Creating a Long-Term Safe Workplace in Garment Industry of Bangladesh: A Review

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Abstract
For the past 20 years, Bangladesh's socioeconomic situation has been greatly influenced by the garment industry. In this nation, there are close to 5600 active ready-to-wear manufacturers, and close to 4.4 million people are employed in this industry. Recent building collapses and fire incidents made it imperative that this industry address the urgent issue of a sustainable working environment. Employee discontent, job instability, and low productivity are consequences of unfavorable working circumstances. Therefore, our goal was to look into the sustainable and secure working conditions for Bangladeshi garment workers. This reviewed article aimed to investigate Bangladesh's garment industry's existing working conditions and possible establishment routes for a sustainable workplace. This review study employed a few keywords to gather secondary data from journals, books, and social media. The publications that were reviewed mainly were those that were published between 2000 and 2022. The findings show that concerns with worker health and safety must be addressed. The majority of employees are not happy with their workplaces. This research discovered that workers—especially female workers—are repressed and denied access to their fundamental rights. It is recommended that a comfortable workplace be established for the employees. However, cooperative efforts by GOs, NGOs, and stakeholders are necessary to maintain workplace safety.
Keywords: Garment Industry, Worker, Safe-Environment, Wages, Labour Rights.

Introduction
Concerns about workplace health and safety are currently a driving force in the quest for solutions to stop undesirable outcomes for workers in the manufacturing business. The standards for quality, health, knowledge, and safety have become more stringent recently in

many nations. Community pressure has resulted in various safety regulations and standards for multiple businesses in many countries. Occupational health and safety is an issue for human well- being rising as the industries and service-provider sectors develop, increasing workplace health problems. The garments industry of Bangladesh engages over 4.2 million workers, 90 percent of them are women from rural areas; it is the largest source of foreign earnings for Bangladesh (Arefin et al., 2020, Afrin, et al., 2018; Rakib & Adnan, 2015). In Bangladesh, there are around 4,500 clothing manufacturing industries and this industry accounts for more than 80% of all foreign earnings (Adnan & Rakib, 2015). In industrial development policies and objectives of emerging economics, workplace safety and health have been neglected. They are primarily concerned with production volume or profit, ignoring the latent effect of a poor working environment. A study in 2018 found that the work environment, mandatory workforce, welfare, and employment relations have the most significant impact on the productive outcomes of employees, and the performance of employees in the RMG industry in Bangladesh is not affected by professional development (Alam et al., 2018). Regarding workplace safety and health, there should be both guidelines for efficient resource utilization and a safe working environment for employees, where their health is considered and preserved. A study in 2018 recommended that an investigation should be conducted on the causes and consequences of occupational risks in the RMG sector of Bangladesh. According to a survey in 2018, strategies for promoting workplace health and safety in developed countries will serve as a guideline for developing health and safety regulations for the garments industry (ATM, UM, et al., 2018). It is found in a study that about 414 garment workers died in at least 213 fire incidents in 2006 and 2009, as per the report of Fire Service Bangladesh. In 2010, another 79 workers died in 21 separate incidents. Unsafe buildings, insufficient fire escape opportunities, and overpopulated places of work all contributed to the high death toll (Mahmood et al., 2021).

This study found remarkable workplace safety data and recommended some sectors need to be investigated. People in good health are thought to contribute more to productivity and innovation. However, this review of the literature aids in the identification of gaps in past research on workplace safety and health management systems from a variety of fields.

Study Context

Bangladesh's garment industry is the country's leading foreign income source, accounting for over two-thirds of overall export earnings (Islam, et al., 2018). Even though industries are developing quicker and contributing substantially to the national economy, this sector faces several risks and barriers to ensuring a safe working environment (Chowdhury et al., 2020). In addition, the RMG industry is struggling to provide a safe working environment for millions of garment workers (Barua et al., 2021; Rakib & Adnan, 2015; Hassan, 2014). Workplace safety is always essential to ensure the industry's long-term sustainability (Islam, 2015; Omisore et al., 2017; United Nations, 2019). This industry significantly contributes to Bangladesh's employment, poverty reduction, and economic growth. These significant sectors have recently been challenged with several problems (Gomes & Daud, 2020). Despite some initiatives, the world garments industry's working conditions remain unsafe and unhealthy (Oka, 2016; Boudreau et al., 2016). In the garment industry, workers face various challenging conditions, including low earnings, frequent and often forced overtime, and unsafe working environments (Anner, 2020).

Methods and Materials

This study has been conducted based on secondary data from Google Scholar, Scopus, BMC, Science Direct, NCBI, etc. Descriptive analysis has been used to find out the results. The dates of the searched journal were customized from 2000 to 2022. While searching, the duration range and the journal's impact factor were primary considerations. Keywords used to search articles were RMG, Garment industry, worker, safety, risk, and labor rights. The literature reviewed the articles related to sustainability in the workplace, the role of workers and management, safety culture, and workers' vulnerability. Nearly 500 articles were collected from these data sources. Collected data were further reduced depending on the relevance of the material through abstract and keyword screening. The screened and reduced resources were once again narrowed down to the most important information after taking current publications, reading methods, and paper outcomes into account. For the purpose of this literature review, it has finally been sorted out. 50 articles were ultimately chosen as the sample.

