# CORPORATE SOCIAL RESPONSIBILITY IN BRAZIL AND CHINA: AN ANALYSIS OF SUSTAINABILITY POLICIES IN TEXTILE FIRMS

**Autoria:** Monica Cavalcanti Sá de Abreu, Francisco de Assis Soares, Felipe de Castro, Sandra Maria dos Santos, Ana Rita Pinheiro de Freitas

## ABSTRACT

As two of the BRIC nations, Brazil and China are growing fast economically. Changes in Government policy over recent years have aimed at supporting accelerated growth. Both countries have assumed more importance in international affairs and leadership roles in their respective regions. Nevertheless, it is not clear how the rise of the BRIC nations will be manifest in terms of corporate social responsibility (CSR) approaches. Corporate social responsibility (CSR) can be defined as the duty of a corporation to create wealth in ways that avoid harm to, protect, or enhance societal assets and the environment. The fundamental idea is that corporations have duties that go beyond lawful execution of their economic function. The overall performance of a firm must benefit society. This paper identifies differences and similarities in corporate social responsibility policies of several textile companies located in China and Brazil. A survey of 45 managers covered five main CSR polices involving practices related to marketplace, workplace, environment, community relationships and company values. Regression models were used to determine the influence of three variables (country, size and nature of production process) on the adoption of CSR polices by firms. The results revealed that the country exerts a significant influence and that Brazilian firms have more CSR practice in place than Chinese firms. The macro institutional environment in a country strongly affects firm CSR policy. Brazil has a more rule-based governance environment and democratic maturity regarding economic, political and racial issues which exert a significant influence on CSR adoption. Legislation imposes economic policies and control over the activities of firms and it is crucial for them to implement sound social and environmental practices. The results also show that firm size and production process do not significantly affect adoption of CSR polices. Our study also reveals that CSR is not widely used in textile industries in either China or Brazil. There are some differences between the practices emphasized in the two countries but no difference in company values, probably because textile industry is exposed to a highly competitive global market where success is mainly achieved by low prices. Even in a globalized competitive environment, firms having the same size e technological process can have different approaches in terms of CSR depending on the country. Our findings suggest that Governments in emerging countries should strengthen the enforcement of regulations but also provide adequate infrastructure, training and incentives that support common environmental and social goals of government, business and society.

**Keywords:** Sustainable Development in Emerging Market Economies; Corporate Social Responsibility, Environmental Management; Stakeholder Engagement, Brazil, China.

## 1 INTRODUCTION

Over the decades, the concept of corporate social responsibility (CSR) has continued to grow in importance and significance. The transformation process is subtle and involves evolutionary changes that have been dramatically reshaping the business world. Rainey (2006) addresses this point explicitly by discussing globalisation, technological changes, economic drivers, and social and environmental mandates.

Blowfield and Murray (2008) explain that the meaning of corporate social responsibility (CSR) is constantly changing as society itself evolves, affecting the expectations of business and the way in which its relationship with society is handled. These different perspectives reveal a multitude of ways in which businesses impact upon, and are affected by, the rest of society and hence a multiplicity of reasons why companies might want to manage that relationship.

Christmann and Taylor (2002) pointed out that the global dimension of CSR makes it the duty of a multinational corporation to voluntarily compensate for international and developing country regulatory deficiencies. In particular, multinational companies have adopted CSR as a risk management tool to decrease the possibility of negative public reactions to inappropriate behaviour by themselves, their subsidiaries or their suppliers.

Carroll and Shaban (2010) pointed out that though CSR continued its quest to find business legitimacy, the emergence and preoccupation with business ethics became a CSR dominant theme. The business community was seeking to rationalize and legitimize its activities. Similarly, Lee (2008) found that the concept of CSR went through a progressive rationalization evolving the level of analysis and the theoretical orientation. Studies have gradually moved from the discussion of macro-social effects and ethics to organizational-level analysis of CSR's effects on financial performance.

A lot of encouragement for CSR in Latin America and China comes from the US and Europe in terms of norms and vocabulary, and more directly as a result of supply chain requirements of international companies. Schmidheiny (2006) argued that the nature of CSR in Latin America and the Caribbean is somewhat different from that of developed countries as it is more focused on societal issues than on environmental ones.

Tsoi (2010) perceived that in China, CSR is fairly significant to large export-oriented businesses, but it is lagging behind the West due to the fact that most local/regional companies only become involved in CSR when this is a customer requirement. These companies normally meet local legislative requirements but see going beyond these requirements as unnecessary.

Based on corporate responsibility reports, Baskin (2006) concludes there is not a vast difference in the approach between leading companies in high-income OECD countries and their emerging-market peers. However, he states that CSR in developing countries is less embedded in corporate strategies, less pervasive and less politically rooted than in most OECD countries.

This study attempts to add to the existing knowledge based on CSR by conducting a comparative analysis of approaches by Brazilian and Chinese textile companies and examines the extent to which the CSR policies approach are different in the two countries.

