

# Does Image Matter to Different Job Applicants? The influences of corporate image and applicant individual differences on organizational attractiveness

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**This research examined both the effects of various corporate image dimensions on organizational attractiveness and the moderating effects of applicant individual difference variables on the aforementioned relationships. Two studies were conducted for this research, which involved 40 bank samples and 360 student participants (Study 1) and 538 employee–student mixed samples (Study 2). By implementing different research designs, samples, and industry targets in the two studies, we found that corporate product image, corporate citizenship image, and corporate credibility image were important antecedents to organizational attractiveness. One of the proposed applicant individual difference variables, environmental sensitivity, was found to moderate the relationship between corporate citizenship image and organizational attractiveness.**

## 1. Introduction

Researchers have identified the concept of 'corporate image' as a critical organizational factor to recruitment success (Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005; Collins & Stevens, 2002), and have defined the concept as 'the set of beliefs that job seekers hold about the attributes of an organization' (Cable & Turban, 2001, p. 125). Owing to the lack of public-access information about many organizations, potential job applicants may infer the employment conditions of the organization by relying on various organizational attributes, such as corporate image (Ehrhart & Ziegert, 2005). Although past research has explicitly acknowledged the role of corporate image in affecting organizational attractiveness, scholars still call for further exploration in this research stream (Barber, 1998; Ployhart, 2006).

In the present study, we attempt to respond to such research calls by examining the linkage between corporate image and organizational attractiveness, and the boundary condition of the aforementioned relationship.

We conducted two studies to test the contention that corporate image is a multidimensional organization-level construct containing four dimensions, comprising corporate product image, corporate service image, corporate citizenship image, and corporate credibility image; we expect that each of the four corporate image dimensions should predict organizational attraction. Furthermore, we consider three applicant individual difference variables (i.e., need for affiliation, environmental sensitivity, and materialism) to be potential moderators of the relationship among various dimensions of corporate image and organizational attractiveness.

By examining the relationship between corporate image dimensions and organizational attractiveness across two studies using different research designs and methods, we hope to contribute to this research stream in two ways. First, as argued by Highhouse, Thornbury, and Little (2007), research examining the determinants of organizational attractiveness (e.g., image, organizational personality traits, and so on) has been mostly inductive, and more theory-based empirical studies should be

conducted in this research stream. In this article, we try to incorporate a framework of corporate image introduced by marketing scholars (Keller, 2000; Keller & Aaker, 1992) and to delve into the insights of its influences on organizational attractiveness in the recruitment context.

Second, the present paper examines the effects of corporate image on organizational attractiveness in two different industries. The industry environment may affect the set of criteria that the applicants use when evaluating the influences of various organizational characteristics on their attraction (Ehrhart & Ziegert, 2005). However, this issue has seldom been directly tested. Each study in the present research treats one target industries, the banking industry (service-oriented) or the computer manufacturing industry (manufacturing-oriented), to help determine whether or not the industry effect exists in relation to the effects of different corporate image dimensions.

## 2. Study 1

The purpose of Study 1 was to examine the dimensionality of corporate image and the linkages between each corporate image dimension and organizational attractiveness. To date, very little research has both explored the image dimensions of companies and linked these dimensions to organizational attractiveness. By using a forced-choice inductive methodology, Highhouse, Zickar, Thorsteninson, Stierwalt, and Slaughter (1999) identified several important dimensions of corporate employment image (e.g., product image, advertising, and hearsay). Considering the context and the purpose of Highhouse *et al.*'s (1999) study, we deemed the use of the inductive method appropriate. As noted by Highhouse *et al.* (1999), the linkages between the dimensions of corporate employment image and recruitment outcomes have yet been tested and should be further examined in the future. Responding to such a research call, the present study focuses on establishing the linkages between corporate image dimensions and organizational attractiveness. Rather than use Highhouse and colleagues framework, we have adopted a framework derived from marketing research to examine different corporate image dimensions and their influences on organizational attractiveness. This approach is appropriate because using existing classification schemes to develop conceptual dimensions can provide supplementary ways to analyze and address important domains of phenomena (cf. Hinkin, 1995). Research resting on a deductive approach may begin with relatively clear definitions and theoretical foundation (Hinkin, 1995). This type of research may also reduce the difficulty of interpreting or labeling factors/dimensions (Ford, MacCallum, & Tait, 1986). In sum, it is our intention to clarify the relationship between corpo-

rate image and organizational attractiveness and to enrich the literature by applying a deductive approach to our examination of corporate image dimensions. We believe that the use of an 'a priori theory' framework may shed considerable light on the aforementioned relationship.

### 2.1. Theoretical background

#### 2.1.1. Organizational attractiveness

The creation of an organization's attractiveness is considered crucial to the successful recruitment of high-quality human resources. Scholars have introduced the concept of organizational attractiveness and examined this concept both empirically and theoretically in the last two decades. Integrating the definitions from past literature (e.g., Lievens, Van Hove, & Schreurs, 2005; Turban & Keon, 1993), we defined organizational attractiveness as applicants' willingness to pursue jobs and to accept job offers in an organization.

Turban, Forret, and Hendrickson (1998) addressed the importance of organizational attractiveness because any loss of highly qualified applicants may decrease the utility of the selection system. Besides studying the effects of individual behavior (e.g., recruiter behavior) or job related factors (e.g., job autonomy) on organizational attractiveness, the exploration of the importance of organizational factors in influencing organizational attractiveness has received attention from some scholars. For example, Turban (2001) investigated factors related to organizational attractiveness and found that organizational attractiveness was influenced by recruitment activities (e.g., corporate recruitment advertisements). However, these activities rarely disclose sufficient information about important organizational attributes with which applicants can try to evaluate a firm. As little is known by job applicants about organizational characteristics, the conjecture of individuals regarding conditions of employment is often based on subjective perceptions (Cable & Turban, 2001). Rynes (1991) labeled these perceptions 'organizational image' and argued that this concept may be used by job applicants who are trying to determine organizational attractiveness.

#### 2.1.2. The relationship between corporate image and organizational attractiveness

Applying ideas from marketing literature to the recruitment context, some research has posited that corporate image influences organizational attractiveness (Ehrhart & Ziegert, 2005). In the present paper, we treated corporate image as an organization-level construct. Previous recruitment research also considered corporate image to be individuals' shared perceptions of a given organization (e.g., Barber, 1998; Lemmink, Schuijff, & Streukens, 2003). These shared perceptions are associated with the name or property of the organization and are held by job seekers.

Therefore, in the present study, we do not consider corporate image a unique belief that each applicant holds toward an organization. Instead, we believe that corporate image exists at the organization-level and may lead to positive organizational attractiveness.

A variety of theoretical perspectives may serve to explain the influences of organizational characteristics on organizational attractiveness, and two such theoretical perspectives are social identity theory (Tajfel & Turner, 1985) and signaling theory (Breugh, 1992). In this research, we adopt these two major perspectives.

Social identity theory suggests that employees can obtain self-enhancement and social approval when they perceive the organization for which they work to be rather favorable. Individuals who mention the organization for which they work may consequently receive favorable recognition from others; alternatively, negative images may bring unfavorable comments from others and lead to depression and pressure (Ashforth & Mael, 1989). Empirical evidence also shows that firms with positive images have been considered to be more attractive employers and that corporate image has been positively related to applicants' intentions to pursue further contact (Gatewood, Gowan, Lautenschlager, & Mayfield, 1990).

