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# The linkage between corporate social responsibility and the main benefits obtained from the integration of multiple management systems in Bangladesh

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**Abstract**

**Purpose** – *The aim of this study is to investigate the perceived benefits offered by integrated management system (IMS) in the readymade garments (RMG) sector in Bangladesh and the respective linkage with corporate social responsibility (CSR) to promote sustainable development. This study presents a list of IMS benefits composed of different international management standards according to ISO 9001:2015, ISO 14001:2015, OSHAS 18001: 2007 and SA 8000:2014.*

**Design/methodology/approach** – *To identify the possible benefits of IMS, a systematic literature review was conducted from 2009 to 2019, namely, in the database of Elsevier, Emerald and John Wiley. A questionnaire survey was developed with the purpose of examining the perceived main benefits of IMS. The questionnaire was e-mailed to 355 representatives of 15 RMG sectors in Bangladesh. A total of 256 complete and useable responses were received, constituting the base of this work. Subsequently, statistical analysis was conducted using SPSS 20 software.*

**Findings** – *The main findings of the present study show that the most important five benefits of IMS in RMG sector in Bangladesh are better capacity to achieve organization's objectives, optimum use of various resources, business sustainability, synergies of different management policies and reduction of duplication efforts.*

**Practical implications** – *Two major limitations of the study are as follows: first, it is not a longitudinal study; second, IMS benefits were examined in the national sector context. The present study has both theoretical and practical implications. The study presents a comprehensive list of IMS benefits that contribute to the existing literature from a theoretical point of view. On the other hand and from a practical point of view, this study encourages managers to implement IMS in their organizations.*

**Originality/value** – *This study helps in understanding the contribution of IMS benefits to cleaner production and CSR in Bangladesh. The focus on the benefits of IMS in the RMG sector in Bangladesh is another significant aspect of this study because it promotes the development of environmental policies linked to CSR with stakeholder engagement, as a driver to sustainable development.*

**Keywords** *Corporate social responsibility, Sustainable development, Integrated management systems, Bangladesh*

**Paper type** *Research paper*

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## 1. Introduction

The marketing environment became more competitive because of economic globalization and financial crisis, leading often to a turbulent and uncertain atmosphere. Under these circumstances, it is difficult for a company to survive in the competitive market without satisfying the demand of various stakeholders (Ahidar *et al.*, 2019; Ferraz and Gallardo-Vazquez, 2016; Kawai *et al.*, 2018; Samani *et al.*, 2019). For example customers expect quality in products and services at a competitive price (Costa *et al.*, 2019; Félix *et al.*, 2019a;

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Bravi *et al.*, 2019; Machado *et al.*, 2020). In this context lean tools becomes essential (Azevedo *et al.*, 2019; Santos *et al.*, 2019c; Cordeiro *et al.*, 2020; Gonçalves *et al.*, 2019; Jimenez *et al.*, 2019; Ribeiro *et al.*, 2019; Rodrigues *et al.*, 2019) in promoting the creation of value (Santos *et al.*, 2020; Doiro *et al.*, 2017; Santos *et al.*, 2019b; Zgodavova *et al.*, 2020; Doiro *et al.*, 2020) and the opening of new businesses (Félix *et al.*, 2018; Félix *et al.*, 2019b). Other stakeholders expect ethics to guide companies toward environment (Silva *et al.*, 2020; Bravi *et al.*, 2020), employee (Sá *et al.*, 2020), education (Santos *et al.*, 2019d) as well as society (Reis *et al.*, 2020). There are several international management standards that are used frequently to fulfil the demands of various stakeholders (Almarshad *et al.*, 2019; Lee *et al.*, 2017; Maas *et al.*, 2016; Nunhes *et al.*, 2018; Wilson and Campbell, 2018; Jiménez *et al.*, 2020). Among the wide variety of management standards, the most frequently used management standards are ISO 9001, ISO 14001, OHSAS 18001 and SA 8000. Several activities are required to operate a single management standard. The number of activities increases significantly when different management standards are operated in parallel or sequentially. Hence, to prevent activities from rising abruptly, it is common practice to handle different aspects with a similar purpose from different standards in an integrated fashion. Thus, because in the different ISO standards and others mentioned earlier, there are aspects with a similar purpose, it is possible, to some extent, to integrate common point giving rise an IMS, aggregating specific points from different standards. There are several definitions of IMS in the literature, the most popular states that "bringing different management systems into one management system" (Rebelo *et al.*, 2015; Teixeira *et al.*, 2017; Wiengarten *et al.*, 2017). As a result, implementation and control of various management standards, that are operating in parallel, sequentially or in an integrated fashion, becomes difficult (Bakotic and Rogosic, 2017; Chatzoglou *et al.*, 2015; Ikram *et al.*, 2019; Kharub and Sharma, 2018; Sfreddo *et al.*, 2018). Difficulties in implementation and control lead to bureaucracy in operation and an increase in implementation cost (Almeida *et al.*, 2018; Bernardo *et al.*, 2015; Chiarini, 2017; Khair *et al.*, 2019; Oliveira *et al.*, 2016; Rebelo *et al.*, 2015).

Management standards have several structural similarities concerning planning, operation, performance measure and improvement methodology (i.e. plan–do–check–act cycle) (Ikram *et al.*, 2019; Ismyrlis and Moschidis, 2015; Li *et al.*, 2018; Maas *et al.*, 2018; Martí-Ballester and Simon, 2017; Nunhes *et al.*, 2017; Teixeira *et al.*, 2017). Therefore, integration of different management systems could be a suitable strategy for an effective management of needs from different stakeholders (Agan *et al.*, 2016; Antolín-Lopez *et al.*, 2016; Ikram *et al.*, 2019; Murmura *et al.*, 2018; Nunhes and Oliveira, 2018). Many researchers have argued that different management standards can be integrated based on their structural similarities (Ahidar *et al.*, 2019; Campos *et al.*, 2015; Chountalas and Tepaskoualos, 2019; He *et al.*, 2015; Ionescu *et al.*, 2018; Khair *et al.*, 2019; Lee *et al.*, 2017; Martín-de Castro *et al.*, 2016; Mazzi *et al.*, 2016; Perrott, 2015; Preziosi *et al.*, 2016) and thus IMS can enable the reduction in the number of activities by eliminating duplicating tasks and procedures. An increased number of overlapping efforts are a waste which reduces management efficiency. Again, the reduction of overlapping effects will not only save time but will also reduce redundancy (Chiarini and Vagnoni, 2017; Llach *et al.*, 2015; Lozano, 2015; Maletič *et al.*, 2016; Merli *et al.*, 2015; Moumen and El Aoufir, 2017; Murmura *et al.*, 2017). Several manufacturing organizations in the world are willing to implement IMS given their benefits. Every international management standard offers some function specific benefits, whereas IMS offers some additional comprehensive benefits (CBs) along with function specific benefits (Bernardo *et al.*, 2018; Chiarini and Vagnoni, 2017; Hernandez-Vivanco *et al.*, 2018; Murmura *et al.*, 2017; Siva *et al.*, 2016; Wiengarten *et al.*, 2017). Therefore, future research should be focused on exploring the CBs of IMS.

