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Truly sustainable or not? An exploratory assessment of sustainability capability of textile and apparel corporations in China from the moral responsibility perspective

Nannan Yang^{1*}  and Jung E. Ha-Brookshire²

*Correspondence:

sxyynn@bift.edu.cn

¹ Beijing Institute of Fashion Technology, No. 2, East Yinghua Road, Chaoyang District, Beijing 100029, People's Republic of China
Full list of author information is available at the end of the article

Abstract

Within the moral responsibility theory of corporate sustainability (MRCS) framework (Ha-Brookshire in *J Bus Ethics*, 2015. <https://doi.org/10.1007/s10551-015-2847-2>), the study examined 86 sustainability reports from top performing textile and apparel companies in China to explore their perceptions and sustainability capability implications. Content analysis of their sustainability reports was conducted to analyze whether each company (a) perceives sustainability as a perfect duty or not, (b) has clear goals toward sustainability or not, and (c) has well-defined structures toward sustainability goals or not. Results show that 66 of the 86 reports described sustainability as a perfect duty to fulfill; 11 described as an imperfect duty, and 9 described no opinions about sustainability. Of the 66 reports, 19 explicitly showed clear goals and the evidence of organizational structures toward such goals, leading us to categorize them as truly sustainable corporations as Ha-Brookshire (2015) described. Of the 66, 43 lacked clear sustainability goals, leading us to categorize them as occasionally sustainable corporations as described by Ha-Brookshire (2015). Other firms were also categorized within the MRCS framework. Findings show a spectrum of Chinese textile and apparel companies' sustainability capability from the moral responsibility perspective.

Keywords: Corporate sustainability, Textile and apparel, Moral responsibility, China

Introduction

Due to the resource- and labor-intensive and highly polluting features, the need for sustainable development of the textile and apparel (T&A) industry has been attracting much attention worldwide. Poor labor conditions are often reported in many developing economies vying for shares of the world textile and apparel exports (Chan 2013; Claudio 2007; Parry 2016). In addition, environmental threats, as from the energy-intensive fiber manufacturing, hazardous effluents from dyeing and finishing, and large landfilled wastes due to “overconsumption” of apparel, have captured public interest and been discussed extensively (Claudio 2007; Muthu et al. 2012; Taylor 2018).

As the current leader in producing and exporting textile and apparel, China plays a key role in achieving sustainability in the global T&A industry. According to the World Trade Statistical Review (2017) released by the World Trade Organization (WTO),

China's textile and apparel exports accounted for respectively 37% and 36% of world T&A exports in 2016 and led world T&A exports in many years before that. However, China's T&A industry has often been criticized for its poor labor conditions and inadequate environmental protection action (Cooke and He 2010). For instance, Kane (2015, p. 2) cited some of the major labor problems in China's T&A industry: "absence of freedom of association and collective bargaining", lack of social security protection or benefits for migrant workers, and excessive overtime work. Yuan (2015) revealed that Chinese T&A corporations exercise insufficient control over hazardous chemicals and lack systems for proper evaluation of environmental impacts of their operations.

According to Cooke and He (2010), Chinese corporations' sustainability efforts originated with supplier codes of conduct imposed during the mid-1990s by multinational corporations (MNCs) and were promoted later by Chinese government and Chinese industry associations. Chan and Ross (2003), as cited in Cooke and He 2010) noted that Chinese T&A firms have been facing huge pressure from MNCs to be compliant with both social and environmental requirements. Furthermore, the Chinese government and Chinese industry associations have emphasized the sustainable development of the T&A industry during the recent decades (China National Textile and Apparel Council [CNTAC] 2017; Cooke and He 2010). In fact, according to the *2016–2017 Annual Report on Sustainability of Chinese Textile and Apparel Industry*, the 13th 5-Year Plan for the Textile Industry issued by China's Ministry of Industry and Information Technology identified green development as a major objective for transforming and upgrading China's T&A industry.

Under the pressures described above, Chinese T&A corporations have adopted numerous investment strategies and other measures to enhance their labor and environmental conditions (EU SME Center 2017). However, researchers point to the ranking of the T&A industry (12th of 14 examined industries) in social and environmental responsibility performance as evidence that the industry still needs to improve such performance (Huang et al. 2013). Then, why do Chinese T&A corporations still have less than satisfactory sustainability performance even after around 20 years of efforts? Yuan (2015) surmised that Chinese T&A corporations might not take sustainability seriously and rather view it as a propaganda tool, which led to their arbitrariness in fulfilling social and environmental responsibilities. Yet, whether Yuan view is prevalent or not is not known. In this light, the present study was designed to explore Chinese T&A corporations' perceptions on sustainability, along with their goals toward sustainability and structures to achieve such goals, and then use those results to associate with their sustainability capability.

