

ASIAN CSR PROFILES AND NATIONAL INDICATORS: INVESTIGATION THROUGH WEBCONTENT ANALYSIS

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ABSTRACT

National corporate social responsibility (CSR) profiles in the Asian region have been found to have significant differences. CSR webcontent from the largest companies in eight Asian countries was collected and analyzed and statistically significant links between national indicators and CSR levels were found. We discuss how CSR activity responds to country conditions through several possible mechanisms.

Keywords: Corporate social responsibility; Sustainability; Social responsibility; Asia; Website reporting; Webcontent.

I. INTRODUCTION

Corporate social responsibility (CSR) is a popular concept. The traditional view of CSR, mainly derived from fields such as corporate finance, describe it as maximizing long-term value for shareholders (e.g., maximizing net present value (NPV) or the internal rate of return (IRR), well-known capital budgeting concepts). More recently, there has been a change in the emphasis of the definition by some. Although its precise definition is the subject of debate (e.g. [van Marrewijk, 2003](#)), a workable definition is the “company’s commitment to minimizing or eliminating any harmful effects and maximizing its long-run beneficial impact on society” ([Mohr, et al., 2001](#)). Such a working definition has included a wide spectrum of activities: human rights, labor standards, environmental management, consumer protection, anti-corruption, fair-dealing and competition, advertising and marketing, and others ([Lantos, 2001](#); [Garriga and Melé, 2004](#)). We notice that such lists omit the more mundane operational impacts of corporations on society, as well as failing to account for *net* impacts (which NPV/IRR account for). Nevertheless, the above listed areas tend to be in vogue at the moment, perhaps in part reflecting policy-makers' concerns.

It is observed in many parts of the world, including Asia, where it fast-growing ([Chapple and Moon, 2005](#); [Ramasamy and Hung, 2004](#); [KPMG, 2005](#) and [Baughn, et al., 2007](#)). Increasingly, public policy-makers and civil society are becoming engaged in policies and debates which involve CSR. It is useful, then, to describe how CSR is related to country conditions to better inform CSR debates and policies. Here, we focus on Asia.

A number of empirical CSR studies have been carried out for Asian countries ([Welford, 2003](#); [Welford, 2005](#); [Chapple and Moon, 2005](#) and [Baughn, et al., 2007](#)). [Chapple and Moon \(2005\)](#) and others have found that Asia CSR profiles show “considerable national distinctiveness”. [Welford \(2005\)](#) notes this same broad trend. What accounts for these differences? [Baughn, et al., \(2007\)](#) found that CSR is positively correlated with wealth, economic and political freedom, and low corruption levels.

We seek, however, to determine whether a more useful descriptive picture can be obtained by comparing national CSR profiles in Asia with specific country indicators. Any policy research that depends on connections between private sector social responsibility and country conditions would benefit from such information. For instance, public policy-makers may want to know whether the private sector will respond to social problems such as health and education when determining how much effort should be spent on these areas to improve conditions. They may

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also want to integrate the private sector into public policies. Studies like this can also inform the ongoing debate about what the role of the corporation is today, a part of the wider debate about what its role should be.

In this study, we compare specific CSR areas with various national indicators. We also describe and explain any trends.

II. METHODOLOGY

Primary CSR data were taken from company websites following the method of Chapple and Moon (2005). Data were quantitatively analyzed by comparisons with national indicators.

Data Collection

Websites of the twenty largest companies (by revenue) in 2005 of eight countries – China (excluding Taiwan and Hong Kong), India, Indonesia, the Republic of Korea, Malaysia, the Philippines, Singapore, and Thailand (Yazhou Zhoukan, 2005) were examined for their CSR content. CSR webcontent was found mainly through designated website sections such as “social responsibility”, “sustainability”, and “community relations”.

CSR areas studied included health, (compulsory) education, agricultural development, business and economic development, environment, and children and youth.

