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Polluting SMEs and the construction of their environmental behaviours: Evidence from Bangladesh

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Polluting SMEs and the construction of their environmental behaviours: Evidence from Bangladesh

Abstract

This paper investigates how and under what conditions polluting SMEs (small-scale firms that produce or deal with environmentally sensitive goods such as plastics, hazardous chemicals, textiles, and raw hides) in developing countries address the environmental issues related to their activities—a broadly neglected and under-studied research agenda. Utilising extensive qualitative data drawn from SMEs operating in two of the most polluting industries in Bangladesh—leather tanning and textile dyeing—and a contextual lens from a developing country perspective, this paper provides insights into the construction of the environmental behaviours enacted by polluting SMEs. The analysis suggests that such behaviours are constructed under a number of micro-, meso-, and macro-level socio-economic conditions that act as either enablers of or barriers to responsible environmental behaviours, depending on the circumstances. The overall findings show that SMEs address the relevant environmental issues in a complex fashion, and may provide policymakers with support in the design of environmental policies tailored to the practical needs of small-scale polluting firms.

Keywords

Developing countries, small- and medium-sized enterprises, polluting firms, environmental behaviour, environmental pollution, Bangladesh.

1. Introduction

Despite the evident negative effects of environmental pollution on both communities and the natural environment, not least in developing countries, the issue remains crucial and intractable. While research on its related topics is growing, we still do not fully understand one of its most fundamental aspects—i.e., what are the socio-economic conditions that motivate a potentially polluting firm to act in an environmentally responsible manner or otherwise? In formulating our research question, we were particularly interested in the globally-ubiquitous business form of small and medium sized enterprises (SMEs). Understanding the issue from a developing country perspective is of critical importance because of the links between economic development and environmental damage—which, in turn, are related to global instances of poor environmental and individual health (Panayotou, 2016), climate change (Crick et al., 2018), and migration and refugee crises (Black, 2018). As our research setting, we chose Bangladesh and, in particular, its leather tanning and textile dyeing industries because of their particularly high levels of pollution and of the significant role they play in the national economy (Hasan, 2016).

Most existing studies on the environmental behaviours adopted by SMEs in developing country contexts have told us about ‘what SMEs do in general’, rather than explaining ‘why’ or ‘under what circumstances’ they do it; which, from a policymaking perspective, are equally important aspects (de Oliveira and Jabbour, 2017; Tevapitak and Helmsing, 2019). In other words, these studies have hitherto failed to unpack the nuances and variety of practices found across the developing world context.

Drawing on rich data, this study was aimed at filling this knowledge gap by providing insights into the construction of the environmental behaviours adopted by polluting SMEs in a developing country context. In doing so, our analysis yielded a number of socio-economic conditions that appear to construct such behaviours. The tendency of non-owner managers to avoid any environmental problems and the (lack of) education and awareness of owners (Spence et al., 2011; Roxas and Coetzer, 2012) were found to be influential at the micro level. At the meso (firm) level, the business case, the positive stakeholder influence wielded by relatives and previous factory owners, and the lack of collaboration among owner/managers¹ were found to play a role. A similar impact was found to be exerted at the macro (contextual) level by the disconnection with environmentally conscious export markets, corruption and nepotism, poverty and the abundant supply of illiterate workers, and the energy crisis (e.g., gas and electricity). Some of these socio-economic conditions had already been identified in the extant literature as determinants of the environmental behaviours of SMEs. Our study contributes to said literature by providing a rich understanding of the respective roles played by each of these conditions (as enablers of or barriers to responsible environmental behaviours), and under which circumstances.

Developing country policymakers are often constrained by a lack of detailed knowledge and understanding of key environmental issues, which often leads them to take ‘command-and-control’ policy approaches (Selim, 2011) that ignore the socio-economic conditions under which their countries’ SMEs operate (Lund-Thomsen et al., 2014). By unpacking these socio-economic conditions, our study supports policymakers in designing environmental policies and interventions that are more suited to the needs of small-scale polluting SMEs.

The remainder of this paper is organised as follows. In the next two sections, we provide some background information on the nature of polluting firms in developing countries and we briefly discuss the existing literature on the environmental behaviours of polluting and/or manufacturing firms in developing countries. In the third section, we discuss the key methodological issues. Thereafter, we present the empirical findings in two

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3 interconnected parts: we start by reporting the environmental behaviours of the sample
4 SMEs, and then we offer an analysis of how these behaviours are constructed. We
5 subsequently relate the key findings with the extant literature and sketch a picture that
6 mirrors our findings. We go on to discuss the implications of our findings for
7 owner/managers, and particularly for policymakers. We conclude by discussing this study's
8 contributions and acknowledging its limitations.
9

10 11 2. Polluting firms in developing countries: background information 12 13

14 The regulatory authorities of developing countries face particular challenges in monitoring
15 the environmental performance of polluting firms, (Tevapitak and Helmsing, 2019). Two of
16 these challenges are what O'Rourke (2002, p. 230) identified as fear of over- or of under-
17 regulation. State authorities are generally well aware of the important role played by local
18 industries in alleviating poverty and generating employment. Thus, they are worried about
19 the political cost of closing down factories due to poor environmental performance, which
20 may scare off foreign investors and harm the economy (fear of over-regulation). On the other
21 hand, unsustainable production processes lead to local environmental degradation, which
22 levies longer-term social and political costs (fear of under-regulation). In developing country
23 contexts, the enforcement of laws and the overcoming of inter-agency conflicts can be
24 extremely challenging (Blackman and Kildegaard, 2010). Moreover, the local industries of
25 most developing countries operate within relation-based economic systems, which are very
26 different from those found in the rule-based economies of the West (Du, 2015). Government
27 agencies are thus subject to political influence, which casts doubts on their commitment to
28 address the environmental performance of polluting industries. It is worth noting that the
29 degree of political influence exerted on government institutions in developing countries is
30 often greater than in their developed counterparts (Azmat and Samaratunge, 2009).
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33 Besides such macro-level institutional factors, the organisational structures commonly
34 found in many polluting firms are themselves a hindrance to pro-environmental performance.
35 In developing countries, polluting firms often operate informally and on a variety of scales,
36 ranging from small petty traders to large firms (Azmat and Samaratunge, 2009). Some of
37 these are export-oriented and supply wealthy Western markets, while others are limited to
38 fulfilling domestic demand and operate merely to survive (Abdallah, 2017). Despite such
39 diversity, the environmental performance of these firms is poor across the board. Moreover,
40 the smaller firms are often unregistered, making the enforcement of environmental and labour
41 laws particularly hard; indeed, many get away with illegal actions by bribing local authorities
42 and regularly changing their premises (Hasan, 2016).
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45 Moreover, it would be reasonable to say that, in developing countries, even those
46 firms that are ostensibly formal and registered only are to a certain extent (Lund-Thomsen et
47 al., 2014). For example, there is evidence that the owner/managers of registered firms do not
48 know the exact numbers of people they are employing, nor have any written policies to guide
49 their regular business activities (see Demuijnck and Ngnodjom, 2013). Whatever their size,
50 local firms in developing countries are typically owner-managed or controlled by members of
51 the same family (Abdallah, 2017; Du, 2015). The backgrounds and the entrepreneurial
52 orientations of the people who manage these firms should thus be carefully dissected before
53 investigating their environmental behaviours.
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56 The mushrooming of small-scale manufacturing firms in developing countries is the
57 outcome of several factors. Besides the expansion of international trade, rapid urbanisation,
58 lack of social security programmes, unemployment, increasing landlessness, and the limited
59 role played by the state are all major forces behind the increase in the number of self-
60 employed people who—with some exceptions—turn entrepreneurs as a means to survive