Literature review

Sustainable development and corporate sustainability

Since the term "sustainable development" was first introduced during the early 1980s, it has evolved to be a systematic approach to achieve the integration of social and environmental responsibility in economic growth and development. Sustainable development is defined in the Brundtland Report released by the United Nations in 1987 as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (A Call for Action section, para. 27). The concept

was later described as encompassing three domains of development: economic development, social justice, and environmental protection. Shaker (2015) argued “the term ‘sustainability’ should be viewed as humanity’s target goal of human–ecosystem equilibrium (homeostasis), while ‘sustainable development’ refers to the holistic approach and temporal processes that lead us to the end point of sustainability” (p. 305).

Under the three-domain or three-sphere framework, Elkington (1998) proposed the Triple Bottom Line (TBL or 3BL) concept for mainly business communities. Noting that businesses cannot develop beyond the society and environment within which they operate, Elkington indicated that corporations should approach their performance evaluation from a broad perspective that includes both their financial performance, and their social and environmental performance. The TBL concept also implies a long-term perspective for companies to achieve longevity by emphasizing operations in ethical, social, environmental and economic dimensions instead of a single dimension of finance.

Earlier, people focused on the social responsibility of corporations more than they did on environmental responsibility, so the term corporate social responsibility (CSR) was heavily used. More recently, the term corporate sustainability has been frequently used because the term sustainability incorporates both social and environmental dimensions of corporate responsibility. Throughout this paper, the term corporate sustainability is used to refer to business practices built upon social and environmental considerations.

Corporate commitment to responsibilities

Regarding the responsibilities for which companies should take, Friedman (1970) contended that businesses are responsible to maximize returns to their shareholders while conforming to the law and ethical customs. Twenty years later, in view of rising concerns about and attention to corporate unethical behavior, Carroll (1991) proposed “Pyramid of Corporate Social Responsibility”, identifying four types of responsibilities a corporation has: economic responsibility to be profitable, legal responsibility to obey laws, ethical responsibility to do what is right, even if not legally mandated, and philanthropic responsibility to contribute to communities and improve quality of life. Economic responsibility, being viewed as the first and foremost responsibility, is the foundation of the pyramid. Philanthropic responsibility, being considered as discretionary, is placed in the top tier of the pyramid. Carroll placed legal and ethical responsibilities in the second and third tiers respectively.

This identification and distribution of responsibilities is epitomized by the real business world—corporations are more likely to prioritize financial performance over other responsibilities. Based on a study of five major Australian corporations from 2005 to 2015, Wright and Nyberg (2017) found that companies tend to reduce their sustainability pursuits and reinvigorate their commitment to maximizing stakeholder financial value when they experience leadership changes or face financial reversals or criticism from stakeholders or media. That demonstrates the tensions between the pursuit of profit and corporate commitments to social and environmental responsibility.

Moral responsibility theory of corporate sustainability

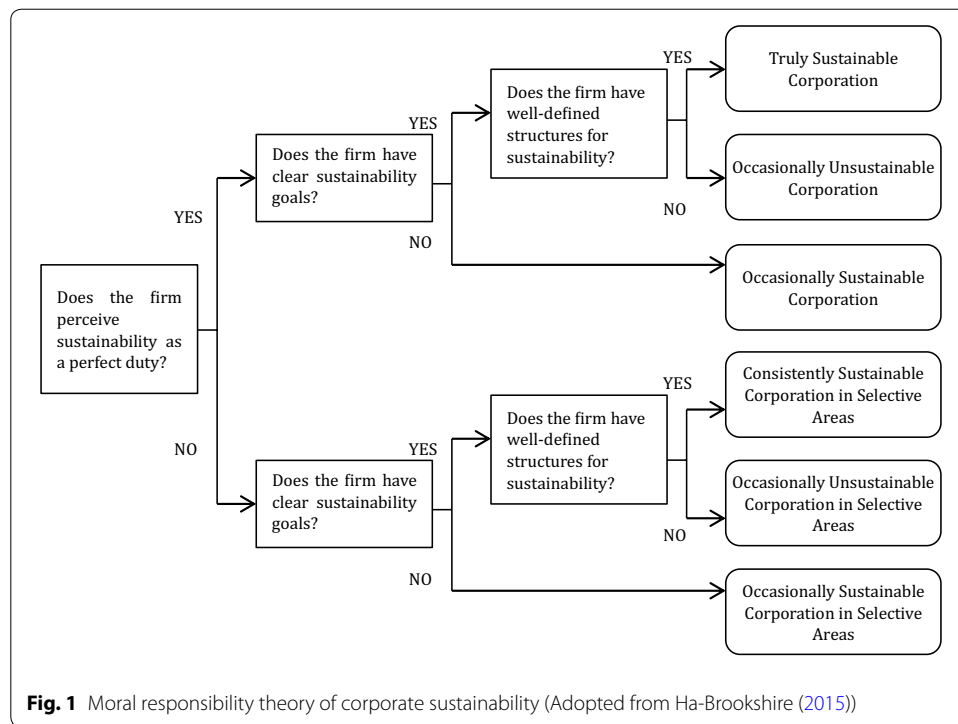
The findings of Wright and Nyberg (2017) suggest the following questions: What factors determine the degree to which a corporation takes social and environmental