If websites were not functioning, under construction, in a language other than English, or other problems were present, they were excluded but not replaced with other companies. Often less than twenty companies were found for each country; the average was 17.5 companies per country. Since the largest companies tend to have a disproportionately higher concentration of CSR involvement (Chapple and Moon, 2005), larger sampling may not significantly reduce sampling error.

CSR webcontent sampling has limitations. First, since internet usage rates are different, companies in different countries may include their CSR activities on websites to different extents. However, Chapple and Moon (2005) note that “given a key theme in contemporary CSR is its reporting and accountability, we would not expect this to be widespread”. Second, CSR may be over- or under-estimated in webcontent. Chapple and Moon (2005) are able to conclude that it “can be taken as a basic proxy for the company’s CSR”. Third, the areas of CSR studied in this paper only reflect those publicly disclosed on corporate websites. As such, they are limited to only beneficial impacts reported by companies. There may be negative impacts and unreported beneficial impacts (e.g., by offering value that local consumers otherwise would not receive, by providing a high level of job security for local employees). However, as mentioned in the introduction, the CSR definition currently used highlights the beneficial, not negative, aspects of CSR. There is an inherent limit of webcontent analysis to describe unreported CSR activities.

Data Analysis

CSR data were analyzed quantitatively with country indicators obtained from the United Nations (UN Statistics Division, UNESCO, and WHO), the World Economic Forum’s *Global Competitiveness Report 2005-2006* (Lopez-Carlos et al. 2005), and the CIA World Factbook. Only those indicators with a set of data available for at least six countries in the survey, with data after the year 2000, were used.

Data analysis involved correlations. As Spearman rank correlation coefficients (“ ρ ”) and tests are more reliable at lower values of n ($n=8$ in this study) than Pearson correlation coefficients, the former were used in most instances. However, if dense clustering would lead to a suspicious ρ^1 , the normal correlation coefficient (“Pearson r ”) was substituted instead.

Associated p-values are also shown. This study uses a version of the standard p-value classification (Keller, 2005). If $p \leq 0.05$, it is deemed very (or strongly) significant, and if $0.05 < p \leq 0.10$ then it is classified as weakly significant. If $p > 0.10$, there is no significance.

III. RESULTS

Health

Health CSR included programs such as mobile health camps, building and/or maintaining hospitals, infant health, blood drives, financial support for surgeries, donations to medical charities, treatment of rare diseases, and others.

Infant mortality and life expectancy were tested versus health CSR. A positive relationship was expected between health CSR and infant mortality, as increases in the latter may signify a decrease in health status and greater need for health CSR. A negative relationship was expected between health CSR and life expectancy because increases in the latter signify healthier populations and less need for health CSR.

H_1^a : health CSR is positively correlated with infant mortality

H_1^b : health CSR is negatively correlated with life expectancy

Table 1: Health CSR

	Hypothesis	Spearman ρ	Significance
Health CSR vs. Infant Mortality*	H_1^a	0.55	Weak
Health CSR vs. Life Expectancy*	H_1^b	-0.74	Strong

Note: *Taken from WHO World Health Statistics 2006.

Education

Compulsory education CSR included school-building, school facility improvements, school supply provision, and others.

Compulsory education CSR was tested for rank correlation with several education-specific indicators: it was expected to decrease with increasing literacy, increase with increasing primary and secondary pupil-teacher ratios, decrease with increasing educational quality – both public schools and education. Increasing literacy is thought to create less need for compulsory education CSR; higher pupil-teacher ratios are thought to be a sign of stress on the education system, leading to greater need for compulsory education CSR; and better educational infrastructure quality is thought to create less need for compulsory education CSR.

