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PERCEPTIONS OF WORKERS ON THE EFFECTIVENESS OF HEALTH & SAFETY TRAINING IN THE RMGS OF BANGLADESH: AN EVALUATION SUBSEQUENT TO RANA PLAZA TRAGEDY

Kazi Nazmul Huda,[1] Rashed Mahmud Shakil,[2] Dr. Mohammad Sirajul Islam[3]

ABSTRACT

Health & Safety (H&S) training is one of the vital issues for an employee, organization, and the society at large. Effective evaluation of training programs ensures good governance and global standard H&S practice. Industrial catastrophe like Rana Plaza is an eye opening instance for this industry to rectify the previous malpractices related to H&S issue. This study evaluates the performance of H&S training programs considering the opinion of 200 RMG workers of 10 factories located outside the export processing zone of Chittagong, Bangladesh. Findings of the study were also validated through the opinions of ten experts in the field of H&S. From the study it is revealed that the sample RMG factories made a significant progress in maintaining the regularity of H&S training program and the workers felt engaged at the time of training. Overall learning of the workers is found good in terms of comprehension and competency. The sample RMGs are still struggling to arrange and maintain a good training environment for their workers. Recommendations like hiring ex civil defense professionals as trainer and arranging modern training materials and equipment were emphasized to overcome the limitations of H&S training programs.

Keywords: Health and Safety Program, Health and Safety Training, Ready Made Garments, Performance Evaluation, Bangladesh.

Paper Type: Research Paper

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[1] *Associate Professor, Department of Business Administration, Southern University Bangladesh, Chittagong. Email: knhuda@yahoo.com*

[2] *Lecturer, Department of Business Administration, BGC Trust University, Chittagong, Bangladesh, Email: rs.shakil1310@gmail.com.*

[3] *Assistant Professor, Department of Business Administration, Southern University Bangladesh, Chittagong. Email: sirajulislam@southern.edu.bd*

1. INTRODUCTION

Health and safety training is an integral part of an organization's management system that aims to disseminate and transfer knowledge, skill and attitude among the employees (Health & Safety Orientation guide for Employers, 2014). H&S training is an effective and popular method for employee skill development as well as increasing productivity. Earlier studies on this issue had particularly mentioned about the importance and contributions of H&S training in different sectors and across different cultures. According to Rosskam (2001), competent and trained people are mandatory in every industry to make the workplace free from accidents, and diseases.

H & S training aware (Yoon, Lin, Chen, Choi, & Rui, 2013), educates and encourages workers to take responsibility and accountability (Jin and Chen, 2013) on the hazardous factor of a factory. Burke, Salvador, Smith-Crowe, Chan-Serafin, Smith, & Sonesh, (2011) argued that H&S training has become an inevitable intervention in all organization across the world. Studies revealed that H & S training was effective in preventing industrial accident and developing safety culture at workplace (Miller, Hill, Mason, & John, 2013; Bahn, & Barratt-Pugh, 2012). Also, it was suggested that a thoughtful evaluation of the effectiveness of H & S training can prevent industrial incidences (Bahn and Barratt-Pugh, 2012). Effectiveness of H & S training is measured by assessing the learning of the trainees and their involvement; quality of the training content and materials, instructional methods, trainees' engagement, and evaluation of the total training program (Menger, Rosecrance, Stallones, & Roman-Muniz, 2016; Burke et al., 2011). It was observed that quantitative assessment of H&S training is rare in most of the organizations (Bahari, 2013) and specifically in South Asia region.

Strategies of H&S training ensure theoretical and hands-on learning facility for the employees and other stakeholders of an organization with the aim to develop a safe and productive workplace (Burke et al., 2011). It is observed that, H&S training is more important aspect in some specialized industries like RMG as it is one of the most labour intensive where maximum of the workers are engaged in a specific space with complex machineries, electrical equipments and chemical substance for a longer period of time. As a result, this type of work environment is volatile and hazardous for the stakeholders. In this regard, previous studies precisely tinted the intense importance of H&S training in the RMG industries.