responsibilities? And what factors would account for lack of consistent, long-term commitment to sustainability by a company? The literature suggests that corporations' engagement in sustainability is often motivated by strategic or ethical factors (Baron 2001). Some businesses view sustainability as a means to enhance public relations, reduce cost, meet government or societal expectations or requirements, and thus increase long-term profit (Baron 2001; Farrington et al. 2017; McWilliams and Siegel 2001; Rodriguez et al. 2006). Other businesses adopt sustainability due to their moral beliefs and principles (Paumgarten 2016). In this light, Ha-Brookshire (2015) proposed Moral Responsibility Theory of Corporate Sustainability (MRCS), which suggests that a business must have a sense of moral responsibility to be truly sustainable and that the degree of its sustainability commitment is determined by how it perceives sustainability within the moral spectrum—whether it views sustainability as a perfect duty (an universal and absolute obligation) or an imperfect duty (a meritorious but optional obligation). This theory offers a perspective of moral responsibility for examining corporate sustainability actions and a potential explanation for the varying degree of its commitment to sustainability.

According to MRCS, corporations that view sustainability as a perfect duty would work to perform sustainably in all situations and at all time, implying that they would place equal importance on their financial, social and environmental responsibilities. However, corporations that view sustainability as an imperfect duty would arbitrarily select the situations and areas in which they work to perform sustainably. In addition, because employees carry out their corporate policies, the absence of clear corporate sustainability goals may leave employees behaving variously based on their own understandings of sustainability, thus resulting in occasional and uncoordinated corporate behaviors. Furthermore, considering the possible gaps between corporate sustainability goals and outcomes, MRCS also indicates the need for a well-defined corporate structure to avoid inconsistent employee actions and best guarantee the achievement of corporate sustainability goals. MRCS thereby offers a framework for examining corporate sustainability capability and suggests a spectrum of sustainability capability in the marketplace (see Fig. 1).

The spectrum of corporate sustainability capability in Fig. 1 shows six varying degrees of sustainability capability. According to Ha-Brookshire (2015), when a corporation perceives sustainability as a perfect duty and has both clear sustainability goals and well-defined corporate structures to guarantee the implementation of its sustainability goals, it would become a truly sustainable corporation. If a corporation views sustainability as a perfect duty and has clear sustainability goals, but lacks well-defined corporate structures to implement these goals, it may be mostly sustainable, that is, it would be an occasionally unsustainable corporation due to the inconsistency of its employees' behavior. When a corporation views sustainability as a perfect duty, but has no clear sustainability goals, it can hardly guarantee cohesive sustainability actions, leading to sustainability being achieved only by chance and an occasionally sustainable corporation.

Further, MRCS describes that if a corporation perceives sustainability as an imperfect duty, but has clear goals toward some sustainability activities and well-defined corporate structures to meet these goals, it would perform sustainably in these activities in a continuous way, which makes it a consistently sustainable corporation in



selective areas. If a corporation perceives sustainability as an imperfect duty, has clear goals toward some sustainability activities, but lacks corporate structures to implement these goals, it would be an occasionally unsustainable corporation in selective areas. Lastly, if a corporation views sustainability as an imperfect duty, and has no clear goals in any sustainability activities, some sustainability activities may still happen, but in an occasional way, resulting in an occasionally sustainable corporation in selective areas.

MRCS offers a framework for examining corporate sustainability capability from a moral responsibility perspective and suggests the spectrum of corporate sustainability capability theoretically. Based on this theory, LoMonaco-Benzing and Ha-Brookshire (2016) provided evidence of distinct corporate and personal views with respect to taking sustainability as moral responsibility. Another study also found that US consumers have different and varying perceptions toward corporations’ ethical duties for sustainability (Jung and Ha-Brookshire 2017).

Yet, the knowledge on how corporations themselves view sustainability within the moral responsibility spectrum is missing, and no previous studies have explored corporate sustainability capability from MRCS framework. Particularly, given the little research attention to the reasons for the poor social and environmental responsibility performance of Chinese T&A corporations, MRCS framework could offer plausible explanations for such reasons. Thus, this study examined whether Chinese T&A companies (a) perceive sustainability as a perfect duty or not, (b) have clear goals toward sustainability or not, and (c) have well-defined organizational structures toward sustainability goals or not. The findings were expected to shed lights into varying degrees of their sustainability capability.

Methods

Content analysis

To achieve the research objectives, content analysis of self-reported documents of Chinese T&A corporations was conducted. Content analysis is used to convert qualitative textual materials (e.g., the reports described below) into quantitative data and thereby evaluate the materials in a manner that allows researchers to make systematic, replicable inferences (Duriau et al. 2007; Stemler 2001). In applying content analysis in the present study, the researchers identified and interpreted words, phrases, and sentences in the examined reports that reflected or related to the sustainability perceptions, propositions, behaviors, and performance of Chinese T&A corporations.