H_2^a : compulsory education CSR is negatively correlated with literacy rate

H_2^b : compulsory education CSR is positively correlated with primary pupil-teacher ratio

H_2^c : compulsory education CSR is positively correlated with secondary pupil-teacher ratio

H_2^d : compulsory education CSR is negatively correlated with public school quality

H_2^e : compulsory education CSR is negatively correlated with educational quality

Table 2: Education CSR

	Hypothesis	Spearman ρ	Significance
Compulsory Education CSR vs. Literacy Rate ^a	H_2^a	-0.48 ^z -0.80	Strong
Compulsory Education CSR vs. Primary Pupil-Teacher Ratio ^a	H_2^b	0.64	Weak
Compulsory Education CSR vs. Secondary Pupil-Teacher Ratio ^a	H_2^c	0.86	Strong
Compulsory Education CSR vs. Quality of Public Schools ^b	H_2^d	-0.88	Strong
Compulsory Education CSR vs. Quality of Education ^b	H_2^e	-0.57	Weak

Notes: ^aTaken from UNESCO Institute for Statistics, ^bTaken from Lopez-Carlos et al. (2005) and ^zPearson correlation coefficient.

Agricultural Development

Agricultural development CSR included programs to increase crop yield, improve agricultural infrastructure (most notably irrigation systems), agribusiness initiatives, volunteering, technological aid for farmers, and others.

Well-known agricultural indicators measuring its importance were hypothesized to positively correlate with agricultural development CSR. It was expected to increase with agriculture as a percentage of the economy, agriculture as a percentage of the workforce, and agricultural area percentage – all because greater prominence of agriculture in society could lead to increased attention by CSR programs.

H₃^a: agricultural development CSR is positively correlated with agriculture as a percentage of the economy

H₃^b: agricultural development CSR is positively correlated with agriculture as a percentage of the workforce

H₃^c: agricultural development CSR is positively correlated with agricultural area percentage

TABLE 3: AGRICULTURAL DEVELOPMENT CSR

	Hypothesis	Spearman ρ	Significance
Agricultural Development CSR vs. Agriculture as % GDP*	H ₃ ^a	0.81	Strong
Agricultural Development CSR vs. Agriculture as % workforce*	H ₃ ^b	0.66	Strong
Agricultural Development CSR vs. Agricultural area as %*	H ₃ ^c	0.70	Strong

Note: *Taken from CIA World Factbook.

Business and Economic Development

Business and economic development CSR included programs such as loans, small and medium enterprise (SME) development, venture capital development, and others.

Increased financial liquidity was thought to decrease need for business and economic development CSR, as the latter were mainly involved with increasing financial liquidity. Thus:

H₄^a: business and economic development CSR is negatively correlated with ease of access to loans

H₄^b: business and economic development CSR is negatively correlated with venture capital availability

H₄^c: business and economic development CSR is negatively correlated with access to credit

Table 4: Agricultural Development CSR

	Hypothesis	Spearman ρ	Significance
Business/Economic Development CSR vs. Ease of Loans*	H ₄ ^a	-0.47	None
Business/Economic Development CSR vs. VC Availability*	H ₄ ^b	-0.47	None
Business/Economic Development CSR vs. Access to Credit*	H ₄ ^c	-0.21	None

Note: *Taken from WEF.

Environment

Environmental CSR includes activities such as designing environmentally and energy friendly products, recycling, have environmentally friendly procurement policies, checking suppliers' environmental management systems, carrying out hazardous waste management, solid waste management plans, and others. As the sample sizes of companies is not significantly large (and therefore statistical resolution would be problematic), all of these activities have been aggregated as simply "Environment".

Environmental CSR was expected to decrease with the stringency of environmental regulation because increased stringency leads to decreased need for businesses to take voluntary environmental initiatives; increase with increasing importance of environment in business planning because the latter can subsume environmental CSR; and increase with increasing protection of ecosystems by business because these two objectives subsume environmental CSR.