In addition to adopting social identity theory to explain the effects of corporate image on organizational attractiveness, we use signaling theory to explain the aforementioned relationships. Applicants may infer employment environment from the behaviors of the company (Breugh, 1992) and interpret values and rules of the organization through their (i.e., the applicants') perceptions of these signals (Greening & Turban, 2000). Past research has showed that potential applicants' perceptions of corporate image come from corporate advertisements or from the applicants' own experiences of having used the goods or the services provided by the company (Gatewood, Gowan, & Lautenschlager, 1993; Lemmink *et al.*, 2003). Therefore, individuals may easily react or link information to companies whose images have been previously developed by the individuals (Brooks, Highhouse, Russell, & Mohr, 2003).

In the present study, we adopt the framework from marketing literature in explaining how images are perceived and evaluated when examining the links between corporate image and organizational attractiveness. At this point, we should note that the leverage of knowledge and research from the existing marketing literature is commonly accepted in the recruitment literature (Barber, 1998; Breugh, 2008). For example, Cable and Turban (2001) applied brand equity and brand knowledge concepts from marketing literature to developing a concept of employer knowledge. Lemmink *et al.* (2003) also adopted the framework of brand equity to study application intention. Moreover, both the purposes of marketing activities and the purposes of recruitment activities function to share specific information with individuals, to attract interest, and to persuade individuals to take

further action. Regarding organizations' attempts to attract individual targets and to shape their reaction to different sources of information, it should be reasonable to parallel the recruitment and marketing processes or theories (Cable & Turban, 2001).

According to Keller (2000), the most important associations that consumers perceive regarding a given company fall into one of four dimensions: product images (i.e., common product attributes, benefits, or attitudes), service images (i.e., people and relationships), citizenship images (i.e., value and programs related to social welfare), and credibility images (i.e., credibility and expertise). These images may also affect applicants if we consider these applicants to be potential consumers in the job market. Therefore, we propose four corporate image dimensions (corporate product image, corporate service image, corporate citizenship image, and corporate credibility image) and we test them in relation to organizational attractiveness.

*2.1.2.1. Corporate product image.* Keller (2000) argued that benefits or attributes associated with products may provide customers with crucial information in determining the images of the company. For example, high quality and innovativeness have been identified as important product-related attributes. When a firm presents to the public a high-quality product image, the firm normally enjoys competitive advantage. At the same time, such a firm may receive more attention and even earn positive appraisal from employees and potential applicants. In addition, organizations that are widely considered to be more innovative in product production may, by virtue of this perception, deliver a signal to applicants that the organizations search for and reward individuals who are willing to try to learn new knowledge and skills necessary for the implementation of innovative tasks. The applicants may also feel that the company desires to hire applicants of relatively high quality and offers considerable opportunity for employees' personal growth (Herman & Gioia, 2000). Thus, we propose the following hypothesis:

*Hypothesis 1:* Corporate product image will be positively related to organizational attractiveness.

*2.1.2.2. Corporate service image.* Keller (2000) pointed out that employee behavior is an important factor influencing customers' formation of favorable corporate images. Among the various types of such behavior, service related actions are particularly influential on customers' formation of positive impressions. A corporate service image represents an organization focusing on customer needs and feelings and emphasizes customer satisfaction. Similarly, the attention that employers pay to employees may be an important signal that applicants receive. When making job choice decisions, applicants look not only for a suitable employer but also for a future

partner (Herman & Gioia, 2000). Applicants may refer to their observation of employee and employer behaviors in order to determine whether or not a group of would-be future colleagues are amicable. An organization possessing both a group of customer-focused employees and an attentive employee-care program (e.g., an employee counseling program or workshop) will easily enhance positive images that customers as well as potential applicants have of the organization. Thus, we propose the following hypothesis:

*Hypothesis 2:* Corporate service image will be positively related to organizational attractiveness.

*2.1.2.3. Corporate citizenship image.* Environmentally sound or socially responsible corporate behaviors are the most popular ways for organizations to manage corporate citizenship images. Firms disclose their positive behaviors in media and in other public relation activities to obtain positive recognition from outsiders (Keller, 2000; Greening & Turban, 2000). Empirical evidence has revealed that large firms often consider their presentation of positive social values to be an important recruitment strategy (Highhouse, Hoffman, Greve, & Collins, 2002). Firms will conduct green marketing (e.g., The Body Shop's environmentally safe product lines) to create positive images of environmental protection, social welfare, and concern for community. In addition, employees are proud of this kind of corporate marketing activity and, as a result, are more committed to the firm (Keller, 2000). The recent ground swell of environmental protection concern has, for example, prompted applicants to consider environment-protecting companies to be an employer of choice. Thus, we propose the following hypothesis:

*Hypothesis 3:* Corporate citizenship image will be positively related to organizational attractiveness.

*2.1.2.4. Corporate credibility image.* Corporate credibility is highly related to company expertise and trustworthiness (Keller, 2000). When a firm is considered professional, people may normally associate such a professional impression with a group of elite employees in the firm. Because of the functioning of social identification, a positive image of expertise will attract applicants of high quality to the corresponding organization. Trustworthiness is the moral standard for a company and is one of the salient features for an employer of choice (Ahlrichs, 2000). Lack of trustworthiness will encumber the continuance of the business and may cause applicants to fear that their future work will be unstable and insecure. In contrast, a firm that is perceived to be trustworthy will be in a strong position to convince potential applicants that the firm treats its employees sincerely and fairly. Moreover, according to research in

social psychology, credibility is the best way to convince others and earn trust (e.g., Birnbaum & Stegner, 1979). Consequently, a firm with a high corporate credibility image will have a pronounced ability to attract relatively high-quality applicants. Thus, we propose the following hypothesis:

*Hypothesis 4:* Corporate credibility image will be positively related to organizational attractiveness.

## 2.2. Methods

### 2.2.1. Participants and procedures

In this study, the outcome variable, organizational attractiveness, is an individual-level variable. Corporate image dimensions are conceptualized as organization-level variables. As indicated by Perkins, Thomas, and Taylor (2000), industry type would influence the relationship between corporate image and applicant job decisions. We therefore restrict our organization samples to one industry, the banking industry in Taiwan. The initial organization sample consisted of 45 domestic banks and 38 foreign-owned banks. According to Dowling (1988), a prerequisite for the formation of corporate image was that the applicants should be able to recognize the names of the firms. Thus, we dropped banks that did not offer commercially consumable products and followed Turban and Greening (1997) to conduct the pretest. The names of banks recognized by the pretest participants (graduate students in management) were kept in the sample; as a result, 40 organization samples were included in Study 1.

In order to understand applicants' perceptions on corporate image and organizational attractiveness of these banks, we invited 308 senior undergraduate and 52 graduate students from six business schools in Northern Taiwan to participate in this study. Forty-nine percent of the participants were female, 85% were senior undergraduate students, and their mean age was 22. The use of student participants was deemed appropriate because the students were active job seekers at the time of the data collection. To avoid the possibility of same source bias (Podsakoff & Organ, 1986), we did not request that participants respond to all survey items. Instead, we referred to Gatewood *et al.* (1993) by dividing participants into several groups so that each group assessed only one of the major research variables (i.e., corporate image dimensions and organizational attractiveness) relative to 40 banks. With respect to the operationalization of the corporate image dimensions, we assessed the agreement among the participants in each group. As the obtained agreement reached the acceptable level, these individual scores were aggregated to the organization level. Moreover, following Turban and Greening (1997), questionnaires in which more than two-thirds of the questions were not answered (e.g., subjects did not

identify a bank's image or a bank's attractiveness) were dropped (average dropping rate = 18%).