Review of Relevant Literature
Sustainable Workplace in Garments Industry of Bangladesh

A healthy workplace helps employees from illness or injury and reduces cost, boosts productivity, and increases output (Ahmed et al., 2021). A study explored the problems and opportunities to apply green training and development for a sustainable workplace (Islam et al., 2020). Islam et al (2019) revealed that the sustainability topic of the readymade garments sector considers distinctive sustainability development such as ecological impressions, working environment, factory safety, and labor rights (Islam et al., 2019). These papers highlighted the importance of a healthy workplace in the garments industry, including ecological balance, safety in the workplace, and labor rights. A study of

2021 examined how perceptions of green work climate influence the link between green supply chain administration and pro-environmental activities (Rubel et al., 2021). According to Brooks 2017, many obstacles still exist to improving safety standards. RMG industry of Bangladesh could benefit from better collaborative efforts of employees, potential employees, and the Government (Brooks, 2017).

These papers emphasized the development of safety measures and overcoming the industry's burdens. United efforts of the workers and Government can be helpful in this regard. The study of Håkansson et al (2017) was to see how managerial practices may help create socially sustainable working conditions (SSWCs) during a lean transformation. In this study, questionnaires and interviews with supervisors were used to assess work characteristics. However, it is found in the survey that managerial techniques that actively support critical work resources as part of the skeletal system appeared to help SSWCs (Håkansson et al., 2017). A study in 2017 investigated the responsibilities of stakeholders in enhancing occupational health and safety in the garment industry of Bangladesh. According to the paper, the main challenges facing the Bangladesh RMG sector in improving the current working environment are establishing good relationships between owners and workers, ensuring good governance, establishing a brighter image of the industry to the world, and taking sustainable reform initiatives. It has been opined that the government and garment owners can play critical roles, while other stakeholders have the potential to improve safety issues from their perspectives (Mausumi, 2017). The purpose of another study in 2017 was to contribute to regulatory reform designed to ensure a safe working environment by evaluating the perceptions of workers, employers, and government regulators through the lens of reciprocal

determinism theory. Individual and group insights are the prerequisites for a safe workplace. The findings revealed that the respondents prioritized training, teamwork, health, and safety (Brooks, 2017)

The Role of Workers and Management for Sustainable Working Conditions in Bangladeshi Garments

A survey was carried out in 2019 to assess how business owners, managers, and supervisors felt about "decent work" in Bangladesh's ready-made garment (RMG) industry. The findings show that owners and managers are concerned about the necessity to balance internal and external demands in order to sustain and improve excellent work. This study also recommended that, to preserve the long-term competitiveness and survival of Bangladeshi RMG industry, top national and international stakeholders must negotiate and cooperate (Khan et al., 2019).

According to a study by Talapatra and Rahman (2016), garment workers in Bangladesh are deprived of fundamental rights and paralyzed physically and mentally due to this deprivation. This study demanded that the management of the garment industry should become more conscious of the health hazards connected to the employee and take preventive measures to remove these hazards (Talapatra & Rahman, 2016). Alam, et al (2018) opined that owners should change their mindset from purely making profits to a viable business. Also, the government, NGOs, and industry have a role in educating workers about their rights and responsibilities. The government should demonstrate a solid commitment to enforcing the laws through training, dialogue, and fair and frequent inspections (Alam et al., 2018). According to a study by Khan et al (2017), essential human resource functions in garment manufacturing in Bangladesh are being implemented in a new way, and all operations are highly associated with one another (Khan et al., 2017).

Previous studies focused on the role of both work and management in the development of an overall situation of the garments industry. These papers also opined to be more careful of the management about the employee's health-related risk and the employee's education. Workers also need to be sincere about their rights and duties. A study was conducted to understand the problems and solutions of adopting green human resource management approaches in the workplace. It is identified that the primary issues in applying green human resource management practices in the factories are lack of knowledge, no regulations for practicing, a lack of managerial interest and organizational support, high costs of practicing, and significant staff turnover (Islam et al., 2020).

This study aims to determine the level of employee sustainability knowledge and behavior in Bangladesh, as well as the influence and link between them. It is found in the study that participants had a moderate level of understanding and behavior when it comes to environmental issues. Knowledge has also been found to impact employee behavior patterns significantly, and both variables have a positive relationship (Islam et al., 2019).

Asif (2017) evaluated the overall scenario of sustainability in the garment manufacturing industry. Fire accidents afflict the garment industry, and recent building collapses pose a significant threat to the survival of the RMG industry. As a result, many workers are dissatisfied with their wages, leading to violent demonstrations. Considering the workplace environment, fire, and safety troubles of the garment industries of Bangladesh, this study made several recommendations for improving the sustainability and atmosphere of the Bangladeshi garment industries (Asif, 2017). According to a study in 2016, the Bangladeshi Ready-Made Garments (RMG) industry has experienced substantial growth every year. This study

suggested a structure that will provide a high organizational performance that can sustain (Rashid et al., 2016).

These papers focused on the worker's satisfaction and dissatisfaction with the industry. Environment sustainability and organizational performance also have been emphasized in the reviewed articles.
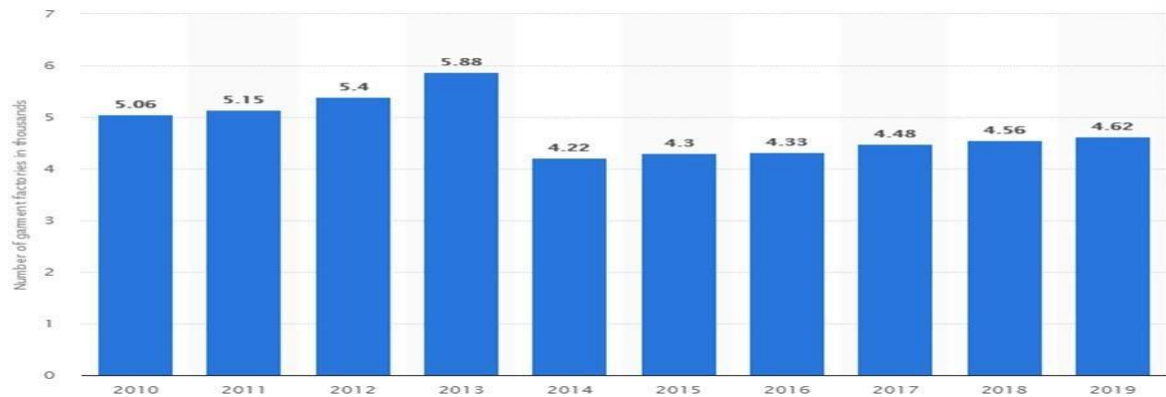