There are many countries in the world that are lagging behind IMS implementation (Nunhes *et al.*, 2016; Su *et al.*, 2015; Barbosa *et al.*, 2018; Carvalho *et al.*, 2018). Bangladesh is one of them for several reasons; the two most important are, first, Bangladeshi organizations

have limited knowledge about IMS benefits, and second, have limited knowledge about IMS implementation. Awareness might drive organizations of Bangladesh to implement IMS and hence sustain economic growth. The economic condition of Bangladesh greatly depends on exports from the readymade garments (RMG) sector, accounting for 75% of total exports (BGMEA, 2018) and being the second largest world supplier in the world (Rashid and Taibb, 2016; Syduzzaman *et al.*, 2016). To sustain its position in the competitive market, the RMG sector is using several management standards to fulfil the stakeholder's demands. With IMS, Bangladesh will secure additional buyers and thus secure its position as an outsourcing hub for the RMG sector worldwide (Bernardo *et al.*, 2017; De Oliveira, 2013).

This study explores and unveils some additional potential benefits from IMS implementation. Multiple management standards (MMSs) provide several function-specific benefits while operating individually or in an integrated way. Moreover, several benefits may be obtained when MMSs are operated in an integrated fashion (Epstein, 2018; Hallstedt, 2017). A review upon recent literature reveals that most of the studies place a focus on benefits of different management systems separately (Santos *et al.*, 2017; Engert *et al.*, 2016). The list of identified CBs is scattered and varies significantly from one study to another (Ahidar *et al.*, 2019; Chountalas and Tepaskoualos, 2019; Kafel, 2016; Laal *et al.*, 2019). It is an interesting issue and relevant from both academic and managerial point of view. This study attempts to explore all potential benefits obtained from IMS implementation listing CBs of IMS in a broader fashion because CB of IMS may increase with a wider scope of integration (Klute-Wenig and Refflinghaus, 2015; Llonch *et al.*, 2018; Ribeiro *et al.*, 2017; Rebelo *et al.*, 2017). Different research papers have discussed the benefits obtained from the integration of quality management system (QMS), environmental management system (EMS), occupational health and safety management system (OHSMS) (Mežinska *et al.*, 2015). Only a few report the benefits offered by IMS with the inclusion of corporate social responsibility management system (CSRMS) (Mežinska *et al.*, 2015; Nadae *et al.*, 2019; Perrott, 2015). Bello *et al.* (2021) present relationships and impacts of perceived corporate social responsibility (CSR), service quality, customer satisfaction and consumer rights awareness. Other authors, such as Lin *et al.* (2019), show improved firm performance in connection with CSR implementation.

The aim of this work is to identify the main benefits offered by IMS composed, namely, by the QMS, EMS, OHSMS and CSRMS, in the RMG sector in Bangladesh.

## 2. Literature review

In many industries in developed countries, the EMS has changed its strategy and scope moving forward from pollution treatment to pollution prevention to promote sustainable development. In developing countries, pollution prevention strategies are most often deficient given the underlying post-active strategy. Hazardous by-products of a production process are the main source of pollution and are usually generated from an inefficient management of the production process (Cong and Shi, 2019). Inefficient management means, most often, excessive use of resources, including water and energy (Nunes *et al.*, 2019). Garment industry is one of the high water consumption industries in the world using roughly 120 L of water for dying and washing just 1 kg of fabric (Rashid and Taibb, 2016), varying from one factory to another. Consumption actually depends on the type of equipment used, type of process and water management. A typical garment industry in Bangladesh consumes 1,500 billion liters of ground water per year (Syduzzaman *et al.*, 2016). Water is used for washing chemicals, softener, resin, lubricant and reagents from fabrics. For this reason, process water becomes polluted and harmful for environment. Process water needs to be cleaned from oil, chemical, colour and other hazardous materials before being discharged, being limited the number of garment industries doing this. Some of the industries are throwing their wastewater directly to the rivers nearby the textile industrial zone (Syduzzaman *et al.*, 2016). On an average, Bangladeshi garment

industries are throwing 20,300 crore (1 crore= 10 billion) liter of wastewater per year (BGMEA, 2018). A large number of people who are living nearby the river are being threatened by water pollution and suffering from various diseases. Another consequence of excesses water use is the gradual decrease in the water surface by 2–3 m per year (BGMEA, 2018). Scarcity of underground water has started in many high-level areas and the situation is worsening every day. To control water pollution and its negative impact on environment, it is important to reduce the use of water in garment industries, sustaining CSR and moving toward sustainable development. This is possible only when less water is consumed during textile wet processing (Burritt *et al.*, 2019).

Pollution is not only responsible for environmental loss but also responsible for social and economic loss. A dynamic balance is always essential among the three major dimensions (economic, environmental and social) to bring "sustainability in business" (Burritt *et al.*, 2019; Bai *et al.*, 2015). To ensure dynamic balance, combined management of these sustainability dimensions is necessary. IMS can help and act as a common platform to manage the three sustainability dimensions simultaneously. Therefore, IMS can contribute to business sustainability by increasing economic and social benefits through environmental protection. Business sustainability is in line with CSR and also with cleaner production because sustainability in business is achieved by means of a better environmental protection (Neto *et al.*, 2019; Eras *et al.*, 2015). Hence, integrated management of the three sustainability dimensions will be helpful for establishing a cleaner production approach in Bangladeshi garment industries, with the help of CSR toward sustainable development.

