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CORPORATE SOCIAL RESPONSIBILITY AND PERFORMANCE: A STUDY OF A CHINESE INDUSTRIAL DEVELOPMENT ZONE

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Patricia Fosh², and Chin-Shan Lu⁴

Key words: corporate social responsibility, firm performance, China, culture.

ABSTRACT

This study was exploratory in nature; it was one of the first to investigate the relationship between corporate social responsibility (CSR) dimensions and firm performance in China. The authors undertook a questionnaire survey of firms located in the Chengdu Hi-tech Industrial Development Zone in Sichuan Province, China, in order to establish the link between managers' perception of their firms' adoption of corporate social responsibility and of their firm performance. Factor analysis demonstrated that the CSR activities or attributes adopted by firms could be grouped into three orientations: employee and consumer interests, community involvement, and disclosure. The 256 respondent firms were then categorized into three groups based on their factor analysis scores: Group 1, a disclosure-oriented group; Group 2, an employee and consumer oriented-group; and Group 3, a community-oriented group. The firm performance for the three groups was then compared: group 3 had higher levels of assessment for both financial and non-financial performance. The authors suggest three possible explanations for these findings. The uncertainty the causation link between adoption of community CSR attributes and higher financial performance complicates recommendations for Chinese firms' adoption of CSR attributes.

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I. INTRODUCTION

With the international popularization of environmental awareness, green concepts and renewable consumption in recent years, corporate social responsibility (CSR) has become increasingly valued in the west. Utilizing this framework, firms not only pursue profits for stakeholders and investors but also devote themselves to activities such as furthering environmental protection, labor rights, charity work, and community participation. Several internationally recognizable brands have adopted social responsibility as a useful tool for market segmentation from competitors. For example: many firms have participated in the Carbon Disclosure Project (CDP); the American brand Timberland discloses its carbon emissions on its shoes; and the biggest retailer in the world, Wal-Mart, and the personal computer producer, Dell, both require suppliers to provide energy consumption information in order to calculate total greenhouse gas emissions.

In non-western and developing countries, firm internationalization has led to discussions on transnational corporate ethics and host countries' adoption of corporate social responsibility. Transnational companies have often assumed the duty of ensuring that the product supply chain meets social responsibility requirements. For example: Wal-Mart in order to encourage Uzbekistan's government to terminate child labor in cotton harvesting has requested its global suppliers to refuse Uzbek cotton and raw materials; Nike, the world's leading manufacturer of sports articles, was once the source of much controversy over its foreign-based factories that led to global boycotts and 'anti-sweatshop' campaigns and human rights groups encouraged consumers to boycott its products; Starbucks developed 'Fair trade Coffee' and 'Shared Planet' programs so that coffee growers could receive higher returns; and, after the Wenchuan earthquake in China, the RT-Mart company contributed 50 million RMB and a substantial quantity of goods, acts which improved its corporate reputation and resulted in a popular jingle supporting shopping at their stores.

Despite China's achievement of great success in economic growth in recent decades, Chinese society currently struggles with issues such as the gap between the rich and the poor,

illegal labor relationships, corporate crime, poor human and labor rights, and product safety and pollution (Hopkins, 2004; Wang and Juslin, 2009; Moon and Shen, 2010; Xu and Yang, 2010). Wang and Juslin (2009) consider that these negative effects can be at least partly explained by Chinese firms' lack of CSR involvement. As production standards around the world have increasingly conformed to CSR requirements and as internationalization and globalization has substantially increased, there is now intense pressure on Chinese firms to conform to these requirements (van Marrewijk, 2003; Ying et al., 2006). Both international clients and consumers are increasingly expecting high standards of CSR from Chinese firms; for example, the international pressure on Foxconn, created by the wave of worker suicides in its factory workers in Shenzhen, led to public acknowledgement amongst Chinese citizens of the importance of CSR (Hille and Kwong, 2010).

Modern CSR movement in China effectively began in the mid-1990s when multinationals brought western CSR into the Chinese market during the 'anti-sweatshop campaign' (Myllyvainio and Virkkala, 2006; Wang and Juslin, 2009). CSR was further introduced into China in the early 2000s and major players were Chinese academics, NGOs and international organizations. Additionally, in these years, multinationals made even more stringent demands upon Chinese enterprises (Wang and Juslin, 2009). Wang and Juslin (2009) argue that, after the watershed year of 2004, there was a sea-change from a passive to an active and participatory approach towards CSR and it became a matter of consensus in Chinese society that its firms should adopt CSR attributes.