Figure 1. Source © Statista 2021[1]

Garments Worker's Working Environment in Bangladesh

A study in 2021 tried to point out that Bangladesh is the world's second-largest exporter of manufactured goods (RMG). It is also opined that a positive work environment and environmentally and morally correct business practices in the garment industry should be the objective of a company (Awal et al., 2021). It was found in a study in 2018 that women's employment conditions and their professional careers are not satisfactory. Unfavorable working conditions that lead to significant unhappiness, joblessness, and poor performance have a considerable effect on the working lifestyles of women. This study suggested following industrial law and ensuring a favorable working environment for female employees in this sector (Islam et al., 2018). Sharmin et al (2019) opined that the government should elevate employee salaries based on legal, economical prices to preserve food safety. In addition, increased overtime pay per hour and an appropriate payment method for additional work hours are needed (Sharmin et al., 2019).

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[1] From 2019 to 2025, Bangladesh had an estimated 4.62 thousand manufacturing facilities. In 2013, estimated

5.88 thousand clothing industries in Bangladesh, which would be an enhancement over the previous year, but a lesson from 2014. About 4.4 thousand individuals, mostly women, are employed in the country's garment factories, which probably contributed over 11 percent to its gross domestic product.

These papers investigated the objectives of the industry and the demerits of an unhealthy working environment. They identified that poor performance is associated with an unfavorable workplace. A study in 2017 highlighted the levels of job satisfaction among workers inside EPZ garment factories and outside EPZ garment factories. It is found in the survey that workers in EPZ garment factories are happy with their working environment. Workers in garment factories outside the EPZ, on the other hand, are satisfied with their working conditions and overtime payoff. However, employees of both sections are unsatisfied with the supervisor's behavior (Islam & Ahmad, 2017).

In 2018, a paper studied the working condition of Bangladeshi female readymade garment workers. The findings revealed that Bangladeshi female readymade garment workers work in a hostile working environment. Due to gender differences and submissiveness, female workers are frequently exploited by their managers and supervisors. In addition, co-workers often harass female employees inside and outside the factory. According to the findings, policymakers should respect labor-related laws and ensure a suitable working environment for female workers (Islam & Ghosh, et al., 2018).

A study examined whether workers' lack of information impacts the working conditions of RMG using a retrospective panel of 991 textile workers' pay and working conditions. The findings revealed that migrants are less informed about working conditions when they first start but learn as they gain experience in the industry (Boudreau et al., 2016).

The research of Sharma, 2015 is to assess the effectiveness of labor laws in Bangladesh and make recommendations for improving working conditions. The study identified the awful state of the ready-made garment industry, where factory owners frequently violate the law and exploit workers (Sharma, 2015).

Figure 2. Rana Plaza building incident, Savar & Bangladesh, 2014.

Safety Culture in Bangladeshi Readymade Garments Industry

A study in 2014 investigated the fire risk of the RMG industry in Bangladesh. This assessment found that the working conditions and fire safety records in the factories are often not up to the quality. Fire incidents are occurring continuously. This study also argued a significant lack of data and research on the current status of fire provisions and management practices in the readymade garment factories in Bangladesh. However, this study tried to create a fire risk index (FRI), the first in Bangladesh. FRI the industry can be particularly effective in identifying urgent risks and, as well as reducing fire-related fatalities and injuries in this industry (Wadud et al., 2014). A paper from 2018 investigated the working condition of the RMG sector and the loopholes in the existing rules and regulations related to work. It opined that the factories are under pressure to improve their workplace security based on international standards. The study also looked into the causes and effects of workplace risks and policy areas and recommended improving workplace safety in the RMG sector of Bangladesh (ATM, UM, et al., 2018). A recent study of 2021 assessed the safe and healthy workplace of the garments industry of Bangladesh, which lowers accidents, injury/illness costs, absenteeism, and turnover, increases productivity and quality, and boosts employee morale. This article also comprises background information on the harmful working conditions in garment industries in Bangladesh (Ahmed et al., 2021).

According to a study conducted in 2018, the textile and apparel sectors may contribute more to the nation's infrastructure and take better responsibility for the environmental risks involved, and explore courses that can promote public safety consciousness in the RMG industry of Bangladesh. For garment production and distribution, strategies to promote health and safety will serve as a guideline for improving good health and safety regulations (ATM, UM, et al., 2018).

Figure 3. Female workers working environment in a garment industry in Bangladesh.