We conducted a series of statistical analyses to ensure that no differences would exist among the raters of corporate image dimensions and organizational attractiveness. The results show that there was no significant difference in age (average  $t = 1.52$ , all  $p > .05$ ), gender (average  $\chi^2 = .76$ , all  $p > .05$ ), education (average  $\chi^2 = .87$ , all  $p > .05$ ), or major (average  $\chi^2 = 1.03$ , all  $p > .05$ ) among the respondents of the questionnaires in each corporate image dimension and in organizational attractiveness, indicating that the scores of the image dimensions still remain similar even if the actual respondents were those who rated organizational attractiveness.

## 2.2.2. Measures

### 2.2.2.1. Corporate image dimensions.

Each dimension was measured with a semantic differential scale with seven options (1 = strongly disagree, 6 = strongly agree, and 0 = not identifiable). The score of each dimension was obtained from the sum of each respondent's average rating of the items divided by the total number of respondents. When the respondent could not answer the item for a particular bank, it was not included in the scoring procedure (Turban & Greening, 1997).

Following the definitions proposed by Keller (2000), two items were constructed to measure *corporate product image* (i.e., product quality and innovativeness). Of the 84 usable questionnaires (response rate = 82.4%), 43 (51.19%) were males, 71 (84.52%) were undergraduate students, and the mean age of the questionnaires' respondents was 22.26. The Cronbach's  $\alpha$  for the measure was .91 in this study. The mean interrater agreement (Lindell, Brandt, & Whitney, 1999) was .73 ( $SD = .074$ ), indicating that the aggregation of data to the organization level is justifiable.

To measure *corporate service image*, one single item was used (i.e., customer orientation) following the definition proposed by Keller (2000). Of the 84 usable questionnaires (response rate = 82.4%), 43 (51.19%) were males, 71 (84.52%) were undergraduate students, and the mean age of the questionnaires' respondents was 22.26. The mean interrater agreement was .69 ( $SD = .78$ ), indicating that the aggregation of data to the organization level is justifiable.

Three items were constructed based on the definition of *corporate citizenship image* proposed by Keller (2000). Respondents were asked to evaluate the performance concerning community development, commonwealth, and environmental protection. Of the 65 usable questionnaires (response rate = 67%), 34 (52.31%) were males, 54 (83.07%) were undergraduate students, and the mean age of the questionnaires' respondents was 22.14. The Cronbach's  $\alpha$  for the measure was .97 in this study. The mean interrater agreement was .89 ( $SD = .006$ ), indicating that the aggregation of data to the organization level is justifiable.

Three items adopted from Goldberg and Hartwick (1990) were used to measure *corporate credibility image* (i.e., reliability, trustworthiness, and expertise). Of the 87 usable questionnaires (response rate = 88.8%), 43 (49.43%) were males, 75 (86.21%) were undergraduate students, and the mean age of the questionnaires' respondents was 22. The Cronbach's  $\alpha$  for the measure was .97 in this study. The mean interrater agreement was .77 ( $SD = .025$ ), indicating that the aggregation of data to the organization level is justifiable.

### 2.2.2.2. Organizational attractiveness.

Organizational attractiveness was measured at the individual level, in line with the measurements used by Collins and Stevens (2002) and Lievens *et al.* (2005). Three items from Turban and Keon (1993) and Highhouse *et al.* (1999) were used to measure an applicant's willingness to pursue jobs in an organization. Items include: 'I'd prefer a job there over a job in most other commercial banks,' 'If I were looking for a job in commercial banks, a job there would be very appealing,' and 'If I were looking for a job in commercial banks, I would have strong motivation to apply for a job there.' Subjects were asked to base their responses on six-point Likert scale (1 = strongly disagree, 6 = strongly agree). Of the 124 usable questionnaires (response rate = 82.1%), 63 (50.81%) were males, 107 (86.29%) were undergraduate students, and the mean age of the questionnaires' respondents was 22.15. The Cronbach's  $\alpha$  for the measure was .99.

### 2.2.2.3. Control variables.

Turban and Greening (1997) indicated that firms with larger size and higher profits were generally more familiar to the public. Evidence suggests that the more profitable a firm is, the more favorable publicity and the more positive recognition the firm will receive (Turban & Greening, 1997). Therefore, we included firm size and profitability as control variables. Following Barber, Wesson, Roberson, and Taylor (1999), we used the number of employees to represent firm size. We measured firm profitability by using the previous financial year's index of return on assets (ROA). Data on firm size and profitability were log transformed for further analysis.

In addition, according to the survey conducted by *Cheers Magazine* (2005), a well-known publication for industry-wide surveys in Taiwan, college graduates (especially students in schools of business, liberal arts, and law) have preferred working in foreign-owned rather than domestic firms. It seems that foreign-owned firms were perceived to be better workplaces. Thus, we included foreign-owned firm as the third control variable. In addition, we also included two individual-level variables, applicant gender and applicant age, as control variables. The foreign-owned firm variable was dummy coded (1 = foreign-owned firms, 0 = others). Data concerning foreign-owned firm, number of employees, and ROA

were all obtained from the industry surveys of *Cheers Magazine* (2005).

### 2.2.3. Data analysis

A confirmatory factor analysis (CFA) was conducted to examine the dimensionality of the corporate image construct. Moreover, the model tested in the present study was hierarchical, with the dependent variable (organizational attractiveness) being an individual-level construct, and the independent variables and the control variables were at the organizational level. Therefore, we adopted hierarchical linear modeling (HLM, Raudenbush & Bryk, 2002) to test the model. We entered organizational attractiveness (the dependent variable) and individual demographics into the level 1 analysis. In the level 2 analysis, we included the corporate image dimensions while controlling for the three organization-level control variables.

## 2.3. Results and discussion

Table 1 shows the means, standard deviations, and intercorrelations of all variables in Study 1. There were significant negative correlations between individual-level organizational attractiveness, applicant gender, and applicant age ( $r = -.06, -.08$ , all  $p < .01$ ). Moreover, corporate product image, corporate service image, corporate citizenship image, and corporate credibility image were significantly correlated ( $r$  ranged from .60 to .99, respectively, all  $p < .01$ ). In addition, two organization-level control variables, foreign-owned firm and corporate profitability, were positively related to corporate service image ( $r = .45$  and  $.32$ , all  $p < .01$ ). Furthermore, firm size was significantly related only to corporate citizenship image ( $r = .36$ ,  $p < .05$ ).

A CFA using maximum likelihood estimation showed that the corporate image data fit the four-factor structure at a moderately acceptable level ( $\chi^2 = 94.30$ ,  $df = 21$ ,

$p < .01$ , CFI = .90, NFI = .87, and RMSR = .04). Moreover, the fit of this four-factor model was also compared with the fit of 12 alternative models (i.e., a null model, a one-factor model, six different two-factor models, and four three-factor models). However, the fit of one competing model (three-factor model, with corporate product image and corporate service image combined) was significantly better than the fit of any alternative model, which indicates that the proposed four-factor structure solution was not supported. Therefore, we combined corporate product image and corporate service image into one construct, named it 'combined product image,' and conducted the CFA analysis again. The results provided support for the three-factor structure solution ( $\chi^2 = 74.93$ ,  $df = 24$ ,  $p < .01$ , CFI = .91, NFI = .90, and RMSR = .04).