H&S initiatives should be the primary concern to the readymade garment (RMG) factories to ensure a better work environment (Huda, 2016; Ahmed & Hossain, 2009). Bangladesh is the second largest RMG exporting country of the world, but the industry was negligent on the H&S training matters due to lack of awareness and attitude and costs thousands of life of workers.

After the industrial catastrophe like Rana Plaza and Tazreen Fashions, H&S has become an issue of paramount interest among the buyers, manufacturers, legislatures, and regulators of the apparel manufacturing sector of Bangladesh (Huda, 2016). Bangladesh Government has already formed a high-power committee comprising of ministers of different ministries to ensure safe working condition, improved workers' health, and compliant to building codes and fire safety standards (The New Nation, 2013). International Labor Organization (ILO) on the other hand, with the aim of improving the occupational health and safety culture; formed a National Tripartite Plan of Action (NTPA) on fire safety and structural integrity.

NTPA conducted a three-phase awareness training program for the key stakeholders in 600 RMG factories including 1.5 million workers who received training on H&S issues (Salvai, 2015). Accord and Alliance, a consortium of Western buyers' is also working to monitor the progress and activities of H & S trainings in Bangladeshi RMGs through external evaluation. One of the key components of Accord and Alliance initiative is to educate workers through conducting training programs (Accord, 2018). However, studies found deviating and inconclusive results regarding the performance of H&S training (see for instance, Huda, 2016).The current study will provide information on recent practices, status and effectiveness of H&S training sessions conducted in non-EPZ RMG factories.

After such initiatives taken by the different key stakeholders of this industry, the perception of the workers on the effectiveness of H&S training has not been exposed yet. As a key driver of this industry, their candid opinion regarding this issue could aid to obtain the specific outcome of the H&S training provided in the RMGs of Bangladesh.

It is observed in the literature that, researcher like Huda (2016); Ahmed & Hossain (2009) and Akhter, Salahuddin, Iqbal, Malek, & Jahan, (2010) had exposed the inevitability of effective H&S training across different cultures, countries and industries through qualitative assessment. Hence, these outcomes provide the evidence to conclude that no research work has been conducted to mention the particular aspect like the perception of workers on the effectiveness of H&S training in the RMG industry of Bangladesh: subsequent to Rana Plaza tragedy. This vacuum of knowledge has supported us to identify this as a research gap. According to the current research gap this study identified the research question such as what is the degree of effectiveness of different aspects of H&S training in the RMG factories in Bangladesh?

However, to make a clear answer to the research question, the study formulated the research objective to evaluate the performance of H&S training provided to the RMG workers of Bangladesh. To end with, the study incorporated all the methodological consideration to justify the research objective.

2. SIGNIFICANCE OF THE TOPIC AND STUDY

Evaluation is an embedded function of any training program and a critical evaluation of H & S training is needed to assess the performance of training program (Bahn & Barratt-Pugh, 2012; Haas, Hoebbel, & Rost, 2014). H & S training evaluation process mostly measures the extensive engagement of the participants (Morgaine, Langley, & McGee, 2006; Burke et al., 2011).The RMG sector of Bangladesh has witnessed an extraordinary growth (Rahman & Hossain, 2010) and the country became the second largest garments exporting nation of the world.

This industry generated employment of many and acted as the pivotal source of foreign earnings of Bangladesh. According to Latifee (2016), the volume of RMG apparel export was around 28.09 billion USD for the financial year 2015-16 which was 82% of the nation's export earnings. RMG sector employs 4.2 million workers - the highest contributor in the national employment.

Training plays an assertive role for developing human resources. It is also considered as an effective organizational mechanism to minimize workplace H & S hazards and accidents (Lay, Saunders, Lifshen, Breslin, LaMontagne, Tompa, & Smith, 2016). Sinclair, Smith, Colligan, Prince, Nguyen, & Stayner, (2003) found a positive correlation between the evaluation of training and the success of H&S initiatives. It enhances required knowledge, skill and attitudes among the employees to undertake protective measures to proactively minimize risk (Menzel & Gutierrez, 2010; Hogstedt & Pieris, 2000; Miller, Hill, Mason & John, 2013; Bahari, 2013; Lippin, Eckman, Calkin, & McQuiston, 2000; Bottani, Monica, & Vignali, 2009; Weil, 1992).