Ahamed 2013 identified some factors responsible for the instability in Bangladesh's readymade apparel sector. According to his study, the leading causes of industry turmoil are inadequate facilities and safety in the workplace, substandard living conditions, and a lack of opportunities (Ahmed et al., 2013). A study investigated the general scenario of workers' health and safety in RMG industries and issues affecting worker health and safety. This study claimed that, despite an increase in the number of accidents and fatalities in recent years, worker's health and safety is still a low priority, which draws the attention of international organizations on fire safety. Using Principal Component Analysis (PCA), it investigated the of occupational health and safety issues. According to the Relative Important Index (RII), factories are more concerned about health hazards and emergencies than working conditions. However, it is found that the most common cause of lower back pain among factory workers is excessive working hours. Most workers got injured by needle piercing due to a lack of needle guards. The study also demonstrates that supportive working conditions improve factory productivity, whereas high accident rates restrain enterprises from reaching their objective efficiency (Occupational Health And Safety Management In RMG Sector Of Bangladesh, 2015). A recent study of 2021 examined the importance of compliance with standards for long-term profitability and workforce. It also guides decision-makers and factory owners in Bangladesh or elsewhere (Azim et al., 2021). This reviewed paper examined the safety needs and benefits in the garments industry of Bangladesh. Inadequate safety measures bring instability and even might create life risks. Ensuring health and safety guidelines is one of the significant recommendations of these papers. A study claimed that the workers in this sector are denied the very minimum of rights; therefore, they are increasingly handicapped physically and emotionally. Millions of workers in over 5000 garment sectors are affected by various problems. The habitat system, unbalanced diet, and tight economic conditions force them to live unhealthy lives, even to death. This study also integrates the causes of health hazards such as industrial manufacturing, dyeing, washing, and other sectors, including the effects of cotton dust, chemical reagents, and others (Talapatra & Rahman, 2016).

Worker's Vulnerability in the Garments Industry of Bangladesh

A paper in 2017 investigated the overall health issues of female garment workers during pregnancy. According to the study's findings, the government lacks the resources necessary to comprehend the extent of the problem with maternity-related laws. The results lead to female workers' vulnerability to physical and mental stress at work and link to health issues during pregnancy (Akhter et al., 2017). A study in 2018 found that working in the garment industry is a physically and psychologically demanding job that exposes women to various health risks. This study revealed that 88% of the respondents suffered from headaches and respiratory difficulties due to their workplace environment (Mahmud et al., 2018). A study systematically reviewed different types of health vulnerabilities that RMG workers face and the causes and effects of these vulnerabilities. According to the findings of this study, RMG workers in South and Southeast Asian countries are vulnerable to various health problems, including physical and psychological issues. Furthermore, many of these health risks arise from the RMG workplace's nature, including unsanitary and unsafe working conditions, hazardous factory environments, and a lack of safety equipment. This review paper is also suggested for further investigation (Kabir et al., 2019a).

Islam and Muquim (2015) said that, over the years, numerous garment workers lost their lives due to repeated fires caused by non-compliance with fire safety regulations (Islam & Muquim, 2015). A study in 2017 opined that female workers struggle to earn their livelihood during pregnancy (Akhter et al., 2017). Another study in 2018 found that public health, human rights issues, and domestic violence affect billions of people. According to this report, financial empowerment is not strong enough to protect workers from domestic violence (Naved et al., 2018). Wadud et al. (2014) found that most garment workers come from untrained rural areas. However, Bangladesh's female garment workers play a significant role in the country's economic development (see Table 1) (Wadud et al., 2014).

Figure 4. Working conditions in garment Factories Bangladesh[2]

Table 1
Focusing main findings of the literature and recommendations.

Authors/Date	Findings	Recommend
Hoque & Shahinuzzaman (2021)	Health and safety management	By improving job efficiency, lower manufacturing costs
Islam & Ahmad (2016)	Occupational health and safety	Working environment and yearly increment
Basak (2021)	Impact on job stress, job satisfaction, and productivity of women and raise a need for	Work-life balance policy

	flexibility., workplace balance policy for employee	
Khan et al (2020)	Health and Safety in the working environment	promoted a shift in mindset toward health and safety within Bangladesh and the G&T industry
Awal et al (2021)	Traditional industries to green industries	Provide a good working environment for employees, and eco-friendly and ethical business practices.
Azim et al (2021)	Compliance acts as a distal antecedent to employees engagement and job satisfaction fully mediates the compliance-engagement relationship	A discussion of the value of standards compliance for long-term profitability and keeping a motivated staff.
Mahmud et al (2018)	Identified for physical health hazards	Noise (75%) and uncomfortable seating postures (79%) were also reported, as well as fear of accidents (75%)
Das et al (2018)	Increase workplace safety	Assist the relevant authorities in successfully inspecting industrial structures and in taking steps to lessen their vulnerability to both vertical forces and earthquakes.
Islam, et al (2020)	Effective solutions in applying green human resource management practices in the organizations	Applying green human resource management practices in Organizations
Ahmed et al (2021)	Workplace Safety of the garment industries of Bangladesh	Ensure the safety and security of workplaces and the employees
Mahmood et al (2021)	Overcome safety challenges and their effectiveness for a safe and healthy workplace	Safety of the physical environment, concerns for employees' health, and workers' rights

Garments Industry and Sustainable Development Goals (SDGs) Perspective

Achieving sustainable development goals is impossible without ensuring safe and sustainable working conditions in the readymade garments industry of Bangladesh. A study argued that, with the implementation of Corporate Social Responsibility (CSR) in the garment production chain, a labor-intensive business must adopt sustainable practices. Witnessed a string of accidents in the garment sector, many Bangladeshi garment manufacturers have poured money into CSR initiatives (Park-Poaps et al., 2020). A study opined that SDGs are more contemporary strategic instruments that provide a more targeted purpose to address sustainability concerns arising from growing production, consumption, and waste.