(Azmat and Samaratunge, 2009), and take advantage of the weak regulatory environment to try to quickly amass fortunes without any concern for any environmental considerations (see Özcan, 2011). In some cases, these entrepreneurs are ‘ethically blind’ (Palazzo et al., 2012)— i.e., they are not even aware of the inappropriateness of their behaviours (Fassin, 2005).

Besides, entrepreneurs in many developing countries often hold low educational qualifications, which could be a determining factor of the poor understanding of environmental issues found in most firms. This is also reflected in the owners’ lack of expertise in waste management and in their hiring of unqualified managers with no managerial expertise (who are sometimes family members), who then act as barriers to eco-innovation (Ndzibah, 2009).

The smaller firms that operate in export-led industries are often second- or third-tier suppliers, the operations of which are difficult to identify and monitor by international auditors, non-governmental organisations (NGOs), or national trade unions (Jamali et al., 2017). This helps to explain why such firms’ environmental performance may be poor despite the fact that they ultimately supply more environmentally aware Western markets. The continuous violations of environmental and labour regulations commonly found in tanneries and in the garments industry worldwide highlight the difficulties connected with monitoring the lower tiers of the global value chains (Lund-Thomsen and Lindgreen, 2014).

3. Literature review

The existing literature points to several factors that are influential in explaining the environmental behaviours of local polluting and/or manufacturing firms in developing countries. At the individual and firm levels, investment in internal human resources, the provision of subsidised environmental management training to employees (Blackman and Kildegaard, 2010; Liu et al., 2010), the individual owner-managers’ environmental values and willingness to solve ecological problems (Spence et al., 2011; Roxas and Coetzer, 2012), and religious affiliations (Uygur, 2009) have all been found to be positively associated with proactive environmental management. At the broader level, a number of factors have been associated with proactive environmental management. These include: the competitive pressure to produce differentiated products (Wu, 2009); the competitive advantage provided by green technologies (Liston-Heyes et al., 2014); stakeholder pressure (Liston-Heyes and Vazquez-Brust, 2016); the ISO 14001 certification (Agan et al., 2013); large buyer support-based monitoring programmes and environmental championing campaigns (Lee and Klassen, 2008); and the improved brand reputation and other benefits gained from pro-environmental initiatives (Agan et al., 2013).

However, smaller firms are found to be relatively less prone to the market pressures applied by buyers or NGOs—specifically on environmental issues—and, in many cases, to respond to such pressures infrequently. Even those that do adopt environmental measures in response to market pressures often turn to illegal practices when such pressures are not consistent or when environmental agencies withdraw their subsidies (Zhu et al., 2013).

On the other hand, in regard to the costs or risks associated with the adoption of environmentally friendly technologies, size—with smaller firms being more inclined towards violating environmental laws (Wu, 2009); poor financial performance and low relational social capital (Khan et al., 2013); the social vulnerability of the surrounding communities (Phung and Mol, 2004); and pessimistic attitudes towards the effectiveness of government regulations (Liston-Heyes et al., 2014) are identified in the literature as key factors that lead to poor environmental management in polluting firms.

The extant literature also expresses scepticism in regard to the effectiveness of formal regulations in steering polluting firms in developing countries towards environmental

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3 compliance. While some studies have identified formal regulations as the most powerful tool
4 to make firms more environmentally conscious (Studer et al., 2006; Zhang et al., 2009),
5 others have stated that, in developing countries, they are not effective due to their weak
6 enforcement (Agan et al., 2013; Blackman and Kildegaard, 2010). Instead, normative
7 pressure/influence, innovative policymaking that challenges the business motives of
8 irresponsible entrepreneurs (Tewari and Pillai, 2005), and policies that provide immediate
9 and short-term benefits to SMEs (Studer et al., 2006) have been found to positively
10 influence environmental consciousness.
11

12 Prima facie, these findings highlight several important aspects—such as the
13 importance of owner-manager attitudes towards the natural environment, religious
14 affiliations, the role played by foreign and/or big buyers in inducing smaller suppliers to
15 undertake environmental management, and the importance of stakeholder pressure.
16 However, most of these studies have provided only a fragmented picture of the complex
17 environmental issues facing polluting firms in developing countries. An understanding of
18 how the environmental behaviours of polluting firms—and especially of the smaller ones—
19 are constructed is still missing. Such an understanding (i.e., how and under what conditions
20 these SMEs address the environmental issues related to their activities) would offer
21 advantages to policymakers in developing countries, in which the existing environmental
22 policies often rely on traditional command-and-control approaches (Selim, 2011) that ignore
23 the conditions faced by firms on the ground (Lund-Thomsen et al., 2014). In this study, we
24 unearthed some of these conditions, which may help policymakers to design environmental
25 policies and interventions suited to the needs of the small-scale polluting SMEs.
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29 4. Methodology

30 4.1 Research setting

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32 We collected our empirical data from two locations in Bangladesh: Dhaka's Hazaribagh
33 leather tanning area and the Gazipur industrial district (located 25 km northwest of Dhaka).
34 We selected these areas due to their pollution-intensive nature, potential local and
35 aggregate environmental and health impacts, proximity to residential areas, and significant
36 contributions to the national economy of Bangladesh (Ministry of Industries, 2010). These
37 factors contribute to making them extreme cases, an attribute that Eisenhardt (1989, p. 537)
38 recommended for case study selection.
39

40 In Bangladesh, local small-scale factories are typically run based upon a vertical
41 (top-down) organisational structure. A factory's top management—which comprises the
42 owner and his or her close family members—generally makes all the decisions, including
43 those related to the environment. Supported by the recent trend of educational and training
44 institutes on leather and textile manufacturing opening in Dhaka, some factories have
45 gradually started hiring professionally qualified middle managers for chemical management,
46 leather processing, and merchandising. It therefore made sense to interview both owners and
47 middle managers (who are referred to here as 'non-owner managers').
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53 4.2 Data collection

