



Costs and benefits of programmes to prevent occupational accidents and diseases in Bangladesh's ready-made garment (RMG) sector

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1 Background

The Bangladesh economy has been characterized by robust economic growth since the early 2000s. Whereas the country is well on the way towards being categorized a middle-income country, the impact of its growth on employment has been ambiguous: The economy is still characterized by pockets of underemployment and informal employment is rife. Bangladesh's ready-made garment industry has contributed to the country's economic development in many ways. Indeed the sector has been called the "main factor of globalization" for Bangladesh (Fukunishi & Yamagata, 2014). Out of total RMG exports of 27.94 billion USD in the fiscal year 2019-20, exports to the EU accounted for 17.14 billion USD, approximately 61.4 percent (Munni, 2020). Out of approximately four million workers in the RMG sector, 80 percent are women (Hossain et al., 2016).

Following the 2013 Rana Plaza garment factory collapse, which led to the death of more than 1,100 people and injured more than 2,000, worker safety formed the core of different developments. Shortly after the incident, the *Accord on Fire and Building Safety in Bangladesh* was signed between retailers, trade unions and global brands with the aim to build a safe and healthy Bangladeshi RMG industry. The *Accord* requires international retailers to ensure that contracts with local manufacturers provide for compensation allowing the maintenance of safe buildings but also ensures building inspection and appropriate fire and safety standards. The *Accord* also foresees a "strong role" for the International Labour Organization (ILO). Beyond this role, the ILO has worked on employment injury protection in Bangladesh since 2013.

On the back of the *National Tripartite Plan of Action* on fire safety and structural integrity, which had already been developed after the 2012 fire in the Tazreen Fashion factory with at least 117 people dead and over 200 injured, and the *Joint Statement of Commitment* by the tripartite partners, both facilitated with the support of the ILO, the ILO has also been striving to advance the implementation of Convention 121 on employment injury benefits. Further, the EU and the ILO have encouraged the adoption of amendments to the Bangladesh Labour Law regarding the improvement of workers' rights.

The longer-term goal of developing and implementing an employment injury insurance was also the subject of agreements between the Ministry of Labour and Employment (MoLE) of Bangladesh, the ILO Country Office and the German Federal Ministry of Economic Cooperation and Development (BMZ), set out in a letter of intent in 2015.

The protection of workers in Bangladesh's textile, RMG and leather industries against the risk of workplace injuries and occupational diseases is still patchy and far from

sufficient according to international standards. On behalf of the BMZ, within a broader project around an employment injury protection scheme for workers in the textile and leather industries (EIPS), GIZ has conducted a range of activities at factory level in 80 factories in Dhaka and Chattagram, which together employ more than 180,000 workers. The project recognises prevention as one of the three pillars of OHS; the other two being compensation (income replacement and medical services) and rehabilitation. The activities in focus aim at the prevention of accidents and occupational diseases. With a view to the factories' OHS management systems, the cooperation pursues the achievement of standards based on ISO 45001. Acknowledging that the implementation of the ISO 45001 standard naturally involves a certain effort and requires resources, GIZ provided coaching and backstopping advice, and provided risk assessment and internal auditor training.

A comprehensive understanding of the costs and benefits of OHS measures would be helpful. Benefits arise at different levels and differ according to the perspective of the respective stakeholder. It is difficult to convert these benefits - which are often intangible - into monetary units. However, this would be desirable not least to be able to demonstrate the return on investment to entrepreneurs in the textile sector.

This study attempts to provide a preliminary overview of the costs and benefits of the introduction of comprehensive OHS management in the RMG sector. The present study focuses on the perspective of individual factories.

2 Methods

In September 2020, a comprehensive survey was conducted in 80 factories participating in GIZ's EIPS programme to prevent occupational accidents and diseases by introducing measures towards an occupational health and safety management system. The survey contained over 170 items covering the prevalence of a long list of injuries and occupational disease and the associated costs over five years, 2015 to 2019.

There is no widespread culture or system of data collection and reporting in the factories yet, so that only data from 27 factories with the most complete data reports were included in the analysis. The factories represent small, medium and large factories in different locations, in Greater Dhaka and Chattagram. The data sets include factories' annual revenue and employment data. The average "labour productivity" (annual turnover / number of employees) of the factories included was USD 16,176, with a median of USD 12,971. Data include statistics on annual numbers of injuries by type of injury as well as the documented costs (from a factory perspective) associated with the different injury types.

Beyond the survey, based on GIZ's collaboration with the factories, cost data associated with factory-level OHS activities were collected. These have also been included in the analysis.