Developing CSR as a horizontal enabler of SDGs is becoming increasingly important in times of vulnerability and disruption. A study examined how well the fashion and textile industry's current CSR programs aligned with the SDGs. The study also examined how isolationism's instant acceleration could create many problems for CSR's horizontal integration into the SDGs (Sahni, 2020).

The purpose of a study in 2017 was to take a holistic view of sustainability in the apparel manufacturing industry, why developing country suppliers are adopting ecologically and socially sustainable practices, and how the implementation process is both hampered and facilitated. Many groups and fashion-conscious individuals have stepped forward to support the continuation of the battle for a better environment for tomorrow. Still, the Bangladeshi garment and textile sectors are far beyond this consciousness, putting the country at risk of losing its global market (Asif, 2017). A study was conducted to determine where organizations are in business allocation and attainment of the 2030 Agenda. The allocation business was scrutinized to better understand their roles and duties and identify the barriers to achieving the SDGs. According to the research, the public sector is working to meet 111 of the SDGs' 169 targets. Most goals were only partially fulfilled, and full completion is essential to accelerate progress (Rahman, 2021).

A study was conducted to understand better what traceability and transparency entail and how they can help the industry achieve SDG 12 more quickly. Goal 12 of the Sustainable Development Goals (SDGs) asks for a significant shift in corporate practices toward more sustainable consumption and production patterns (Carrone, 2020). While the SDG agenda now only addresses injury prevention through two road safety goals, the SDGs' relevance for injury prevention is far broader. This study shows how accidental injury prevention programs can make significant progress toward a wide range of SDG goals and advocates for integrating safety considerations across all sectors and stakeholders. This research identifies injury-prevention opportunities within more significant global priorities like urbanization, demographic transitions, water conservation, and corporate social responsibility (Ma et al., 2021).

According to a paper, the SDGs present a challenge to business actors, focusing on the potential for more sustainable and ethical behaviors and the barriers to change. Many argue that the private sector may provide unique capabilities to achieving the SDGs, such as creativity, responsiveness, efficiency, and the provision of specific talents and resources. Surprisingly, the private sector played a significant role in shaping the formulation of the SDGs (Scheyvens et al., 2016). The research is aimed at how the SDGs are implemented in the textile and apparel (TA) production chains. It shows that current sustainable operations in the TA sector are far from attaining the aims of economic growth coupled with social and environmental sustainability by evaluating the literature and industrial practices. The goals of "Responsible Consumption and Production," "Clean Water and Sanitation," and "Climate Action," for example, receive a lot of attention in the SDGs. Simultaneously, the aims of "No Poverty," "Reduced Inequalities," "Life Below Water," and "Life on Land" receive the least attention (Cai & Choi, 2020). A report claimed that promoting gender justice in the sector may be made more accountable by using a human rights-informed view of the Sustainable Development Goals (SDGs). This article also illustrated how sustainability and gender justice are inextricably linked and the role the SDGs may play in achieving gender-just sustainable results (Vijeyarasa & Liu, 2022).

Findings and Discussion
Problems of Workers
We found in our study that workers, especially female workers, are oppressed and deprived of their fundamental rights. This finding is more or less similar to the result of the previous study. A previous study identified that garment workers in Bangladesh are deprived of fundamental rights and frequently exploited by their managers and supervisors. In addition,

co-workers often harass female employees inside and outside the factory. (Boudreau et al., 2016; Talapatra & Rahman, 2016; Sharma, 2015; "Occupational Health And Safety Management In RMG Sector Of Bangladesh," 2015). Our findings also demonstrate that workers' safety and health issues need to be addressed as they have been affected by different physical and mental problems. Similarly, a previous study identified that poor habitat systems, unbalanced diets, and tight economic conditions force them to live unhealthy lives, even to death (Kabir, Maple, Islam, et al., 2019; Mahmud et al., 2018). However, RMG workers in South and Southeast Asian countries are vulnerable to various health problems, including physical and psychological issues. (Kabir et al., 2021; Akhter, et.al., 2017).

Workplace safety and working condition
Workplace safety is a significant concern for the Ready-Made Garments Industry of Bangladesh. Most of the studies found the working condition unfavorable for the workers. In our research, most workers are unsatisfied with the working environment. It is found in a study that the working conditions and fire safety records in the factories are often not up to the quality (Wadud et al., 2014). It opined that the factories are under pressure to improve their workplace security based on international standards and recommended improving workplace safety in the RMG sector of Bangladesh (ATM, et al., 2018). According to a study, the leading causes of industrial unrest are inadequate facilities and safety in the workplace, poor living conditions, and a lack of opportunities (Ahmed et al., 2013). This study also demonstrates that supportive working conditions improve factory productivity, whereas high accident rates restrain enterprises from reaching their objective efficiency ("Occupational Health And Safety Management In RMG Sector Of Bangladesh," 2015).

Furthermore, many of these health risks arise from the nature of the RMG workplace, which includes unsanitary and unsafe working conditions, hazardous factory environments, and a lack of safety equipment. This review paper also suggested further investigation (Kabir, et al., 2019). To ensure a safe workplace for the worker, collaborative steps from GOs and NGOs are needed. Similarly, Khan et al (2019) suggested that individual and group initiatives are the prerequisites for a safe workplace. This study found that owners and managers are concerned about balancing internal and external demands to sustain and improve excellent work (Khan et al., 2019). Working condition is highly associated with the safety and security of the workers. However, unhealthy working condition brings low performance of the workers. Similarly, a study in 2018 demonstrates that unfavorable working conditions that lead to significant unhappiness, joblessness, and poor performance have a considerable effect on the working lifestyles of women (Islam, et al., 2018). It is found in the study on EPZ garment workers that they are happy with their working environment. Workers in garment factories outside the EPZ, on the other hand, are satisfied with their working conditions and overtime payment. However, employees of both sections are unsatisfied with the supervisor's behavior (Islam & Ahmad, 2017). In the case of female workers, they are most vulnerable to unsatisfied working conditions. Similarly, a study in 2016 revealed that Bangladeshi female readymade garment workers work in a hostile working environment (Boudreau et al., 2016).