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55 We collected our empirical data over a period of four months in 2016 from multiple sources:
56 semi-structured face-to-face interviews with SME owner/managers, non-participant
57 observations, and, to a lesser extent, document analysis. This enabled us to cross-check the
58 information obtained from one source with that gleaned from others (data triangulation), and
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3 to improve the validity of the data (Yin, 2014; see also Wood and Kroger, 2000, on
4 warranting qualitative data).
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6 We identified our sample factories from a list of SME clusters provided by the SME
7 Foundation Bangladesh—a government organisation. At the time, this list, which had been
8 initially published in March 2013, is the most comprehensive and up-to-date database of
9 manufacturing SMEs (i.e., firms that employ between 25 and 250 people) in Bangladesh
10 (SME Foundation, 2013). To collect the bulk of our empirical data, we conducted semi-
11 structured interviews in Bangla (the local language) with the owner/managers of the selected
12 SMEs. In addition, we interviewed four workers and two environmental consultants² in
13 order to verify the information provided by the owner/managers. Altogether, we conducted a
14 total of 40 interviews in 34 sites (see details in Table 1).
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21 The environmental issues relevant to SMEs addressed in this study were largely
22 informed by previous studies, including those conducted in the Bangladeshi context (Table
23 2). The interview schedule (Appendix A) was piloted in the field—in two textile dyeing
24 factories and one tannery—which enabled the questions to be appropriately adapted. As
25 mentioned, the semi-structured interviews were supported and validated by data collected by
26 means of multiple non-participant observations, and, to a lesser extent, documentary
27 evidence. Contextual non-participant observations (Yin, 2014) were used as a supplementary
28 data collection technique that helped to pick out what was relevant for our analysis (Ericson
29 et al., 1991).
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37 To get a sense of the construction of environmental behaviours of the sample SMEs,
38 we asked the owner/managers specific questions regarding their involvement—or lack
39 thereof—in environmentally responsible practices (Appendix A). The word ‘construction’ is
40 used here in its social acceptance. We consider environmental behaviours to be actions that
41 are socially constructed through the interactions of SME owner/managers with the broader
42 contextual environment (e.g., socio-economic situations, regulatory conditions, levels of
43 corruption) within which they operate. We categorised the detected behaviours as
44 ‘responsible’ or ‘irresponsible’ as a simple binary heuristic, based on whether an action
45 reduced (or sought to reduce) environmental impact, or harmed (or was likely to harm) the
46 natural environment over time. Furthermore, we asked the owner/managers to provide
47 appropriate documentary or physical evidence in support of any claims of having taken any
48 environmentally responsible initiatives. For example, when a non-owner manager claimed
49 that the factory at which he worked had a noise monitoring system, we asked him (after the
50 interview) to show us the system and explain exactly how it helped to minimise noise
51 pollution. We treated the owner/managers’ claims of having taken environmentally
52 responsible initiatives with scepticism when they refused or failed to provide appropriate
53 evidence³. The insights we gained from non-participant observations played a vital role in
54 this part of the research.
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58 We reviewed some relevant secondary sources to support the data collected through
59 the observations and semi-structured interviews. These included regional and local press
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3 releases, environment-related policies (e.g., the National Industrial Policy 2010 published
4 by the Ministry of Industries, Bangladesh), recent reports published by international
5 development partners (e.g., the DFID and the World Bank) and NGOs (e.g., BRAC,
6 Swisscontact Katalyst, and SEHD), and local newspaper articles on critical environmental
7 issues.
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10 4.3 Data analysis

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12 We took a retroductive approach in analysing the data we had collected from multiple
13 sources. In such an approach, analysis goes beyond the surface level content of the data in an
14 effort to identify the underlying ideas and assumptions (Braun and Clarke, 2006). We started
15 by filtering the collected data into themes and categories. To this end, we coded the interview
16 data set out in transcript form; then, we interpretatively abstracted the issues and ideas raised
17 by the respondents into themes or conceptual categories that represented the perspectives of
18 SME owner/managers, as would be usual in an orthodox hermeneutic approach (Crinson,
19 2007). Our next step involved the establishment of theoretically deduced categories, drawn
20 partly from the extant literature and our conceptual understanding, which offered a structural
21 context for the particular discourses. The findings section presents this stage of the data
22 analysis.
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25 Finally, we engaged in retroductive inference, in which we explained the conditions
26 underpinning the environmental behaviours by postulating a set of generative mechanisms
27 that accounted for, and contextualised, the discourses of the interviewed SME
28 owner/managers (Crinson 2007). The discussion section presents this third and final stage of
29 the data analysis. Altogether, the data analysis was a three-step process: (1) phenomenology,
30 (2) theorisation into categories, and (3) retroductive inference. Appendix B illustrates our
31 analysis scheme.
32

33 We manually transcribed, anonymised, and analysed the collected data in Bangla.
34 During the writing up process, we translated the Bangla quotations into English. Given the
35 cultural and linguistic differences between the two languages, it was particularly important
36 to render the respondents' meaning as accurately as possible when translating. In the interest
37 of readability, the quotations are presented in cleaned-up form, with all 'ums', 'ers', and
38 repeated words removed (following Poland, 2003).
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41 5. Findings

42 5.1 The environmental behaviours of the sample SMEs

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44 The environmental behaviours of the sample SMEs are summarised in Table 3 under the four
45 environmentally relevant issues addressed in this study (Table 2). Any behaviours not related
46 to such issues are categorised as 'others'.
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5.2 The construction of environmental behaviours

The data analysis suggested a number of socio-economic conditions that may help explain the construction of the environmental behaviours of the sample SMEs, as reported in Table 3. In this particular setting, these conditions act as either enablers of or obstacles to responsible environmental behaviours, depending on the circumstances. The tendency of non-owner managers to avoid environmental problems and the (lack of) education and awareness of the owners were found to be influential at the micro level. The business case, positive stakeholder influence (familial and previous factory owner influence), and lack of collaboration among owner/managers played a role at the meso level. The lack of connection with environmentally conscious export markets, corruption and nepotism, poverty and the abundant supply of illiterate workers, and the energy crisis (e.g., gas, electricity) were found to be influential at the macro level (Figure 1). The remainder of this section unpacks these conditions.

5.2.1 Micro level conditions

In most of the sample SMEs, the tendency of non-owner managers to avoid addressing environmental problems acted as a key barrier to the enactment of responsible environmental behaviours. However, our analysis indicated that this avoidance was not necessarily due to a lack of interest in environmental issues, short-term thinking, or a desire to avoid uncertainty—as the literature might suggest (see Slawinski et al., 2017, pp. 260-262)—rather, it was due to non-owner managers being more concerned about their own career prospects.

“I want to talk about environmentally friendly technology, but I’m not getting what I’m supposed to get. He [the owner] hired me by promising so many things ... now, I don’t even get my salary regularly ... I am already looking for jobs elsewhere.”
(Dyeing Executive NOD3)

Two-thirds of the interviewed non-owner managers possessed the technical and scientific knowledge required to reduce the negative environmental impacts of the factories for which they worked. However, their low salaries and, in some cases, the strained relationships they had with their employers were causing them to continuously look to switch jobs. In fact, three non-owner managers said quite candidly that the environment was barely on their agenda due to the anxiety they were experiencing over their own career prospects. They also added that the owners rarely consulted them on any issues related to environmental protection.