Unfortunately, the limited availability of data on the cost side, as well as the incomplete benefit-related information available do not provide a basis that is solid enough to allow a comprehensive and rule-based economic analysis of the relative costs of implementing OHS measures versus the quantifiable and intangible benefits of introducing these measures.

Findings from this survey pass triangulation with other available data on accidents and injury costs in factories in Bangladesh, such as the survey by the Bangladesh Institute for Development Studies (BIDS) that formed the basis for the ILO's comprehensive presentation of the case for employment injury insurance in Bangladesh (ILO, 2018a), as well as the findings of a 2020 report on the prevalence of disability among return-to-work employees after an injury in the RMG and leather sectors (Hossain & Khan, 2020). The BIDS survey was conducted for 653 establishments including 509 large factories.

In-depth interviews were conducted with nine local and international experts involved in occupational health and safety in Bangladesh's RMG sector. The experts represent the factories, international brands, the ILO, the Department of Inspection for Factories and Establishments (DIFE) of the MoLE, organized labour as well as national and international academia. Qualitative information gathered in the interviews allows a meaningful appraisal of the topic, despite the obvious lack of "hard" data.

3 Results

3.1 General observations on accidents

The survey sample of 27 factories, over the years 2015 to 2019, shows a total of five deaths due to occupational injury occurred. As per section 19 of the *Bangladesh Labour Act* and section 18 of the *Bangladesh EPZ (export processing zones) Labour Act 2013* the legal heirs of the deceased workers would have received death compensation based on the duration of employment of the deceased worker. The legal heir would also be eligible for the deceased worker's retirement benefits as well as any benefits from group insurance, as applicable. Unfortunately, the survey does not contain any concrete information on the amount of compensation paid as a result of workers' deaths.

Direct treatment costs of injuries are generally negligible from a factory perspective. So are the current penalties potentially facing factories as a result of labour court cases. Incentives to document incidents are few at factory level. From a factory

perspective, it is mostly sufficient to provide medical care for common injuries by a nurse or paramedic on site.

There is a sense that the figures provided in the survey do not reflect the true costs. It is not clear how the treatment costs for injuries were calculated, whether, for example, salaries of nurses and paramedics were taken into account, imputed rent for space dedicated to medical care was considered, etc. It is also not clear whether the amounts provided related to the cost share of the factory or whether full costs were considered.

3.2 Implementation of OHS management systems and associated costs

GIZ has supported preparatory measures of factories from the RMG and leather industries with the objective of moving towards the implementation of ISO 45001. ISO 45001 is the world's first truly international standard for occupational health and safety. The standard provides a framework for companies of all sizes and in all industries to proactively reduce workplace risks and thus improve the health and well-being of their employees in the long term. The aim is to better protect not only their own employees, but also suppliers, temporary workers, service providers and subcontractors. To achieve this, employees ought to be involved in all aspects of the occupational health and safety management system. Top management is called upon to make an active and visible commitment to improving occupational safety. In addition, factories must identify and more clearly highlight the opportunities for improving occupational safety in a separate process.

According to the *National Occupational Safety and Health Policy (2013)* factories are obliged to provide training according to safety guidelines, to provide personal protective equipment (PPE) and to ensure that these are appropriately utilised. The amendment of the *Bangladesh Labour Act* in 2013 further introduced the requirement of safety committees to be established in any factory with over 50 workers. These are to serve as platforms for workers and management to create and maintain a safe workplace.

Different stakeholders report that due to lack of enforcement the provision of PPE has been very slow and has not reached the intended level in factories that have not experienced external incentives, e.g. through cooperation. Furthermore, the appropriate education of the workforce has not taken place, so that no pressure has been built up on the part of the workers to implement OHS measures.

The survey results do not allow a statistically significant assessment of the changes resulting from OHS interventions in the short term. Yet there is anecdotal evidence from single mid-sized factories that costs due to workplace injuries decreased by up to 60 percent in the months following OHS training.

From the factories there are different examples of OHS promoting interventions along with success stories. Examples include the screening of “emotional” videos over lunch time or short drama performance to demonstrate possible consequences of injuries and strategies to avoid them.

Among factory managers there is a proper understanding that everyone needs to receive training, despite the “problems of getting people from production”.

Supervisors and line managers need to include occupational health and safety in their regular meetings. Unpublished figures compiled by the BIDS report that out of a convenience sample of 50 factories, in 2016 a majority of 86 percent of factories had safety committees installed and that safety meetings were conducted on a quarterly basis in 88 percent of factories.