Knowledge of Workers
Most studies found that workers are not well informed about healthy workplaces and workplace safety. It is found in a survey that respondents had a moderate level of understanding and behavior regarding environmental issues. Knowledge has also been found to impact employee behavior patterns significantly, and both variables have a positive

relationship (Islam et al., 2019). The findings revealed that migrant workers are less informed about working conditions when they first start but learn as they gain experience in the industry (Boudreau et al., 2016). In addition, it is identified that the primary problems in applying green human resource management practices in the factories are lack of knowledge, no regulations for practicing, a lack of managerial interest and organizational support, high costs of practicing, and significant staff turnover (Islam et al., 2020). The findings of a study in 2017 revealed that the respondents gave a high priority to training, teamwork, health, and safety (Brooks, 2017).

Recommendation

Based on the review of various papers, our study suggested some recommendations for ensuring workplace safety in the RMG industry of Bangladesh. Most of the studies focused on the collaborative initiative of GOs, NGOs, and stakeholders to ensure workplace safety (Khan et al., 2019; Sharmin et al., 2019; Alam et al., 2018; Islam, et al., 2018; Mausumi, 2017; Akhter, et al., 2017).

These initiatives include educating workers about their rights and responsibilities, enforcing the labor laws through training, and increasing the workers' salaries. A significant portion of the study suggested that management and industry should become more conscious of the health hazards connected to the employee and take preventive measures to remove these hazards (Islam, et al., 2018; Talapatra & Rahman, 2016). A study in 2018 recommended that owners needed to change their mindset from purely making profits to a viable business (Alam et al., 2018).

Conclusion

This review paper can help employees, companies, and government authorities figure out how to work together on a mutually beneficial partnership to increase the safe workplace. It is recommended in this study that, garment owners and workers in the garments industry should maintain a sustainable workplace environment. Most of the findings opined that the garments

industry of Bangladesh will be safer for workers if it maintains a sustainable workplace environment, and consider the health issues of the workers. Increasing worker's efficiency, better workplace conditions, and annual salary increases could enhance professional health and well-being in the garment industries of Bangladesh. This study has focused on the sustainability of the workplace, healthy working environment, risk factors and measures of the workplace, safety culture, and worker vulnerability. Though lots of studies have been done on workplace safety, they still lack an investigation of management role in a sustainable workplace for the workers of the garments industry. In addition, holistic research methodologies should be followed in future research. It is recommended that the identified gaps and research areas be opened for future research to achieve integrated study results.

References

Ahmed, S., Raihan, M. Z., & Islam, N. (2013). Labor Unrest in the Ready-Made Garment Industry of Bangladesh. *International Journal of Business and Management*. https://doi.org/10.5539/ijbm.v8n15p68

Ahmed, S. U. M., Azmin, A. A., & Harada, Y. (2021). Safe workplace: A must need for the garment industries in Bangladesh. *AIP Conference Proceedings*. https://doi.org/10.1063/5.0050089

Akhter, S., Rutherford, S., Akhter Kumkum, F., Bromwich, D., Anwar, I., Rahman, A., & Chu, C. (2017). Work, gender roles, and health: Neglected mental health issues among female workers in the ready-made garment industry in Bangladesh. *International Journal of Women's Health*, *9*, 571–579. https://doi.org/10.2147/IJWH.S137250

Akhter, S., Rutherford, S., & Chu, C. (2017). What makes pregnant workers sick: Why, when, where and how? An exploratory study in the ready-made garment industry in Bangladesh. *Reproductive Health*, *14*(1), 1–9. https://doi.org/10.1186/s12978-017-0396-0

Alam, M. N., Alias, R. B., & Azim, M. T. (2018). Social Compliance Factors (SCF) Affecting Employee Productivity (EP): An Empirical Study on RMG Industry in Bangladesh. *Pacific Business Review International*.

Anner, M. (2020). Squeezing workers' rights in global supply chains: purchasing practices in the Bangladesh garment export sector in comparative perspective. *Review of International Political Economy*, *27*(2), 320–347. https://doi.org/10.1080/09692290.2019.1625426

Arefin, M. S., Alam, M. S., Islam, N., & Molasy, M. (2020). Organizational politics and work-family conflict: the hospitality industry in Bangladesh. *South Asian Journal of Business Studies*, *9*(3), 357–372. https://doi.org/10.1108/SAJBS-07-2019-0135

ATM AdnanI, & Abdur RakibII, M. R. (2015). Export Trend of Bangladesh: the Dominance of Ready-Made Garments Industry. *Research Journal of Economics, Business and Ict*, *10*(2015), 31. http://www.journals.cz

ATM, M., Takebira, U. M., Jannat, F., Shakil, I. K., Abir, I. H., & Hosen, M. (2018). Improvement of forward linkage to sustain the global apparel market of Bangladesh. *Journal of Textile Engineering & Fashion Technology*. https://doi.org/10.15406/jteft.2018.04.00145