The bulk of CSR research is still orientated towards western values and has been conducted in western countries such as USA and UK (Gray et al., 1995; Lindgreen et al., 2009). The body of research on firms' adoption of CSR in China is developing: for example, Sarkis et al. (2011) state that the 'winds of change' in China have 'started to pick up' (page 4). Moon and Shen (2010) in a review of 73 English-language articles about CSR in China state that the focus of CSR research in China is 'thickening' but still small (page 613). Thus, there is considerable need for further research. We did not, however, expect the adoption of CSR in China to resemble that in western countries. We note Wang and Juslin's (2009) argument that western CSR concepts are not suitable for use in China, given the considerable differences between Chinese and western cultures and that an etic approach to the study of CSR creates limitations and confusion in understanding the essence of CSR in China. These authors consider that the core principles of CSR have a long history in China, that a Chinese conception of CSR, based on Confucian and Taoist principles, needs to be adopted, and that the primary justification for CSR should be its contribution to harmonious society, defined as the respecting of nature and the loving of people. While accepting Wang and Juslin's (2009) aspirational argument, we took a different approach. Rather than focusing on the more esoteric question of Chinese firm's conception of CSR, we focused pragmatically on discovering what particular CSR

activities Chinese firms undertake. This approach led us to adopt the definition and measurement of CSR commonly-used in the largely western literature.

Our adoption of western definition and measurement of CSR conforms to Tsui's 'outside-in' approach (Tsui, 2006; Noronha et al., 2013) where scholars choose phenomena to study that are popular in the existing, largely western literature and examine how they are manifested in the Chinese context. Our study therefore builds upon a well-established body of literature and our utilizing well-accepted methods has the advantage for our study, described by Whetten (2009), of contributing to global management knowledge by 'using the familiar to describe the new' (page 33). We acknowledge, however, that our adoption of the outside-in approach towards investigating Chinese firms' adoption of CSR activities might lead us to omit issues that are unique, or at least important, to Chinese firms and Chinese society.

We sought to contribute to the development of theory and knowledge on CSR in China. Whilst we built our contribution on western definition and measurement, the objective of our study was to explore an issue that is relatively new, both for Chinese and western research. We undertook an exploratory study in an industrial development zone in southwest China in order to explore the relationships between firms' different firm profiles of CSR and different levels of financial and non-financial performance. We then speculated what might account for the relationships we found. Thus, our study addresses a significant gap, develops research on taxonomy and points the way how future research might further fill this gap.

This article comprises five sections. Following this introduction, a literature review discusses earlier research on CSR in China and the link between CSR and level of firm performance. The next section sets out the study's methodology including the development of the research instruments, details of the sample selection, and the data analysis methods. The next section presents the results of the factor analysis, cluster analysis and ANOVA tests. The final section discusses the study's findings, the limitations of the study, the contribution of the study to the development of research on CSR in China and suggestions for future research.

II. LITERATURE REVIEW

Corporate social responsibility is a much contested concept (van Marrewijk, 2003). Dahlrud (2008), in his analysis of the use of this term, found the definition used by the European Commission to be the most frequently adopted: 'A concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis'. He considers this definition to include the five dimensions of CSR that he identified: environmental, social, economic, stakeholder and voluntariness. We adopt the European Community's definition.

The focus of studies on CSR in China has had a wide range. A number of researchers have been interested in consumer

responses to CSR (see, for example, Ramasamy and Yeung, 2008; Tian et al., 2011), in Chinese businesses' perceptions of CSR dimensions (see, for example, Zhu et al., 2005; Xu and Yang, 2010), and some in the distinctiveness of CSR in a Confucian society (see, for example, Wang and Juslin, 2009). There have been fewer studies conducted that focus specifically on Chinese firms' adoption of CSR. Those that have been conducted suggest that, despite public interest in CSR, few Chinese firms have substantial CSR profiles: see, for example, the work by Jensen (2006), Ying et al. (2006), Welford (2005), and Li and Li (2005). Recently, there have been four noteworthy large-scale studies of CSR reporting in China. Gao (2009) undertook a contents analysis of the websites of the top 100 companies in 2007 and concluded that CSR in China was still 'at the beginning stage'. Noronha et al. (2013) report the findings of the Economics Department of the Chinese Academy of Social Sciences which investigated the information disclosure of 100 companies and found the level of disclosure of enterprises in China to be still 'at a very preliminary stage'. The United Nations (2007) surveyed 80 Chinese firms and compared their Chinese data with that of 105 enterprises from 70 economies included in the United National Conference on Trade and Development (UNCTAD) around the world, and concluded that average level of CSR reporting for the Chinese enterprises was relatively lower than that other UNCTAD enterprises. Kuo et al. (2012) found that only a small proportion of the 711 enterprises in their study provided statistical information their CSR achievements.