The data analysis suggested that the education and awareness of environmental issues of the owners of half of the sample SMEs positively affected the environmental behaviours enacted in their firms. One-third of the younger (new-generation) owners, who held postgraduate qualifications and had a better understanding of sustainable production, perceived environmentally responsible initiatives as an added value to their businesses:

“You’ve got to see the future, Bangladesh will not be the same in ten years, there will be more demand for environmental compliance as the economy improves ... technology will be the key ... tanneries that are not using the latest environmentally friendly technologies will not be able to stay in the competition.” (Tannery Owner OT2)

OT2 had also taught himself about the salt-free tanning system on which he was working and was getting technical support from a Western consultant whom he had met a few years previously at an international trade show outside Bangladesh.

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In contrast, the owners of the remaining half of the sample SMEs, who were lacking in education and awareness of environmental issues, acted as a barrier to the enactment of responsible environmental behaviours in their businesses. Older (first-generation) owners were mostly averse to change and were thus hesitant to pay attention to any environmentally relevant issues. For example, a tannery owner referred to the lack of complaints from his workers (i.e., marginalised stakeholders) to justify his lack of commitment to workplace safety. We argue that such views point more to an indifference toward worker concerns. In two of the sample dyeing factories, the owners associated the concept of ‘environmental problems’ either with natural disasters (e.g., cyclones and floods) or with issues linked to arsenic pollution in rural areas, which may be construed as being indicative of a low level of environmental awareness.

5.2.2 Meso level conditions

In many cases, the responsible environmental behaviours enacted were driven by the business case. In other words, the owner/managers took environmental initiatives only when they saw a business opportunity or felt pressured by their buyers (i.e., in response to supply chain demand). For example, all of the export-oriented dyeing factories had installed effluent treatment plants (ETPs) because it a requirement imposed by their European buyers. However, such business cases were absent in two-thirds of the tanneries and in all of the non-exporting dyeing factories, the owner/managers of which were under little or no pressure to improve their environmental performance. Many of the interviewed owner/managers of the tanneries in Hazaribagh, which mainly exported to buyers based in the Far East, stated that their buyers acted as intermediaries between Western (leather) brands and developing country suppliers, and seldom had any regard for environmental issues, as price was their main concern.

Interestingly, four of the tannery and non-exporting dyeing factory owners appeared to be intentionally targeting low-quality markets (e.g., the Far Eastern and local Bangladeshi markets) where demand for environmental sustainability was very low. In addition, because of the less-onerous demands placed upon them, those owners specialised in specific products and processes to reach these markets, in which they perceived strong opportunities to succeed without investing much money in environmentally friendly technologies.

The responsible environmental behaviours enacted in a few factories were influenced by the owners’ family members (mainly their fathers) and the previous factory owners. For example, Tannery Owner OT2 was encouraged by his family to continue the work of his late father (who had founded the Tannery in the early 1980s) and to develop ‘the best tannery in Bangladesh’. To this end, in 2016, he had signed an important contract with HPC (anonymised name) for drums, automation, and process control equipment at a trade fair in Europe. HPC had said that it had been the most valuable contract it had signed in its long history. OT2 had also bought state-of-the-art equipment from other leading suppliers, which, as far as he knew, made his tannery the best equipped and most advanced in Bangladesh. He was working towards achieving the internationally-recognised Leather Working Group (LWG) gold status, which he hoped would give his tannery international recognition.

Moving to the dyeing industry, at least one-third of the sample dyeing factory owner/managers mentioned that they had bought factories that had been previously owned by someone else. Those previous owners had been unable to continue production due to extreme competition, to the growing costs of energy (e.g., gas) and raw materials, and to large composite garment factories setting up their own dyeing facilities (thus limiting the scope of the small-scale, dyeing-only factories). Interestingly the environmental performance of those second-hand factories was found to be affected, to some extent, by the previous factory

owners and by the state in which they had sold their factories, even when the sale had taken place many years in the past.

The owner/managers from both the sample industries mostly held cynical attitudes towards each other in regard to environmental issues. Such attitudes were more evident when the owner/managers of environmentally unfriendly factories were asked whether they would be interested in learning about responsible environmental initiatives from the environmentally friendly ones. Their replies were often couched in normative, rather than competitive, terms: *“It’s not like [Tannery Owner OT2] is doing more than what we’re doing, don’t trust everything he might have told you.”* (Tannery Owner OT4); *“There’s no question of learning, this factory is almost 20-year-old and [Dyeing Factory Owner OD1] just started his factory five years ago.”* (Dyeing Factory Head of Operations NOD4); *“Factory owners will do anything but help you with environment-related information, these people are just selfish.”* (Dyeing Factory Production Manager NOD9).

The owner/managers of environmentally friendly factories also appeared to be uninterested in helping other owner/managers with relevant information regarding environmental protection. When asked whether they would be interested in sharing their knowledge and experience with those owners whose factories’ environmental performance was not good, they too portrayed a condescending attitude:

“These people [other owner/managers] are illiterate; they don’t understand anything about the environment ... all they know is how to sell leathers and make money, how can you help them? ... they will not take your help in a positive way.” (Tannery Owner OT6)

Such reciprocally cynical attitudes may imply that any collaborative efforts to improve the environment would not be possible without the establishment of a collective vision and a culture of cooperation, rather than of competition. As one of the two consultants interviewed put it:

“Although these owner/managers regularly meet each other in local and international trade fairs and in seminars or meetings with government officials, they rarely discuss the collective approaches that could be taken to mitigate environmental pollution ... collaboration happens only when both parties have mutual commercial interests.” (Environmental Consultant C1)

The fact that Bangladeshi society is predominantly collectivist and values social harmony makes this finding surprising. A possible explanation for this lack of collaborative efforts on environmental issues was given by C2, the other environmental consultant interviewed:

“You can’t expect any positive collaboration from these people, not least on environmental issues. Most see each other as competitors and don’t believe that they can collaborate to improve the overall environmental performance of the areas in which they operate. Many are involved in personal feuds over raw material sourcing, chemical business [in the tanneries], land acquisition, and financial [e.g., bank loan] issues.” (Environmental Consultant C2)

5.2.3 Macro level conditions

The environmental performance of the sample export-oriented dyeing factories was found to be better than that of the local ones and of the tanneries. Although the Hazaribagh tanneries

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3 were export-oriented, they mainly traded with dealers based in the Far East, who viewed
4 environmental safety as a low priority. The tanneries were therefore not directly connected with
5 the environmentally conscious export markets and were not subject to any stringent supply chain
6 pressures to improve their environmental performance. The poor implementation of local
7 environmental laws and the absence of an environmentally conscious consumer base in
8 Bangladesh meant that the non-export-oriented dyeing factories also faced little pressure to
9 operate sustainably. Furthermore, these factories had a strong hold on the domestic market and,
10 during their interviews, the people who managed them openly admitted that any noncompliance
11 with local environmental laws would not threaten their businesses.
12