- H₅^a: environmental CSR is negatively correlated with stringency of environmental regulation
 H₅^b: environmental CSR is positively correlated with importance of environment in business planning
 H₅^c: environmental CSR is positively correlated with protection of the ecosystem by business

Table 5: Environment CSR

	Hypothesis	Spearman ρ	Significance
Environmental CSR vs. Stringency of Environmental Regulation*	H ₅ ^a	-0.060	None
Environmental CSR vs. Importance of Environment in Business Planning*	H ₅ ^b	0.00	None
Environmental CSR vs. Protection of Ecosystem By Business*	H ₅ ^c	-0.036	None

Note: *Taken from WEF.

Children and Youth

Corporations are frequently engaged in CSR programs targeted at youth through programs such as summer camps.

Children and youth CSR was expected to increase with three other indicators that reflect how many and how fast the children and youth are becoming an important demographic force in a country: population growth rate, fertility rate, and under-15 population percentage.

- H₆^a: children and youth CSR is positively correlated with population growth rate
 H₆^b: children and youth CSR is positively correlated with fertility rate
 H₆^c: children and youth CSR is positively correlated with under-15 population percentage

Table 6: Children and Youth CSR

	Hypothesis	Spearman ρ	Significance
Children/Youth CSR vs. Population Growth Rate*	H ₆ ^a	0.81	Strong
Children/Youth CSR vs. Fertility Rate*	H ₆ ^b	0.67	Strong
Children/Youth CSR vs. Under-15 Population %*	H ₆ ^c	-0.18	None

Note: *Taken from CIA World Factbook.

Research

Research for social purposes consisted of research CSR. A frequent mode of contribution consisted of donations for medical research. Another example included researching more environmentally-friendly technologies.

It was expected to increase with the capacity for innovation and intellectual property (IP) protection because the first is an indicator of research infrastructure and the second is an incentive for greater research infrastructure.

- H₇^a: research CSR is positively correlated with capacity for innovation
 H₇^b: research CSR is positively correlated with IP protection

Table 7: Research CSR

	Hypothesis	Spearman ρ	Significance
Research CSR vs. Capacity for Innovation*	H ₇ ^a	0.80	Strong
Research CSR vs. IP Protection*	H ₇ ^b	0.95	Strong

Note: *Taken from WEF.

IV. DISCUSSION

Correlations were found in a significant portion of the results. Out of 18 hypothesized correlations, 14 were found to give strong (11) or weak (3) correlations. While the percentage of correlations can vary depending on which hypotheses are investigated, the number found, 14, indicates that CSR activities do appear to be significantly linked to country conditions.

Significant correlations found can be explained as responses to indicators. In other words, there is likely causation between CSR area and country condition. These can be divided into several mechanisms.

First, CSR areas may respond to deteriorating country conditions. For instance, health CSR increases in response to increasing infant mortality because the private sector perceives higher infant mortality to be a greater incentive to respond through CSR than lower infant mortality. In the results, health and education CSR fit this pattern: health CSR increases in response to deteriorating health conditions, and education CSR increases in response to lower or strained education. Further, this mechanism could not function in the opposite causal direction, e.g. increased health CSR does not cause an increase in infant mortality.

Second, CSR areas may respond to issues of high national prominence. For instance, if agriculture constitutes a large part of the economy, agricultural development CSR will be higher as agricultural issues will be prominent. Corporations will also perceive its importance, and assign higher priority than if the issue were not as prominent. In the results, agricultural development and children and youth CSR fit this pattern. In the latter, a higher fertility rate and population growth rate may have made children and youth issues more prominent in those countries. This mechanism does not function in the opposite causal direction. Corporate social responsibility activities in agriculture probably do not cause changes in the composition of the national economy; the amount of agricultural development CSR appears to be far too small as a percentage of the total GDP from agriculture. Also, CSR activities involving the young and adolescents probably do not cause national demographic changes.