In the following section of this paper we review concepts and perspectives on CSR in general and particular approaches in Brazil and China. Then, we present the empirical research methodology which was used to collect and analyze data. The main results of the survey are presented and discussed in the forth section in relation to corporate social responsibility in the Brazilian and Chinese contexts. The final section draws conclusion as to what makes CSR in China different from the typical manifestation in Brazil.

## 2. CONTEXT AND DEVELOPMENT OF CSR IN BRAZIL AND CHINA

Visser (2008) identified ten major internal and external drivers for CSR in developing countries. Internal drivers refer to pressures from within the country and include: cultural tradition, political reform; socio-economic priorities; governance gaps; crisis response, and market access. External drivers tend to have a global origin and include: stakeholder activism; investment incentives; international standardization and supply chain. These categories are used to examine CSR drivers in the Brazilian context.

Analysing the cultural tradition, the Catholic's beliefs are one of the major motivations for philanthropy by firms which maybe a reason for the social focus of most CSR in Brazil. In addition, CSR cannot be divorced from the socio, economic and political changes beginning in 1985 when the military dictatorship was replaced by democratic government.

During the dictatorship (1964 to 1984) most Brazilian policy makers accepted the position that pollution and environmental degradation and social gaps were a price worth paying for economic development (Baer and Mueller, 1995; 1996). State intervention and control of the economy together with foreign exchange constraints caused hyperinflation and greater income disparity, eventually leading to the end the military dictatorship (Auty, 1995).

The Brazil's stabilization plan of 1994 ("Plano Real") can be seen as composed of three main blocks: market focus, industrial structure and a regime of incentives and regulations. According to Ferraz *et al*, (1999), market forces were changed by trade liberalization increasing both imports and exports. The industrial structure, in turn, was modified by privatisation of state companies and direct foreign investment. Government intervention in the economy was decreased by removal of incentives and regulations.

The "Plano Real" increased per capita income, however social inequalities have persisted. The privatisation process was seen as the solution to both the fiscal crisis and the lack of resources to finance investments (Baer and Bang, 2002). In fact debt payments to the IMF actually forced cuts in social programmes spending.

CSR in developing countries is often seen as being a way to plug the governance gap. As pointed out by Griesse (2007), there is a widespread perception in Brazil that the State is not able to provide an adequate quality of life for all of its citizens. Therefore, Brazilian firms have developed strategies to deal with social issues as well as environmental ones. These strategies involve workers rights, local community development and environment practices, ensuring transparency through annual reports.

The pressure from stakeholders increased greatly through catastrophic events with immediate impact are often more likely to elicit CSR response. In 2000, a disastrous oil leak occurred at Petrobras refinery near Curitiba in the southern state of Parana. It came only six months after an oil spill of more than one million litres which polluted Rio de Janeiro's picture-postcard Guanabara Bay (BBC News, 2001). Brazilian society was very worried about the "chemical risk" posed by industry (Mattos and Drummond, 2005; Bertoli and Ribeiro, 2006).

Blowfield and Frynas (2005) pointed out that CSR for the developing world tends to be analysed at the micro level, looking at what particular companies or initiatives are doing. Abreu (2009) collected data from an interview study among Brazilian textile, petrochemical and beverage manufacturing. The empirical results suggest that most petrochemical companies operate under the pressure of the international market and shareholders in order to present a good environmental image and, hence, performance.

On the other hand, textile companies define their strategy by low cost to compete against Asia's products. Similarly, beverage companies just attempt to comply with the stakeholder´s demands, which mean products with quality and low price. These Brazilian textile and beverage companies argued that they cannot afford to invest a large amount of money for a number of years to improve environmental performance of their products and process. Also, they faced a limited interest by customers in "green" products or environmental management.

In general, Brazilian corporations are experiencing new pressures from regulators, clients, NGOs, international investors and media to become more transparent and accountable for their social and environmental impacts (Oliveira, 2006). Jenkins (2001) pointed out that there is no doubt that environmental issues have moved up the policy agenda in Brazil

Nevertheless, Vivarta and Canela (2006) collected data from 54 Brazilian newspapers and reveals that the media has only a superficial understanding of CSR, when in-depth coverage is provided it is not accompanied by critical analyses and/or pluralistic views of the subject and the concept is often confused with social action.

According to Blowfield (2005) the biggest changes that have occurred are that vertically integrated companies are applying similar social and environmental standards in developing economies as in developed ones, while companies dependent on supply chains are taking responsibility for the social and environmental performance of their suppliers.

All these internal and external drivers presented by Visser (2008) can be a usual framework for understanding the drivers behind Brazilian CSR. Nevertheless, Schmidheiny (2006) questions the appropriateness of imported CSR approaches, where the most pressing issues like poverty and tax avoidance are typically not included in the CSR conceptions, tools and methodologies originating in developed countries.