13
14
15 *“The local business environment is different, the dyeing factories in this area do not*
16 *follow the [environmental] laws. It’s not like the regulators aren’t aware of this, but*
17 *their power is limited to imposing minor fees. The factory owners are not that*
18 *bothered about this.”* (Dyeing Executive NOD3)
19

20
21 Two of the sample non-export-oriented dyeing factories were ‘double-reactive’ in
22 nature, in the sense that their owner/managers would try to evade the legal pressures and
23 hope that the responsible authorities would not notice their environmental noncompliance.
24 Those factories did not have any legally authorised gas and electricity connections and did
25 not renew their boiler registrations either. Yet, the owners had somehow managed to continue
26 production for about six months. In other words, their first attempt to operate ‘off the official
27 grid’ had been successful. When the responsible authorities had eventually found them out,
28 the owners had tried to manage them through bribery and mutual negotiation in a second
29 attempt to evade local environmental demands. Such evidence indicates that the
30 owner/managers of non-export-oriented factories in Bangladesh take pro-social action in
31 response to regulatory pressures only when all efforts to evade such pressures have failed.
32

33 The data analysis suggested that corruption negatively affects the environmental
34 behaviours of the smaller polluting factories in Bangladesh in many ways. More than half of
35 the non-owner managers of the sample tanneries in Hazaribagh were involved in a form of
36 unhealthy competition that involved sourcing chemicals from those suppliers that offered
37 the highest commission, which helped to supplement their own incomes. They appeared
38 unconcerned about any negative environmental impacts of the chemicals they sourced.
39

40
41 *“Honestly speaking, I don’t have any concern about the quality of the chromium*
42 *sulphate [a chemical used for leather processing] we source ... it’s the commission*
43 *that matters the most.”* (Factory Production Manager NOT2)
44

45
46 When non-owner managers, who have the technical skills and who are supposed to take
47 initiatives to protect the environment (at least from a normative standpoint), are involved
48 in such competition, it is no wonder that environmental issues are not pre-eminent in the
49 tanneries for which they work.
50

51 The data analysis also showed evidence of instances of nepotism in staff recruitment
52 practices, especially in the small tanneries and in the non-export-oriented dyeing factories.
53 Six of the non-owner managers interviewed held middle management positions—such as
54 production manager (leather), dyeing manager, and chemical purchase manager (leather)—
55 yet, none of them had any relevant qualifications. They had been appointed either because
56 they were related to the owners or to people who had close ties with the owners. Such
57 recruitment practices hinder the possibility of hiring technically and professionally skilled
58 people with specialised knowledge of environmentally friendly leather or textile
59 manufacturing.
60

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2
3 Although none of the interviewed owner/managers explicitly mentioned poverty
4 and the abundant supply of illiterate workers, our on-site observations indicated that these
5 two conditions had often instigated irresponsible environmental behaviours vis-à-vis
6 worker health and safety. We would argue that the careless attitudes shown by one-third of
7 the owner/managers towards the environmental health hazards to which their workers were
8 exposed and the lack of regular monitoring of their use of PPEs were made possible by the
9 ready availability of illiterate, unskilled, and desperate people who would be willing to do
10 any job. *“Why should I be bothered about their [the workers’] safety? They’re illiterate and
11 they often don’t understand the priority and importance of a job.”* (Tannery Owner OT5)
12 *“They [the workers] will never wear anything, even if you provide all the safety equipment.
13 You’ll see the workers working like this in most of the factories in Hazaribagh; it’s just a
14 habit that you can’t change.”* (Tannery Assistant Production Manager NOT1)

15
16
17 Six of the interviewed owner/managers claimed that the nearby communities had no
18 business/reason to complain about environmental pollution. Such attitudes, we would argue,
19 were expressions of arrogance that stemmed from the fact that the people living in nearby
20 communities were poor and mainly relied on local factories for employment. Because of their
21 dependency on these factories and of their poor socio-economic status, the local communities
22 were found to have little or no bargaining power over factory owners on environmental
23 issues, which was possibly another reason for the insufficient initiatives aimed at minimising
24 pollution taken by some of the sample SMEs.

25
26
27 When asked about future environmental plans, the sample owner/managers from both
28 industries repeatedly asserted that Bangladesh’s manufacturing sectors were facing more
29 urgent problems, particularly loss of production and production costs, which had been
30 increasing extensively due to insufficient supplies of gas and electricity. OD2, one of the
31 dyeing factory owners, expressed his frustration by saying, *“Thinking about environmental
32 protection would be a luxury amidst this energy crisis, where even day-to-day survival is
33 getting difficult.”* This fits the almost universal narrative (also found in the West) that
34 environmental protection is a luxury that can only be dealt with once economic conditions
35 allow (Anastasiadis, 2005).

36
37 Two-thirds of the factories visited during the fieldwork were using diesel-run
38 generators as alternative power sources; this, as Consultant C1 clarified, was not only
39 environmentally harmful but also inflated production costs eight-to-tenfold. Energy
40 shortages were affecting the smaller manufacturers more than the large-scale ones because
41 the latter had the capacity to use expensive fuel oil-based energy sources or could set up their
42 own power stations. *“You [the researcher] are talking about environmental protection;
43 several small factories have already closed because the owners could not arrange
44 alternative power supply due to financial shortcomings.”* (Dyeing Factory Owner OD1)

45 46 47 6. Discussion

48
49
50 At this point, we draw together the key inferences from the empirical findings and relate
51 them to the extant literature.

52
53 Although our findings did show some evidence of positive familial influence on the
54 behaviours of polluting SMEs, the opposite was more typical, especially in those factories in
55 which family members with limited role-specific knowledge had been given technical posts.
56 This could imply that any claims made by ‘non-family’ employees in regard to social or
57 environmental practices would likely be dismissed if they had the potential to challenge
58 family control over the business or to put the jobs of family members at risk (Cruz et al.,
59 2014). We make two inferences as to why technical posts are given to incompetent family
60 members. First, the owners are highly distrustful of outsiders; although they are aware of the

1
2
3 value of hiring technically qualified professionals, the need to guarantee family control over
4 factory operations leads them to disregard it (Bingham et al., 2011). Second, employing family
5 members may not necessarily be down to mistrust of outsiders, it might have cost implications.
6 Technically equipped and environmentally aware outsiders are more likely to ask for higher
7 salaries, which may weigh on the minds of margin conscious owners.
8
9