Chinese corporations are encouraged to follow international practices to disclose their social and environmental actions and achievements to their stakeholders through publishing sustainability-related reports, and these reports provide the main source of information regarding companies' engagement in sustainability in China (CNTAC 2017). Chinese T&A companies conform mainly to the following standards and guidelines issued by different institutions to compile their sustainability reports: Sustainability Reporting Guidelines (G4) of Global Reporting Initiative (GRI), CASS-CSR [中国企业社会责任报告编写指南] of Chinese Academy of Social Sciences (CASS), CSC9000 [中国纺织企业社会责任管理体系] of CNTAC, and report guides of stock exchanges (Shanghai Stock Exchange, Shenzhen Stock Exchange, and The Stock Exchange of Hong Kong). Thus, the reports are deemed authoritative sources for the comprehensive and quality contents.

Sample selection process

The literature shows sustainability can constitute a resource that leads to competitive advantage and is positively correlated with added market value (Rodriguez et al. 2006). Given this, the researchers began the sample selection process by compiling a list of T&A companies from Chinese T&A corporate rankings in terms of competitiveness (top 500), main business revenues (top 100), and brand value (top 50) most recently published as of January 2018 by the CNTAC (2016a, b, c), formerly called the Ministry of Textile Industry in China. Then, in view of the previously mentioned influence of international sourcers on the initiation of Chinese corporations' sustainability improvement, the corporate ranking of T&A export values (top 200) most recently released as of January 2018 by the China Chamber of Commerce for Import and Export of Textile and Apparel (CCCT) (2017)—part of China's Ministry of Commerce—was also included to the list. The combination of the four rankings produced a list of 745 corporations. These 745 companies formed the initial sampling frame for the study.

Chinese companies typically publish self-reports of their sustainability practices and performance under the title of Corporate Social Responsibility (CSR) report [企业社会责任报告] or Environmental, Social and Governance (ESG) report [环境、社会和管治报告]. The researchers searched most recently published or available reports online, using these titles and the Chinese name of each T&A company in the sampling frame. Only 86 companies (11.5%) out of 745 had CSR or ESG reports available in the public domain. We then analyzed all of these 86 reports from 86 companies.

Table 1 Characteristics of the study samples

| Characteristics | The number of companies (n = 86) |
|--|----------------------------------|
| <i>Years of operation (years)</i> | |
| < 16 | 14 (16.3%) |
| 16–30 | 40 (46.5%) |
| 31–45 | 16 (18.6%) |
| > 45 | 16 (18.6%) |
| <i>Types of main business</i> | |
| Textile (fiber, yarn, fabric, non-apparel textile product) mills | 37 (43.0%) |
| Apparel or apparel accessories manufacturing | 21 (24.4%) |
| Textile and apparel manufacturing | 23 (26.7%) |
| Textile and/or apparel distributing and/or importing/exporting | 5 (5.8%) |
| <i>Business performance</i> | |
| Rank in top 500 competitiveness T&A corporations | 71 (82.6%) |
| Rank in top 100 main business revenues T&A corporations | 31 (36.0%) |
| Rank in top 50 brand value T&A corporations | 13 (15.1%) |
| Rank in top 200 export value T&A corporations | 20 (23.3%) |

Some companies listed in more than one ranking

Table 1 is a summary of the characteristics of the study sample. In the sample, 32 (37.2%) corporations have been in the T&A business for more than 30 years; 40 (46.5%) corporations for 16 to 30 years; and 14 (16.3%) corporations for less than 16 years. Most companies in the sample are textile mills (43.0%) or produce both textile and apparel products (26.7%); 21 (24.4%) corporations specialize in the apparel or apparel accessories manufacturing; 5 (5.8%) corporations are T&A distributors or importers/exporters. Regarding the business performance, 71 corporations in the sample belonged to top 500 competitiveness Chinese T&A corporations; 31 were in the top 100 main business revenue Chinese T&A corporations ranking; 13 ranked top 50 brand values Chinese T&A corporations; and 20 are part of the top 200 Chinese T&A export values ranking. In terms of the corporate reports the researchers found, the majority (52) of the 86 reports were for year of 2016 and most reports (62) were compiled according to at least one guideline.

In applying content analysis to the sustainability reports, the researchers read all these 86 reports, identified and interpreted statements in the reports to first examine and classify the corporations by whether they perceived sustainability as a perfect duty, an imperfect duty, or neither. The researchers also examined the descriptions to identify the key types or areas of firms’ sustainability activities expressed in the reports. Then, the researchers examined the statements to determine whether a corporation’s report expressed sustainability goals and structures toward those key areas.