The factor loadings ranged from .56 to .88 with an average loading of .70. This provided evidence of adequate convergent validity of the constructs: all loadings were statistically significant and positive (Bagozzi & Yi, 1988). Furthermore, we assessed discriminant validity by constraining inter-construct correlations in the measurement model to unity one at a time and by measuring the difference in the chi-square statistic (Anderson & Gerbing, 1988). The results show that all changes in chi-square (ranging from 94.29 to 358.79,  $\Delta df = 1$ ) were significant at the .01 level; hence, discriminant validity was achieved.

Furthermore, we performed a series of HLM analyses to test the influences of combined product image, citizenship image, and credibility image on organizational attractiveness. As reported in Table 2, both combined product image ( $\gamma = .31$ ,  $p < .01$ ) and credibility image ( $\gamma = .32$ ,  $p < .01$ ) demonstrated significant relationships with organizational attractiveness, along with citizenship image ( $\gamma = .16$ ,  $p = .08$ ) showing a marginally significant relationship with organizational attractiveness. Therefore, Hypotheses 1, 2, 3, and 4 were supported.

Table 1. Means, standard deviations, and correlation matrix among variables<sup>a</sup>

Variable	Mean	SD	1	2	3	4	5	6	7	8
Level 1: Individual level										
1. Organizational attractiveness	3.26	1.42	(.99)							
2. Applicant gender <sup>b</sup>	1.49	.50	-.06**	(-)						
3. Applicant age	22.15	1.73	-.08**	-.12**	(-)					
Level 2: Organizational level										
1. Corporate product image	3.43	.74	(.91)							
2. Corporate service image	3.44	.78	.96**	(-)						
3. Combined product image	3.43	.75	.99**	.98**	(.96)					
4. Corporate citizenship image	2.94	.55	.64**	.61**	.63**	(.97)				
5. Corporate credibility image	3.60	.80	.75**	.75**	.76**	.66**	(.97)			
6. Foreign-owned firm	.15	.36	.43**	.45**	.44**	-.06	.48**	(-)		
7. Firm size <sup>c</sup>	7.42	.69	-.09	-.09	-.09	.36*	.22	-.35*	(-)	
8. Corporate profitability <sup>c</sup>	-.81	1.28	.27	.32**	.32	.19	.45*	.33	.12	(-)

Notes: <sup>a</sup> $n$  (Level 1) = 124;  $n$  (Level 2) = 40. Values in parentheses are Cronbach's  $\alpha$ . <sup>b</sup>Coded as male = 1; female = 2. <sup>c</sup>Firm size and corporate profitability have been log-transformed for further analysis. \* $p < .05$ . \*\* $p < .01$ .

Table 2. Hierarchical linear modeling results for organizational attractiveness in study 1<sup>a</sup>

	Model 1		Model 2	
	$\gamma$	p-value	$\gamma$	p-value
Level 1				
Intercept	3.27	.00	3.27	.00
Applicant gender	-.19	.00	-.19	.00
Applicant age	-.08	.00	-.08	.00
Level 2				
Control variables				
Foreign owned	.81	.00	.60	.00
ROA	.14	.03	.07	.00
Firm size	.19	.08	.04	.53
Independent variables				
Combined product image			.31	.00
Citizenship image			.16	.08
Credibility image			.32	.00
Level 2 residual intercept variance ( $\tau_{00}$ )	.24		.03	
Pseudo $R^2_{\text{Level 2}}$ for intercept <sup>b</sup>	.46		.88	

Notes: <sup>a</sup> $n$  (Level 1) = 124;  $n$  (Level 2) = 40. <sup>b</sup> $R^2_{\text{Level 2}}$  for intercept =  $(\tau_{00}$  of null model -  $\tau_{00}$  of current model) /  $\tau_{00}$  of null model.

### 2.3.1. Post hoc analysis

Given the concerns that each corporate image dimension seems to have a similar effect, one may suggest that a division of the corporate image construct into different dimensions is an unwise practice. In order to further clarify the effects of corporate image dimensions on organizational attractiveness, a post hoc analysis was conducted. We conducted the incremental validity test by using HLM to determine whether or not each image dimension may explain additional variance on organizational attractiveness. The results show that although product image is significantly related to organizational attractiveness, both citizenship and credibility image alone can explain additional variances of organizational attractiveness above and beyond that of product image (pseudo  $R^2$  for adding citizenship image and credibility image to the model respectively = .20 and .25<sup>1</sup>). Furthermore, the three corporate image dimensions all have significant effects on organizational attractiveness. In past literature, product image has been identified as an influential corporate image dimension (e.g., Highhouse et al., 1999; Lemmink et al., 2003). The present study provides evidence for offering new dimensions of corporate image (i.e., citizenship and credibility image) that actually can provide additional variances in predicting organizational attractiveness. Thus, it seems that three of the corporate image dimensions tested in Study 1 somehow have different effects on organizational attractiveness.

In conclusion, three corporate image dimensions (product image and service image have been combined) were all positively related to organizational attractiveness, even

after controlling for five control variables. The findings of Study 1 are also consistent with prior research, which suggested that image relevant to product is one important discriminant factor of organizational attractiveness (see Highhouse et al., 1999). Moreover, along with Turban and Greening's (1997) findings, it appears that images about organizations engaging in environmental protection and community service may result in positive applicant attractiveness.

However, some unsolved issues should be noted. First, in this study we asked respondents to provide their attraction rating for each bank. In reality, however, applicants may simultaneously apply for jobs in different industries. Unlike previous research that examined the industry effect on organizational attractiveness (e.g., Cable & Graham, 2000), the present study adopted the suggestion by Highhouse et al. (1999) regarding the effectiveness of a single-industry focus. We believe it should be easier for respondents to provide their ratings on same-industry firms. However, future research should further examine the effects of industry type on corporate image to add knowledge in this research area.

Second, although we have controlled for some firm-level variables (e.g., firm size), we did not include additional factors known to affect organizational attractiveness. For example, job seekers' perceived person-organization fit has been recognized as an important individual-level antecedent of organizational attractiveness (Kristof-Brown, Zimmerman, & Johnson, 2005). Moreover, Highhouse et al. (2007) noted the need to examine the moderating roles of individual difference variables when studying the influences of organizational factors on organizational attractiveness. Unfortunately, such individual variables were not discussed in Study 1.

Finally, we found that corporate product image and corporate service image were highly correlated. Therefore, to facilitate further analysis, we combined the two images into one variable on the basis of the results of CFA. However, the original framework of corporate image proposed by Keller (2000) contains four corporate image dimensions. The results of Study 1 could not provide further information about the unique effect of corporate service image on organizational attractiveness.

To clarify the unanswered questions in Study 1, we decided to conduct Study 2 to address these issues. For example, the highly overlapping constructs of corporate product image and corporate service image might be due to the mixed nature of the bank-provided products and services. Thus, in Study 2, we examined the image-attractiveness relationship under a four-dimension corporate image structure using another industry target, the computer manufacturing industry, to help determine the effects of industry type.