China is still listed as a developing country but is rapidly changing. According to Braendle et al (2005), the GDP has grown by nearly 10% per year on average since 1979. It is now the second largest one and of the largest trading nation in the world. The country highlights the transition from a state planned into a market-oriented economy. The major reforms in the last 20 years have included the privatization and restructuring of state-owned enterprises (Bo et al, 2009).

China has become more integrated with the global economy through establishment of a global supply chains and becoming a major export nation. The Chinese Government has a strategy to attract foreign investments, keeps its exchange rate artificially low and takes advantage of multilateralism to encourage rapid market penetration (Athukorala, 2009).

According to Buhmann (2005), there have been impressive legal reforms in response to China's obligations upon become a member of the World Trade Organization (WTO). China relationships with other countries have become more intense due to both trade policy and security issues.

Despite of the structural reform and accelerated development, the Government responsibility to promote social welfare still remains a distinguishing feature of Chinese political ideology (Moon and Shen, 2010). On the other hand, Fang et al (2007) argued that the funds received from privatization, many were not use by the Government to promote social welfare and in addition many former State Owned Enterprises were relieved their previous social responsibilities, including environmental controls.

Darigan and Post (2009) pointed out that the Chinese government focus on rapid industrial development has had dire consequences on the environment. In response, environmental laws have been strengthened. However, punishment for violations remains limited. Also, the Chinese Government attracts investment through low labor salaries and allows industrial operations with minimal health and safety requirements. All these factors maintain the low costs of Chinese industry and in turn accelerate its economic development.

Ip (2009) pointed out that the CSR activity in China start in the mid 1990's. At that time a few large multinational and some major Chinese companies were interested in implementing codes of conduct. By the late 1990´s, a greater number of multinational companies began to apply such codes. However, this activity was limited to monitoring audits of the factories themselves. Consumers, government and the media were not aware of the concept of corporate social responsibility. Even workers, who took part in audits processes, had limited knowledge of CSR.

Utting (2003) pointed out that at a 'Labour Relations and Corporate Social Responsibility under Globalization Conference' in Beijing, CSR was identified as having a useful agenda for China to introduce socially responsible production and marketing practices. CSR was also seen as a way to raise awareness of the need for national ratification and compliance with international conventions and agreements related to labor and environmental issues and human rights.

According to Moon and Shen (2010), although, China has been adopting aspects of Anglo-American style corporate governance systems, there have been few government or non-government institutions to constrain anti-social behavior by the companies. Hence, national and provincial governments and, in some cases, businesses themselves have started to look to CSR as a way to re-build their social legitimacy.

Using data on 68 of the largest multinational companies in China and India, Lattemann et al (2009) suggested that the pattern of CSR development may be different among the emerging countries due to differences in governance systems. Even though India has a lower level of economic development than China, Indian firms report more frequently on CSR due to a more rule-based, as opposed to relation-based, governance environment. The authors suggest that CSR improvement will not be immediate since the governance environment changes relatively slowly.

## 3 METHODOLOGY

### 3.1 The Research Context of the Brazilian and Chinese Textile Industry

In the 1980s, the Brazilian textile industry was protected by high tariff barriers and considered technologically obsolete. During the structural reform, Brazilian textile manufacturers were caught in a squeeze. Keller (2006) pointed out that the Brazilian textile industry was not prepared for international competition because of a technological gap and the weak linkages backwards to the supply chain and forward to the consumers.

During the 1990s, a severe disease affected Brazilian cotton production. As a result, raw material and synthetic fibers had to be imported, which entailed extra costs to the industry (Kon and Coan, 2005). In addition, the elimination of textile quotas through the termination of the multi-fiber arrangement (MFA) removed protection in the Brazilian domestic market. Foreign producers, notably Chinese, provide quality competitive with domestic producers, but at lower prices.

A substantial percentage of textile companies could not withstand these external competitive pressures and failed. However, some invested in equipment, acquired other companies and established links to the supply chain in order to increase the productivity and quality of products. These companies changed their competitive strategy to focus on products differentiation or low price advantages. As a means of reducing production cost, many companies moved their operations to North Eastern Brazil to take advantage of state-level fiscal incentives and lower labor costs.

Frost and Ho (2006) argued that during the lead-up to the end of the multi-fiber arrangement (MFA) and the demise of apparel quotas, one of the favorite games played in the media was guessing industry winners and losers. The consensus was that the ramifications would be catastrophic for most countries but a big advantage to China which gained access to US and European markets. In fact Chinese exports rose a whopping 44.95%, but it was hard to conclude that China was going to gobble up the market.

According to Jiang (2005), lower price is an advantage for Chinese apparel and textile to participate in international competition. However, it would not be beneficial for China to further expand its international market if Chinese textile and apparel industry excessively depended on a lower prices strategy. The practice of reducing price could reduce the profit margin of export enterprises, thus hindering its economic progress.