Content analysis of corporate sustainability perceptions

The researchers approach the first MRCS question of whether each company views sustainability as a perfect duty by examining firms’ statements for evidence of their sustainability perceptions. Researchers first discussed and agreed with one another on what statements indicate perfect duty or imperfect duty, and then differentiated and coded

each company according to it. The first author initially did coding. The second author then reviewed the initial coding and reviewed them all. Whenever there was a disagreement, two researchers discussed and resolved any discrepancies. As a result, at the end of the entire coding process, both authors had 100% agreement on interpretation and coding (Ha-Brookshire and Hodges 2008). This coding process was applied for the content analysis of corporate sustainability goals and structures as well.

Table 2 contains examples of text data showing companies' perception of sustainability as described in their sustainability reports. Statements taken to suggest the perception of sustainability as a perfect duty referred to believing in sustainability and/or having a sustainability mission; for example, "as a social citizen, corporations must take itself as a part of the community and assume social responsibility [作为社会公民, 必须融入社会群体, 承担社会责任]"; "taking sustainability as the core value of the corporation [可持续发展作为公司的核心价值]"; etc. Researchers grouped companies expressing such statements into "perfect duty" companies, which were coded as 1. Statements taken to suggest the perception of sustainability as an imperfect duty referred to sustainability being an accessory duty and/or beneficial means to enhance the corporate image; for example, "we realize the importance of environmental and social sustainability to our group [我们意识到环境及社会可持续发展对本集团而言至关重要]", "good performance of social responsibility can enhance brand value and competitiveness [良好的社会责任能够提升品牌价值和竞争力]"; etc. Researchers classified companies expressing such statements into "imperfect duty" companies, which were coded as 0. Companies expressed no statement on their opinions or perceptions on sustainability were grouped into "no description" companies, which were coded as null.

Content analysis on corporate sustainability goals and structures to achieve them

When reviewing the 86 reports, four key areas or goals in corporate sustainability also emerged: (1) environmental protection, (2) labor relations, (3) operation improvement, and (4) public welfare involvement. Specific examples of each area are available in Table 3.

The researchers take statements indicating what the company has done and/or is going to do as an expression of goals. These statements include expressions such as optimizing energy structure, establishing training institute, certified by ISO 9001, donating to rural schools, etc. (see Table 3). If a "perfect duty" corporation expressed clear goals in all of the above four areas, the researchers classify it as having clear sustainability goals and coded it as 1. This is because a company could be truly sustainable only if it assumes fundamental responsibility for sustainability, as by having sustainability goals in all four of those categories the researcher identified. Examples of such firms are Luthai Textile Co., Ltd. [鲁泰纺织股份有限公司], Texhong Textile Group Limited [天虹纺织股份有限公司], and Kingdom Holdings Limited [金达控股有限公司]. Following MRCS, if a "perfect duty" company expressed clear goals in one, two, or three areas of sustainability or no goals at all, it was classified as lacking clear sustainability goals and was coded as 0. Also, following MRCS, in the case of "imperfect duty" companies, each whose report expressed sustainability goals for any of the four sustainability areas was categorized

Table 2 Data examples and coding explanation of sustainability perception

| Sustainability perceptions | Data examples | Coding explanation |
|--------------------------------|--|--|
| Perfect duty (coded as 1) | <p>“As a social citizen, corporations must take itself as a part of the community and assume social responsibility [作为社会公民, 必须融入社会群体, 承担社会责任]” (Ningbo Shanshan Co., Ltd. 2017, p. 5)</p> <p>“Assuming social responsibility is the conscious behavior of a corporate citizen [履行社会责任是企业公民的自觉行为]” (Zhejiang Huafon Spandex Co., Ltd. 2017)</p> <p>“Taking the dedication and responsibility to society as the basic corporate philosophy and principle [对社会的奉献与责任定为企业的基本理念]” (Beijing Topnew Co., Ltd. 2009, p. 1)</p> <p>“Taking sustainability as the core value of the corporation [可持续发展作为公司的核心价值]” (Zhejiang Mizuda Printing & Dyeing Group Co., Ltd. 2017, p. 19)</p> <p>“Adhere to the principle of ecological development and people-oriented [坚持生态理念, 坚持以人为本]” (Jingwei Textile Machinery Co., Ltd. 2016, p. 2)</p> | Believing in sustainability and/or having a sustainability mission |
| Imperfect duty (coded as 0) | <p>“We realize the importance of environmental and social sustainability to our group [我们意识到环境及社会可持续发展对本集团而言至关重要]” (Cosmo Lady (China) Holdings Company Limited, 2017, p. 31)</p> <p>“Paying consistent attention to the industry development dynamics of sustainability [持续关注行业相关的可持续发展动向]” (Billion Industrial Holdings Limited 2017, p. 38)</p> <p>“To implement the national poverty alleviation strategy and requirement [为深入贯彻落实国家扶贫开发战略和精神]” (Guirenniao Co., Ltd. 2017, p. 7)</p> <p>“Facilitate the buildup of good corporate image [促进企业构建自身良好的社会形象]” (Nanjing Chemical Fiber Co., Ltd. 2017, para. 1)</p> <p>“Good performance of social responsibility can enhance brand value and competitiveness [良好的社会责任能够提升品牌价值和竞争力]” (Zhejiang Semir Garment Co., Ltd. 2013, p. 1)</p> | Viewing sustainability as an accessorial duty and/or beneficial means to enhance the corporate image |
| No description (coded as null) | Absent | Indicating no proposition or attitude toward sustainability |