Moreover, we examined in Study 2 the moderating effects of individual difference variables on the image-attractiveness relationship. To enhance the clarity of the

causal relationship among proposed variables, we tested the hypotheses by using an experimental design.

### 3. Study 2

#### 3.1. Theory

In Study 2, we examined the relationships tested in Study 1 and also included possible moderators to draw a clearer picture of how corporate image influences organizational attractiveness. We first tested the original image dimensions in Keller (2000) in a different industry (i.e., the computer manufacturing industry). We thought that in the computer manufacturing industry it may be easier to differentiate product image from service image than it would be in the service industry. Moreover, manufacturing industry companies may release more information about themselves to the public owing to these companies' need either to accelerate the transfer of technology or to meet government regulations. Thus, the applicants may acquire relevant information easily. We then chose the computer manufacturing industry as our target in examining the relationships among corporate image dimensions and organizational attractiveness; and the hypotheses proposed in Study 1 were tested again in this study.

Individuals may perceive a certain corporate image dimension in different ways. That is, individual differences may interact with corporate images in affecting organizational attractiveness. We consider three applicant individual difference variables (i.e., need for affiliation, environmental sensitivity, and materialism) to be possible factors that may moderate the relationship between corporate image dimensions and organizational attractiveness. The hypotheses of moderating effects were formulated as follows.

##### 3.1.1. Need for affiliation

Need for affiliation, defined as the need to establish friendly and sociable relationships with others, represents activity-engagement behaviors that develop a direct relationship between the person engaging in the behavior and others (McClelland, 1987). People who prioritize affiliation treat the maintenance of companionship or membership as an important daily task and may seek contexts facilitating a stable relationship with others (Wiesenfeld, Raghuram, & Garud, 2001).

Organizations that do not directly satisfy people heedful of affiliation needs are organizations that, for example, fail to establish work rules conducive to friendly and sociable environments. If an organization is concerned about its relationships with its customers and employees, a spillover effect may lead to an inference that the organization is willing to provide a positive and stable environment for social personal interaction. An organization's possession of a positive corporate service image

may constitute a strong signal persuading applicants that the organization promotes maintenance of preferred human relationships.

As the organization devotes itself to maintaining desirable connections with different stakeholders, the organization may appreciate interactive employee behavior involved in daily work. Applicants who highly value affiliation may be more desirous of working within such a supportive organization than would applicants who do not assign so high a value to affiliation. Thus, we propose the following hypothesis:

*Hypothesis 5:* Job applicants who score high on need for affiliation will be more attracted to organizations with high corporate service image.

##### 3.1.2. Environmental sensitivity

Environmental sensitivity represents a person's concern for the environment. The specific concerns that individuals hold for the environment may affect their personal decisions (Chawla, 1998). For example, Berger and Kanetkar (1995) found that individuals were influenced by the environmental attributes and individuals' experiences with allegedly environmentally sound products could moderate the relationship between these individuals' perceptions of the brand and their purchasing behaviors. Moreover, individuals who rate highly on environmental sensitivity might be more attentive to organizations' efforts to protect the environment and might be more likely to act in ways that support these organizations. With their emphases on environmental protection and socially responsible behavior, organizations with a positive corporate citizenship image demonstrate their willingness to serve other members of the society (Donaldson & Preston, 1995).

Following this vein, applicants with higher environmental sensitivity may have greater desire to recognize these efforts; however, applicants with lower environmental sensitivity may see the efforts as unnecessary for organizational operation. Overall, the more environmentally sensitive the applicants are, the more likely they are to believe that organizations with a good corporate citizenship image will benefit the applicants. Thus, we propose the following hypothesis:

*Hypothesis 6:* Job applicants who score high on environmental sensitivity will be more attracted to organizations with high corporate citizenship image.

##### 3.1.3. Materialism

According to Richins and Dawson (1992), the concept of materialism refers to the belief that acquisition of possessions is a necessary or desirable form of conduct relative to the end state of happiness. Regarding the concepts proposed by Richins (2004), the amount and the quality of



accumulated possessions may be the standard by which materialists judge the success of other people. Individuals may draw inferences about, and evaluate other people in terms of the value of these other people's possessions. Similarly, companies that enjoy a high-quality product image may acquire the reputation, among materialists, as being highly successful because a high-quality product image may represent the companies' possession of invisible assets (Aaker, 1991).

Moreover, Clark and Micken (2002) found that possessions with publicly accessible meaning are important to pronounced materialists. Organizations that appear to adequately maintain corporate credibility may, consequently, exhibit expertise and trustworthiness valuable to members and stakeholders of the organizations. As operations of the organization receive wide recognition, materialists may infer that the organization is in continuous possession of highly valuable visible and invisible assets. These inferences may persuade materialists to form, maintain, or strengthen a sense of distinctiveness about the firm (Kreiner, Hollensbe, & Sheep, 2006). Such a perception may enhance the associations toward a future employer as the materialists are looking for the jobs.

In general, if job applicants rate high as materialists, the organizations that enjoy a positive product image and a positive credibility image may be more attractive to this population. Thus, we propose the following hypotheses:

*Hypothesis 7a:* Job applicants who score high on materialism will be more attracted to organizations with high corporate product image.

*Hypothesis 7b:* Job applicants who score high on materialism will be more attracted to organizations with high corporate credibility image.

## 3.2. Methods

### 3.2.1. Participants

Data were collected from the final year student applicants and from the experienced employees in Study 2. Of the 962 individuals contacted, 745 (77%) responded and completed our questionnaire. To ensure that these participants either were actually involved in a job search process or would pursue a job in the near future, we asked all would-be participants one question that would eliminate anybody not planning to search for a job. This step resulted in 538 participants involved in the present study (including 429 final year students and 109 experienced employees), yielding a response rate of 72%. For this sample, the mean age was 25.3 years and 67.5% were male.

### 3.2.2. Procedures

For the reasons mentioned earlier, we selected the computer manufacturing industry as the target industry

in Study 2. Questionnaires were distributed to final-year undergraduate and graduate students in class at eight universities and to experienced employees from eleven companies in Taiwan. After filling out the first section of the questionnaire containing items related to individual difference variables and demographic information, the participants were randomly assigned to one of 16 recruitment scenarios. Participants were instructed to adopt the role of an applicant (the instructions provided general information about the conditions of organizations and job vacancy) and then to read a half page featuring written comments purported to have been made in a famous business magazine regarding a computer manufacturing company. After reading the comments, the participants completed the designated questionnaire including items related to organizational attractiveness and the manipulation checks. Participation was voluntary and anonymous.

To minimize concerns about the effects of different participant-group characteristics, we conducted a series of analyses to ensure there were no statistical differences in the demographic profiles between students and experienced employees. The results showed that, except for age and *willingness to apply* (i.e., applicant willingness to apply for jobs *in the near future*), there was no significant difference in either gender ( $\chi^2 = .67, p > .05$ ) or another application willingness variable, 'willingness to apply for jobs *in the computer manufacturing industry*' ( $F = .71, p > .05$ ). Therefore, the two variables (i.e., age and *willingness to apply*) were statistically controlled in this study.