Today risks are a major concern in garment industries in Bangladesh. Poor management practices of these industries are making them (industries) responsible for generating various kinds of risk, mainly three types of risk. They are environmental, occupational and social risk. Environmental risks are associated with hazardous materials that are used in the production process and hazardous by-products. Occupational risks are associated with poor working environment and expose to hazardous materials. Social risks are concerned with the huge environmental impact on the society. Individual management of risks in these areas cannot bring satisfactory result because these risks are complex in nature. They (risks) are interconnected with each other in several domains within the organization (Oliveira *et al.*, 2019). An "integrated risk management" approach can help solve this problem easily because IMS is targeted to the combined management of these areas. Therefore, IMS can act as a common basis for identifying and controlling risks coming from various areas of management systems. A good result can be expected from an integrated risk management approach (Rebelo *et al.*, 2017). This approach is also in line with cleaner production, CSR and sustainable development, because both IMS and cleaner production are used to prevent risks from arising in the production process (Gunarathne and Lee, 2019). The application of an "integrated risk management" approach in Bangladeshi garment industries can minimize risk and hence contribute one step toward cleaner production and sustainable development.

### *2.1 Benefits of individual management system*

A management system is a set of procedures followed by an organization to achieve objectives (Nawaz and Koc, 2018). The most widely used management systems around the world are QMS, EMS, OHSMS and CSRMS (Poltronieri *et al.*, 2019; Rebelo *et al.*, 2016a; Rino and Salvador, 2017). Among the various QMSs, the most widely accepted international standard is ISO 9001. It was first published in 1987 and the latest version published in 2015. Literature show that the implementation of ISO 9001 offers several benefits (Table 1). Researchers have analyzed the benefits from different perspectives. Most of the researchers have classified the benefits into two classes, one is internal and the other external, while other researchers have classified into operational and financial benefits. Improvement of

**Table 1** Main benefits of different international standards

| | Supporting literature | | | |
|---|---|---|---|---|
| *No Benefits* | *ISO 9001* | *ISO 14001* | *OHSAS 18001* | *SA 8000* |
| 1. Internal | | | | |
| (i) Productivity improvement | Samani *et al.* (2019) | Ikram *et al.* (2019) | Ikram *et al.* (2019) | Ikram *et al.* (2019) |
| (ii) Operational performance improvement | Wilson and Campbell (2018) | Nunhes *et al.* (2018) | Nunhes *et al.* (2018) | Kawai *et al.* (2018) |
| (iii) Improvement of process quality | Sfreddo *et al.* (2018) | Kawai *et al.* (2018) | Moumen and El Aoufir (2017) | Murmura *et al.* (2017) |
| (iv) Employee motivation | Kharub and Sharma (2018) | Maas *et al.* (2018) | Nunhes *et al.* (2017) | Chiarini and Vagnoni (2017) |
| (v) Employee satisfaction | Almeida *et al.* (2018) | Li *et al.* (2018) | Rebelo *et al.* (2015) | Agan *et al.* (2016) |
| (vi) Better team sprit | | Murmura *et al.* (2018) | | Antolín-Lopez *et al.* (2016) |
| (vii) Employee engagement in work | Nunhes and Oliveira (2018) | Martí-Ballester and Simon (2017) | | Ferraz and Gallardo-Vazquez (2016) |
| (viii) Better decision-making | Bakotic and Rogosic (2017) | Teixeira *et al.* (2017) | | Maletič *et al.* (2016) |
| (ix) Increased product/service reliability | Chiarini (2017) | Nunhes *et al.* (2017) | | Perrott (2015) |
| (ix) Improved employee training | Rybski *et al.* (2017) | Lee *et al.* (2017) | | Llach *et al.* (2015) |
| | Martí-Ballester and Simon (2017) | Agan *et al.* (2016) | | Merli *et al.* (2015) |
| 2. External | Teixeira *et al.* (2017) | Antolín-Lopez *et al.* (2016) | | Lozano (2015) |
| | | Mazzi *et al.* (2016) | | |
| (i) Better organizational image | Nunhes *et al.* (2017) | Oliveira *et al.* (2016) | | |
| (ii) Better customer satisfaction | Chatzoglou *et al.* (2015) | Martín-de Castro *et al.* (2016) | | |
| (iii) Better relationship with stakeholders | Ismyrlis and Moschidis (2015) | Preziosi *et al.* (2016) | | |
| | Bernardo *et al.* (2015) | Bernardo *et al.* (2015) | | |
| | Rebelo *et al.* (2015) | Rebelo *et al.* (2015) | | |
| 3. Operational | | Perrott (2015) | | |
| (i) Improved documentation | | Campos *et al.* (2015) | | |
| (ii) Clarity of authority and responsibility | | He *et al.* (2015) | | |
| (iii) Better communication | | | | |
| (iv) Better management control | | | | |
| (v) Function-specific continuous improvement | | | | |
| (vi) Better panning of functional objectives | | | | |
| (vii) Ability to add a new management standards | | | | |
| (viii) Risk reduction | | | | |
| 4. Financial | | | | |
| (i) Profitability | | | | |
| (ii) Sales growth | | | | |
| (iii) Lower the production cost | | | | |
| (v) Lower the overhead cost | | | | |

productivity, product quality enhancement and employee motivation are some examples of internal benefits frequently mentioned in the literature (Bernardo *et al.*, 2015; Chiarini, 2017; Samani *et al.*, 2019; Sfreddo *et al.*, 2018; Wilson and Campbell, 2018; Araújo *et al.*, 2019; Marques *et al.*, 2018; Santos and Barbosa, 2006; Africano *et al.*, 2019). On the other hand, customer satisfaction and improvement of organizational image are some common examples of external benefits (Rebelo *et al.*, 2016b; Santos and Milán, 2013; Rybski *et al.*, 2017; Samani *et al.*, 2019; Teixeira *et al.*, 2017; Wilson and Campbell, 2018; Santos *et al.*, 2019a). Operational benefits are related with better communication, team spirit, employee

satisfaction, improved documentation, etc. (Almeida *et al.*, 2018; Bakotic and Rogosic, 2017; Kharub and Sharma, 2018; Nunhes *et al.*, 2017; Rybski *et al.*, 2017). Similarly, financial benefits are sales growth, profitability, increased market share, etc. (Almeida *et al.*, 2018; Moumen and El Aoufir, 2017; Samani *et al.*, 2019; Teixeira *et al.*, 2017; Wilson and Campbell, 2018).