Jenkins (2008) pointed out that existing measures of competition may under estimate the threat posed by Chinese industry on other developing countries. As a result there may be greater need for adjustment measures or preferential trading arrangements to limit the negative impacts from China. In addition, firms may need to find markets niches less exposed to Chinese competition.

## 3.2 The Survey of Corporate Social Responsibility in China and Brazil

The survey used the questionnaire developed for the 2005 Pan European Campaign on Corporate Social Responsibility by the European Commission Directorate-General for Enterprise. The campaign focused on SMEs that have undertaken CSR practices, in order to illustrate how other small businesses can integrate CSR in a more systematic way, communicate better on CSR and draw more benefits from it.

The questionnaire is composed of twenty-nine questions divided into five sections: workplace, environmental issues, the marketplace, community relationships and company values. In the "workplace" section is composed of five questions. Companies were asked if their practices included employee training and competence, discrimination efforts, consultations about important issues, health and safety plans and work-life balance.

The "environmental issues" section has nine questions about company programs related to energy efficiency, pollution prevention, protection of the natural environment, solid waste management and recycling, sustainable transport option, studies of potential environmental impacts when developing new products and services and environmental disclosure. They were also asked if these programmes result in significant cost-reductions for business and/or provide competitive advantage relative to other companies.

In the "marketplace" section, there are five questions intended to identify if the company ensures honesty and quality in all its contracts, dealings and advertising; supplies clear and accurate information and labeling about products and services, including its after-sales obligations; ensures timely payment of suppliers' invoices; has a process to ensure effective feedback, consultation and/or dialogue with customers and suppliers and the other people with which the company does business.

The forth section of the questionnaire, related to the "Community Relationships", has five questions intended to identify if the company offers training opportunities to people from the local community; has an open dialogue with the local community on adverse, controversial or sensitive issues that involve the enterprise and/or tries to purchase locally. It is also asked if the employees are encouraged to participate in local community activities and if the company gives regular financial support to local community activities and projects.

The last section of the questionnaire also has five questions intended to indentify if the "Company Values" and the rules of conduct are clearly defined and communicated to all stakeholders. Additionally, questions ask if the employees and customers are aware of the company´s values and rules of conduct.

## 3.3 The Dependent Variable: CSR Policy

In a context of Chinese and Brazilian textile industries currently operating in quota free environment it is useful to understand the extent to which CSR practices have been implemented. CSR policy is a dependent variable and is an aggregate measure of responses to questions in all sections of the questionnaire.

The CSR policy dependent variable was measured as follows - if a firm answered "yes" in the questionnaire for any practices we assigned it one point. Then the total number of affirmative answers was calculated as a percentage of the total number of possible answers.

## 3.4 The Independent Variables and Hypotheses

The framework proposed by Lattemann et al (2009) was followed to take into account the affect of both the external environment and the internal environment on CSR policies. Three independent variable, namely country, nature of production process and size, were analyzed and hypotheses related to each of them are outlined in the following.

Related to country, a dummy variable was included to indicate if the firm operates in Brazil, which we coded it "1", if not we assigned a value of "0". Baughn et al (2007), stated that CSR policies and practices in Asia have often been compared unfavorably with those in the US, Europe and Australia. However, concerns about pollution are now leading to pressures for change. Chapple and Moon (2007) note that while the most established form of CSR in Asia involves traditional community involvement, new forms, including socially responsible employee relations are being introduced.

In the Brazilian case, Damiano-Teixeira and Pompermayer (2007) observed that the private sector is increasingly becoming more conscious of its social role related to the community and the environment, establishing a new concept of business ethics. Aguilera et al (2006) pointed out that a firm´s level of commitment to CSR is likely to be influenced by national and transnational actors and agencies.

As pointed out by Christmann and Taylor (2001), based on studies of Chinese firms, governmental failure to protect the environment and the social rights can be ameliorated through self-regulated environmental and social performance by firms. Kolk et al (2010) explored a small sample of retailers in China, both Chinese and non-Chinese international companies. The analysis of communications about CSR/Sustainability dimensions by these large retailers shows substantial differences between Chinese and international companies. The Chinese companies report more on economic dimensions and philanthropy actions, and the international companies more on product responsibility. Contentious labor and environment issues received limited attention in communications by both groups.

A similar study by Muller and Kolk (2010) in Mexico collected empirical evidence through a survey of foreign and locally owned auto parts suppliers. The results show that the extent of management commitment to ethics can have more influence than external factors, such as foreign ownership. The study also shows that firms in different contexts may exhibit identical behaviour, but do so for different reasons. Based on the literature review outlined above it is hypothesized that:

*Hypothesis 1: The textile firms located in Brazil has adopted more CSR practices than the Chinese ones.*

A dummy variable was also included to represent the nature of the operational process. A clothing firm was coded as "1" and textile production is assigned a value of "0". González-Benito and González-Benito (2010) pointed out that manufacturers of intermediate products and extractors of raw materials might be better able to camouflage their activities behind the final producers' trademarks, with which distributors, final consumers and other external stakeholders identify more readily.