ATM, M., UM, T., KN, M., & M, R. (2018). Social Compliance, Occupational Health and Environmental Safety Management Practice in the Apparel Industry of Bangladesh: An Overview. *Journal of Textile Science & Engineering*. https://doi.org/10.4172/2165-8064.1000342

Awal, M. A., Hossan, M. E., Aliullah, M., & Saidy, M. S. (2021). Green Revolution in Ready Made Garments in Bangladesh: An Analytical Study. *International Journal of Engineering and Management Research*. https://doi.org/10.31033/ijemr.11.3.3

Azim, M. T., Uddin, M. A., & Haque, M. M. (2021). Does compliance to standards in the ready-made garments industry affect employee attitudes? A study in Bangladesh. *Global Business and Organizational Excellence*. https://doi.org/10.1002/joe.22072

Barua, U., Wiersma, J. W. F., & Ansary, M. A. (2021). Can Rana Plaza happen again in Bangladesh? *Safety Science*, *135*(October 2020), 105103. https://doi.org/10.1016/j.ssci.2020.105103

Basak, S. (2021). Factors affecting work-life balance of women in Bangladesh: A study during COVID-19 pandemic. *Canadian Journal of Business and Information Studies*, *3*(3), 38–48.

Boudreau, L., Heath, R., & McCormick, T. (2016). Migrants, Information, and Working Conditions in Bangladeshi Garment Factories. *Working Paper*, 1–36.

Brooks, M. L. (2017). Triangulating a sustainable safety culture in the readymade garment industry of Bangladesh. *Dissertation Abstracts International Section A: Humanities and Social Sciences*.

Cai, Y. J., & Choi, T. M. (2020). A United Nations' Sustainable Development Goals perspective for sustainable textile and apparel supply chain management. *Transportation Research*

Part E: Logistics and Transportation Review, *141* (March), 102010. https://doi.org/10.1016/j.tre.2020.102010

Chowdhury, N. A., Ali, S. M., Paul, S. K., Mahtab, Z., & Kabir, G. (2020). A hierarchical model for critical success factors in apparel supply chain. *Business Process Management Journal*, *26*(7), 1761–1788. https://doi.org/10.1108/BPMJ-08- 2019-0323

Das, T., Barua, U., & Ansary, M. A. (2018). Factors affecting vulnerability of ready-made garment factory buildings in Bangladesh: An assessment under vertical and earthquake loads. *International Journal of Disaster Risk Science*, *9*, 207–223.

Gomes, D., & Daud, D. (2020). Implementation of Green Supply Chain Management in Ready-made Garment (RMG) Sector of Bangladesh. *IOP Conference Series: Materials Science and Engineering*, *780*(7). https://doi.org/10.1088/1757- 899X/780/7/072017

Håkansson, M., Holden, R. J., Eriksson, A., & Dellve, L. (2017). Managerial practices that support lean and socially sustainable working conditions. *Nordic Journal of Working Life Studies*, *7*(3), 63–84. https://doi.org/10.18291/njwls.v7i3.97091

Hoque, I., & Shahinuzzaman, M. (2021). Task performance and occupational health and safety management systems in the garment industry of Bangladesh. *International Journal of Workplace Health Management*, *14*(4), 369–385.

Islam, A., Maideen, M. B. H., & Abdullah, A. R. Bin. (2019). The role of employee knowledge and behavior towards sustainable development: An investigative study based on readymade garments industry of Chittagong, Bangladesh. *International Journal of Recent Technology and Engineering*.

Islam, M. A., Hunt, A., Jantan, A. H., Hashim, H., & Chong, C. W. (2020). Exploring challenges and solutions in applying green human resource management practices for the sustainable workplace in the ready-made garment industry in Bangladesh. *Business Strategy and Development*, *3*(3), 332–343. https://doi.org/10.1002/bsd2.99

Islam, M. R., & Muquim, N. (2015). The scope for trade restrictions to address the lack of compliance with fire safety standards in garment factories of Bangladesh. *Journal of World Trade*.

Islam, M. S., & Ahmad, M. H. (2017). Impact of Dissimilar Laws and Rules on Worker's Satisfaction in Ready-Made Garments of Bangladesh: A Comparative Study between the Factories Inside EPZ and Outside EPZ. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2849314

Islam, N., Afrin, S., Tasnim, T., Biswas, M. P., & Shahriar, T. (2018). Application of Labor Laws and Other Compliances in Readymade Garment Industry of Bangladesh. *Universal Journal of Management*. https://doi.org/10.13189/ujm.2018.060301

Islam, N., Ghosh, S. K., Islam, A., Salam, N. M., Khosru, M. T., & Al Masud, M. A. (2018). Working Conditions and Lives of Female Readymade Garment Workers in Bangladesh. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2921867

Kabir, H., Maple, M., Islam, M. S., & Usher, K. (2019). The current health and wellbeing of the survivors of the rana plaza building collapse in Bangladesh: A qualitative study. *International Journal of Environmental Research and Public Health*. https://doi.org/10.3390/ijerph16132342

Kabir, H., Maple, M., & Usher, K. (2021). The impact of COVID-19 on Bangladeshi readymade garment (RMG) workers. *Journal of Public Health (Oxford, England)*, *43*(1), 47–52. https://doi.org/10.1093/pubmed/fdaa126

Kabir, H., Maple, M., Usher, K., & Islam, M. S. (2019a). Health vulnerabilities of readymade garment (RMG) workers: A systematic review. In *BMC Public Health*. https://doi.org/10.1186/s12889-019-6388-y

Kabir, H., Maple, M., Usher, K., & Islam, M. S. (2019b). Health vulnerabilities of readymade garment (RMG) workers: A systematic review. *BMC Public Health*, *19*(1), 1–20. https://doi.org/10.1186/s12889-019-6388-y