10
11 [INSERT FIGURE 1 HERE]
12
13

14
15 Our study suggests that polluting SMEs in Bangladesh face little external pressure
16 from local regulatory authorities and customers. Foreign buyers only positively influence the
17 environmental behaviours of the export-oriented textile dyeing factories. Compared to those
18 of the tanneries, the owner/managers of export-oriented dyeing factories have better
19 knowledge of sourcing environmentally friendly raw materials, which is reflected in their
20 behaviours (Table 3). Due to the external pressures exerted by the European buyers to whom
21 they export, these owner/managers also have proper systems in place for the sourcing of
22 environmentally friendly dyeing chemicals. Apart from exerting pressure on these factories,
23 European buyers help them with information regarding the environmentally friendly
24 management of chemicals, which suggests that a flow of environmental information and
25 support passing along the supply chain could better assist smaller firms in their efforts to
26 become more environmentally responsible (Walton et al., 1998).
27
28

29
30 Non-export-oriented dyeing factories and tanneries are subjected to virtually no
31 supply-chain pressure for two reasons. First, environmental consciousness is very low
32 among the domestic customer base in Bangladesh, which means that non-export-oriented
33 dyeing factories face little pressure from their customers to improve their environmental
34 performance. Second, although most of the tanneries in Bangladesh are export-oriented, they
35 are not always directly connected to environmentally conscious export markets (as discussed
36 previously). By this, we are not implying that non-exporting factories are committed to
37 environmentally-damaging production processes; a factory that predominantly produces for
38 the domestic market is not necessarily environmentally harmful. In our view, the poor
39 environmental performance of non-exporting factories is predominantly linked to the
40 underlying institutional weakness prevailing in Bangladesh (Selim, 2011).
41

42
43 Out of the four environmentally relevant issues addressed in this study, the
44 owner/managers from both industrial sectors were found to be little concerned about the
45 communities surrounding their factories. Indeed, they appeared not to consider themselves
46 responsible for any community suffering that may have been caused by industrial pollution.
47 Given the fact that Bangladeshi society is traditionally a relationship-based and collectivist one,
48 in which people have close ties with each other (Lewis, 2011), this finding is surprising and also
49 contradicts the literature, which often argues that SMEs have strong ties with the local
50 communities in which they operate (Perrini et al., 2007). We argue that the lack of obvious
51 concern for local communities is at least partly related to the unequal nature of Bangladeshi
52 society, a social cleavage that is widening due to the implementation of unplanned
53 industrialisation without much consideration given to social harmony, a problem also faced by
54 many other developing countries (Leichenko and O'Brien, 2008; Islam, 2013).
55

56
57 Our findings also suggest that a culture of accusation is prevalent in the local business
58 community in Bangladesh. This was highlighted by the lack of trust and mutual respect observed
59 between the sample owner/managers in relation to responsible behaviours. Personal rivalries
60 between owner/managers and strained relationships between owners and non-owner

1
2
3 managers were repeatedly mentioned by the respondents to justify their low levels of
4 mutual trust.

5
6 Within Bangladesh's SME environment, non-owner managers are often
7 disempowered in terms of not having a voice against any unfair treatment meted out to them
8 by their owners. In many instances, the views expressed by the non-owner managers on
9 environmentally relevant issues contrasted with those expressed by the owners. Low salaries,
10 lack of job security, lack of career progression opportunities, and lack of scope to give their
11 opinions on environmental issues were some of the problems repeatedly mentioned as the
12 main reasons for the lack of trust between non-owner managers and owners. The non-owner
13 managers' positions within the factories were further undermined by the recruitment of
14 family members in technical posts.

15
16 As many SMEs in developing countries discourage or undermine workplace
17 democracy (Painter-Morland and Dobie, 2009), it is very important for non-owner managers
18 to have access to bodies where they can make their voices heard. Although many industries
19 do have strong labour unions, the findings of this study suggest the need for unions that
20 actively seek to support non-owner managers in the SME environment. The issues that such
21 unions would need to tackle are: ensuring that non-owner managers receive salaries
22 compatible with the domestic market, establishing a proper system of staff recruitment based
23 on technical and academic qualifications, advising non-owner managers on their rights, and
24 seeking avenues for recourse in cases of unethical treatment. Otherwise, non-owner
25 managers will not likely be able to use their technical skills and knowledge to improve the
26 environmental performance of the factories for which they work, because they will be more
27 concerned about the many personal issues that are more critical for their survival.

30 31 6.1 Implications

32
33 The sample textile dyeing factories were found to be more proactive in relation to responsible
34 sourcing of raw materials and to the use of technology (i.e., ETPs) to treat chemical waste.
35 Their connectedness with the European market and the presence of a large number of textile
36 related educational/training institutions in Bangladesh played a key role in that. This finding
37 has useful implications for policymakers; to improve the environmental performance of local
38 tanneries, people need to be trained in sustainable leather production through the
39 establishment of more training/educational institutes related to leather and leather technology.
40 Bangladesh's leather sector is deemed to be competitive because of its low labour cost
41 differentiation and local availability of hides. To maintain this competitiveness, this sector
42 needs more skilled leather professionals who are capable of taking environmentally
43 sustainable initiatives. Policymakers could also facilitate the organisation of cross-industry
44 collaboration and knowledge exchange programmes aimed at enabling leather and
45 dyeing/textile business professionals to share their thoughts on environmental issues.
46 International buyers should also pay greater attention to all the components of their supply
47 chains, thus preventing suppliers from circumventing environmental policies by making their
48 own supply lines opaque (Soundararajan and Brown, 2016).

49
50 Our findings suggest that younger owners typically have a better knowledge and
51 understanding of the global business scenario, local environmental priorities, and key
52 information sources related to environmentally responsible manufacturing. They were also
53 found to be better at recognising opportunities for achieving competitive gains by taking
54 responsible environmental actions, which was reflected in the few initiatives they had taken
55 despite the many local challenges. Governmental agencies could therefore set up programmes
56 to encourage more eco-innovation, such as special tax rebates aimed at encouraging younger
57 owners to develop green technology solutions (Uhlener et al., 2012). Platforms should also be
58
59

1
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3 provided to disseminate more efficient production methods, especially to non-export-
4 oriented firms, which, in developing countries, are isolated from knowledge transfer and
5 developments from abroad (Vazquez-Brust et al., 2010). Therefore, the sharing of success
6 stories in which a commitment to environmental sustainability has shown long-term positive
7 results may help such firms to become more sustainable.
8

9 Our findings highlighted the existence of strained relationships between owners and
10 non-owner managers; this has implications for the former, who should ensure that their
11 middle-managers have secured employment contracts with the factories and receive salaries
12 that reflect their skills and are compatible with the local market. Owners also need to change
13 their autocratic mentality to set up, within their factories, psychologically safe working
14 environments in which non-owner managers feel comfortable in giving their opinions on both
15 strategic and environmental issues. Any decisions made by owners without consultation are
16 more likely to be misunderstood and unsupported by non-owner managers, which may have
17 long term negative impacts on their productivity and on the overall performance of the
18 factories. By neglecting non-owner managers' opinions on key environmental issues, owners
19 are also missing out on valuable information sources, as non-owner managers, in most cases,
20 are educated and possess the technical skills needed to take responsible environmental
21 actions. Their persistent lack of interest in playing more influential roles in decision-making
22 will ultimately harm both the factories and the owners.
23
24
25