Despite the market success, Bangladeshi RMG factories are exposed to various kinds of health and safety hazards and frequently failed to ensure a better health and safety culture at workplace (Rashid & Rashid, 2015). H& S issues are still less cared regardless of witnessing several accidents in this sector (Burke et al., 2011). Incident of Rana Plaza damaged country's market reputation resulting in decline in export earnings from European and North American markets (Samaddar 2016).To regain the foreign market share, investment and evaluation of H&S training initiative seems must for the RMG sector of Bangladesh (also suggested by Burke et al., 2011).

H&S training is also an important determinant to develop, review and promote the H & S culture in an organization (Jilcha & Kitaw, 2016; Cole, Stevens-Adams, & Wenner, 2013; Zhou, Fang, & Mohamed, 2010). Becker & Morawetz, (2004) have found that H&S training develops positive motivation among the workers to bring change in the organization explicit to H&S initiatives. On the other hand, inadequate training hinders operational excellence at workplace in terms of H&S initiatives (Podgorski, 2015).

Even though H&S training is vital and regular monitoring and evaluation of the effectiveness of the training is important for further improvement, there is lack of studies on South Asia and especially in Bangladesh in evaluating the efficacy of the same. In addition, the available studies on the relevant field are mostly qualitative in nature and the results of those studies lack statistical significance. This study based on quantitative data collected from a large sample therefore contributes to the literature.

3. REVIEW OF LITERATURE

H & S training program includes many essential events and interventions like H&S awareness, H&S classroom sessions, drill and case studies (OHSAH, 2003). It is a cabalistic function for every industry to ensure a compliant and standard work environment (Akpan, 2011; Gunningham, 2012; Idubor & Osiamoje, 2013; Adebola, 2014). Impact of H&S training influences the result of H&S program in the work place and helps to maintain better organizational culture (Bahari, 2013; Becker & Morawetz, 2004; Robson, Stephenson, Schulte, Amick, Chan, Bielecky, & Peters, 2007). According to Lippin, Eckman, Calkin, & McQuiston, (2000), H&S training directly motivates the workers to improve workplace health and safety conditions and it should be considered as a top priority by the employers. Orientation of H&S scheme remarkably reduces the possibility of injuries at workplace (Kinn, Khuder, Bisesi, & Woolley, 2000).

According to the guidelines provided by Health and Safety Executive, (2001), and also many authors statement like Legg et al. (2009); Stolk, Staetsky, Hassan, & Kim, (2012); Okoye, Ezeokonkwo, & Ezeokoli, (2016); Okeola, (2009); Bahari (2013), organizational policies and strategies should uphold the H&S training initiatives, which would engage and encourage the employees at all level to participate in the training program and provide necessary financial, nonfinancial resources (material, equipments, human) to make the program successful. To ensure positive outcome of H&S program, standard and sufficient number of training should be conducted to reduce work hazards and accidents as stated by Foromo, Chabeli, & Satekge, (2016); Kale, Gujrathi, & Kale, (2013); Health and Safety Executive, (2001); Cohen & Colligan, (1988).

A good number of authors and H&S regulatory bodies namely Legg, Battisti, Harris, Laird, Lamm, Massey, & Olsen, (2009); Rashid & Rashid, (2015); OHSAH (2003) ; Innovation, (2007) pointed about the frequency and long duration of H&S training program for the workers that may help in developing a positive attitude towards H&S interventions of an organization. Organizations should further allocate sufficient time with convenient scheduling to conduct H&S training and ought to maximize engagement of the workers for effective learning (Burke et al., 2011). Auyong, Zailani, & Surienty, (2011); Slatin & Dunn, (2006); Zaky & Pillay, (2017) and many others lay a claim that evaluation of training program is mandatory to facilitate the success of the H&S programs and measures the competency level of the workers with significant outcome.