According to Crandall (2006), consumers are increasingly aware of the need for environmental and ethical business practices. The demand of consumers has now become the most important external pressure affecting the environmental performance of companies (Daub and Ergenzinger, 2005). Therefore, a hypothesis is postulated for this component of CSR policies:

*Hypothesis 2: Clothing firms have adopted more comprehensive CSR practices than textile manufactures.*

A third dummy variable was included to indicate if a firm is large or medium size which was coded as "1", if is not we assigned a value of zero. Companies face different environmental problems and pressures according to their size (Aragon-Correa et al., 2008). Gonzalez-Benito and Gonzalez-Benito (2010) pointed out that large firms tend to be more inclined to adopt CSR practices, mainly related to environmental issues. Also size can be considered as indicator of the resource available to the firm to engage in social behavior (Christmann and Taylor, 2001). Giving these arguments the following hypothesis is proposed:

*Hypothesis 3: Larger firms have more CSR practices in place*

González-Benito and González-Benito (2010) attempted to identify factors that determine the degree of stakeholder pressure as perceived by a company. They analyze the role played by six variables: company size, internationalization, location, position in the supply chain, industrial sector and managerial values. The survey of Spanish companies reveal two general categories of stakeholder pressures, governmental and nongovernmental, and confirms that variables which play important roles in both categories include environmental awareness among managers, internationalization, industrial sector and company size.

## 3.5 The Proposed Regressions Models

The hypotheses $H_1$, $H_2$ and $H_3$ were empirically analyzed following the methodology proposed by Lattemann et al (2009). For each hypothesis the authors test the isolated effect of the related independent variable and the joint effect of all variables in order to identify the extent to each industry and firm characteristics affects the mean difference between China and India.

In this way, multiple regression analysis was employed to examine the data and to test the hypotheses. We first ran three sets of regressions to assess individually explanatory power of each of the dummy variables, i.e. country (Model 1), nature of production process (Model 2) and size (Model 3) independent variables.

A regression was used to analyze collectively the three independent variables (Model 4). Using this multiple model approach, we were able to discern the impact of country- , nature of production process- and size- on CSR policy. In this context, four regressions were specifying according to the linear equations presented below:

(1) Country effect: $CSR_i = \beta_0 + \beta_1 B_i + \mu_i$ , where $B_i = 1$ if the company is located in Brazil (i = 1, 2, 3,..,45) and $B_i = 0$ if the company is located in China.

(2) Process effect: $CSR_i = \beta_0 + \beta_1 P_i + \mu_i$ , where $P_i = 1$ if the company belongs to the clothing sector and $P_i = 0$ if the company is a textile manufacturer.

(3) Size effect: $CSR_i = \beta_0 + \beta_1 S_i + \mu_i$ , where $S_i = 1$ if the company is large or medium size and $S_i = 0$ if it is small.

(4) Joint effect: $CSR_i = \beta_0 + \beta_1 B_i + \beta_2 S_i + \beta_3 P_i + \mu_i$.

Model 4 may not capture correctly how size and nature of production process affect the difference between CSR policy means of Brazil and China. For this reason, two others models (5 and 6) were employed to capture the extent to which the nature of the process and firm size differ according to the country where the company is located.

Model 5 intends to verify how Brazil and China were different in terms of CSR polices associated with the interrelationship between size and process. Equation 5 contains three dummy variables: one related to country, a second which is the product of the dummy variables related to country and size, and a third which is the product of those related to country and nature of production process.

(5) Country effect with the interaction about size and nature of production process.

$CSR_i = \beta_0 + \beta_1 B_i + \beta_2 B_i{*}S_i + \beta_3 B_i{*}P_i + \mu_i$.

Finally, Model 6 captures the same effect as model 5 but also takes into account the separate effects of firm size and nature of the process. This model would take into account all interactions between the independent variables and the extent to which they influence the CSR policy.

(6) Joint effect with the interaction of size and nature of production process.

$CSR_i = \beta_0 + \beta_1 B_i + \beta_2 T_i + \beta_3 P_i + \beta_4 B_i{*}S_i + \beta_5 B_i{*}P_i + \mu_i$.

## 3.6 Data Collection

Contacts were made with companies in Brazil which helped to identify appropriate Senior Managers who would agree to answer the questionnaire. In the case of China, assistance in identifying appropriate Managers was obtained from a Chinese trading company located in Hong Kong and the Brazil-China Chamber of Commerce and Industry. The questionnaire was then sent out directly to companies by email and returned by email as well.

The survey involved managers of firms located in Brazil, in the states of São Paulo and Ceará (31 questionnaires answered) and in China, in the cities of Beijing, Shanghai and Guangzhou (14 questionnaires answered). Data were collected in 2010. All analyses were made using the software EViews7.