There is no reliable overview of the ability of PPE in the factories, nor is there an indication of average PPE-associated costs per worker. Appendix B shows a table of representative 2020 prices of key PPE items. Currently, most PPE equipment in Bangladesh’s RMG sector is imported from China (RMG Bangladesh, 2020).

The costs of developing and implementing an OHS management system oriented towards ISO 45001 vary significantly between organisations, particularly also based on the pre-existing OHS-related infrastructure and culture. Cost items include:

- External expertise, consultant fees
- Trainings (staff workshops/seminars, training of trainers)
- Cost of OHS M&E tools (based on legal requirements, pre-existing structures)
- Auditing and certification costs (based on size of the factory and choice of certification body)
- OHS system maintenance

GIZ data indicate that external consultants’ fees (risk assessment and ISO 45001, respectively) amounted to BDT 91,700 (USD 1,087) on average per factory. Costs of initial trainings on risk assessment, training of trainers and ISO 45001 amounted to BDT 14,896 (USD 176) on average.

3.3 Costs of injuries and accidents

The definitions of accident and occupational disease are construed very narrowly in Bangladesh’s jurisdiction. The term accident has not been defined in the *Bangladesh Labour Act* and in itself has been interpreted very liberally. However, in order to satisfy the condition that the accident arose out and in the course of employment, a very tight causal context must be presented.

There is no lead in the data regarding the costs of full and partial disability. Scarce data disclosed that for one factory that reported two cases of partial disability resulting from workplace injuries cost the factory a total of BDT 9,434.00 (USD 112.48) in 2018.

Across factories the medical costs were highest for workers who were absent from the workplace for over 7 days. The average costs associated with these cases increased from BDT 765.40 in 2017 to BDT 894.18 in 2018 and BDT 1,075.74 in 2019. However, in 2019, such cases were reported only by five factories, the numbers ranging between a single case and 49 cases.

A majority of factories (22 out of 27) reported that they covered 100% of costs; the others reported 50% or no coverage of costs by the factory.

The largest numbers of documented injuries are due to needle sticks or accidents with other sharp objects.¹ This is in line with the BIDS survey, which confirms that needle stick injuries are the dominant single injury category and that they occur in 91.7 percent of their surveyed factories (ILO, 2018b). In the sample of 27 factories, the incidents of both injuries from sharp objects and needle prick injuries vary significantly across the five years under consideration. Yet in both categories there is a decrease between 2018 and 2019: Needlestick injuries were reported on average 34.2 times per factory in 2018, 20.3 times in 2019; injuries from sharp objects were reported on average 105.6 times in 2018, 48.8 times in 2019.

In 2019, costs associated with hand or finger injuries amounted to an average of BDT 262.40 (USD 3.34) per case.

In line with the findings of the BIDS survey, costs reported by factories within the respective injury categories varied significantly.

A full assessment of the economic costs of employment injuries would take into account not only the costs to the factory and the worker but also the social costs. Figure 1 reflects the three stakeholder groups. Each of the groups faces direct and indirect costs. The diagram assigns direct medical costs to the workers exclusively; in the case of Bangladesh's RMG sector, a significant share of direct medical costs is borne by the employers. Indirect costs, such as the workers' net loss of future earnings or the loss of human capital are extremely difficult to assess.

¹ In line with the definition of the U.S. Bureau of Labor Statistics (BLS), the term occupational injury shall be interpreted as any injury that results from a single instantaneous exposure in the work environment (U.S. Bureau of Labor Statistics, 2020).