At the time of post training evaluation, the aforementioned issue must be checked and evaluated for the transfer of knowledge and the comprehension of learning in terms of development of competency (knowledge, skill and attitude) level (Slatin & Dunn, 2006; Kale et al., 2013; Haas et al., 2014; Zaky & Pillay, 2017).

Cole et al., (2013) in their research had made up a statement that, success of training depends on the favorable training environment. However, feedback of the training program from the trainees should be considered with due diligence and with a special reference to quality of the trainer in terms of qualification and facilitation skill (Auyong et al., 2011; Haas et al., 2014). In reference to Thorne, Oliver, Al-Ibrahim, Gucer, & McDiarmid, (2004); Burke et al. (2011); Robson et al. (2010) and Meyer (2017) organizations must design a need based customized lesson content to aid workers for effective learning. Finally, the performance of the H&S training program should be measured based on the transfer of the learning to the trainees (Menger et al., 2016).

According to Akhter et al. (2010) H&S issues are seriously considered in the RMGs of Bangladesh. After the Rana Plaza catastrophe, most of the factories have currently ensured adequate H&S training for the workers by the aid of American & European buyer's communities, Manufacturers' Associations and the government. The safety cell of Bangladesh Garment Manufacturers and Exporters Association (BGMEA) also performing significantly in this regard (Ahmed & Hossain, 2009). The NTPA report was also very positive about the performance of BGMEA in ensuring H&S training programs effectively (Salvai, 2015). However, Huda (2016) and Burke et al. (2011) have argued that H&S training in this industry is inadequate.

Very few research studies have been conducted on the evaluation of H&S training program (Mukherjee, Overman, Leviton, & Hilyer, 2000; Weinstock & Slatin, 2012) and also very rare with reference to the RMGs industries. Authors like Menger et al. (2016); Lay et al. (2016); Okoye (2016); Bahari, (2013) and many others have conducted research on H&S training within the scope of countries, for example USA, Canada, UK, Australia, South Korea and India within their context and mostly on construction & engineering industries, chemical plants, mine and dairy sector. Bangladeshi authors like Akhter et al. (2010), Huda (2016) and Ahmed & Hossain, (2009) made their study broadly on the evaluation of H&S compliance program, but did not particularly focused on the evaluation of H&S training program. Therefore, an intensive empirical research on evaluating the performance of H&S training of RMG factories is very necessary to fill the research gap.

Very few studies on H & S training were made mostly through literature review and key informant interview. However, empirical analysis based on workers opinion on the effectiveness of H&S training program is found absent on those studies. This study will make an endeavor to contribute to the H&S body of knowledge and will try to bridge the gap of the earlier research in a wider range through measuring the performance of H&S training program in the context of RMG factories in Bangladesh.

Table 1: List of Variables

Determinants		Code	Reference
1	Regularity of H & S training	Regularity	Cohen &Colligan, (1988); Legg et al. (2009); Kale et al. (2013); Health and Safety Executive, (2001); Foromo et al. (2016); OHSAH (2003); Rashid & Rashid, (2015).
2	Convenient Training Schedule	Schedule	Health and Safety Executive, (2001)
3	Sufficient training materials		Cohen &Colligan,(1988); Kale et al.(2013); Legg et al. (2009); Health and Safety Executive, (2001); Stolk et al. (2012)
4	Adequacy of training Equipment	Equipment	Kale et al.(2013); Cohen&Colligan,(1988), Health and Safety Executive, (2001)
5	Favorable training environment	Environment	Cole et al. (2013)
6	Active Engagement	Engagement	Cole et al. (2013); Burke et al. (2011); Stolk et al. (2012)
7	Effective lesson content	Content	Health and Safety Executive, (2001); Alli, (2008); Burke et al. (2011); Robson et al. (2010); Meyer, (2017).
8	Trainers are qualified	Qualified	Legg et al. (2009); Haas et al. (2014); Salvai, (2015)
9	Trainers are supportive	Supportive	Haas et al. (2014); Salvai, (2015)
10	Effective Comprehension	Comprehension	Health and Safety Executive, (2001); Legg et al. (2009)
11	Improved H & S Competency	Competency	Slatin& Dunn, (2006); Kale et al. (2013); Haas et al. (2014); Health and Safety Executive, (2001); Zaccaro, (1996); Zaky & Pillay, (2017)
12	Developed confidence	Confidence	Hecker, (1998); Zaky & Pillay, (2017)
13	Effective Post training evaluation	Evaluation	Health and Safety Executive, (2001); Auyong et al. (2011); Burke et al. (2011)