# 4 RESULTS

To measure the relevance of CSR policies for the companies analyzed, we counted and summarized the practice that received the highest number of "yes" answers in each section of the questionnaire for each of the two countries. Table 1 shows the percentage of "yes" answer for each of these practices.

Related to Workplace practices Brazilian companies are more concerned with ensuring adequate steps are taken against discrimination reflecting the Brazilian government priorities and public concerns in this area, as seen in Table 1. On the other hand, Chinese firms encourage employees to develop real skills and long-term careers. There is a convergence in the

Environmental and Marketplace categories. Both Brazilian and Chinese firms are implementing actions to reduce the energy consumption, which represent the one of the most important cost items in the textile industry

In the Community Relationship category, firms in both countries seems to give priority to open dialogue with the local community, but those in Brazil place more emphasis on training while Chinese firms emphasis commercial relationships. In Brazil, firms are worried about developing codes of conduct.

**TABLE 1**
**Practices Receiving the Most Affirmative Answers**

| CSR Practices | Questions | Brazil (N = 31) | China (N = 14) |
|---|---|---|---|
| **Workplace** | Ensure adequate steps are taken against discrimination | 26 (83.87%) | |
| | Encourage the employees to develop real skills and long-term careers | | 7 (50%) |
| **Environment** | Reduce environmental impact in terms of energy conservation | 24 (77.42%) | 9 (64.29%) |
| **Marketplace** | Ensure timely payment of suppliers' invoices | 31 (100%) | 13 (92.86%) |
| **Community relationship** | Offer training opportunities to people from the local community | 22 (70.97%) | |
| | Open dialogue with the local community on adverse, controversial or sensitive issues that involve the enterprise | 22 (70.97%) | 8 (57.14%) |
| | Try to purchase locally | | 8 (57.17%) |
| **Company values** | Clearly defined the enterprise's values and rules of conduct | 25 (80.65%) | |
| | The employees aware of the enterprise's values and rules of conduct | 25 (80.65%) | 10 (71.43%) |

The results revealed that CSR policy is not widely used either in China or Brazil, as seen in table 2. Overall, Brazilian textiles firms answered more questions positively than Chinese firms. The differences are significant in all categories except company values. Possible reasons for the limited use of CSR in textile firms and the differences between the survey results in Brazil and China are outlined below.

**TABLE 2**
**Differences between Mean Numbers of Affirmative Answers: Brazil and China**

| Variables | Brazil mean | China mean | Mean difference | Sig. level |
|---|---|---|---|---|
| CSR Policy | 18.74 | 12.14 | 6.60 | 0.017* |
| Workplace | 2.97 | 1.64 | 1.33 | 0.015* |
| Environment | 5.23 | 3.07 | 2.16 | 0.038* |
| Marketplace | 3.87 | 2.79 | 1.08 | 0.014* |
| Community relationship | 2.94 | 2.07 | 0.87 | 0.049* |
| Company values | 3.74 | 2.57 | 1.17 | 0.064 |

p*<.05 (bi-tailed)

The Workplace practices received a low number of "yes" answers in both China and Brazil. This result could be related to minimal labor and health and safety legislation and its enforcement, together with the low value placed on human resource under corporate strategies of textile firms. In addition, people attracted to work for textile firms to not have high career expectation.

Brazilian firms have a significantly higher number of “yes” answers in the Workplace category than those in China. The fact that labor legislation is more structured in Brazil than in China could explain some of the differences. According to Lattemann et al (2009), the totalitarian rule imposed by the Chinese Communist Party (CCP) in China completely destroyed the independence of the law, judges, and courts because they are appointed by the party. The formal legal systems lack continuity, fairness and transparency.

In contrast to China´s communist revolutionary history, the Brazilian democratic system has existed for more than 25 years and labor legislation has been in place since 1943. The independence of the legal system and others checks and balances mechanism provided by the democratic system have made Brazil´s governance environment relatively more rule-based than China´s.

Brazilian labor legislation requires the maintenance of minimal working conditions and imposes obligations with respect to employers. However, improvements such as employee training, benefits beyond those required by law, flexible schedules, participation in decision-making processes can be seen only in a few Brazilian companies, and mostly in large companies.

Textile companies seldom go beyond the minimal requirements. In addition, there is some evidence that, in order to escape from high taxes, Brazilian firms use informal worker contracting arrangements which do not guarantee the minimal legal requirements.

Table 2 shows that Brazilian firms have more affirmative answers to questions on environmental issues. Jenkins (2001) argued that environmental regulation has been a key factor driving Brazilian firms to improve their environmental performance. This is possible because, environmental legislation and its enforcement are stricter in Brazil than in China, Brazilian companies may be more environmentally responsible.

In spite of the above, Abreu (2009) pointed out that Brazilian textile companies fulfill the minimum legal requirements of enforcement agencies. Textile companies are less developed in terms of measuring and monitoring, and their main operational controls involve wastewater and electric energy, which represents two of the most significant production cost items.