The studies of CSR adoption by Chinese firms undertaken are not only few in number but they are also limited by their tendency to focus on disclosure of information rather than on a wider range of CSR attributes. For example Welford (2005) conducted a substantial study utilizing findings of a questionnaire survey of 124 companies, an analysis of the annual environmental disclosures of 1195 listed companies, and a further 2004 questionnaire study of 61 listed companies undertaken by the Japanese Institute, but confined his data collection to corporate environmental reporting and disclosures. He concluded that corporate environmental reporting and disclosures were not widely accepted activities in the Chinese market at present, with many companies treating disclosure as an additional burden and attempting to release as little information as possible. He concluded further that most company-released information was mandated by government and environmental agencies for the purposes of pollution prevention and control and, as such, was not designed for public disclosure, the government often choosing not to share this with the public. Welford's (2005) view that the lack of government regulations, standards and guidelines in China for CSR reporting and disclosure has had a negative impact the development of CSR in China concurs with those of other writers (Zhang and Lin, 2006; Syntao, 2007).

In terms of research specifically on the link between CSR and organizational performance, considerable research in the west has shown these to be positively related. Abbott and

Monsen (1979) developed a corporate social involvement disclosure scale, based on a content analysis of the annual reports of the Fortune 500 companies, and found that CSR attributes had a positive effect on corporate profitability. Russo and Fouts (1997) found that the adoption of CSR attributes could constitute a source of competitive advantage, especially in high-growth industries. A number of other studies in western countries, for example, Waddock and Graves (1997), Simpson and Kohers (2002), and Chow et al. (1994) also suggest a positive link between CSR and financial performance. An OECD (Organization for Economic Co-operation and Development, 2001) report sets out how CSR adoption can contribute to firm performance by leading to the following: reduced risks of costly criminal prosecutions, litigation and damage to reputation; improved company morale and formation of a cornerstone in a broader effort to create a 'culture of integrity' within companies; improved enterprise image and reputation; increased sales and better brand loyalty from consumers; improved supplier networks or employee morale often leading to increased productivity and quality and reduced complexity and costs; and improved attraction and retention of employees. A small number of studies have explored the link between CSR adoption and performance in China: see Guo and Yu (2006); Li (2006); Zhou et al. (2007) and Zu and Song (2009), as well as Lu et al. (2009) in Taiwan. These studies, similarly to western research, demonstrated a positive link between CSR adoption and performance.

III. METHODOLOGY

We chose as our research site the Chengdu Hi-tech Industrial Development Zone and developed a strong relationship with the Zone's Bureau. Securing access for research is difficult in China, as in most developing countries, and the permission we secured from the Zone's Bureau was limited to a questionnaire-based survey of the participants of a Zone-organized conference. We asked these participants to what extent their firms had adopted different types of CSR attributes or activities and how they rated different aspects of their performance. While we acknowledge Wang and Juslin's (2009) aspiration for a new definition of CSR for use in Chinese societies, the present urgent need is for greater knowledge of CSR adoption and its correlates in China. This need, we argue, justified our acceptance of questionnaire-based access only. In our study we did not seek to explore Chinese firms' present understanding of CSR or of what definition or approach towards CSR would be most valid for them; we consider these issues are more suitable for qualitative research based on in-depth interviews.

The Chengdu Hi-tech Industrial Development Zone was one of the earliest state-level hi-tech industrial development zones in China. With a planned area of 87 km², this zone comprises a South Park and West Park. There are more than 16,000 companies registered in the zone, including over 750 foreign invested enterprises, 40 of which are Fortune 500

Companies, including Intel, Microsoft, Motorola, Siemens, Nokia, Ericsson, Corning, Sony, Sumitomo, Toyota, NEC, Carrefour, UPS, Alcatel, and Ubisoft. The Zone's economic index has grown over 25 percent annually. Its comprehensive strength has led to its ranking of fourth among China's 55 state-level hi-tech zones (CDHT: Chengdu Hi-tech Industrial Development Zone, 2013). We considered that the cultural context in Sichuan Province in southwest China. Sichuan Province to be more typical of China overall than that of the international cities of Beijing, Shanghai and Guangzhou, where many researchers on Chinese management have located their studies.