26 7. Conclusions

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28
29 Our study highlights the complexity that permeates the ways in which owner/managers
30 address relevant environmental issues and, in doing so, offers a nuanced understanding of the
31 construction of the environmental behaviours enacted by polluting SMEs in a developing
32 country context. Prior qualitative models—such as Bansal and Roth's (2000) corporate model
33 of ecological responsiveness and Banerjee's (2002) corporate environmentalism construct—
34 are more applicable to large firms with corporate setups. To date, ours is the only in-depth
35 qualitative study that has sought to unpack the socio-economic conditions that construct the
36 environmental behaviours of polluting SMEs.
37

38 In addition, our study makes a valuable contribution to the understanding of the
39 environmental behaviours of SMEs from the perspective of both owners and non-owner
40 managers (middle managers). By considering the opinions of both owners and non-owner
41 managers, we highlighted the tension between these two groups in regard to environmental
42 decision-making; a tension that needs addressing because, as our findings suggest, the
43 environmental behaviours of polluting SMEs are not only dependent on their owners' ideas.
44 The proper implementation of environmental initiatives would also require the support of
45 non-owner managers; therefore, by incorporating their views alongside those of the owners,
46 we provided a more comprehensive understanding of the environmental behaviours of
47 polluting SMEs, which hopefully will help to design better policies and a more effective
48 and wider range of interventions.
49

50
51 Although our study has provided fruitful insights into the environmental practices
52 enacted by polluting SMEs in a developing country context, we only focussed on SMEs from
53 two specific sectors located in two well-defined industrial areas of the country. Hence, the
54 representativeness of the data collected from such a small, concentrated group of participants
55 could be challenged. Further empirical work is needed to expand our findings by focussing on
56 different industrial sectors, and by involving other stakeholders—such as environmental
57 policymakers, experts, and NGOs—as their interaction with polluting firms is a source of useful
58 insights. Future studies could also investigate the extent to which the environmental behaviours
59 of small and medium-sized firms converge or diverge. This would help
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3 policymakers to decide whether size-specific policy approaches are needed to promote
4 environmental sustainability within polluting SMEs in developing countries.
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Declaration of conflicting interests

No potential conflict of interest was reported by the authors.

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Table 1. Interview respondents.

Roles	Labels (number of participants)
Owners – Tannery	OT1,……,OT14 (14)
Owners – Dyeing Factory	OD1,……,OD6 (06)
Non-Owner Managers – Tannery	NOT1,……,NOT4 (04)
Non-Owner Managers – Dyeing Factory	NOD1,……,NOD10 (10)
Environmental Consultants	C1 and C2 (2)
Workers – Tannery	WT1 and WT2 (2)
Workers – Dyeing Factory	WD1 and WD2 (2)

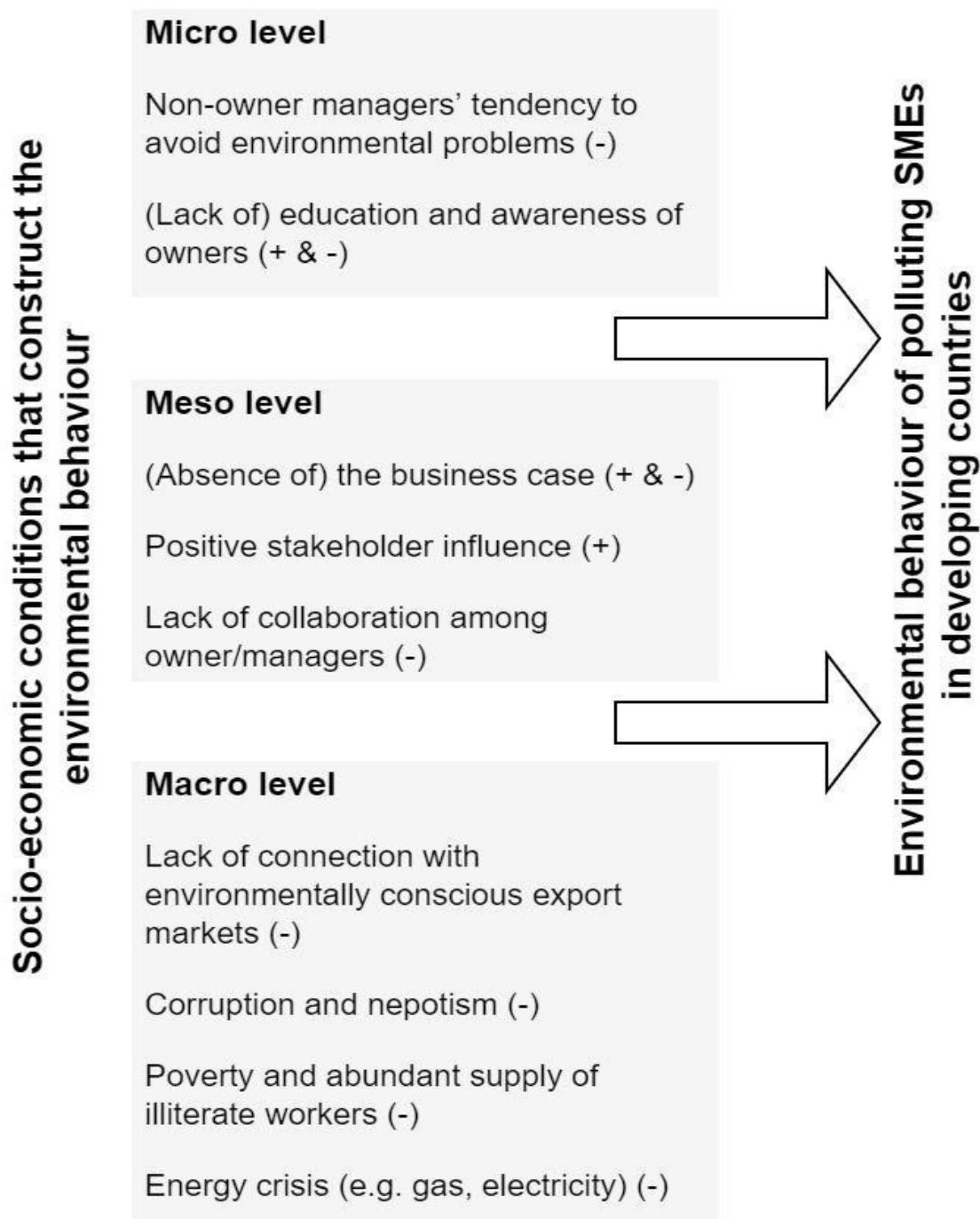
Table 2. Environmentally relevant issues addressed in this study

Issue	Description	Illustrative references
Technology	The use of technology (e.g., effluent treatment plants – ETPs) to reduce the impact of industrial waste on surrounding rivers, canals, and waterways	Hoque and Clarke, 2013; Ullah et al., 2004; Ministry of Industries, 2010; Selim, 2011
Sourcing	The sourcing of environmentally friendly raw materials	Lahdesmaki, 2005; Uhlaner et al., 2012
Workers	Consideration of environmental health hazards to workers, especially those exposed to harmful chemicals on a regular basis	Renton, 2012
Communities	Concern for communities surrounded by polluting firms	Frijns, 2003

Table 3. Environmental behaviours of the sample SMEs.