as having at least some clear goals and was coded as 1 because its report suggests that it may choose to engage in selective sustainability activities. However, each “imperfect duty” corporation whose report expressed no sustainability goals was coded as 0.

Table 3 The four identified areas of sustainability activities and examples of the activities and stated goals

| Areas | Examples of sustainability activities | Examples of stated goals related to the activities |
|----------------------------|---------------------------------------|---|
| Environmental protection | Energy consumption and emission | Optimizing energy structure and gradually increasing use of clean energy (e.g. Shenzhou International Group Holdings Limited) |
| | Eco-friendly product development | Reducing use of dyes or chemicals (e.g. Huaifu Top Dyed Melange Yarn Co., Ltd.) |
| | Nature improvement | Planting trees (e.g. Jingwei Textile Machinery Co., Ltd.) |
| Labor relations | Health and safety | Organizing routine examinations of occupational diseases (e.g. Weiqiao Textile Company Limited) |
| | Career development | Establishing training institute (e.g. Bosideng International Holdings Ltd.) |
| | Labor rights | Establishing communication and complaints system (e.g. Luthai Textile Co., Ltd.) |
| Operation improvement | Quality improvement | Certified by ISO 9001 (e.g. Shandong Jining Ruyi Woolen Textile Co., Ltd.) |
| | Business integrity | Establishing policies to protect customer privacy (e.g. Bros Eastern Co., Ltd.) |
| | Supply chain management | Introducing supplier assessment system (e.g. Youngor Group Co., Ltd.) |
| Public welfare involvement | Donation | Donating to rural schools (e.g. Zhejiang Huaфон Spandex Co., Ltd.) |
| | Help and support | Offering job opportunities to disabled people (e.g. Texhong Textile Group Limited) |
| | Community development | Investing in local hygiene facilities (e.g. Zhongyin Cashmere Co., Ltd.) |

The researchers took statements such as the following as evidence that the firms had in place well-defined structures to achieve their sustainability goals: establishing a leading committee for the implementation of social responsibility, setting up a system to develop policies, procedures and documents toward sustainability, having an office responsible for staff welfare, and having a set of policies to guarantee occupational health and safety, etc. Again, following MRCS, the researchers classified “perfect duty” corporations indicating structures to achieve their sustainability goals in all four areas noted in the paragraph above as companies having sustainability structures and coded them as 1; others were identified as companies lacking such structures and were coded as 0. Following MRCS, if “imperfect duty” corporations expressed goals of any sustainability activity and stated structures to achieve that stated goals, they were grouped as companies having sustainability structures and coded as 1; otherwise, they were coded as 0. Table 4 summarizes the coding explanations of sustainability goals and structures.

Results

Perceptions of sustainability from a moral responsibility perspective

After examining sustainability reports of 86 Chinese T&A corporations in the sample for evidence of sustainability perceptions, the researchers classified 66 (76.7%) of the

Table 4 Coding explanations of sustainability goals and structures

| | Sustainability goals | | Sustainability structures | |
|----------------------------|--|------|---|------|
| | Coding explanations | Code | Coding explanations | Code |
| “Perfect duty” companies | Expressing clear goals in all of the four sustainability areas | 1 | Expressing structures to achieve sustainability goals in all four areas | 1 |
| | Expressing clear goals in only one, two, or three areas of sustainability or no goals at all | 0 | Expressing structures to achieve sustainability goals in only one, two, or three areas or no structures | 0 |
| “Imperfect duty” companies | Expressing clear sustainability goals in any of the four sustainability areas | 1 | Expressing structures to achieve any stated sustainability goals | 1 |
| | Expressing no sustainability goals | 0 | Expressing no structures to achieve any sustainability goals | 0 |

firms as “perfect duty” companies and 11 (12.8%) as “imperfect duty” companies. Out of the 86, 9 (10.5%) was classified as “no description” companies due to their indicating no views on sustainability from the moral duty perspective. These results suggest that most companies in the sample believed in and had a strong sense of moral responsibility toward sustainability—this was not a surprise given all samples are top performing T&A companies in China. However, the results indicate that about a third of the firms in the sample might only assume social and environmental responsibility under some circumstances or would not assume these responsibilities.