For measuring CSR adoption, we selected as measures of CSR, in the absence of a developed body of literature on CSR in China, an initial set of 15 statement agree/disagree-type questions from those commonly used in the (largely western) literature, for example, from those utilized in studies by Abbott and Monsen (1979) and Holmes (1978). Our choice of statements resembled that of Lu et al. (2009), who in their study located in Taiwan similarly utilized western-derived statements. We acknowledge the possible cultural bias that this might introduce. The statements were translated into Chinese and then checked using back-translation techniques. We then subjected these statements to a content validity exercise. We validated them in two ways. First, we held focus group discussions with six Chinese CSR practitioners and, second, we conducted a pilot study of ten managers from firms located in the Chengdu Hi-tech Industrial Development Zone. In these exercises, we asked these individuals to indicate whether we had omitted any CSR attribute of importance in the Chinese environment and whether the statements we selected were in their opinions valid measures of the CSR attributes we had included in our study. Following this content validity exercise, we made alterations to the agree/disagree statements as suggested. The individuals involved in this validity exercise indicated that they did not consider that we had omitted any CSR attributes important in the Chinese environment and that we had utilized valid measures of our selected CSR attributes. We asked those managers responding to the questionnaire on behalf of their firms to indicate the extent of their agreement/disagreement with the statements along a scale ranging from 1, representing 'Strongly Disagree', to 5 representing 'Strongly agree'. We set out in Table 1 the wording of 15 statements, as revised after the validity exercise.

The definition and measurement of performance is a challenge for researchers as organizations have many, frequently conflicting, goals (Chow et al., 1994). Performance is commonly divided into two categories: financial and non-financial performance (Venkatraman and Ramanujam, 1986). For measuring financial performance indicators such as sales growth, profit rate, return on investment, return on sales, return on equity, and earnings per share are utilized. For measuring non-financial performance, indicators such as market share, new product introduction, product quality, marketing effec-

Table 1. Respondents' agreement with CSR statements.

CSR variables	Mean	SD ^a
Our firm emphasizes consumer privacy and provides protection for personal data.	4.38	0.84
Our firm complies with the tax laws and regulations in all the countries in which it operates and contributes to the public finances of host countries by making timely payment of its tax liabilities.	4.38	0.88
Our firm does not further business interests by cheating our customers.	4.34	0.94
Our firm does not make false representation, nor engage in any practices that are deceptive, misleading, fraudulent, or unfair.	4.30	0.92
Our firm emphasizes staff development, skill training and on-the-job-training.	4.21	0.97
Our firm does not discriminate against employees with respect to employment or occupation on such grounds as race, color, sex, religion, political opinion, national extraction or social region.	4.20	0.95
Our firm requests its business partners to enhance environmental protection awareness and comply with related environmental regulations.	3.91	0.97
Our firm contributes to urban and community environmental improvement.	3.88	0.99
Our firm participates in community development and promotion of citizens' welfare.	3.82	1.03
Our firm applies high quality standards for disclosure, accounting, auditing, environmental and CSR reporting.	3.77	1.07
Our firm supports education related activities such as scholarships and intern opportunities.	3.73	1.07
Our firm adopts high standards of environmental and CSR reporting.	3.71	1.11
Our firm ensures that timely, regular, relevant information is disclosed regarding its activities, structure, financial situation and performance.	3.58	1.08
Our firm frequently holds charity activities.	3.56	1.10
Our firm sponsors cultural and artistic activities.	3.32	1.18

^aS.D. = standard deviation.

tiveness, technological efficiency, corporate social image and customer satisfaction are utilized. In our exploratory study we selected four firm performance indicators, drawn from both groups. We asked those managers responding to the questionnaire on behalf of their firms to rate their firm's performance relative to its major competitors for the dimensions *Corporate image improvement*, *Profits (before tax)*, *Market share*, *Sales*, and *Customer satisfaction*. The managers were asked to choose a point on scale ranging from 1, representing 'Much worse', and 5, representing 'Much better'. We took into account managers might be biased in self-reporting and

their firms' performance and we acknowledge that the firms in our study might have invested unequally in CSR attributes.

The questionnaire also collected information on firm age, size, and sales. We did not collect details of firm ownership; however, it is likely that all firms located in the Chengdu Hi-tech Industrial Development Zone were subject to considerable foreign influence.

In terms of questionnaire distribution, we gave copies of the questionnaires to the 729 managers who represented their firms at the Annual Presidents Conference held by the Zone Bureau. We asked those attending to complete the questionnaire on behalf of their firms. In total, we received 256 completed questionnaires, a response rate of 35 percent – an acceptable level in this type of survey. We received completed questionnaires from firms in a satisfactory range of industries (as shown in Table 2): 3.5 percent were returned by firms in the semiconductor industry, 6.7 percent by firms in the optoelectronic industry, 13.7 percent by firms in computer and peripheral equipment industry, 10.2 percent by firms in the communications and internet industry, 4.7 percent by firms in the electronic parts/components industry, 15.6 percent by firms in the pharmacy industry, 3.1 percent by firms in the medical and biotech industries and 42.6 percent by firms in a large variety of other disparate industrial sectors. Those responding to the questionnaire on behalf of their firms were satisfactorily senior: 6.6 percent were Presidents or Vice-Presidents, 18.8 percent were Presidents' Assistants (a senior position in Chinese firms, just below Vice-President), 23.4 percent were Department Managers, and 14.5 percent were senior managers. These factors reinforced the validity of the survey's findings. Adding to this validity was the relatively high length of service of those responding on behalf of their firms to the survey: nearly 5 percent had been with the same firm for more than 20 years, 43 percent had worked in their present firm between two and three years and only 21.5 percent had worked in their present firm for less than one year.