Environmentally relevant issues	Environmentally responsible behaviours		Environmentally irresponsible behaviours	
	Tanneries	Dyeing factories	Tanneries	Dyeing factories
Using technology to treat hazardous substances	-Chrome Recovery Plant -Salt-free tanning system -Networking with environmental consultancy firms	-Using biological effluent treatment plants (ETPs) -Environmentally friendly ETP sludge maintenance	-No ETPs	-Using timber to run boilers instead of Liquefied Petroleum Gas -No ETPs
Environmental health hazards to workers	-Proper ventilation (for a better air flow) -Training on chemical management -Good maintenance of cleanliness	-Safe wiring inside the factory -Ensured cleanliness -Training on environmental health hazards to workers -Noise monitoring system -Guidance on safe chemical handling	-Workers not wearing protective equipment	-Workers not wearing protective equipment
Sourcing environmentally friendly raw materials	-None	-Presence of proper mechanisms to check the quality of the chemicals at export-oriented factories	-Prioritising price over quality (lack of quality control) -No quality check of the chemicals. Non-owner managers source chemicals that offer the highest commission.	-None
Concerns for nearby communities	-Effective drainage system -Designated area for harmful by-products -Very high chimneys to minimise air pollution	-Effective drainage system	-No initiatives taken (failure to take any initiatives/inactivity)	-No initiatives taken (failure to take any initiatives/inactivity)
Others	-None	-Energy-saving bulbs -Maximum utilisation of daylight -Water consumption meter	-None	-Illegal water consumption

Figure 1. Socio-economic conditions that construct the environmental behaviours of polluting SMEs in developing countries.



**Note: The signs next to the socio-economic conditions (in parentheses) indicate whether the effect of each condition on environmental behaviour is positive (+), negative (-) or both (+ and -).

Appendix A. Interview Schedule/Guide.

Although some supplementary data were collected from two environmental consultants and four workers, the key empirical data were collected from the owner/managers of the selected factories. A basic outline was followed for all the interviews, although the interview questions, approach, and tone were modified slightly based upon the sector (textile dyeing or leather tanning) in which the sample factories operated.

The interview

a. General information about the factory/participant

Here, information should be collected on: date of establishment, nature of ownership, production capacity, focus market/s, main product/s, number and types of workers.

Information should also be collected on: the participant's role in the factory, reasons for joining/starting the factory, length of stay in Hazaribagh/Gazipur (depending on where the factory is located), type of employment and nature of work done (emphasis on this point if the interviewed person is NOT the owner).

b. Questions on environmentally relevant issues

What is your impression of the general environmental situation in Hazaribagh/Gazipur today?

Do you think your business activities have an impact on society and the environment? (if the answer is 'yes', then ask the participant to explain how, if it is 'no', then move to the next question/topic)

What is your general impression of the following issues?

- (a) using technology (e.g., ETPs) to treat chemical waste;
- (b) sourcing raw materials responsibly (i.e., buying raw materials produced using environmentally friendly technology);
- (c) environmental health hazards to the workers, especially those who are exposed to harmful chemicals on a regular basis;
- (d) concerns for nearby communities.

(Note—special attention must be given to the instant expressions/reactions of the participants. Also, not all of these issues may be relevant for all the participants; therefore, only the relevant issues should be mentioned, where applicable).

c. Questions on environmental behaviours

Do you feel any regulatory pressure to change the environmental performance of your factory?

What are the other motives—other than regulations/regulatory pressures—that inspire you to engage (or dissuade you from engaging) in environmentally responsible activities?

(Note—provide some examples of environmentally responsible activities if required)

Which environmental issues are key concerns for you and your factory? And why?

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3 Has your firm undertaken or considered any project/s that may improve or enhance its
4 environmental performance? If so, then what motivated you?

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6 (Note—if the answer is ‘yes’, then additional questions should be asked about the
7 underlying motivations—e.g., religion, social interest, commercial benefits and so
8 on. If, however, the answer is ‘no’, then additional questions should be asked on why
9 it was not possible, and should gradually move from there to the underlying
10 motivations).
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13 Prompt for additional information (applicable to most questions):
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- 15 -What do you mean by that?
- 16 -Can you elaborate on that or explain it in a little more detail?
- 17 -Do you have any documents related to this? Can you please show them?
- 18 -Can you give some examples?
- 19 -Can you say more about this?
- 20 -Please explain/discuss.
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3 **Appendix B.** Analysis scheme.
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Step 1: Phenomenology	Step 2: Theorisation into categories	Step 3: Retroductive inference
The government is not doing enough to improve the environmental situation in Hazaribagh	Resentfulness driven by alleged non-supportive stakeholder behaviours	Highlights the lack of trust and mutual respect between different stakeholders (e.g., owner/managers, government/regulatory authorities)
Local factory owners have no knowledge of environmental issues		
The buyers are applying a lot of pressure lately, especially after the Rana Plaza tragedy	Instrumental thinking driven by stakeholder pressure	Highlights the owner/managers' strivings to meet supply chain demand
All the chemicals must be of high quality, otherwise orders will be cancelled		
Dyeing executives cannot do anything, the decision must come from the owners	Complacency driven respectively by alleged non-supportive stakeholder behaviours and lack of objection from marginal stakeholders	Highlights (1) a communication gap between the owners and non-owner managers, and (2) the owner/managers' tendency to view the workers as a dispensable and replaceable resource (because, 'no complaints' is mostly used as a proxy to justify current behaviours)
Tannery workers never complain about anything		

47 Notes
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51 ¹ Throughout this paper, we used the term 'owner/managers' to refer to both owners who manage their businesses and non-owner managers (i.e., middle managers). We used the term 'non-owner manager/s' when referring to only middle managers.

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54 ² The interviews we conducted with the workers and the environmental consultants did not last longer than 40 minutes as we only asked those questions that needed further clarification. We did not follow any interview schedule during those interviews.

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57 The two environmental consultants we interviewed had nearly ten years' experience of working with national and international organisations such as UK Department for International Development (DFID), GIZ Bangladesh, Swisscontact Katalyst Bangladesh and Bangladesh Tanners Association.

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60 ³ This was one of those decisions we had to make in the field while collecting data. We acknowledge that the owner/managers' refusal to provide evidence may not imply total lack of the same but, in this case, we considered it as such. Moreover, to avoid antagonising the interviewed owner/managers, we

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maintained a very polite demeanour every time we asked for evidence. As full confidentiality had been promised, with appropriate documents signed, and our identity as researchers had been revealed prior to the interviews, there was little chance that the interviewed owner/managers would be worried about espionage.