D. 46-55    E. 56-65    F. over 65

**11. Your gender is**

A. Female    B. Male

**12. Your occupation is**

A. Student  
 B. Senior manager in private companies, public/ private institutions, or government bureaus  
 C. Professionals or technicians

- D. Administrator or clerk in government bureaus and state-owned industries
- E. General employees in businesses or service industries
- F. General employees in agriculture, forest, fishing, dairy or water conservancy industry
- G. General employees in manufacture industries
- H. Others

**13. Your education background is**

- A. Junior high school or under
- B. High school
- C. Junior college
- D. Undergraduate
- E. Postgraduate

**14. Your average income per month is around:**

- A. Under ¥1,500
- B. ¥1,501 to ¥3,000
- C. ¥3,001 to ¥5,000
- D. ¥5,001 to ¥8,000
- E. Over ¥8,000