### 3.2.3. Independent variable manipulations

We manipulated four types of corporate images (i.e., corporate product image, corporate service image, corporate citizenship image, and corporate credibility image) by changing the information attributable to the magazine's various images of corporations. Referring to previous research, we took an approach similar to the approach for testing the effects of different organizational characteristics on individuals (e.g., Aquino, Tripp, & Bies, 2006; Lievens *et al.*, 2005).

We used a  $2 \times 2 \times 2 \times 2$  between-subject factorial design, which thus formed 16 scenarios. We created corporate image stimuli based on real company image information disclosed in mass media. The stimuli were further revised by three senior marketing and HR managers and two I-O psychology professors. It should be noted that for each of the manipulated corporate image variables, one dummy variable was created (0 = 'low image,' 1 = 'high image'). The following is a sample of image manipulation (the level of the manipulated image stimuli is in brackets).

This company has committed itself to providing nothing but world-class high-quality products to its customers. It also keeps developing a broad range of innovative and high-performance products boasting all the latest

features and practical functionality [*high corporate product image*]. In serving and supporting customer needs, this company maintains quality services and also sustains a culture of continuous improvement to ensure customer satisfaction. Well-established training programs and communication channels for employees greatly improve and strengthen the company's services [*high corporate service image*]. We found that this company uses resources and handles waste efficiently. Its present facilities are certified for ISO-9001 and ISO-14001 international standards to ensure workplace safety and environmental protection. The company has also devoted itself to community activities, helping people in need, and is dedicated to becoming a leading corporate citizen through active sponsorship of educational, charitable, and cultural activities in Taiwan [*high corporate citizenship image*]. Committed to premium professional performance, the company has received industry-wide recognition and is considered trustworthy and reliable by customers. It has also been awarded the National Excellence Award for expertise in operations. These accomplishments elevate the company's reputation among customers and vendors alike [*high corporate credibility image*].

### 3.2.4. Measures

**3.2.4.1. Need for affiliation.** We used a five-item scale adapted from Steers and Braunstein (1976) to assess this construct. Reviewing past research, we found that a comparatively low  $\alpha$  for the five-item need for affiliation measure indicated the need to increase the number of items. Thus, we added two items. Subjects were asked to indicate their agreement using a six-point Likert scale (1 = *strongly disagree*; 6 = *strongly agree*). A sample item is 'I enjoy belonging to groups and organizations.' The coefficient  $\alpha$  was .81 for this seven-item measure.

**3.2.4.2. Environmental sensitivity.** We measured this construct by using a 15-item scale adopted from Berger and Kanetkar (1995). The original scale in Berger and Kanetkar (1995) contained 20 items. However, five items concern specific consumer behavior (e.g., consumer interests and environmentally sound product characteristics) or law regulation. Thus, these items were removed. Two sample items used in the present study are 'Pollution is presently one of the most critical problems facing this nation' and 'Natural resources must be preserved even if people must do without some products.' Subjects were asked to indicate their levels of agreement using a six-point Likert scale (1 = *strongly disagree*; 6 = *strongly agree*). The Cronbach's  $\alpha$  for this 15-item measure was .84 in the present study.

**3.2.4.3. Materialism.** Following the recommendation of Richins (2004), we used a revised shorter version of the Material Values Scale (MVS; Richins & Dawson, 1992) to measure how respondents rated the degree to which

they rated both possessions and acquisition of possessions as necessary or desirable in reaching goals. According to Richins (2004), the shorter version of the MVS is designed to assess the construct at a general level and has good psychometric properties. Therefore, we adopted the nine-item scale to measure materialism. Two sample items are 'I admire people who own expensive homes, cars, and clothes' and 'The things I own say a lot about how well I'm doing in life.' Respondents were asked to indicate their levels of agreement using a six-point Likert scale (1 = *strongly disagree*; 6 = *strongly agree*). The Cronbach's  $\alpha$  for this measure was .79 in the present study.

**3.2.4.4. Organizational attractiveness.** We used the three items from Study 1 to measure applicants' willingness to pursue jobs in an organization; however, we revised the wording about industry information. The Cronbach's  $\alpha$  for this measure was .90 in the present study.

**3.2.4.5. Control variables.** Willingness to apply for jobs in the near future was controlled. Subjects were asked to state whether or not they were going to apply for a job in the near future (1 = *Yes, I plan to apply for a job in three months*, 4 = *No, I'm not planning on applying for a job in the near future*). And for the same reason described earlier, we controlled for age.

**3.2.4.6. Image manipulations.** We included 10 items that assessed whether or not the participants differed from one another regarding their perceptions of the described organization's corporate image dimensions (two items each for product and service image, and three items each for citizenship and credibility images). We adopted these items chiefly from Study 1, but we added one item about corporate service image (i.e., employee concerned-less employee concerned). For the 'corporate credibility image' dimension, we used three items: 'unreliable-reliable,' 'deceitful-trustworthy,' and 'amateurish-expert.' On a six-point semantic differential scale, individuals rated the extent to which these adjectives described the manipulated company. The similar approach has been adopted in previous studies (e.g., Smidt, Pruyn, & Van Riel, 2001).

## 3.3. Results and discussion

To test whether or not the four corporate images were successfully manipulated, we conducted a series of *t*-tests. The results showed that the company possessing a high rating for corporate product image received significantly higher ratings from the participants (mean = 4.56, *SD* = .91) than did the company possessing a low rating for corporate product image (mean = 3.65, *SD* = .96;  $t[536] = 10.07, p < .01$ ). Second, the company possessing a high rating for corporate service image received significantly higher ratings from the participants (mean = 4.50,

Table 3. Means, standard deviations, and correlations for the variables in study 2<sup>a</sup>

Variables	Mean	SD	1	2	3	4	5	6
1. Organizational attractiveness	3.92	1.03	(.90)					
2. Need for affiliation	4.95	.52	.10***	(.81)				
3. Environmental sensitivity	4.67	.54	.12***	.21***	(.84)			
4. Materialism	3.77	.71	.07	.12***	-.11***	(.79)		
5. Applicant age	25.32	3.37	.01	-.00	.05	-.09*	-	
6. Willingness to apply	1.59	.76	.02	.07	.01	-.04	.23***	-

Notes: <sup>a</sup>*n* = 538. Alpha coefficients appear on the diagonal in parentheses. \**p* < .05. \*\*\**p* < .01.

Table 4. Results of regression analysis of organizational attractiveness in study 2<sup>a</sup>

Variables	Model 1	Model 2	Model 3
Control			
Age	.00	-.02	-.02
Willingness to apply	.02	.03	.04
Corporate image			
Corporate product image (X1)		.13**	.14**
Corporate service image (X2)		.04	.05
Corporate citizenship image (X3)		.09*	.09*
Corporate credibility image (X4)		.08 <sup>+</sup>	.07
Moderators			
Need for Affiliation (Naff)		.06	.10 <sup>+</sup>
Environmental sensitivity (En)		.14***	.00
Materialism (Ma)		.08 <sup>+</sup>	.02
Interactions			
X2 × Naff			-.08
X3 × En			.18***
X1 × Ma			.07
X4 × Ma			.02
R <sup>2</sup>	.00	.06**	.08**
ΔR <sup>2</sup>		.04**	.05*

Notes: <sup>a</sup>*n* = 538. <sup>+</sup>*p* < .10. \**p* < .05. \*\**p* < .01.