Third, CSR areas may respond to infrastructural capacity. This is illustrated through research CSR. This was apparent from the most frequent kinds of activities classified under research CSR: medical research and environmentally-friendly technology. These activities require and rely on research infrastructure, both human (scientists, engineers) and physical (laboratories, institutes). This mechanism can move in the opposite causal direction, namely that research CSR can increase the capacity for innovation and IP protection. However, it is likely that the *dominant* direction of causation is where research CSR responds to, and relies upon, underlying research infrastructure. Private sector funding for this CSR mode appears much lower than government and for-profit research expenditures such that any effect research CSR has on its relevant indicators, capacity for innovation and IP protection, are likely to be insignificant and offset by research CSR responding to indicators.

Through these three mechanisms, significant correlations in the study can be explained. However, this does not explain the correlations that were *not* found to be significant, primarily in the areas of business and economic development (Table 4), environment (Table 5), and one of the children and youth (Table 6) entries. There are several explanations possible for why we did not find significant correlations for these CSR areas.

First, there may not be a genuine relationship between a CSR area and the indicator. This may apply to, for instance, business and economic development CSR and capital availability (which all three entries in Table 4 test). It might be that business and economic development CSR programs, such as entrepreneurial loans, might be targeted only in specific rural areas and ignore conditions of average national capital availability.

Second, a relationship between a CSR area and an indicator may be subject to interference from another relationship between CSR and another variable. This can cause possible correlations to fail. For instance, in business and economic development CSR, it might be that SME loans do not depend on capital availability, but rather more on variables such as the structure of the economy (e.g., the size of the SME sector to large corporations). At other times, possible correlations may be weakened because of this mechanism. For instance, health CSR may increase in response to decreases in infant mortality. This might occur in an industrialized country, where low infant mortality may coincide with greater recognition and/or incidence of industrialized diseases such as diabetes and cardiovascular diseases. Health CSR may then increase, rather than decrease. Further, the interfering relationship may be the result of context-specific variables that are difficult to measure. There may be particular causes management of a company is involved with, which is a function of that company's history. Management may also have particular relationships with NGOs and government which influence CSR activities of a company. Graafland and van de Ven (2006) has found that companies can be significantly motivated by "moral" over "strategic" considerations; what is moral to one company may be different from another, and this may be an example of a context-specific variable that is difficult to measure.

Third, there may be reason to increase support for an area CSR regardless of indicators. This might be applied to children and youth CSR. For instance, countries with younger populations may strongly support children and youth CSR because they have incentive to take care of the large cohort of next generation leaders and citizens. On the other hand, countries with older societies may also highly value their younger generation because they are a scarce resource; thus CSR may generate large per child/youth benefits.

Fourth, and related to the third, there may be saturation of a certain CSR area. This seems applicable to environmental CSR, as virtually every corporate website mentions environmental activities, and these were classified under environmental CSR. If virtually every corporation is involved in environmental CSR, correlations between CSR and indicators will not be significant. Environmental CSR will appear independent of any indicators.

As pointed out in the introduction, [Baughn, et al., \(2007\)](#) found variables such as per capita output positively correlated with CSR activity. Our results do not appear to strongly support this, as we find conditions found predominantly in less developing countries, such as decreased population health, strained or lower education, more agriculture, and younger population, lead to increased CSR. The exceptions are business and economic development, environment, and research CSR – which might be explained by the above reasons. On whole, our study seems to indicate that developing countries have more CSR activity than developed countries.

However, this is likely a premature conclusion. The CSR areas chosen for our investigation are found more in CSR programs of developing country companies; in other words, the chosen CSR areas favor developing countries. For instance, it is less common for a developed country company to be engaged in agricultural development CSR; industrialized countries tend to have much smaller proportions of their economy composed of agriculture. Corporations from more industrialized economies invest in CSR areas not covered by our study. For instance, many western companies may invest significantly in human rights or advanced education (e.g. scholarships). If more industrialized companies have more CSR in these areas, they will likely invest in more CSR than developing country companies. This effect will be accentuated because [Beliveau, et al., \(1994\)](#) has found that increased profit leads to increased CSR involvement; industrialized companies have higher profit amounts in aggregate and on average. Besides a more inclusive list of Asian countries, using indicators that less favor developing countries will increase accuracy of future comparative CSR studies.