The Brazilian economic environment is jeopardized by high taxes and interest rates, which reduce investment possibilities. Textile companies have demanded financial support from governments and have received assistance through subsidies. Most of them have also cut their costs stringently.

Regarding Marketplace, Brazilian firms focus on capturing internal markets while Chinese firms are more export oriented and this might explain the results presented on table 2. Textile industry is exposed to a highly competitive global market where success is mainly achieved by low prices.

The Brazilian clothing industry tends to aggregate more value in its products particularly through investment on design. China, on the other hand, is a low cost mass producer. As pointed out by Lindgren et al (2010), Chinese textile firms minimize cost of facilities, infrastructure, human resources and technological support. Because of these differences, Brazilian firms pay more attention to customer and suppliers relationships which are more closely related to CSR practices.

Analyzing the Community Relationship, Brazil seems to have more links with the local community. Brazilian textile companies engage with the local community mainly to get the social license to operate and attract employees from the community nearby the facility. This communication process helps to build the company reputation.

There is no significant difference between Company Values of firms in Brazil and China, as seen in table 2. Although as stated above, Brazilian companies give more emphasis to product quality, when it comes to company values related to environmental and social issues low cost international market strategies limit attention in both country.

After the examination of the basic statistics of the CSR policies, multiple regression analyses was conducted to more rigorously examine how much the country, nature of production process and size affect the adoption of CSR practices. Table 3 summarizes the regression analyses of the first four models.

**TABLE 3**
**Results of Regression Models 1 to 4**

| | Model 1 (Country) | | Model 2 (Process) | | Model 3 (Size) | | Model 4 (Joint) | |
|---|---|---|---|---|---|---|---|---|
| Description | Coeff. | t-stat. | Coeff. | t-stat. | Coeff. | t-stat. | Coeff. | t-stat. |
| (Constant) | 0.419* | 5.50 | 0.649* | 10.30 | 0.490* | 7.031 | 0.366* | 3.445 |
| Country ID | 0.227* | 2.48 | | | | | 0.256* | 2.912 |
| Process ID | | | -0.14 | -1.63 | | | -0.122 | 1.4923 |
| Size ID | | | | | 0.142 | 1.574 | 0.159** | 1.893 |
| R-Square | | 0.125 | | 0.058 | | 0.054 | | 0.252 |
| Adjusted R-Square | | 0.105 | | 0.036 | | 0.032 | | 0.197 |
| F-statistics | | 6.16* | | 2.66 | | 2.478 | | 4.596** |
| N | | 45 | | 45 | | 45 | | 45 |

Country ID: Brazil (1), China (0) - Process ID: Clothing (1), Textile Manufacturing (0)Size ID: Large/Medium (1), Small/Micro (0) - *p < 0.05 , **p<0.10

With regard to model 1, as can be seen in Column 1, the country dummy variable is highly significant, suggesting a strong relationship between the country and CSR policy adoption. Model 1 shows that the country alone explains 10.5 per cent of the variation in CSR policy adoption by firms. This further confirms what we found in table 2, i.e., at the country level Brazilian firms have higher CSR policy intensity than Chinese firms.

Model 2 estimates the effect of the nature of production process on a CSR policy. The adjusted r-squared of the model is only 3.6 per cent and the relationship is not significant. Thus we reject the hypotheses that Clothing firms have adopted more comprehensive CSR practices than textile manufactures. The nature of the production process by itself cannot explain a significant portion of the variation in CSR policy of the firms surveyed.

Similarly, Model 3 shows the effect of firm size is not significant. Thus, we reject the hypotheses that larger firms, measured by the number of employees, have more CSR practices in place. The explanatory power of Model 3 is only 3.25 per cent, which is almost the same as the Model 2 result.

Model 4 takes into account all of the three independent variables: country; nature of production process and firm size. The overall explanatory power is improved substantially over the first three models, with an adjusted r-squared of 19.7 per cent. The country variable is both significant and positive in explaining a firm's CSR policy (country, t= 2.91, p<0.05). We find that size variable is significant related to CSR policy and demonstrated the expected relationship that larger firms adopt more CSR practices, as conjectured in our hypotheses, lending to acceptance of $H_3$ (size, p<0.10 for the joint model). Model 4 continues to show that nature of production process does not have a significant effect which confirms the rejection of $H_2$.

Results of the regressions using Model 5 and Model 6 are presented in table 4. The country, in which a firm operates, either China or Brazil, influences the adoption of CSR policy. The overall explanatory power of the model 5 is improved substantially over the previous models, with an adjusted r-squared of 34.6 per cent. The country-level explanatory variable is both significant and positive in explaining a firm's CSR policy, strongly supporting $H_1$ (country, t=2.69, p<0.05) which stated that textile firms located in Brazil have adopted more CSR practices than the Chinese ones.