In terms of the characteristics of the responding firms, for firm age, we found that just 8.2 percent of the firms included in the study had been in operation for more than 15 years, 39.8 percent had been in operation for between 4 and 8 years; and only 28.5 percent had been in operation for three years or less. For firm size, we found that 47.7 percent of firms included in the study employed less than 50 full-time employees, just 25.8 percent employed between 51 and 100 full-time workers and 7.0 percent employed over 500 employees. For firm sales, we found that these varied considerably: 44.1 percent of firms included in the study recorded sales below *RMB*\$10 million, just 26.2 percent had recorded sales as between *RMB*\$11 million and *RMB*\$50 million and just 16.4 percent had recorded sales over *RMB*\$200 million.

We conducted a factor analysis exercise in order to reduce the large number of CSR measures into a smaller, manageable set of underlying factors (dimensions). On the basis of the firm's scores for the factors we had derived, we clustered the firms in the study into groups differently-orientated towards

Table 2. Profile of managers' firms.

Characteristics	Number of respondents	Percentage
<i>Type of business</i>		
Semiconductor	9	3.5
Optoelectronic	17	6.6
Computers and Peripheral Equipment	35	13.7
Communications and Internet	26	10.2
Electronic Parts/Components	12	4.7
Pharmacy	40	15.6
Medical and Biotech	8	3.1
Other	109	42.6
<i>Age of firm</i>		
Less than three years	73	28.5
4-8 years	102	39.8
9-14 years	60	23.4
More than 15 years	21	8.2
<i>Number of employees</i>		
Less than 50 people	122	47.7
51-100 people	66	25.8
101-200 people	32	12.5
201-500 people	18	7.0
More than 500 people	18	7.0
<i>Sales (millions RMB\$)</i>		
Less than \$10	113	44.1
\$11-50	67	26.2
\$51-100	21	8.2
\$101-200	13	5.1
More than \$200	42	16.4
<i>Job title</i>		
Vice president or above	17	6.6
President's assistant	48	18.8
Department manager	60	23.4
Senior manager	37	14.5
Operator	65	25.4
Other	29	11.3
<i>Length of service in the company</i>		
Less than 1 years	55	21.5
2-3 years	111	43.4
4-5 years	38	14.8
6-10 years	34	13.3
More than 20 years	12	4.7

CSR. We then linked these group orientations towards CSR to firm performance, utilizing a one-way analysis of variance and a Scheffe test in order to test the significance, and direction, of differences found between the differently-oriented groups' performance.

IV. THE SURVEY FINDINGS

Beginning with our study's findings for the respondent

Table 3. Factor analysis identifying key CSR dimensions.

CSR Attributes	Factor one	Factor two	Factor three
Our firm does not make false representation, nor engage in any other practices that are deceptive, misleading, fraudulent, or unfair.	.845	.208	.106
Our firm emphasizes consumer privacy and provides protection for personal data.	.827	.152	.156
Our firm does not further business interests by cheating our customers.	.826	.280	.093
Our firm complies with the tax laws and regulations in all the countries in which it operates and contributes to the public finances of host countries by making timely payment of its tax liabilities.	.778	.214	.140
Our firm emphasizes staff development, skill training and on-the job-training.	.743	.136	.394
Our firm does not discriminate against employees with respect to employment or occupation on such grounds as race, color, sex, religion, political opinion, national extraction or social region.	.709	.017	.433
Our firm requests its business partners to enhance environmental protection awareness and comply with related environmental regulations.	.585	.378	.332
Our firm sponsors cultural and artistic activities.	.001	.837	.151
Our firm frequently holds charity activities.	.132	.819	.248
Our firm supports education related activities such as scholarships and intern opportunities.	.315	.770	.166
Our firm contributes to urban and community environmental improvement.	.370	.704	.311
Our firm participates in community development and promotion of citizens' welfare.	.423	.693	.254
Our firm adopts high standards of environmental and CSR reporting.	.303	.202	.790
Our firm ensures that timely, regular, relevant information is disclosed regarding its activities, structure, financial situation and performance.	.128	.310	.788
Our firm applies high quality standards for disclosure, accounting, auditing, environmental and CSR reporting.	.268	.353	.749
Eigen values	7.771	1.949	1.124
Percentage variance	51.80	12.99	7.49