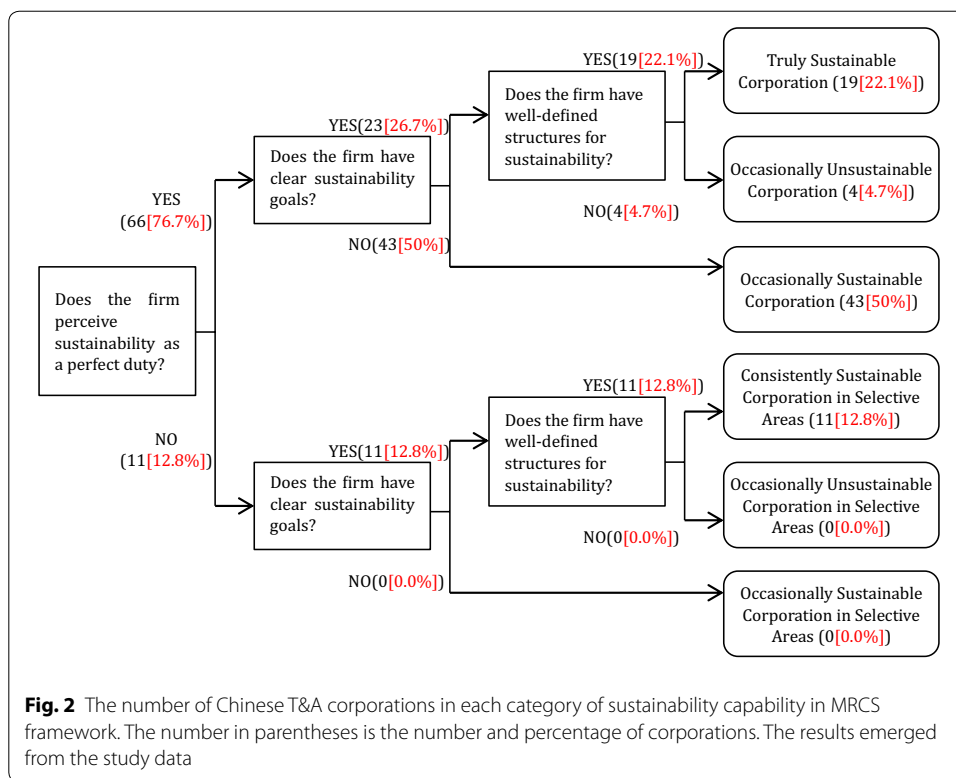
Corporate sustainability goals and structures to achieve them

Of the 66 “perfect duty” companies, only 23 (34.8%) expressed clear sustainability goals in their reports, thus most (65.2%) did not. When examining whether “perfect duty” companies provided clear evidence of the firms having well-defined structures to achieve the sustainability goals, the researcher found that only 20 (30.3%) out of 66 did so, thus most (69.7%) did not. These results indicate a huge gap of numbers between companies viewing sustainability as a perfect duty and those having clear goals and structures toward it. For “imperfect duty” companies, all 11 companies expressed their goals and structures in at least one area.

Sustainability capability

The above results were used to assess the sustainability capability of Chinese T&A companies in the sample according to the MRCS framework. Each corporation was classified in one of the categories and the total number of corporations in each category is shown in Fig. 2.

Among the 66 “perfect duty” corporations, 23 expressed clear goals in all four emerged sustainability areas in the reports, and 19 of them clearly illustrated their structures to achieve all these goals. These 19 were categorized as truly sustainable corporations. They account for 28.8% of 66 “perfect duty” corporations and 22.1% of 86 T&A companies in the sample. The 4 remaining companies in the 23 with clear sustainability goals in all four



areas were categorized as occasionally unsustainable corporations due to providing no clear structures to achieve all these goals. These 4 firms comprise 6.0% of “perfect duty” companies, and 4.7% of the entire sample. Notably, 43 companies appeared as occasionally sustainable corporations in that, despite their expressed views on sustainability as a perfect duty, they did not show clear goals toward it. These 43 companies account for 65.2% of “perfect duty” companies and 50.0% of the entire sample. In addition, 11 corporations expressed sustainability as an imperfect duty. All of them presented themselves as consistently sustainable corporations in selective areas because they showed clear goals and structures in some sustainability areas, representing 12.8% of all 86 companies. The 9 companies that did not express their moral perceptions toward sustainability were left uncategorized. Overall, the results indeed showed a spectrum of sustainability capability, depending on the companies’ views on sustainability from the moral responsibility perspective, and the presence of clear goals and structures.

Conclusions

To understand how Chinese T&A corporations perceive sustainability within the morality spectrum and its sustainability capability implications, this study conducted a content analysis of 86 CSR or ESG reports from 86 top performing T&A companies in China to explore their sustainability perceptions and goals, along with whether each had the organizational structures to achieve those goals. These results were then used to classify the sustainability capability of each within the moral responsibility theory of corporate sustainability (MRCS) proposed by Ha-Brookshire (2015).