ISO 14001 is the second most widely used international standard. It was first introduced in 1996 and is used for a better management of environmental issues. ISO published the latest version of ISO 14001 in 2015. This standard has a similar classification of benefit (Table 1) as ISO 9001 and thus incorporates improved environmental quality, efficient use of energy and waste minimization as common examples of internal benefits (Ikram *et al.*, 2019; Kawai *et al.*, 2018; Lee *et al.*, 2017; Teixeira *et al.*, 2017; Yu and Lee, 2017; Santos *et al.*, 2016), whereas improvement of company image, fulfilment of stakeholder's expectations and relationship improvement with stakeholders are some examples of external benefits (Ikram *et al.*, 2019; Kawai *et al.*, 2018; Li *et al.*, 2018; Mazzi *et al.*, 2016). Benefits related to operational performance are employee motivation, better teamwork, improved operational control, better documentation, etc. (Agan *et al.*, 2016; Kharub and Sharma, 2018; Maas *et al.*, 2018; Preziosi *et al.*, 2016). Moreover, important financial benefits are improved in market share, sales growth, profitability, etc. (Ikram *et al.*, 2019; Kawai *et al.*, 2018; Lee *et al.*, 2017; Li *et al.*, 2018; Rino and Salvador, 2017).

OHSAS 18001 is the third most widely used international standard for occupational health and safety management and it was first published in 1999. The latest version of OHSAS 18001 was published in 2007. Like other management standards, OHSAS 18001 has both internal and external benefits. Some common examples of internal benefits are hazards identification, better risk control, productivity improvements, etc. (Ikram *et al.*, 2019; Rebelo *et al.*, 2015). Some common examples of external benefits are customer satisfaction, improvement of organizational image, relationship with stakeholder's improvement, etc. (Moumen and El Aoufir, 2017; Nunhes *et al.*, 2018). Benefits related to operational performance are better communication, effective control, better planning, promotion of organizational goals, improvement in operational procedures, etc. (Ikram *et al.*, 2019; Nunhes *et al.*, 2017). Again, financial benefits are profitability, sales growth, market share improvement, etc. (Ikram *et al.*, 2019; Nunhes *et al.*, 2018; Qi *et al.*, 2013; Rebelo *et al.*, 2015). Recently, ISO 45001 was published.

The most widely used CSRMS standard is the SA 8000 and it was first introduced in 1997. The latest version of this standard is the SA 8000: 2014. This standard offers several internal and external benefits. Some common examples of internal benefits are reduction of labour risk, ensure labour rights, increase trust between employee and management, job security, decent work environment, etc. (Agan *et al.*, 2016; Ikram *et al.*, 2019; Llach *et al.*, 2015; Lozano, 2015). Some examples of common external benefits are increased reputation in the labour market, better relationship with trade unions, etc. Benefits related to operational performance are less absenteeism, committed workforce, lower employee turnover, etc. (Chiarini and Vagnoni, 2017; Kawai *et al.*, 2018; Merli *et al.*, 2015). Benefits related to financial performance are overtime cost reduction, lower production costs, lower overhead costs, etc. (Antolín-Lopez *et al.*, 2016; Chiarini and Vagnoni, 2017; Ferraz and Gallardo-Vazquez, 2016; Kawai *et al.*, 2018; Merli *et al.*, 2015; Murmura *et al.*, 2017; Poltronieri *et al.*, 2018).

### *2.2 Benefits of integrated management system*

Different management standards operating separately result in wastage of efforts, bureaucracy in management, excessive implementation cost and redundancies. For these reasons, social researchers have advocated in favor of management system integration (Almarshad *et al.*, 2019; Hernandez-Vivanco *et al.*, 2018; Teixeira *et al.*, 2017; Wiengarten *et al.*, 2017). Benefits of IMS are derived from the synergies of different management

standards (Ahidar *et al.*, 2019; Preziosi *et al.*, 2016; Su *et al.*, 2015). Researchers have found that IMS offer some CBs that are not usually found in separate management practices. The reasons for obtaining CBs of IMS lie on the maximization of values from each integrated element and function (Mazzi *et al.*, 2016; Nunhes and Oliveira, 2018; Wiengarten *et al.*, 2017). Although some CBs are common, regardless of the type of integration, they (common CBs) cover a broader area given the wider integration scope. In other words, CBs actually come from the integration of isolated functions in individual management systems (Ionescu *et al.*, 2018; Moumen and El Aoufir, 2017). IMS literature has revealed that, existing methodologies fail to ensure complete integration of different management standards in all aspects (Almarshad *et al.*, 2019; Bernardo *et al.*, 2018; Ionescu *et al.*, 2018; Moumen and El Aoufir, 2017; Rebelo *et al.*, 2015). There are two reasons for this partial integration: first, management standards are not supportive in addressing the organizations cultural change; second, IMS becomes more complex when the number of individual management standards increases during the integration process.

Different countries in the world, such as Denmark, England, Spain and Australia, among others, have developed their own national standard of IMS according to their requirements (Bernardo *et al.*, 2015; Rebelo *et al.*, 2015; Su *et al.*, 2015; Wiengarten *et al.*, 2017). Nevertheless, these national standards are not generic and need further improvement. ISO has started focusing on the fundamental alignment aspects of the different international management standards as important criteria for integration (Ionescu *et al.*, 2018; Moumen and El Aoufir, 2017; Nunhes and Oliveira, 2018; Wijethilake, 2017). For this reason, ISO has recently developed a high-level structure (HLS) called "Annex SL" to support the integration process (ISO, 2018). This HLS may help an organization to achieve its expected benefits from integration (Almarshad *et al.*, 2019; Bernardo *et al.*, 2018; Hernandez-Vivanco *et al.*, 2018; Ionescu *et al.*, 2018; Moumen and El Aoufir, 2017; Nunhes and Oliveira, 2018; Siva *et al.*, 2016; Teixeira *et al.*, 2017; Wijethilake, 2017). Bernardo *et al.* (2015) analyzed 18 empirical studies in the electronic database Web of Science, Emerald and Science Direct to investigate the benefits of IMS that were composed of two management systems (ISO 9001 and ISO 14001). Results showed that benefits may be obtained from the integration of management systems when compared to separately managed standards. Hence, several business organizations across the globe are practicing ISO 9001 and ISO 14001 in an integrated fashion to satisfy their stakeholder's demands simultaneously.