firms' perceptions of their CSR attributes, Table 1 sets out the mean scores and standard deviations for the 15 measures of CSR that we adopted. The mean scores for the firms were all above the mid-points of the agree/disagree scale. The most frequently agreed with statements were as follows: 'Our firm emphasizes consumer privacy and provides protection for personal data' with a mean score of 4.38; 'Our firm complies with the tax laws and regulations in all the countries in which it operates and contributes to the public finances of host countries by making timely payments' with a mean score also of 4.38; and 'Our firm does not further business interests by cheating our customers' with a mean score of 4.34. The firms' mean scores were lowest for the following statements: 'Our firm sponsors cultural and artistic activities' with a mean score of 3.32; 'Our firm frequently holds charity activities' with a mean score of 3.56; and 'Our firm ensures that timely, regular, relevant information is disclosed regarding our activities, structure, financial situation and performance' with a mean score of 3.58.

Table 3 sets out the results of the factor analysis we undertook in order to reduce the 15 CSR attributes to a smaller more manageable set of underlying factors (dimensions). We utilized principal components analysis with Varimax rotation with Eigen values greater than 1 in order to determine the number of factors in each data set (Churchill, 1991). We identified three key CSR dimensions that accounted for 72.28

percent of the total variance. For interpreting and the findings for each factor and devising labels, only measures with a factor loading greater than 0.50 were extracted, a conservative criterion based on Hair et al. (2006). Table 3 demonstrates that there were three key CSR factors or dimensions underlying the firms' responses to the questions on their adoption of CSR attributes. We labeled these as follows:

- Factor one, the *Employee and consumer interests dimension* of CSR, comprised seven items relating to employee, consumer and citizen interests. The highest factor loading was on the statement 'Our firm does not make false representation, nor engage in any other practices, that are deceptive, misleading, fraudulent, or unfair'. This factor accounted for 51.80 percent of the total variance.
- Factor two, the *Community involvement dimension*, comprised five items, relating to community involvement. The highest factor loading was on the statement 'Our firm sponsors cultural and artistic activities'. This factor accounted for 12.99 percent of the total variance.
- Factor three, the *Disclosure dimension*, comprised three items relating to disclosure. The highest factor loading was on the statement 'Our firm adopts high standards of environmental and CSR reporting'. This factor accounted for 7.49 percent of the total variance.

Table 4. One-way ANOVA analysis of CSR differences among the three groups.

Dimensions	Groups			F Value	F ^b Prob.	Scheffe Test
	1 (DIS) (74)	2 (ECI) (75)	3 (COM) (107)			
1. Employee and consumer interests	-1.16 ^a	0.60	0.38	161.90	**0.00	3 > 1; 2 > 1
2. Community involvement	-0.30	-0.64	0.66	62.10	**0.00	3 > 1 > 2
3. Disclosure	0.20	-0.86	0.46	58.34	**0.00	1 > 2; 3 > 2

^a. The description of groups is based on factor scores with a mean of zero and standard deviation of one. For instance, the negative value of the factor score coefficient, -1.16 (see first column, first row), indicates that respondents placed less emphasis on dimension one.

^b. *Significance level $p < 0.05$; **Significance level $p < 0.01$.

Table 5. One-way ANOVA analysis of firm performance differences between the three groups.

Firm performance	Groups			F Ratio	Comparison	Scheffe Test
	1 DIS	2 ECI	3 COM			
Corporate image improvement	3.74	3.84	4.17	**17.10	3 > 2 > 1	3 > 1; 3 > 2
Profit (before tax)	3.73	3.37	4.05	**14.20	3 > 1 > 2	3 > 1 > 2
Market share	3.74	3.53	4.13	**10.27	3 > 1 > 2	3 > 1; 3 > 2
Sales	3.74	3.40	4.06	**11.96	3 > 1 > 2	3 > 2
Customer satisfaction	3.95	4.05	4.51	**15.12	3 > 2 > 1	3 > 1; 3 > 2

^a. *Significance level $p < 0.05$; **Significance level $p < 0.01$.

The 256 firms were categorized into three groups based on their factor scores in CRM dimensions from the factor analysis using two-stage cluster analysis techniques (Hair et al., 2006). Seventy-four were assigned to Group 1, 75 to Group 2, and 108 to Group 3. Canonical discriminant functions (Klecka, 1980) demonstrated the nature of segment differences, and explained 98 percent of the variance.