V. CONCLUSION

This study shows how some CSR areas may be influenced by country conditions. At a general level, the key findings of this study are (1) certain CSR areas respond to country conditions, (2) that they can be explained through several possible mechanisms, but (3) that certain other CSR areas do not respond to country conditions, which (4) may be subject to a variety of explanations. These reactions to different country conditions can explain, in part, the differences in Asian national CSR profiles found in other studies ([Chapple and Moon, 2005](#)).

The Asian private sector appears to be responding to social conditions in areas such as health, education, and prominent issues of the country, such as agricultural development and children and youth. In research CSR, corporations may not be addressing the underlying social condition of increasing research, but it may be addressing and contributing to society through research results. However, in other areas such as business and economic development and environment, while there is CSR activity, does not appear to be responding to social conditions.

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REFERENCES

- Baughn, C., Bodie, N., and McIntosh, J. (2007). Corporate social and environmental responsibility in Asian countries and other geographical regions. *Corporate Social Responsibility and Environmental Management*, 14(4), 189-205.
- Beliveau, B., Cottrill, M., and O'Neill, H. (1994). Predicting corporate social responsiveness: A model drawn from three perspectives. *Journal of Business Ethics*, 13, 731-738.
- Chapple, W., and Moon, J. (2005). Corporate social responsibility (CSR) in Asia: A seven country study of CSR website reporting. *Business and Society*, 44, 415-441.
- CIA World Factbook. Website lists various country statistics. [On-line]. Available: (<https://www.cia.gov/cia/publications/factbook/index.html>).
- Garriga, E., and Melé, D. (2004). Corporate social responsibility theories: Mapping the territory. *Journal of Business Ethics*, 53, 51-71.
- Graafland, J., and van de Ven, B. (2006). Strategic and moral motivation for corporate social responsibility. *The Journal of Corporate Citizenship*, 22, 111-123.
- Keller, G. (2005). *Statistics for Management and Economics* (7th ed.). Singapore: Thomson.
- KPMG. (2005). *KPMG International Survey of Corporate Responsibility Reporting 2005*. Amsterdam: KPMG Global Sustainability Services.
- Lantos, G.P. (2001). The boundaries of strategic corporate social responsibility. *The Journal of Consumer Marketing*, 18, 595-649.
- Mohr, L.A., et al. (2001). Do consumers expect companies to be socially responsible? The impact of corporate social responsibility on buying behavior. *The Journal of Consumer Affairs*, 35(1), 45-72.
- Ramasamy, B., and Hung, W. (2004). A comparative analysis of corporate social responsibility awareness: Malaysian and Singaporean firms. *Journal of Corporate Citizenship*, 13, 109-123.
- UN Statistics Division website lists various international statistics (unstats.un.org/unsd/databases.htm).
- UNESCO Institute for Statistics website lists education-related statistics (www.uis.unesco.org/ev_en.php?ID=2867_201&ID2=DO_TOPIC).
- Van Marrewijk, M. (2003). Concepts and definitions of CSR and corporate sustainability: Between agency and communion. *Journal of Business Ethics*, 44, 95-105.
- WHO Statistical Information System website lists health-related statistics (www.who.int/whosis/en/).
- Welford, R. (2003). Corporate Social Responsibility in Europe and Asia: Critical Elements and Best Practice. *The Journal of Corporate Citizenship*, 13 (Spring 2004), 31-47.
- Welford, R. (2005). Corporate Social Responsibility in Europe, North America and Asia: 2004 Survey Results. *The Journal of Corporate Citizenship*, 17, 33-52.
- Yazhou Zhoukan. (2005). *Asia's top 1000 corporations*. [On-line]. Available: www.yzzk.com/htm/events/2005_1000/.