At present, several stakeholders such as customers, community and government are expecting better risk control at strategic and operational level (Ionescu *et al.*, 2018; Shevchenko *et al.*, 2018; Wiengarten *et al.*, 2017). Therefore, several business organizations across the globe are practicing ISO 9001, ISO 14001 and OHSAS 18001 in an integrated way. Aforementioned management standards support risk-based thinking under their (standards) management structures (Bernardo *et al.*, 2017; Carvalho *et al.*, 2015; Chang and Cheng, 2019; Ionescu *et al.*, 2018; Shevchenko *et al.*, 2018; Wiengarten *et al.*, 2017). Nevertheless, there exists controversy in the literature regarding occupational risk reduction at work. Nunhes and Oliveira (2018) had clearly pointed out that improper audit and intangible data are the two major difficulties for occupational risk management.

To achieve sustainable development, many business organizations around the world are trying to become socially responsive organizations. Business organizations are trying to incorporate CSRMS within their existing IMS practices (Rybski *et al.*, 2017; Sadegh Amalnick and Zarrin, 2017; Santos *et al.*, 2018). A vast research has been conducted to identify the benefits of CSRMS in an isolated fashion. No comprehensive list of IMS benefits has been prepared based on the integration of QMS, EMS, OHSAS and CSRMS altogether. In the next section is discussed the methodology that supports the preparation of a comprehensive list of IMS benefits and a survey method for an empirical study of these benefits.

## 3. Methodology

An extensive literature review has been performed to investigate the benefits from the synergies of four management standards (ISO 9001, ISO, 14001, OHSAS 18001, SA 8000). To empirically investigate the perceived benefits of aforementioned management standards operated in an integrated fashion, the authors have conducted a survey with leading practitioners of IMS in Bangladeshi RMG sector.

### *3.1 Electronic database search*

We have followed Tranfield's (2003) method of systematic literature review technique in the present study. This method was chosen because previous studies of IMS benefits had produced fragmented knowledge (Epstein, 2018; Hernandez-Vivanco *et al.*, 2018; Laal *et al.*, 2019; Llonch *et al.*, 2018; Nunhes and Oliveira, 2018; Samani *et al.*, 2019). A keyword searching technique has been used to identify research articles. The keywords used in this study were "integrated management system," "integrating," "benefit," "management system integration" and "management system." The mentioned keywords have been written in the field of "title" and "keyword" of a search engine. To cover more recent and relevant articles in the field of IMS, the authors emphasized on Scopus and Web of Science databases. Journals were accessed through the following search engines: Emerald, Science Direct and Wiley. The keyword search resulted in 425 search items on the 15th of July 2020. Filters were used to further select relevant articles, e.g. documents published in English, research article and review-type documents and documents published between 2005 and 2020. Upon the application of these filters, results dropped to 82 items. To identify useful document from the initially searched articles, content screening of these articles has been performed as a final screening. The content screening was used to identify whether the articles had discussed the benefits of IMS. A total of 20 articles were selected after a secondary screening (Table 2). Figure 1 shows the frequency of the IMS benefits mentioned in the selected literature.

### *3.2 Material evaluation and the preparation of a comprehensive list of benefits*

After identifying relevant articles, an in-depth reading of the text was carried out. From a first analysis of the articles, the authors identified the main insights, contributions and conclusive statements. A careful and in-depth analysis of selected articles helped the authors in identifying and extracting the depicted IMS benefits. To avoid redundancy, each benefit was cross-checked within the selected articles. Thus, 29 IMS benefits were successfully identified from the IMS literature, which are shown in Table 3, where, among others, "Optimum use of resources," "Synergies of different management systems" and "Improvement of compliance legislation" contribute to better environment, to cleaner production and simultaneously to "Business sustainability."

### *3.3 Design of the survey questionnaire*

Most studies on IMS have been carried out through questionnaire surveys and built upon a comprehensive list of IMS benefits. The hereby-proposed questionnaire is divided into two sections. Section 1 contains general information concerning the company. Section 2 addresses the perceived benefits of IMS. Assessment of content validity was confirmed by an extensive literature survey. The questionnaire was validated by two academics and three industrial experts. All these experts have at least seven years' experiences in the field of IMS. The final questionnaire was pilot-tested and found reliable. The respondents were requested to indicate the perceived benefits of IMS (composed of QMS, EMS, OHSMS and CSRMS) using a five-point scale. The scale indicates 1 for no benefit, 2 for minor, 3 for moderate, 4 for substantial and 5 for very substantial benefit.

**Table 2** List of articles selected for identifying comprehensive benefits of IMS

| No. | Title | Author(s)/year | Journal | Times cited |
|---|---|---|---|---|
| 1. | Critical analysis of information about integrated management systems and environmental policy on the Portuguese firms' website, towards sustainable development | Carvalho *et al.* (2020) | *Corporate Social Responsibility and Environmental Management* | 3 |
| 2. | Sustainability management emergence and integration on different management levels in smaller large-sized companies in Austria | Kiesnere and Baumgartner (2019) | *Corporate Social Responsibility and Environmental Management* | 1 |
| 3. | Main benefits of Integrated Management Systems Through Literature Review | Talapatra *et al.* (2019) | *International Journal of Quality Research* | 5 |
| 4. | Sustainability criteria and sustainability compliance index for decision support in product development | Hallstedt (2017) | *Journal of Cleaner Production* | 71 |
| 5. | Integrated management Systems- trends for Portugal in the horizon 2025 | Ribeiro *et al.* (2017) | *Procedia Manufacturing* | 40 |
| 6. | Exploring the integration of corporate sustainability into strategic management: a literature review | Engert *et al.* (2016) | *Journal of Cleaner Production* | 155 |
| 7. | Integrating corporate sustainability assessment, management accounting, control and reporting | Maas *et al.* (2016) | *Journal of Cleaner Production* | 105 |
| 8. | Integration of standardized management systems: a dilemma? | Rebelo *et al.* (2015) | *Systems* | 22 |
| 9. | Integration of management systems: towards a sustained success and development of organizations | Rebelo *et al.* (2016a, 2016b) | *Journal of Cleaner Production* | 58 |
| 10. | Integrated management systems towards sustainable and socially responsible organization | Mezinska *et al.* (2015) | *Total Quality Management & Business Excellence* | 46 |
| 11. | Integrating sustainability aspects into an integrated management system | Klute-Wenig & Refflinghaus (2015) | *The TQM Journal* | 21 |
| 12. | Building the sustainable organization: an integrated approach | Perrott (2015) | *Journal of Business Strategy* | 15 |
| 13. | Conception of a flexible integrator and lean model for integrated management systems | Rebelo *et al.* (2014) | *Total Quality Management & Business Excellence* | 71 |
| 14. | Guidelines for the integration of certifiable management systems in industrial companies | De Oliveira (2013) | *Journal of Cleaner Production* | 101 |
| 15. | ISO and OHSAS certifications: How stakeholders affect corporate decisions on sustainability | Qi *et al.* (2013) | *Management Decision* | 48 |
| 16. | A generic model for integration of Quality, Environment and Safety Management Systems | Rebelo *et al.* (2013). | *TQM Journal* | 103 |
| 17. | Integral responsibilities for a responsive and sustainable practice in organization and management | Kupers (2011) | *Corporate Social Responsibility and Environmental Management* | 96 |
| 18. | Certification and integration of management systems: the experience of Portuguese small and medium enterprises | Santos *et al.* (2011) | *Journal of Cleaner Production* | 237 |
| 19. | An empirical examination of benefits from implementing integrated management systems (IMS) | Zeng *et al.* (2011) | *Total Quality Management* | 109 |
| 20. | Integrated Management Systems as a Corporate Response to Sustainable Development | Oskarsson & Malmborg (2005) | *Corporate Social Responsibility and Environmental Management* | 70 |