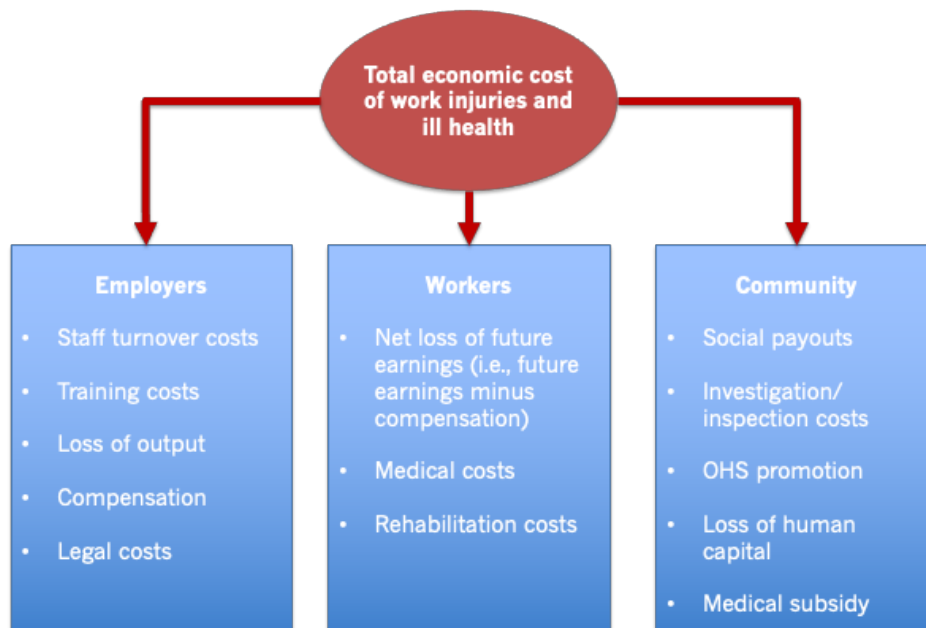


Figure 1: Cost items borne by employers, workers, and the community. Source: based on Takala et al., 2014

3.4 Benefits—and the avoidance of indirect injury costs

Apart from the avoidance of certain cost items discussed in section 3.3, there is a range of possible indirect costs associated with workplace injuries that OHS management helps to prevent. Stakeholders regard the reduction of indirect costs from different perspectives.

- Workers’ representatives highlight the possible reduction of interruption in production immediately following any accident, they also point out the elimination of recruitment and training costs for replacement workers.
- The factory management perspective foresees reduced damage to equipment, downtime and disruption to production, and wonders about the avoidance of reduced productivity associated with returning injured workers or replacements.
- International brands point out increased goodwill and reputation gain associated with a reduction of workplace injuries.
- Support from other stakeholders (such as from local community officials and government representatives) may increase.

In the interviews, it became clear across stakeholder groups that ethical aspects have gained attention in the industry over recent years. One stakeholder suggested that “fairness” towards workers was associated with “being a good factory”. Yet barriers still existed that prevent the concept of “solidarity” from gaining traction in Bangladesh.

As has previously been pointed out and demonstrated on the basis of international data, there is an inverse correlation of competitiveness and lack of occupational safety (measured by the incidence of fatal accidents)(Takala et al., 2014). There are different pathways leading from occupational health and safety toward competitiveness. The nexus between occupational health and international competitiveness has also been made for other industries in Bangladesh (Thiede & Thiede, 2015) and internationally (Gunther et al., 2019).

Costs	Benefits
<i>Tangible direct costs:</i>	Reduced medical costs
PPE	Less interruption in production due to accidents
Training	Less recruitment and training costs for replacement workers
OHS communication, promotion	Reduced damage to equipment
Dedicated OHS staff / team, safety committee	Less downtime and disruption to production
Electronic OHS management system	Increased productivity
Certification	Higher worker motivation
<i>Indirect costs</i>	Avoidance of reduced productivity of returning injured workers or replacements
Opportunity costs (e.g. work time lost during training)	Managerial benefits: OHS can be usefully integrated with other management systems, such as enterprise resource planning (ERP) and quality management (QMS); as well as with a workplace health programme
<i>Intangible costs</i>	Factor-market benefits: Employer branding
Inconvenience of wearing PPE, monitoring	Strategic benefits: Competitiveness (goodwill, reputation) – at the national level and regarding competing countries (international markets, international brands)
	Macro-level and political benefits: Trust, social capital, support from national-level stakeholders and development partners

Table 1: Overview of costs and benefits associated with OHS management

Table 1 presents a comprehensive overview of cost items associated with OHS management and benefits of OHS.

3.5 Employment injury benefits

As described, prevention, compensation and rehabilitation are the three pillars of OHS. Compensation always involves, on the one hand, compensating for the current and future loss of income due to an injury at work, as well as providing compensation payments for any physical damage, and, on the other hand, paying for the medical costs. Compensation payments for employment injuries, disability and death have been the subject of numerous discussions between stakeholders at national level. Currently, labour courts in Bangladesh see large numbers of cases. Based on international standards, as per Bangladeshi law, compensation payments are low. Even if adherence to the respective ILO convention would protect factories against legal hassles, the advantage would not seem lucrative to employers. While most employers adhere to the law, occasionally factories declare themselves bankrupt or “in the negative”.

International experts see employment injury insurance (EII) in Bangladesh not as an option, but as a “must”. International brands are also strong proponents of employment injury insurance, but so far there has been little pressure from this side on the factories. The current strategy is more like “positive encouragement”. The leading international brands support the idea of an EII trial, the cost of which is then passed on to the product price. The brands have a realistic idea as to how much they can influence the suppliers to join such a scheme.