*SD* = .96) than did the company possessing a low rating for corporate service image (mean = 4.04, *SD* = .94; *t*[536] = 5.60, *p* < .01). Third, the company possessing a high rating for corporate citizenship image received significantly higher ratings from participants (mean = 4.68, *SD* = .83) than did the company possessing a low rating for corporate citizenship image (mean = 3.98, *SD* = .94; *t*[536] = 9.14, *p* < .01). Finally, the company possessing a high rating for corporate credibility image received significantly higher ratings from participants (mean = 4.50, *SD* = .81) than did the company possessing low ratings for corporate credibility image (mean = 4.13, *SD* = .87; *t*[536] = 4.42, *p* < .01). On the basis of these results, we deemed that the manipulations of corporate image variables had been successful.

The descriptive statistics and the correlations among variables are reported in Table 3.

To test the hypotheses, we regressed corporate product image, corporate service image, corporate citizen-

ship image, and corporate credibility image on organizational attractiveness, after controlling for applicant age and willingness to apply for jobs. The results are presented in Table 4.

In model 2, four corporate image variables and three moderators were added to the regression. With respect to corporate product image (X1), we found that organizations possessing high ratings for corporate product image (X1) were more likely to attract the potential applicants ( $\beta = .13$ , *p* < .01), providing support for Hypothesis 1. We also found that organizations possessing high ratings for corporate citizenship image (X3) were more likely to attract the potential applicants ( $\beta = .09$ , *p* < .05), providing support for Hypothesis 3. As shown in model 2, corporate credibility image (X4) was positively associated with organizational attractiveness ( $\beta = .08$ , *p* = .06), providing some support for Hypothesis 4. Corporate service image (X2) was not significantly associated with organizational attractiveness ( $\beta = .04$ , *p* > .10), disconfirming Hypothesis 2. Moreover, the three moderating variables – need for affiliation (Naff), environmental sensitivity (En), and materialism (Ma) – were also added to the regression in model 2. As shown in Table 4, the standardized regression weight was significant only for environmental sensitivity ( $\beta = .14$ , *p* < .01).

In model 3, we performed a moderated regression in which we added the predictors the four possible two-way interaction terms about need for affiliation (i.e., X2 × Naff), environmental sensitivity (i.e., X3 × En), and materialism (i.e., X1 × Ma and X4 × Ma). To counter multicollinearity problems in our testing of the interaction terms, we centered all moderating variables before creating the interaction terms (Jaccard, Turrisi, & Wan, 1990). The interaction terms accounted for a significant amount of unique variability in organizational attractiveness ( $\Delta R^2 = .05$ , *p* < .05). As shown in Table 4, the interaction of X2 × Naff was not significant in relation to organizational attractiveness, thereby disconfirming Hypothesis 5. Furthermore, there were insignificant two-way interactions between X1 × Ma and X4 × Ma, thereby disconfirming Hypothesis 7a and Hypothesis 7b.

There was a significant two-way interaction between environmental sensitivity and corporate citizenship image ( $\beta = .18$ , *p* < .01). To better understand the form of the moderating effect, we followed Aiken and West (1991)

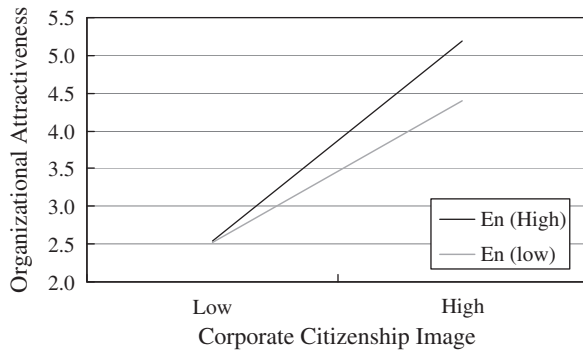


Figure 1. The interactive effect of environmental sensitivity and corporate citizenship image on organizational attractiveness.

and Cohen and Cohen (1983) and drew an interaction-effect plot. As shown in Figure 1, the positive relationship between corporate citizenship image and organizational attractiveness was stronger when applicants rated high on the environmental sensitivity scale, providing support for Hypothesis 6.

The results of Study 2 indicate that corporate product image, corporate citizenship image, and corporate credibility image are related to applicant organizational attractiveness; and applicant environmental sensitivity moderates the relationship between corporate citizenship image and organizational attractiveness. However, we found an unexpected insignificant relationship between corporate service image and organizational attractiveness. One possible reason is that individuals tend to embellish service-relevant performances when they have pre-established positive images toward the organizations (Martinez & Pina, 2005). The effect of corporate service image may be embedded in other corporate image dimensions and may, for this reason, have exhibited no unique influence on attractiveness.

In addition, our data did not support the hypotheses regarding the moderating effects of materialism. One possible explanation is that the applicants who rated high on the materialism scale may have perceived high quality and innovativeness (corporate product image) or trustworthiness and expertise (corporate credibility image) as being subtle symbolic attributes, not as being obvious evaluable attributes. According to Lievens and Highhouse (2003), symbolic attribute to attractiveness reflects an individual's self-identity or the individual's desire to express deeply personal thoughts. Even though materialists may be inclined to assign symbolic meanings to these images, symbolic meanings do not guarantee the success of organizations. A similar rationale may apply to the insignificant finding in the moderating effect on corporate credibility image. Applicants who rate low on the materialism scale may also notice the influences of a strong corporate credibility image, whereas applicants who rate high on the materialism scale may appreciate the professional and reliable performance of the organiza-

tion but not relate such performance to their material preferences.

One limitation in Study 2 is that much of the data derived from student participants. As the research focus was to examine how corporate image influenced potential applicants' levels of attractiveness, the data should have reflected an authentic applicant population. While much past research has used the student sample to examine how various organizational characteristics affected job applicants (e.g., Cable & Judge, 1996), it has been suggested that more research should use real applicant samples or experienced workers in studying the effects of organizational characteristics on recruitment outcomes (Ployhart, 2006). While we made an effort to collect data from experienced workers in Study 2, we finally combined student samples and experienced employee samples owing to the relatively small sample size on employees. However, while combining the student participants and the experienced employee participants, we performed statistical analyses to ensure that there was no significant difference between the characteristics of each of the two groups.

Another limitation of Study 2 concerns our decision to use a relatively lenient standard (i.e.,  $\alpha = .10$ ) when testing the main effects of corporate image in model 2 of the regression analysis. According to Murphy and Myers (2003), if we make it very difficult to reject the null hypothesis in order to minimize Type I errors, the possibility of the occurrence of Type II errors may increase at the same time. Considering the comparatively smaller effect sizes ( $d$  values ranged from .03 to .14<sup>2</sup>) of the corporate image dimensions, we believed that the use of a more lenient  $\alpha$  may help ensure the statistical power of the study.

#### 4. General discussion

In the present paper, we examined the effects of corporate image dimensions on organizational attractiveness, specifically taking into account the effects of applicant individual differences. As expected, we found that corporate images relevant to product, social and environmental responsibility, and credibility are important determinants of organizational attractiveness, and this is generally true in both service and manufacturing industry contexts. Across the two studies, we uncovered an interesting finding concerning the effect of corporate service image. Originally, corporate service image and corporate product image were treated separately in Keller's (2000) model of corporate image. In Study 1, we combined the two images owing to high correlation: organizational attractiveness was affected by the combined product image, but we could not determine which specific image dimension caused or contributed to the significant influence on organizational attractiveness.