**Note:** Times cited in Google Scholar

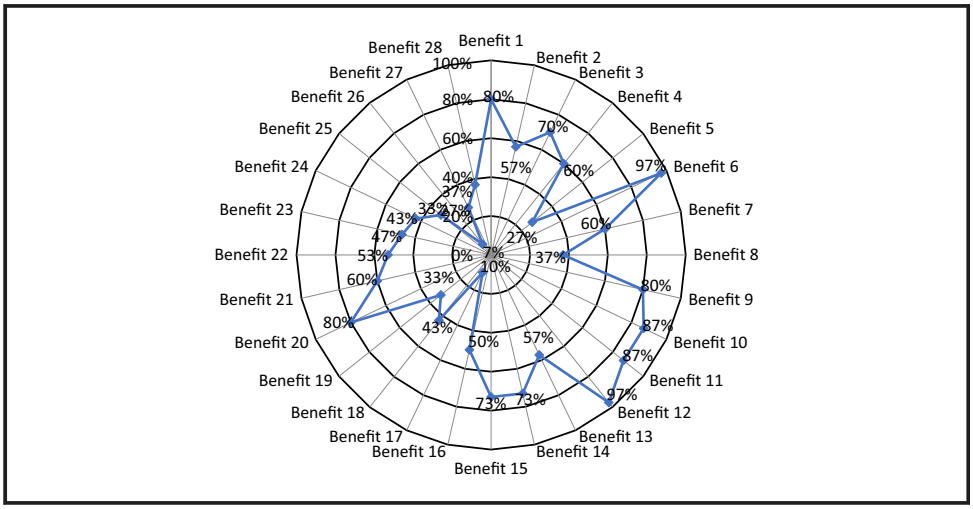
### *3.4 Sample selection*

Bangladesh Garment Manufacturers and the Exporters Association (BGMEA) reports a list of 15 RMG industries that adopt IMS in their industries (BGMEA, 2018). All listed companies were considered in this study. During the field visits, authors have found that these industries were using ISO 9001:2015 and ISO 14001:2015 in an integrated fashion while OHSAS 18001:2007 and SA 8000:2014 were treated separately.

### *3.5 Survey design and data collection*

Data collection followed the modified Dillman's (2011) method for data collection. This method was chosen to increase the response rate (Agan *et al.*, 2016; Khair *et al.*, 2019;

**Figure 1** Frequency of IMS benefits




Rybski *et al.*, 2017). A complete set of questionnaires was e-mailed to 355 representatives of the 15 RMG industries. A total of 256 complete and useable responses were received and considered in this study, a response rate of 72.11%. Response rate is quite satisfactory when compared to previous studies in the IMS field (Agan *et al.*, 2016; Chang and Cheng, 2019; Khair *et al.*, 2019; Moumen and El Aoufir, 2017; Rybski *et al.*, 2017; Zeng *et al.*, 2011). The demographic profiles of the respondents are shown in Table 4.

## 4. Results and discussion

A total of 29 IMS benefits were included in the survey questionnaire. Respondents of RMG sector were asked to report on the perceived performance of each IMS benefit using a five-point scale. Survey data was analyzed using descriptive statistics (mean, standard deviation, etc.) using IBM SPSS software version 20.

The selected companies for data collection have four management standards (ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 and SA 8000:2014). These companies have a unified internal audit system for ISO 9001:2015 and ISO 14001:2015 standard. A total of 43.36% of the respondents stated that they had integrated procedures for document control and preventive and corrective actions. None of the respondent has reported the use of single manuals for integrated management standard. Figure 2 shows the reported relevance of identified benefits from IMS implementation in the RMG sector in Bangladesh.

From the results, as shown in Figure 2, the most important benefit with a mean value of 4.6039 points is “Better capacity of achieving organization’s objectives,” which is derived from the fact that IMS policy helps an organization to set appropriate measurable objectives. IMS ensures better alignment of objectives, procedures and work instructions with organizational policies (Hernandez-Vivanco *et al.*, 2018; Klute-Wenig and Refflinghaus, 2015; Santos *et al.*, 2011; Sroufe, 2017), ensuring continuous improvement of operational compliance (Wang and Sarkis, 2017) and, as such, the competence level of an organization increases. The second most important IMS benefit is the optimum use of different resources, with a mean value 4.6000 points. IMS provides better guidelines for allocating resources at the right time to perform a specific task. It ensures optimum utilization of resources at each level and function (Strezov *et al.*, 2017; Trianni *et al.*, 2019). The third most important IMS benefit is business sustainability, with a mean value 4.5700 points. Surviving in the current competitive environment demands that organizations operate in a social, economic and ecologically responsible environment efficiently and