Some stakeholders believe that the employers’ dissatisfaction with the management of the existing compensation fund contribute to their skepticism towards EII. The current Central Fund, which is managed via the Department of Labour, collects 0.03% of the export value from exporting companies in the RMG sector, deducted at source. Factories have complained about a lack of accountability and transparency.

Among employers a perception of employment injury benefits as welfare rather than a right prevails. Given that the concept of EII entails sharing of contributions between employer and employees, worker representatives also report pockets of apprehension on the workers’ side. In general, it is not the financial costs that feed the opposition to EII, given that the comprehensive calculation of total costs of an EII scheme (including compensation for temporary, permanent disability and death, as well as coverage of health care and rehabilitation) would amount to 0.33 percent of earnings (ILO, 2018b). Stakeholders indicate that the reluctance extends to the introduction of social protection systems in general, which are commonly driven by government. As a stakeholder suggests, “In Bangladesh you do not have big government.”

ILO published “Technical Recommendations on the Feasibility Assessment of an Employment Injury Insurance Scheme in Bangladesh” with six supporting documents that detail, inter alia, the proposed legal framework but also provide evidence of

injury types and incidents in different industry sectors, including the RMG sector, as well as evidence of associated costs. The reported data refer to the comprehensive survey conducted by the Bangladesh Institute of Development Studies (BIDS).

3.6 Routine OHS data collection and reporting at the factory level

The process of collecting data via a comprehensive survey revealed numerous problems that also ran like a thread through the stakeholder interviews. Firstly, neither a routine nor a standard exists across factories regarding the documentation of injuries across factories. Different patterns of unfilled fields on the questionnaire are less indicative of consistently low accident statistics than of problems in reading out the data in a form that is appropriate in terms of content and time period. The fact that RMG factories follow no standard procedures for collecting and reporting data on incidents, workplace injuries and OHS hazards has been highlighted previously (Akhter et al., 2019). The analysis was limited to 27 out of 80 factories, but there were still gaps in the final selection that was based on relative data quality and completeness. Comprehensive data collection as well as monitoring and evaluation are key processes to be designed and implemented along with OHS management systems.

4 Way forward

4.1 Sector dynamics

The Savar building collapse in the Rana Plaza complex on 24 April 2013 has all characteristics of a so-called “black swan”, i.e. an event outside of the realm of regular expectations carrying an extreme impact. It has triggered a series of amendments in the *Labour Law*, mainly due to international pressure for improving labour rights, particularly in Bangladesh’s RMG sector, often with more of a focus on structural safety of buildings than a broader approach to occupational health. Medium and minor workplace accidents and occupational disease are daily phenomena constituting a social and economic burden that requires attention. The pursuit of labour standards and responsible business conduct in Bangladesh’s RMG sector has been high on the agenda in international agreements and collaborative projects over recent years.

Expert insight and international practice show that investment into employment injury protection is not only worth it in human terms, but also economically. Fewer disruptions to operational processes, lower accident and illness rates and increased safety awareness reduce costs, increase employee satisfaction, create legal certainty and thus lead to competitive advantages.

At the policy level, efforts towards strengthening OHS services and establishing standards have yet to yield the desired results. Overall, progress is limited due to lack of capacity in monitoring (lack of staff, skills and equipment), lack of procedures, and lack of training and information (Akhter et al., 2019).

Stakeholder interviews with workers' representatives on the one hand and with international business partners on the other hand have shown that over years, the RMG industry has not managed to change their status as a "low-trust environment". Neither are trust levels among workers towards the individual factories high enough to significantly stimulate levels of productivity and discourage excessive staff turnover (which is generally driven by wage advantages), nor is the trust level among (international) business partners sufficient to warrant sustainable and unprejudiced business relationships. International studies have reliably established a close link between the implementation of OHS management systems and associated training on one side, and worker productivity on the other (Robson et al., 2012).

Pursuing the ISO 45001 standard implies establishment of the so-called high-level structure, which reflects the logic of other ISO standards and thus enables factories to combine various aspects such as quality, environmental and energy management with the occupational health and safety management system and to develop an integrated management system from this.

Continuous collection and reporting of accidents and injuries should become a routine at factory level and needs to be based on a routine process. Accident data could possibly be integrated into the existing digital application LIMA (Labour Inspection Management Application). A working group composed of representatives of the textile and leather industries (possibly through the relevant industry federations), workers' representatives, civil society, the MoLE and, where appropriate, international partners, should be set up to launch immediately the development of an electronic registration tool. This tool should primarily serve the factories themselves for the internal quality assurance of their occupational health management. Key indicators should be made available to factory management in real time through a dashboard for planning and control purposes. Furthermore, reporting should be carried out regularly on the basis of indicators defined between the stakeholders in the sense of external quality assurance. Where appropriate, it is important that data collection in the area of occupational health management is not a process that is completely separate from other business processes. Rather, care should be taken as early as the process development phase to ensure that this process fits in with related processes in further quality management.