ANOVA and a Scheffe test were used to examine whether the CSR dimensions differed among the three groups. Table 4 shows ANOVA test results in terms of factor score coefficients. All three CSR dimensions were found to differ significantly among the three groups at the $p < 0.05$ significance level.

As shown in Table 4, a comparison of factor score coefficients shows Group 3 had its highest and positive scores on the all three CSR dimensions. Group 2 had its highest and positive centroid scores on the employee and consumer interests dimension. Group 1 had its highest and positive centroid scores on the disclosure dimension. From cluster analysis, three groups emerged that were based on the CSR dimensions, namely, a Disclosure-oriented group (in Table 4 Group 1: DIS), an employee and consumer interests oriented group (in Table 4 Group 2: ECI), and a Community involvement-oriented group (in Table 4 Group 3: COM).

Table 5 demonstrates that there were notable differences in between the differently-CSR-oriented groups of firms in their mean scores for performance. Overall, the Community CSR-oriented group (Group 3: COM) had the highest scores for firm performance with mean scores for *Customer satisfaction*, *Corporate social image*, *Market share*, *Sales* and *Profit (before tax)* all over 4.0: this group highest mean score (4.51) was for the first of these. Turning to the other two groups, while the Disclosure-oriented group (Group 1: DIS) had higher firm performance mean scores for *Profit (before tax)* (3.73), *Market share* (3.74) and *Sales* (also 3.74), the Employee and consumer interests-oriented group (Group 2: ECI) had higher mean scores for *Corporate image improvement* (3.84) and *Customer satisfaction* (4.05). Table 5 also shows where the three groups' means scores were significantly different. For *Corporate image improvement*, *Market share* and *Customer satisfaction*, the significant differences were between, on the one hand, the Community-oriented group and, on the other, the Disclosure-oriented group and the Employee and consumer interests group. For *Profit (before tax)*, there were significant differences for the comparison of all three groups. For sales, there was a significant difference only between the Community-oriented and Employee and consumer interests oriented group.

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V. DISCUSSION AND IMPLICATIONS

This exploratory study has empirically demonstrated a link between Chinese firm's adoption of CSR attributes and their performance. It has shown that groups of Chinese firms differ in the orientation that they adopt towards CSR and that managers of those firms adopting a Community CSR orientation were more likely than those in other-orientated firms to assess their firms as having higher firm performance for all measures. At first glance, our findings appear difficult to explain. Had

our findings merely showed that those managers who assessed their firms as having a 'Community involvement' orientation were significantly more likely (than those managers who assessed their firms to have other orientations) to assess their firms' corporate image as being better than that of their competitors, we could have understood this readily: firms that are undertaking activities like cultural events and charity will be respected for their philanthropy. We found, however, that managers of firms adopting a Community SCR orientation were *also* significantly more likely to assess their firms' profitability, market share, sales and customer satisfaction as being better than that of their competitors.

We suggest three possible explanations for our study's finding that managers of firms adopting a Community CSR orientation gave the highest assessment of their firms' success for all measures. The first two of our explanations strongly suggest that we understand our findings as part of a cultural environment where face plays a very important role in business life, more so than in the west (Hu, 1944; Kim and Nam, 1998). Chinese managers give considerable attention to face concerns in their business decisions; indeed, they may give precedence to aspects of face over economic rationale (Kim and Nam, 1998). Face comprises *mianzi* (external appearance-concerned face) and *lian* (internal moral face). We suggest, for our first possible explanation, that when a firm that adopts a Community CSR orientation, this gives its employees a high level of morale: they have pride in their firm sponsoring cultural, artistic and charity activities, sponsoring scholarships and contributing to citizens' welfare, and community, and to environmental improvements. Employee pride in their firm has positive consequences. For example, Gamble and Huang (2008) and Jin et al. (2014) found that employee pride in company/enterprise had a positive impact on employees' attitudes towards intending to stay with their companies; these two sets of authors saw employee pride in company as a function of an increase in their *mianzi* (external face) in their local communities, stemming from their working for a prestigious, foreign-invested company/enterprise. Thus, it is reasonable to argue that employees' pride in their firm, and the increase in *mianzi* in their local communities that they experienced in working for a firm undertaking prestigious community CSR activities would lead to better employee performance – including the reduction of costly quit rates – and thereby enhance firm profitability, market share, sales and customer satisfaction. It also follows that managers themselves would also perform to a higher level as their *mianzi* increased in their local communities through their firms' adoption of prestigious community CSR attributes. In contrast, Chinese managers and employees working in firms they considered to have adopted less prestigious CSR activities – those concerned with consumers, employees and disclosure – would not feel their *mianzi* to be boosted by their firms' CSR activities and they were, therefore, less likely to view their firms as outstanding all-round.