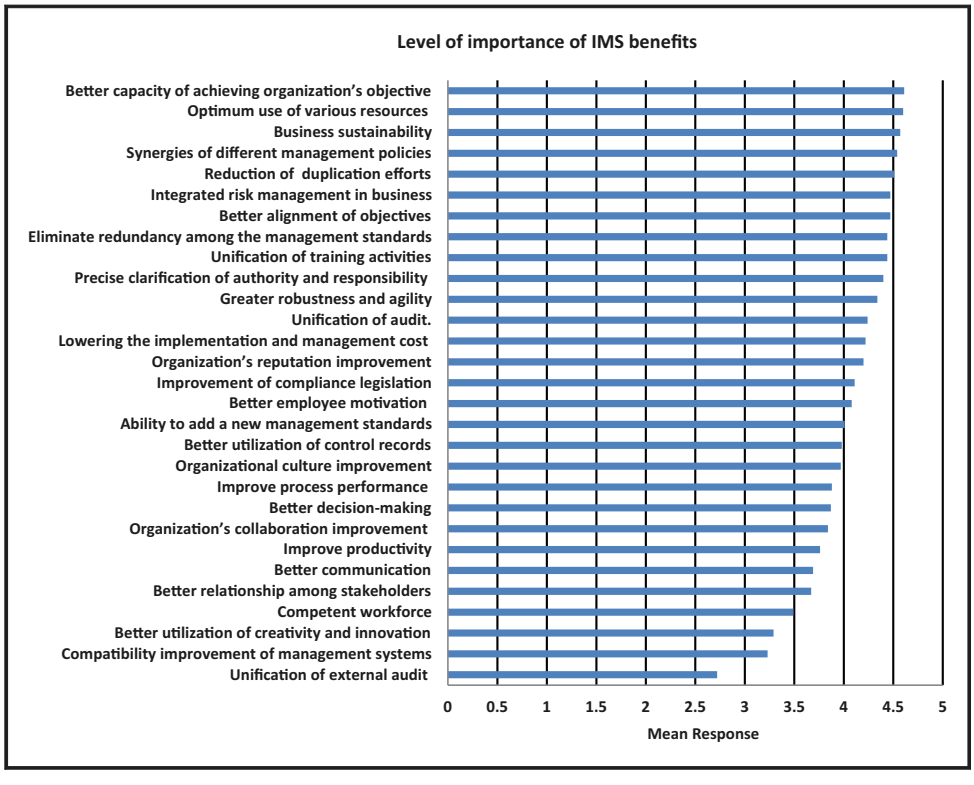
**Table 3** Benefits of IMS (composed of ISO 9001, ISO 14001, OHSAS 18001, SA 8000) identified in the literature

| *No.* | *Benefits* | *Articles (2005–2020)* | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* | *11* | *12* | *13* | *14* | *15* | *16* | *17* | *18* | *19* | *20* | *Total* |
| 1 | Organization reputation improvement | X | X | X | | | | | X | X | | | | X | X | X | | | X | | X | 10 |
| 2 | Integrated risk management | X | X | X | | | X | X | X | | X | X | | X | X | X | X | X | X | | X | 15 |
| 3 | Better capacity of objective achievement | | X | X | X | X | X | | | X | X | X | X | X | | | X | X | X | | | 13 |
| 4 | Better alignment of objectives | X | X | X | X | X | X | X | X | | X | X | | X | X | X | | | X | X | X | 16 |
| 5 | Better decision-making | X | X | | | X | X | X | | | X | X | | | | | X | | | X | X | 10 |
| 6 | Optimum use of resources | | | | | | X | X | X | X | | | X | X | | | | X | X | | | 8 |
| 7 | Synergies of different management systems | X | X | X | X | X | X | X | | | X | X | X | X | | X | X | X | | X | X | 16 |
| 8 | Improvement of compliance legislation | X | X | | | X | X | X | | | X | | X | X | X | | | X | | | X | 11 |
| 9 | Organization's collaboration improvement | | X | X | X | X | X | | | | | | X | | | | | | X | X | X | 9 |
| 10 | Better relationship with stakeholders | X | X | | X | X | X | X | | | X | X | X | | | | X | | | X | X | 12 |
| 11 | Reduction of duplication effort | X | X | | | | | X | X | X | | X | X | | | | | X | X | X | X | 11 |
| 12 | Unification of audit | X | X | X | X | X | X | X | | | X | X | X | X | | | X | X | | X | X | 15 |
| 13 | Eliminate redundancy among the management standards | X | X | | X | | X | X | | | | X | | | | X | X | X | X | X | X | 12 |
| 14 | Compatibility improvement of management systems | X | X | X | X | X | | X | X | X | | | X | X | X | X | X | X | X | X | X | 17 |
| 15 | Lowering the implementation and management cost | X | X | X | X | X | X | X | X | X | X | X | X | X | | X | X | | X | X | X | 17 |
| 16 | Business sustainability | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 19 |
| 17 | Improve process performance | X | | | | | X | X | | | | | X | X | | X | X | | | X | X | 9 |
| 18 | Better communication | X | X | X | X | | | X | X | X | | | X | X | | | | | | X | X | 11 |
| 19 | Organizational culture improvement | X | X | X | | | X | X | X | X | | | X | X | X | | | X | | X | X | 13 |
| 20 | Unification of training activities | X | X | X | X | | | | X | X | | X | X | | | | | X | X | X | X | 12 |
| 21 | Better employee motivation | X | X | X | | | | | | X | X | X | | | | | | X | | X | X | 9 |
| 22 | Competent workforce | X | X | X | | | X | X | | X | X | X | X | | | | X | X | | X | X | 13 |
| 23 | Precise clarification of authority and responsibility | X | X | | | | | | | | | X | X | | | | X | X | | | | 8 |
| 24 | Improve productivity | X | X | X | | | X | X | | | | X | X | X | | | X | X | | | | 10 |
| 25 | Ability to add a new management standards | X | X | X | | | | X | X | | | X | X | | | X | | X | X | X | X | 12 |
| 26 | Better utilization of control records | X | X | X | | | | X | X | | | X | X | X | | | | X | X | | | 10 |
| 27 | Unification of external audit | X | | | | X | | X | X | | X | | | X | | | X | | | | X | 8 |
| 28 | Greater robustness and agility | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | X | X | 19 |
| 29 | Better utilization of creativity and innovation | | | | | | X | | | X | | | | | | | X | | | | | 3 |