4.2 Factory-level data collection and utilisation

4.2.1 Capturing data on individual incidents

The survey has shown advantages and disadvantages of a small-scale survey approach. Overall, it has become clear that most factories are overwhelmed by the small-scale documentation of incidents. Apart from the fact that it will be important to provide a recording instrument that is as simple as possible, it is necessary to enable recording in electronic form. This means that the management of the relevant data should be linked to the enterprise resource planning (ERP) system.

Appendix A presents a data collection tool that has been developed based on lessons from the international literature and on the experience with previous surveys at the factory level. The instrument takes into account the position of the worker in the company and the respective workplace. For the (simple) characterization of work-related injury, the instrument is based on the injury severity score (ISS) which is used internationally (Sears et al., 2015). This score can be easily calculated.² It is based on the nature of the injury or illness, i.e. on the physical characteristics. The ISS also allows a cruder categorization into a few classes based on point value ranges, which then, for example, may provide an indication of the relevance of a recorded case for further OHS management.

The data collection tool captures temporary and permanent work incapacity. The form requires analysis of the source and secondary source of the injury. These may be “the objects, substances, equipment, and other factors responsible for the injury or illness incurred by the worker or that precipitated the event or exposure” (Centers for Disease Control, 2019). A brief analysis of causes and events leading to the injury should ideally be included with every incident, such as to inform the OHS management system and contribute to continuous improvement of occupational safety.

4.2.2 Integrating OHS - accidents and economics

Apart from the collection of data on individual incidents, it would make sense to investigate the integration of a broader, yet conceptually linked, indicator-based instrument into the (OHS) management of the factory. This could indeed be based on the Balanced Scorecard (BSC), the use of which has already proven to be appropriate in the context of quality management. Last but not least, the BSC also reflects the principles of ISO 45001: On the one hand, the instrument works towards

² The ISS derives a summary score on the basis of the three most severely injured body regions. No single region can be represented more than once in the overall score. The individual score for each body region lies between 1 (minor) and 6 (maximum injury, most likely fatal). The sum of the squares of the severity score in these three regions is then used to determine the ISS (Berger & Ortego, 2019).

conformity, on the other hand it accommodates the idea of the PDCA cycle. The aim is to design monitoring in such a way that diagnostic measures monitor whether the business remains in control; an alert would be activated when a threshold is overcome.

Given that the original BSC focuses on (a) business and financial objectives, (b) stakeholder objectives, (c) internal business process objectives, and (d) learning and growth objectives, a BSC for OHS could capture under the respective points (Mearns & Håvold, 2003):

- (a) Qualitative and quantitative outcome data → claims and benchmarking data
- (b) Outcomes → incident data
 - Employee satisfaction with the OHS management system → employee feedback data
 - Compliance with government and other external stakeholder requirements → external stakeholder feedback (positive performance indicators and audit data)
- (c) Assessment of integration into general management system
 - Quality of employee involvement
- (d) Incident and quality of OHS training
 - Continuous improvement

In October 2020, the Ministry of Labour and Employment (MoLE) issued a circular forming a 13-member tripartite committee in light of the EU's new Generalised Scheme of Preferences (GSP) (Munni, 2020). This committee is headed by a MoLE additional secretary and composed of two more members from the MoLE, one member each from the ministries of commerce, textile and jute, and industries, Bangladesh Employers Federation (BEF), Bangladesh Garment Manufacturers and Exporters Association (BGMEA) and Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA); from the workers' side, Bangladesh Jatiya Sramik League, Smajtantrik Sramik Federation and Bangladesh Trade Union Sangha as well as a lawyer are represented.

Should Bangladesh not implement all 27 core conventions required to avail the GSP-plus facility by 2027 (the initial target year 2024 plus a three years' grace period), the country will lose preferential treatment, implying that it will have to face nearly 12.5 per cent duty on exports to the EU. Currently around 74 per cent of Bangladesh's export earnings fall under preferential trade, of which 64 per cent related to exports to the EU (Rahaman, 2020).