**TABLE 4**
**Results of the Regression Models 5 and 6**

| | Model 5 (Country Influence) | | Model 6 (Joint Influence) | |
|---|---|---|---|---|
| Description | Coeff. | t-stat. | Coeff. | t-stat. |
| (Constant) | 0.4187* | 6.4388 | 0.3322* | 2.7615 |
| Country ID | 0.3064* | 2.6932 | 0.3928* | 2.6267 |
| Process ID | | | 0.3262* | 2.4998 |
| Size ID | | | -0.1072 | -0.7428 |
| Country-size | 0.1366 | 1.4518 | 0.2439 | 1.4351 |
| Country-process | -0.2979* | -3.1781 | -0.6241* | -3.9480 |
| R-Square | 0.3905 | | 0.4747 | |
| Adjusted R-Square | 0.3459 | | 0.4074 | |
| F-statistics | 8.7578* | | 7.0499* | |
| N | 45 | | 45 | |

Country ID: Brazil (1), China (0)
Process ID: Clothing (1), Textile Manufacturing (0)
Size ID: Large/Medium (1), Small/Micro (0)
*p < 0.05 , **p<0.10

Examining the role of the country-nature of production process variable, we find that this variable has a significant influence but negative sign. This result means that the nature of the production process is influenced by the country where firms operate and this effect is stronger for textile manufactures than clothing companies.

The overall explanatory power of the model 6 is improved substantially over the previous models, with an adjusted r-squared of 40.74 per cent. Similar to model 5, the country-level explanatory variable is both significant and positive in explaining a firm's CSR policy, strongly supporting $H_1$ (country, t=2.63, p<0.05). The nature of production process variable is also significant and positive. However, when we adjust the value of nature of production process by country, this variable was kept significant but negative.

Comparing model 6 results to the joint effect represented by model 4, there is a reversal of signs on the coefficients estimated for nature of production processes and size. This indicates that the three forces (country, process and size) interact to determine the firm behavior over decisions about CRS policies. In this case, the positive effect of country dominates the negative effect of size, as seen by the positive sign of the coefficient of cross effect for country-size. This indicates that there are country features (i.e. culture, legislation, human resources) which outweigh the company size and counterbalance an effect which is contrary to $H_3$. However, the results show that the effect of process outweighs the influence of country, revealing that technology is capable of creating different CSR approaches that are not country dependent.

# 5 CONCLUDING REMARKS

The four BRIC nations are often considered together as a bloc on the assumption that they have common characteristics. However, in reality each of these nations has its own culture, governance environment and economic orientation. In particular, Brazil and China are both have rapidly growing economic but there are many differences that have not been subject to much exploration.

The survey clearly demonstrates that there are significant differences between CSR policies in the two countries and that the country where firm is located is far more important than other factors, such as size of firm and nature of production process. Firm size and nature of production process themselves do not affect the firm's CSR behavior. In this context, firms with similar features could adopt different CSR approaches depending on the country where they operate.

Brazilian textile companies are more concerned with CSR practices as exactly as hypothesized. This result is in accordance with Lattemann et al (2009) that the macro institutional environment in a country strongly affects the CSR behavior. Brazil has a more rule-based governance environment and democratic maturity regarding economic, political and racial issues which exert a significant influence on CSR adoption. Legislation imposes economic policies and control over the activities of firms and it is crucial for them to implement sound social and environmental practices.

Alon et al (2010) found that Brazil scored better than China in an investigation of CSR motives, process and stakeholder among the BRIC nations. Stakeholders were most emphasized by Brazilian firms. CSR activities in China emphasized either performance or stakeholders. In terms of processes, in Brazil, volunteerism, health and the environment were equally and highly emphasized in corporate communications. In contrast, Chinese firms emphasis was on sponsorships of arts and culture.

However, the current study shows that neither Brazilian nor Chinese textile firms embed corporate social responsibility policies in their strategy plan or consider CSR as a priority even in a long term. Brazilian firms are more active regarding the environment and community relationships than the Chinese firms. The differences appear to be the result of stronger environmental regulation and an established and expected practice of community-industry relationships in Brazil.

In the case of marketing policies and working place there are only minor differences between the two countries. There is no difference in company values probably due to the fact that textile industry is exposed to a highly competitive global market where success is mainly achieved by low prices.

This study is not without limitations. It is based on a survey of a small number of firms. We cannot generalize our results to all Brazilian and Chinese textile firms. Clearly more research is need in this area. Some of the linkages observed in the survey may not reflect "true" relationships but "noise" associated with the variables studied.

In spite of these limitations, the paper sheds light on the multifaceted aspects of CSR policies in Brazil and China, which have extraordinary economic, social, cultural and ecological differences. The governance environment of the country influences variables related to the industry and individual firms. Even in a globalized competitive environment, firms having the same size e technological process can have different approaches in terms of CSR depending on the country. Our findings suggest that Governments in emerging countries should strengthen the enforcement of regulations but also provide adequate infrastructure, training and incentives that support common environmental and social goals of government, business and society.

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