**Table 4** Demographic profiles of the respondents

| *Category* | *Number of respondents* | *% of respondent* |
|---|---|---|
| *Management level* | | |
| Top management | 21 | 8.20 |
| Middle management | 82 | 32.03 |
| Bottom management | 153 | 59.77 |
| *Turnover* | | |
| US$5–10m | 45 | 17.58 |
| US$11–50m | 50 | 19.53 |
| More than US$50 | 161 | 62.89 |
| *Number of employees* | | |
| 151–250 | 45 | 17.58 |
| 251–500 | 100 | 39.06 |
| More than 500 | 111 | 43.36 |
| *Experience with multiple management systems* | | |
| 0–5 years | 45 | 17.58 |
| More than 5 years | 211 | 82.42 |

**Figure 2** Survey results of IMS benefits in readymade garments sector in Bangladesh




effectively (Trianni *et al.*, 2019; Wijethilake, 2017). IMS can help organizations setting a policy in line with sustainable business practices (Klute-Wenig and Refflinghaus, 2015; Poltronieri *et al.*, 2018; Siva *et al.*, 2016). Sustainable business practices incur in the highest cost at initial stage but leads to increase profitability at a later stage. The fourth most important IMS benefit is linked to the synergies of different management policies, with a

mean value of 4.5400 points. In fact, synergies arise from the maximization of each integrated elements and functions' value. The fifth most important IMS benefit is the reduction of duplicated efforts, with a mean value of 4.5100 points, depicting the required elimination of duplicate activities such as internal audit, control of non-conformities, management review and a setback of running multiple management systems individually (Chang and Cheng, 2019; Kafel, 2016). IMS combines the processes to cover all common requirements simultaneously (Ahidar *et al.*, 2019; Bernardo *et al.*, 2017; Chountalas and Tepaskoualos, 2019; De Oliveira, 2013). As a result, duplication of effort reduces significantly in the framework of IMS.

Previous studies on IMS (Santos *et al.*, 2011; Bernardo *et al.*, 2015; Carvalho *et al.*, 2015; Kafel, 2016; Nunhes and Oliveira, 2018) did not address CBs from the general function-specific benefits perspective. The number of CBs increases with further integration. For an example, Khanna *et al.* (2010) identified 16 benefits of IMS when dealing with ISO 9001 and ISO 14001; nevertheless, most of the benefits were general function-specific benefits. Similarly, Bernardo *et al.* (2015) identified more than 35 benefits of IMS also when addressing the integration of ISO 9001 and ISO 14001, but again most of the benefits were general benefits. In the present study, there are 29 identified CBs of IMS, some common to the aforementioned studies, but ranked differently, related to the national context (i.e. cultural differences and resource availability pertaining to different countries). The current study has broadened the perspective on IMS presenting benefits concerning the integration of a higher number of standards, namely, ISO 9001, ISO 14001, OSHAS 18001 and SA 8000, providing this way a more robust perspective on the benefits. The identified benefits of IMS contribute to the sustainable development, namely, in RMG sector in Bangladesh.

## 5. Conclusion

The application of IMS in general can help meeting a solution for decreased water consumption in the world, especially in countries where clean water is scarce. According to two of the presented main benefits of IMS in Table 3, "Optimum use of resources" and "Synergies of different management systems," it is possible to "do more with less," that is to say, saving resources and contributing to cleaner production and simultaneously to "business sustainability" while protecting the environment and promoting CSR. Another benefit of IMS is the "Improvement of compliance legislation" where compliance to environmental rules is underlined. Hence, IMS plays a fundamental role in the effective and efficient use of water, providing an integrated view on water used at different stages. An optimum use of water further contributes to cleaner production and CSR, and hence sustainable development.

RMG sector in Bangladesh is facing challenges to fulfil the requirements of different stakeholder's engagement. At present, they are managing the requirements by running separate management standards. Operating multiple management system separately is not cost-effective. Therefore, several manufacturing organizations around the world are adopting IMS in their organizations. Bangladeshi RMG sector is still far from a full IMS implementation although aware of the benefits of IMS. Again, to survive in the competitive market, this sector needs to adopt IMS as a sustainable business strategy to attain CSR. This study, within this particular sector, has identified several CBs of IMS, from which the most important are better capacity of achieving organization's objectives, optimum use of various resources, business sustainability, synergies of different management policies and reduction of duplication efforts, all falling under CRS.

### *5.1 Theoretical implication of the study*

Two key aspects of the present study offer valuable contribution to IMS literature. First, several articles have pointed out that, IMS offers a wide variety of CBs (Hernandez-Vivanco

*et al.*, 2018; Nadae *et al.*, 2019; Nunhes and Oliveira, 2018; Trianni *et al.*, 2019). Nonetheless, limited research has been conducted to identify CBs of IMS. The present study has attempted to identify these benefits offered by IMS in the context of the RMG sector in Bangladesh, contributing to the existing knowledge on IMS benefits. Second, previous studies have identified benefits of IMS that were either composed of ISO 9001 and ISO 14001 (Bernardo *et al.*, 2018; Hernandez-Vivanco *et al.*, 2018; Siva *et al.*, 2016; Su *et al.*, 2015; Svensson *et al.*, 2018) or ISO 9001, ISO 14001 and OHSAS 18001 (Ionescu *et al.*, 2018; Moumen and El Aoufir, 2017; Nunhes *et al.*, 2018; Wiengarten *et al.*, 2017). This study has identified benefits of IMS in the context where four international management standards were in use, i.e. ISO 9001, ISO 14001, OHSAS 18001 and SA 8000. The current study provides further insights pertaining to the identification of potential benefits of IMS.

### *5.2 Practical implication of the study*

The present study has some important implications, namely, in developed countries, where EMSs have changed their strategy, moving forward from pollution treatment to pollution prevention to promote sustainable development. In developing countries, pollution prevention strategies are often not efficient and effective because they are seldomly post-active. Pollutants may harm the environment before the start of the waste treatment, that is, the pollution treatment. Therefore, emphasis should be placed in the reinforcement of pollution prevention. The identification of pollutant sources is essential for pollution prevention to promote sustainable development. Hazardous by-products of a production process are the main source of pollution. Hazardous by-products are usually generated from inefficient management of production process. Inefficient management means, many times, excess use of resources including water and energy.

### *5.3 Limitations and future research directions*

The collected data provides information pertaining to a given moment in time. It is thus desirable that further studies may be carried out to infer on the evolution of the indicators. The target population of the present study is limited because very few companies are practicing IMS in Bangladesh. The study should be conducted in other countries to provide robustness to these indicators. An important avenue for future research is to examine the benefits of IMSs with CSR standards using objective measures of performance.

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