Khan, M. R., Arafin, M., & Hossain, S. M. K. (2017). The Practice of Basic HR Functions in Garments Industry in Bangladesh: Focus Group Finding. *Journal of Management and Sustainability*. https://doi.org/10.5539/jms.v7n3p120

Khan, S. I., Bartram, T., Cavanagh, J., Hossain, M. S., & Akter, S. (2019). "Decent work" in the ready-made garment sector in Bangladesh: The role for ethical human resource management, trade unions and situated moral agency. *Personnel Review*, *48*(1), 40–55. https://doi.org/10.1108/PR-01-2018-0001

Ma, T., Peden, A. E., Peden, M., Hyder, A. A., Jagnoor, J., Duan, L., Brown, J., Passmore, J., Clapham, K., Tian, M., Rahman, A. K. M. F., & Ivers, R. Q. (2021). Out of the silos: Embedding injury prevention into the sustainable development goals. *Injury Prevention*, *27*(2), 166–171. https://doi.org/10.1136/injuryprev-2020-043850

Mahmood, M. S., Ruma, N. H., Ahmed, T., & Nagai, Y. (2021). Exploring suppliers' approaches toward workplace safety compliance in the global garment sector: From bangladesh perspective. *Social Sciences*. https://doi.org/10.3390/socsci10030090

Mahmud, M. S., Vinay Rajath, D., Mahmud, R., & Jahan, N. (2018). Health issues of female garment workers: Evidence from Bangladesh. *Journal of Population and Social Studies*, *26*(3), 181–194. https://doi.org/10.25133/JPSSv26n3.013

Mausumi, N. (2017). Stakeholder Roles In Improving Occupational Health and Safety (OHS): A Case Study of Bangladesh Garment Industry. In *Nilima Mausumi International Journal of Business Research and Management (IJBRM)*.

Naved, R. T., Al Mamun, M., Parvin, K., Willan, S., Gibbs, A., Yu, M., & Jewkes, R. (2018). Magnitude and correlates of intimate partner violence against female garment workers from selected factories in Bangladesh. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0204725

Occupational Health And Safety Management In RMG Sector Of Bangladesh. (2015). *International Journal of Scientific & Technology Research*. Oka, C. (2016). Improving Working Conditions in Garment Supply Chains: The Role of Unions in Cambodia. *British Journal of Industrial Relations*, *54*(3), 647–672. https://doi.org/10.1111/bjir.12118

Carrone, P. N. (2020). *Traceability and Transparency: A Way Forward for SDG 12 in the Textile and Clothing Industry*. https://doi.org/10.1007/978-981-13-8787-6_1

Park-Poaps, H., Bari, M. S., & Sarker, Z. W. (2020). Bangladeshi clothing manufacturers' technology adoption in the global free trade environment. *Journal of Fashion Marketing and Management*. https://doi.org/10.1108/JFMM-06-2020-0119

Rahman, M. M. (2021). Achieving Sustainable Development Goals of Agenda 2030 in Bangladesh: the crossroad of the governance and performance. *Public Administration and Policy*, *24*(2), 195–211. https://doi.org/10.1108/PAP-12-2020-0056

Rakib, M. A., & Adnan, A. (2015). Challenges of Ready-Made Garments Sector in Bangladesh : Ways to Overcome. *BUFT Journal 2015*, *3*(February), 77–90.

Rashid, F., Taib, C. A. Bin, & Ahmad, H. M. A. H. (2016). An evaluation of supply chain management and total quality management (TQM) practices in Bangladesh ready-made

garments industry: A conceptual model. *International Journal of Supply Chain Management*.

Rubel, M. R. B., Kee, D. M. H., & Rimi, N. N. (2021). Green human resource management and supervisor pro-environmental behavior: The role of green work climate perceptions. *Journal of Cleaner Production*, *313*(June), 127669. https://doi.org/10.1016/j.jclepro.2021.127669

Scheyvens, R., Banks, G., & Hughes, E. (2016). The Private Sector and the SDGs: The Need to Move Beyond 'Business as Usual.' *Sustainable Development*, *24*(6), 371–382. https://doi.org/10.1002/sd.1623

Shaheen Ahmed & Nazrul Islam. (2015). Physical and Mental Health of the Workers in the Readymade Garment Industry of Bangladesh. *Pearl Journal of Management, Social Science and Humanities*.

Sharma, V. (2015). Imperfect work conditions in Bangladesh RMG sector. *International Journal of Law and Management*. https://doi.org/10.1108/IJLMA-07- 2013-0034

Sharmin, S., Hamid, N. A. B. A., & Muda, W. A. M. B. W. (2019). Prevalence and Associated Factors of Food Insecurity among Women Garment Factory Workers in Bangladesh. *Journal of Food Security*.

Talapatra, S., & Rahman, M. H. (2016). Safety Awareness and Worker's Health Hazards in the Garments Sector of Bangladesh. *European Journal of Advances in Engineering and Technology*.

Vijeyarasa, R., & Liu, M. (2022). Fast Fashion for 2030: Using the Pattern of the Sustainable Development Goals (SDGs) to Cut a More Gender-Just Fashion Sector. *Business and Human Rights Journal*, *7*(1), 45–66. https://doi.org/10.1017/bhj.2021.29

Wadud, Z., Huda, F. Y., & Ahmed, N. U. (2014). Assessment of Fire Risk in the Readymade Garment Industry in Dhaka, Bangladesh. *Fire Technology*.