Table-1 portrays the major determinants of H&S training as mentioned in cross-country studies. The findings of the table also justify the reason behind using 13 determinants in the current study.

4. RESEARCH HYPOTHESIS

H0: Workers in Bangladeshi RMG factories do not receive effective H&S training (with respect to regularity, schedule, equipment, and other related issue)
Ha: H&S trainings provided in RMG factories are effective

5. METHODOLOGY

5.1 Variable identification and Justification

Authors have extensively reviewed scholarly articles, reports, policy guideline papers, and newspaper articles to explore as many determinants of the H&S training and the parameters of post training evaluation as possible irrespective of the country of study. Research materials were sourced from Google scholars, Scopus data base JSTOR, OSHA web portal, and BGMEA portal. Considering the literature, authors' accumulated 13 variables relevant to H&S training evaluation. Those items were shared with expert panel consisting of three non-academic members having long-time experience in RMG and H&S training to check the applicability of those variables in the current study. All the variables listed on Table 1 are selected for this study. Most popular 5-pointLikert scale was used to capture the opinion of the respondents on the refined items.

5.2 Questionnaire

First part of the questionnaire contains demographic questions such as age, training status, and year of experiences. Second segment of the instrument asked about 13 questions relevant to H&S training evaluation. Highly recognized 5-point Likert rating scale was used to capture the opinions of the respondents on those 13 items where point 5 represents 'Strongly agree' and1 shows 'Strongly disagree'. Questionnaire was first developed in English and then translated into Bengali (local language) to facilitate data collection and better understanding of the respondents. An expert was involved to make sure that two versions of the questionnaire were identical. In the questionnaire, workers were asked questions related to what extent the program helped them to reduce accident and health related problems, regularity of the program, convenience of training scheduling, adequacy of training materials, training environment, effectiveness of the trainer, and the question related to transfer of learning.

5.3 Respondents

This study selected female workers as sample. To select the samples, the outcome of the study conducted by Rashid & Rashid, (2015) and Khan & Wichterich, (2015) was considered. According to their study, female workers represent 80% of the total labor force in the RMG sector in Bangladesh and they are the most common victims of H&S issues. Data collection was controlled by considering the fact that respondents must have at least 5-6 years of working experience in the industry and received H&S training at least once. Working experience was also a vital consideration as a worker should work substantial amount of time to receive H&S training.

Respondents were selected following judgmental sample techniques by considering the fact that they fulfill the screening criteria. A total of 215 questionnaires were distributed among the respondents, however few questionnaires were discarded due to missing responses and faulty answers (ticked multiple options). Finally, 200 usable responses were considered for data analysis. Samples were decisively chosen from five RMG factories located in non-export processing zone (EPZ) area of Chittagong. Non-EPZ factories were chosen as there are evidences to show that most of the fatal incidents related to H&S occurred in the garments factories located in the stated area. The survey was carried out during June to December, 2017.

5.4 Statistical Method

This study considered the whole data as a single sample (RMG workers), to test research hypotheses, one sample t-test (along with significance value) found to be appropriate as suggested by Malhotra & Das, (2016). In addition, mean values were examined to identify the degree of presence of a particular item in the H&S training module. Standard deviation values were reported to check the diversity of opinion among the respondents.