We suggest, as our second possible explanation for our

study's finding, that managers of firms adopting a Community CSR orientation gave the highest assessment of their firms' success for all measures due to respondent managers' *lian* (internal moral face) having an important affect on their assessments of their firms' performance. For this explanation, we suggest that, in the Chinese business context of our study, respondent managers might have found that adopting prestigious and altruistic CSR activities increased their *lian*, strongly reinforced their sense of moral uprightness in society. This increase in their *lian* led the managers to assess their firms' performance as outstandingly, both for the financial measures of profit (before tax), market share and sales and for the non-financial measure of corporate image. Thus, boosting Chinese company managers' *lian* boost their feelings about their firms' performance. In contrast, Chinese managers working in firms they assessed as adopting less altruistic, less morally worthy, CSR activities would not feel their *lian* to be boosted by their firms' CSR activities and they would be, therefore, less likely to assess their firms' performance as outstanding all-round. Our suggestion resonates with Hemingway and Maclagan's (Hemingway and Maclagan, 2004) emphasis on the role of managers' personal views as drivers of CSR.

Third, we suggest a reverse causation: *only* those firms with the highest levels of profitability had the necessary funds to be able to sponsor cultural, artistic and charity activities, to sponsor scholarships and to contribute to citizens' welfare, and community, and to environmental improvements. Firms with less high performances would not have been able to afford to undertake such expenditure. However, interpreting the relationship between a firm having Community CSR orientation and supporting altruistic CSR activities as a function of sufficient funds, still leaves the question of why having a Community CSR orientation should *also* be significantly related to the other measures of firm performance such as customer satisfaction.

This exploratory study has a number of limitations. The first limitation is that our exploratory study was not longitudinal in nature: we did not collect data on why and how the firms adopted CSR attributes and we did not investigate to what extent influence from western partners and western-ownership might have influenced this adoption process. The second limitation of our study is that the respondent firms were located only in one area: the Chengdu Hi-tech Industrial Development Zone; the relationship between the firms' adoption of CSR attributed and their performance may be different in other areas of China. The third limitation of our study is that our adoption of the outside-in research approach. We were, however, sensitive to the weakness of this approach and attempted as far as possible to guard against missing important issues that were unique, to or at least important to Chinese firms and Chinese society. We point out the difficulty of adopting an inside-out approach to CSR in China, given that as yet few empirical studies on CSR adoption that have so far been conducted, and even fewer empirical studies have ex-

explored the link between CSR adoption and firm performance (Simpson and Kohers, 2002; Wang and Juslin, 2009). Despite its limitations, our study's findings contribute significantly to the development of knowledge in a non-western setting about firms' adoption of CSR attributes and the affect of this adoption on firms' performance: in particular, our study contributes by demonstrating that adopting a community CSR orientation correlates with higher levels of assessed firm performance relative to competitor firms.

We argue that the view taken of the implications of our study's conclusions for increasing the financial performance of Chinese firms depends to a considerable extent on the view adopted of the causative link between community CSR attributes and higher firm performance. If one considers that the adoption of community CSR activities increases employees' *mianzi* in their local communities (both of managerial and non-managerial employees) and that this increase in *mianzi* leads to increases in employees' performance, then one would recommend that firms adopted community CSR attributes and ensured that their employees were kept well-informed, for example, through a firm's newspaper, of the firms' sponsorship of cultural, artistic and charity activities, sponsorship of scholarships and contributions to citizens' welfare and community, and to environmental improvements. Thus, one would recommend that Chinese firms seeking to improve their financial performance should adopt this type of CSR activities. If one considers that the adoption of community CSR activities increases managers' *lian* – their internal moral face – and that this increase in *lian* ratchets up managers' assessment of their firms' financial performance, then one would suggest that Chinese firms seeking to improve their financial performance would not necessarily benefit from adopting community CSR attributes. If one considers that only high performance firms can afford community CSR attributes, then one would not recommend that Chinese firms seeking to improve their financial performance should adopt community CSR attributes.

Further research is clearly needed. Further quantitative research – if it were possible to obtain such commercially sensitive data, often difficult in China – could utilize firms' financial accounts for harder data on firms' profit (before tax), market share and sales, and surveys of customer satisfaction could be conducted. Longitudinal, perhaps interview-based, research could track the process of firms' adoption of CSR attributes and trace the influences on firms, including that of foreign partners and owners. Essential would be surveys of employees' morale, employee attitudes towards their firms including their quitting intentions, and indicators of employee performance. Further research should include more geographical areas in China.

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