Here, employment injury protection and insurance may form the basis for continuous fruitful political dialogue, at the national and the international level. As examples from other lower-middle income countries, e.g. Cambodia, Pakistan or Vietnam, show, continuous improvement in the area of employment injury protection is a relevant

contribution to foster social stability, social capital and economic development (Hsu et al., 2016; Matsuda et al., 1997). Ultimately, it is a vehicle that has assisted the creation of trust at the political level (Shah, 1994).

A trial on employment injury insurance has been agreed upon between selected factories, international brands and international partners. This may be an important step towards demonstrating willingness of Bangladeshi stakeholders to take what is usually regarded the first step towards a social insurance system. One international brand is setting up a cost-sharing scheme with a private insurer.

4.3 Reflection

Apart from narrow considerations of economy and efficiency, further dimensions contribute towards the achievement of sustainability—namely, effectiveness (with regard to meaningful objectives) and equity (asking to whom benefits accrue). Any further analysis of employment injury protection would benefit from this multi-dimensional lens.

The framework depicted in Figure 2 ultimately hinges on “value for money” and refers back to the 4Es – economy, effectiveness, efficiency and equity, which again is a concept rooted in new public management and applied in different contexts, including in programme evaluation of international organizations (Global Fund, 2017). The framework, suitable for use across different projects, offers the advantage of consistency and comparability.

Figure 2 reflects a corresponding conceptual framework (Thiede & Rosemberg, 2015). Here, the dimensions within the value-for-money paradigm, the 4Es, are also associated with the respective instruments commonly used for assessment, e.g. cost-benefit to address the efficiency dimension or benefit incidence to assess equity. The arrows indicate important relationships between the dimensions: Economy reflects the cost side, i.e. inputs; efficiency is defined as the extent to which resources or inputs have been converted into outputs; effectiveness refers to the relationship between outputs of an intervention and outcomes. The allocation of costs and the distribution of benefits are two considerations of the determination of equity. The sustainability of value created is a core goal that relates to the other components of the framework.

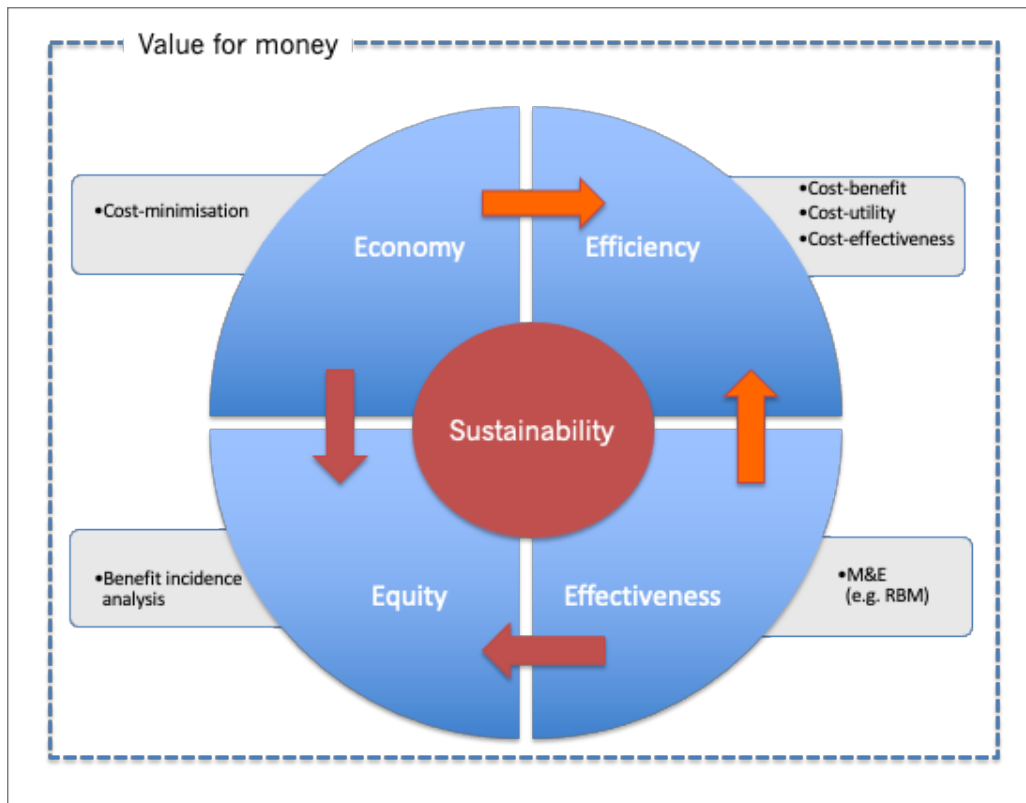


Figure 2: Comprehensive framework for VfM assessment. Source: Thiede and Rosemberg, 2015

Strategic behaviour will be critical for the RMG sector in Post-Covid-19 times as experts predict a paradigm change for the industry that will also be technology-driven and imply that 40 percent of businesses may not survive the next ten years (RMG Bangladesh, 2020). Carving out a position along the global value chain will require the Bangladeshi RMG sector to engage further in occupational health and safety management based on international standards.