6. FINDINGS AND DISCUSSION

Our results revealed research hypotheses segmented within 13 sub null hypotheses (Table-2). Among them eight sub-null hypotheses have been rejected, that is those research hypotheses were accepted (sig. < 0.05 with t-value t > 1.65 at 2 tail test). However, five sub-null hypotheses have been accepted that is five research hypotheses were rejected with the sign (sig. > 0.05 with t-value t < 1.65 at 2 tail tests). The table 2 revealed the particular values of statistical evaluation of data for better comprehensiveness of the readers. This table represents that, five variables are schedule, material, equipment, environment, and evaluation. For the remaining eight hypotheses that tested the absences of the items have been rejected (in all cases sig. < 0.05 with higher t-values). These findings approve the existence of those eight variables (such as, regularity, engagement, content, and qualified trainer) in the H&S training in the RMG factories in Bangladesh.

Hypothesis 1(a) representing the item 'regularity of H&S trainings' (trainings are not conducted in a regular basis) is found to be rejected (sig. = 0.00 with t=53.73). This means H&S programs are regularly conducted at the sample factories. Salvai (2015) also found the regularity of H&S training in this sector after the Rana Plaza tragedy. This finding shows the result of successful training interventions of the buyer, government, and the entrepreneurs. Hypothesis 1(f) no active engagement (sig. = 0.00 with t=103.294), 1(g) ineffective lesson content (sig. = 0.00 with t=53.73), 1(j) less qualification of the trainers (sig. = 0.04 with t=43.961), and 1(k) less support from the trainers (sig. = 0.00 with t=143.052) are found to be rejected.

These results signify that the workers were highly engaged at the time of training as they were trained by qualified trainer, received improved course contents, and got supportive behavior from the management and trainers. The study also revealed that the tested sub hypotheses have 1(l) no effective comprehension of the training contents (sig. = 0.00 with t=133.792), 1(m) does not increased competency (sig. = 0.00 with t=121.536) and 1(n) did not developed confidence of the worker to handle disastrous situations (sig. = 0.00 with t=57.083) are also rejected. This means, the training program was effective enough to understand the subject matter and that helped developing skill and confidence level of the workers. These results are consistent to Burke et al. (2011) who also found positive relationship between highly engaged H&S training with the certainty of effective understanding of H&S knowledge.

Table 2: Mean Values And Hypotheses Testing Results

	Variable	H_0	Mean	Std. Deviation	t-value	Sig.	H_0 Decision
1	Regularity	1(a)	3.6850	.96978	53.738	0.000	Rejected
2	Schedule	1(b)	2.3350	.69656	1.57	0.061	*Accepted*
3	Material	1(c)	2.3450	.69164	1.97	0.082	*Accepted*
4	Equipment	1(d)	2.5350	.67903	0.89	0.15	*Accepted*
5	Environment	1(e)	2.5450	.73531	2.88	0.058	*Accepted*
6	Engagement	1(f)	4.5550	.62363	103.294	0.000	Rejected
7	Content	1(g)	3.7450	.65737	80.567	0.000	Rejected
8	Qualification	1(j)	2.5300	.81389	43.961	0.004	Rejected
9	Supportive	1(k)	4.6900	.46365	143.052	0.000	Rejected
10	Comprehension	1(l)	4.6150	.48782	133.792	0.000	Rejected
11	Competency	1(m)	4.6150	.48782	121.536	0.000	Rejected
12	Confidence	1(n)	3.8850	.96250	57.083	0.000	Rejected
13	Evaluation	1(o)	2.4700	1.00206	2.54	0.08	*Accepted*

It was observed that hypotheses 1(b) concerning no convenient schedule of the training program (sig. = .061 with t=1.57), 1(c) lack of training material (sig. = .082 with t=1.97), 1(d) insufficiency of training equipment (sig. = 0.15 with t=0.89), 1(e) poor training environment (sig. = 0.058 with t=2.88), and 1(o) no post training evaluation (sig. = 0.08 with t=2.54) were accepted. It can be argued that the sample RMG factories do not arrange the training programs at workers' convenience even though the training programs are conducted regularly. Effective scheduling is very challenging for the Human Resource Department (HRD) of the RMGs as they need to set the time in coordination with the Production departments (PD).