However, the results of Study 2 indeed show that corporate product image may be the major cause of the aforementioned significant relationship in Study 1, considering the insignificant result of corporate service image in Study 2.

One possible explanation is rooted in the prior research on corporate communication and advertising. For example, research has shown that individuals considered prints and ads, placed by organizations, to be the least credible source of information (Cable & Yu, 2006). And according to Van Hove and Lievens (2005), applicants place relatively little importance on the recruitment-information sources that organizations strongly influence. In contrast to other corporate images, service image seems to involve perceptions of many regulatory behaviors and work-required performances that organizations control relatively easily. In the manufacturing industry, where most product production and customer service operations are separate, applicants may rather clearly discern information relevant to after-sales or maintenance services. While comparing multiple information sources in order to choose a future employer, applicants may naturally ignore information thought to be lacking in credibility. As a result, applicants may not consider corporate service image to be important to their assessments of organizational attractiveness.

In the present paper, the proposed relationships were tested across different industries. Research suggests that the stakeholders' expectations of organizational behavior may vary among different industries owing to changes in institutional pressure and required legitimate behavior (Powell & DiMaggio, 1991). Gardberg and Fombrun (2006) suggested that research should note the industry effect when examining the influences of corporate citizenship (e.g., charitable behaviors or efforts devoted to community development). As we closely reviewed the results of our two studies in the present research, we noticed some interesting points. For example, the results of Study 1 (Table 2) showed that the effect of corporate citizenship image on organizational attractiveness is somewhat weaker than that of other image dimensions. However, the effect size of corporate citizenship image in Study 2 was not the smallest among the four image dimensions ( $d$  value = .06). In other words, the effect of corporate citizenship image on organizational attractiveness was stronger in the manufacturing industry than in the service industry.

Previous research on corporate sponsorship and advertising (e.g., Collins & Stevens, 2002; Rajaretnam, 1994) found that individuals rarely incorporate their perception of company sponsorship (i.e., social activities that provide the companies the occasions to build values) into their overall knowledge and perception of the company. For example, individuals who are relatively unaware of companies' sponsorship events consider involvement in the community to be important for an energy-producing

company, but not for a regional bank (Javalgi, Traylor, Gross, & Lampman, 1994). Perhaps the standards that potential job applicants use to assess the intentions underlying companies' sponsorship activities will vary according to the industry in which the companies operate. Therefore, we believe that industry type may contribute to the observable differences among the effects that various types of corporate images have on attractiveness.

Such differences, we think, may result also from the influences of one specific job attribute, type of job vacancy. In Study 1, we did not collect information regarding participants' preferred or targeted types of job, whereas the participants in Study 2 were asked to assume that they will apply for one specific type of job. Indeed, researchers have found that job-vacancy types affect attraction, especially when applicants have less information regarding their targeted organizations (Billberry, 2007; Ryan & Ployhart, 2000). To some extent, we could not eliminate the possibility that a job-specific factor may affect the results of the present research. In sum, it seems that the effect of industry or job-specific factors may alter the findings of the two current studies. However, we feel that more research would further clarify the moderating roles of industry or of job-specific factors in the relationship between corporate image and organizational attractiveness. As more primary studies accumulate, a comprehensive meta-analysis could provide in-depth understandings of the aforementioned issues.

Besides the limitations mentioned respectively in Study 1 and Study 2, one important concern should be noted here. The current research focuses on addressing the important role of organizational characteristics in predicting organizational attractiveness. As a result, we neither considered nor controlled for job-specific variables in the present studies. However, we made efforts to prevent the influences of important determinants of organizational attractiveness other than corporate image. For example, in Study 1, three important variables (i.e., organizational size, foreign-owned firm, and ROA) were controlled. Although these control variables do not represent job-related characteristics, they have been identified as important antecedents to organizational attractiveness. In Study 2, we held the job characteristics (e.g., salary, compensation, job type, job content, work location, and position) constant by including clear descriptions in the various experiment scenarios.

One may argue that the effects of corporate image dimensions examined in the present study may be less important than, or even trivial in comparison with, the effects of other determinants of organizational attractiveness. In fact, Chapman *et al.* (2005) indicated that organizational image has a medium effect size in predicting attraction ( $\rho = .48$ , 95% confidence interval not including zero) after correcting for all statistical artifacts; they also found that this effect is also stronger than the

influences of overall job characteristics on attraction ( $\rho = .30$ ). In sum, we agree that the inclusion of job-specific variables in the two current studies would endow them with ecological validity. However, in Study 2, with its experimental control for a set of job-related characteristics (e.g., salary, job content, job title), the findings about the main effects of corporate image are similar to the corresponding findings in Study 1. Therefore, we believe that, even if under full controls for job-related characteristics, corporate image dimensions could still influence organizational attractiveness.

#### 4.1. Directions for future research and implications for practice

In this research, we have adopted social identity theory and signaling theory to explain the possible mechanism whereby corporate image dimensions may influence organizational attractiveness; however, we have not tested any mediating processes via the proposed theoretical mechanisms (e.g., social identity). Thus, we suggest that future research should address such an interesting and important issue to further flesh out the literature on attraction.

Moreover, because applicants' processing of organization-related information is important, the sources that applicants use to collect information regarding different corporate images may affect the effectiveness of image disclosure. For example, Collins and Stevens (2002) found that applicants mostly relied on recruitment information from word-of-mouth sources, and information disclosed by an organization is considered less credible. Although the variance of information credibility affects the influences of corporate images on potential applicants, organizations can still actively manage their corporate image through indirect recruitment activities or through in-time media responses to rapidly surfacing media-fueled opinions about corporate performance. The findings of Van Hove and Lievens (2007) provide some support for our inferences by suggesting that – regarding influence on organizational attraction – general organization related messages from a company-independent source are more effective than employee testimonials. Future research, we suggest, should test the mediating mechanism that can effectively deliver to applicants the information regarding corporate image dimensions.

## 5. Conclusion

Despite its potential limitations, the present study presents a framework to explain the composition and the effects of corporate image and examines the moderating effects of applicants' characteristics. We found that corporate product image, corporate citizenship image, and corporate credibility image were important antece-

dents to organizational attractiveness and that the applicants' environmental sensitivity moderated the relationship between corporate citizenship image and organizational attractiveness. The present study may add further understandings to the literature about what conditions may enhance or alter the relationship between organizational characteristics (i.e., corporate image) and organizational attractiveness. In our implementation of different research designs across the two studies, we clarified the causal relationship between corporate image dimensions and organizational attractiveness while controlling for other influential factors. Moreover, by using different sample and industry target in each study, the results of the present research should help generalize the important findings in the recruitment literature.

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## Notes

1. Pseudo  $R^2$  for adding new variable is calculated by the formula provided by Raudenbush and Bryk (2002). Level 2 residual intercept variance for adding combined product image, citizenship image and credibility image is .05, .04, .03, respectively. Pseudo  $R^2$  for adding new variable =  $(\tau_{00}$  of previous model –  $\tau_{00}$  of current model) /  $\tau_{00}$  of previous model.
2. According to Cohen (1988),  $d$  values below .20 are considered to be relatively small effect sizes.

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