The results show that most (76.7%) Chinese T&A corporations in the sample viewed sustainability as a perfect duty, and 12.8% as an imperfect duty. Of the “perfect duty” companies, only 34.8% and 30.3% had clear sustainability goals and structures respectively, and most (65.2% and 69.7% respectively) did not. The classification of the corporations in the sample in the MRCS framework in terms of their sustainability capability shows that only 22.1% of the 86 Chinese T&A corporations could be categorized as truly sustainable according to MRCS. Approximately, half of the 86 were deemed occasionally sustainable corporations due to their absence of sustainability goals in spite of their perceiving sustainability as perfect duty. Lastly, 12.8% of the entire sample were deemed consistently sustainable in selective areas due to their efforts in some selected activities, not all sustainability-related activities.

This study has a few theoretical contributions. First, to the best of our knowledge, this study is the first attempt to explore corporations’ perceptions toward sustainability from the moral responsibility perspective, providing an evidence of corporations’ distinct perceptions on sustainability, supporting MRCS. Second, this study explored what corporate sustainability goals might be and how corporate sustainability structures would look like in the China’s T&A industry, providing another means of measuring sustainability goals and structures. Third, this study empirically showed the spectrum of sustainability capability differentiated by the companies’ perceptions toward sustainability and the presence of clear goals and structures, supporting MRCS. Therefore, this study provides a good base for further study of corporate sustainability from the moral responsibility perspective.

The findings also have important implications for T&A companies in China. The findings highlight the need for Chinese T&A companies to set clear sustainability goals and corresponding structures to improve sustainability performance. The content analysis of 86 sustainability reports of top performing T&A companies showed that, more than three-quarters corporations expressed sustainability as a perfect duty, implying they had a rather strong sense of moral responsibility for sustainability. However, the wide sense of moral responsibility for sustainability implied by our results may not have led to achieving sustainability, due to the lack of clear goals and structures toward sustainability. In fact, only less than 30% of the companies viewed sustainability as their “perfect duty”, and had clear goals and structures. Therefore, the finding suggest that more T&A companies in China must set clear goals and structures toward sustainability to be truly sustainable.

The findings also help the Chinese government and T&A trade associations understand the varying, often poor, sustainability capability of Chinese T&A companies. The results imply that there is still a lot of work to be done by the Chinese government and trade associations for increasing Chinese T&A companies’ sustainability capability. Perhaps, enhancing corporations’ moral responsibility consciousness toward sustainability, offering guidance to corporations to set clear sustainability goals, and helping them devising well-defined structures for sustainability would be extremely useful. The results also imply that the integration of sustainability into T&A education in terms of both sustainability awareness and knowledge might be needed in China, so that Chinese T&A corporate executives can have high goals on sustainability and employees in Chinese T&A industry can be well prepared to implement sustainability.

Despite the important findings, the study also offers limitation, and therefore, future research opportunities. Since this study only reviewed reports of 86 companies, further research is recommended to examine same or similar research questions with a wider range of companies to get a more comprehensive picture about China's T&A corporations' sustainability activities and capability. Particularly, given these 86 companies are top performing companies in the nation in terms of their financial performance, the generalization of this study's finding must be done with caution. Companies that are not performing at the top level may have different views toward sustainability. Therefore, further research is recommended to explore the study questions in other companies that may have different levels of financial successes. Likewise, comparing firms with different characteristics on the research questions can possibly draw more implications.

Abbreviations

MRCs: moral responsibility theory of corporate sustainability; T&A: textile and apparel; WTO: World Trade Organization; MNCs: multinational corporations; CNTAC: China National Textile and Apparel Council; TBL or 3BL: triple bottom line; CSR: corporate social responsibility; GRI: global reporting initiative; CASS: Chinese Academy of Social Sciences; CCCT: China Chamber of Commerce for Import and Export of Textile and Apparel; ESG: Environmental, Social and Governance; ISO: International Organization for Standardization.

Authors' contributions

NY collected, analyzed and interpreted the data regarding the sustainability perceptions, goals and corporate structures, and drafted the manuscript. JHB conceived and designed the study and revised the manuscript critically for important intellectual content. Both authors read and approved the final manuscript.

Author details

¹ Beijing Institute of Fashion Technology, No. 2, East Yinghua Road, Chaoyang District, Beijing 100029, People's Republic of China. ² University of Missouri, 137 Stanley Hall, Columbia, MO 65211, USA.

Authors' informations

NY, M.S., is an Associate Professor in the Business School at the Beijing Institute of Fashion Technology. She teaches international trade, international business and WTO rules courses at the undergraduate and graduate level. Her research interests include sustainable production and consumption of textile and apparel, and international business in textile and apparel industry.

JHB, Ph.D., is a Professor in the Department of Textile and Apparel Management at the University of Missouri. She teaches global sourcing, global supply chain management and theory development courses at the undergraduate and graduate level. Her research areas include corporate sustainability, global supply chain and sourcing strategies, and sustainable production and consumption of textile and apparel.

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