The sector’s strategy should ensure maximum impact of each Taka spent on OHS to respond to the broader challenges associated with employment injuries and to secure Bangladesh’s competitive position on the global market, while establishing trust in the company amongst authorities, investors, as well as international partners and clients. Neglecting the challenges may even jeopardise the future viability of the economy and social stability.

International brands have a very clear view of the need for employment injury protection: “If employees are vulnerable, the factories are vulnerable; then the international brands are vulnerable.”

A full-fledged cost-benefit analysis would have provided a projection into the future, analysing the potential return on investment into OHS management over the next ten or twenty years, taking into account plausible discount rates and probing the sensitivity of results. Whereas the exact monetary returns remain unclear, there are very strong arguments for comprehensive investment in employment injury benefits.

The launch of a trial employment injury insurance covering all four million workers of the RMG sector had already been envisaged before the onset of the COVID-19 pandemic and is close to implementation. The trial is supposed to achieve coverage in line with the ILO Employment Injury Benefits Convention (C121) with support by national stakeholders and international buyers.

In international comparison it seems anachronistic to see Bangladesh lagging behind in the discussion of labour standards and social protection of workers – especially in light of the 40-year journey of Bangladesh’s RMG sector.

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Appendix A: Data collection tool

Data collection tool for employment injury tracking		
1 Company	<input type="text"/>	
2 Factory	<input type="text"/>	
3 Location	<input type="text"/>	
4 Date and time of injury	<input type="text"/>	
<i>Patient details</i>		
5 Gender	a. Female	<input type="checkbox"/>
	b. Male	<input type="checkbox"/>
	c. Other	<input type="checkbox"/>
6 Occupation	<input type="text"/>	
7 Employment status	<input type="text"/>	
8 Activity	Sewing	<input type="checkbox"/>
	Knitting	<input type="checkbox"/>
	Wet processing	<input type="checkbox"/>
	Administration	<input type="checkbox"/>
	Utilities	<input type="checkbox"/>
	Warehouse	<input type="checkbox"/>
	Other (incl. commuting)	<input type="checkbox"/>
<i>Injury characteristics</i>		
9 Body region affected (1: minor - 6: maximum)	Head	<input type="checkbox"/>
	Face	<input type="checkbox"/>
	Neck	<input type="checkbox"/>
	Thorax	<input type="checkbox"/>
	Abdomen	<input type="checkbox"/>
	Spine	<input type="checkbox"/>
	Upper extremity	<input type="checkbox"/>
	Lower extremity	<input type="checkbox"/>
	External and other	<input type="checkbox"/>
10 Injury severity score (ISS)	<input type="checkbox"/>	
11 Class (1: ISS < 11; 2: ISS > 10; 3: death)	<input type="checkbox"/>	
12 Incapacity to work	a1. Part of work day (full hours)	<input type="checkbox"/>
	a2. One day or more (number of days)	<input type="checkbox"/>
	b. Permanent	<input type="checkbox"/>
<i>Costs</i>		
13 Treatment costs	a. Borne by employer	<input type="text"/>
	b. Borne by employee	<input type="text"/>
14 Compensation payment	<input type="text"/>	
15 Estimated damage to equipment	<input type="text"/>	
<i>Analysis</i>		
14 Source and secondary source	<input type="text"/>	
15 Analysis of causes, event or exposure (qualitative)	<input type="text"/>	

Appendix B: Prices for selected PPE items

Personal protective equipment (PPE) in RMG factories

Head protection	Hard hats	BDT 1,000.00
Hand protection	Work gloves	Cut resistant – BDT 450.00
	Specialist hand protection (e.g. chemical, mechanical or thermal hazards)	Depending on purpose, e.g. simple chemical resistant – BDT 130.00
Eye and face protection	Face shields / visors	BDT 50.00 – 150.00
	Safety goggles	BDT 150.00 – 200.00
Protective clothing	Workwear	--
Foot protection	Safety footwear	BDT 2,500.00
Hearing protection	Ear defenders / plugs	Ear plugs BDT 40.00 Ear muff BDT 750.00 – 1,000.00
	Noise meters	BDT 8,500.00
Respiratory protection	Safety masks	BDT 160.00 (50pc.)

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