Moreover, the PD always remains strict with their master schedule to maintain the lead time and timely delivery. As a result, workers are not allowed to participate in the trainings during the office hours and in most of the factories it has become a bad practice to conduct H&S trainings on late hours. To surmount this situation, best HR practicing RMG factories play video tutorial in wide screen displays at lunch time and provide supplementary financial and nonfinancial incentives i.e. refreshments, training & transport allowance for additional office hours. For the sustainability of the business, top management may consider this issue as stated by experts of this industry.

Sample RMG factories also lack sufficient materials, modern equipment, and favorable environment for effective H&S training. Most of these factories do not have multimedia enabled training facilities, separate training room, whereas in many factories the training rooms are small and confined. During the survey it was observed that few of these factories did not have sufficient seating arrangements. In most cases, it was found that the instructor-trainee ratio was not maintained. To make the trainings effective, factories need to take assistance from the local civil defense authorities and conduct training minimum twice a year as stated in Bangladesh Labor Law 2016. But again it is a concern of top management to work on this practice as stated by the experts and civil defense authorities.

Post training evaluation is another prime concern as stated in literature (Burke et al., 2011). Our sample factories were found to be reluctant in this important aspect as revealed in the results (mean is 2.47). According to the experts, systematic post training review is very rare in this sector. Opinions of the workers are mostly taken through qualitative interview, and thus there is lack of opinion survey on H&S training. Almost no practice of debriefing and future action plan is made.

Our result reveled that 'supportive behavior of the trainer' has got maximum positive response (mean is 4.69) from the respondents. This result confirms that trainers were supportive to the workers at the time of training. During the survey most of the respondents said that the trainers from the civil defense authority are cooperative and enthusiastic to help learning H&S issues. Experts' opinion in this regard was similar and they suggested engaging civil defense personnel in internal training programs as they are well trained and highly experienced. Retired civil defense officers may be hired as consultant, trainer or safety officer to make the H&S training more effective.

This result is linked to the higher mean values of the items namely comprehension (4.61), competency (4.61), and engagement (4.55). It is obvious that and efficient trainer can assist in better understanding of the lessons, transfer of knowledge, and expertise to make the trainees skilled and create an enthusiastic learning environment through active engagement. At the time of training, organizational citizenship behavior and workplace leadership should be developed so that workers can retain the effect of active engagement not only at the time of training but also at work and daily life. Workers should be taught to volunteer in transferring the availed knowledge to their colleagues and the society at large. H&S in not only an industrial concern in Bangladesh rather society should be dynamic in this regard. To engage the workers with learning objective and learning outcome, popular instructional methods like role playing, job instruction training, and group discussion can be more effective.

The result also found moderate effectiveness of three variables i.e. 'confidence level of the workers after the training (3.88)', 'lesson content of the training curriculum (3.74)', and 'regularity of the H&S training program (3.68)'. During the survey some respondents have shown positive energy on their confidence over handling adverse situation. Members of the rescue team said that they are confident to fight the fire, capable of operating fire-fighting equipment, and their notion is clear about the standard operating procedures of fire-fighting. They are also concerned about their personal and family health issues. Respondents said that lesson contents of the training curriculum are rich and composed of native language for better understanding and easy assimilation.

Our results provide an indication to less effective issues such as 'training environment (2.54)', 'training equipment(2.3550)', 'qualification of the trainers (2.53)', 'post training evaluation (2.47)', 'training material (2.34)', and 'convenient training schedule (2.33)'. As stated before, most of the factories are not facilitating a better training environment because of insufficient training budget and limitation of physical space. Besides, enabling a physical training environment, top management must develop policy to promote helpful learning culture. Inadequacy of sophisticated training equipment and materials are common in most of the factories outside the EPZ as stated by the experts. Experts also questioned the qualification of in-house trainers as most of them do not have sufficient academic and professional background to be an H&S trainer.

Qualified and experienced in-house trainers should be hired and members of the training departments should be sent for advanced H&S training so that they could come up with innovative training strategies and instructional methods as per organizational requirements.

With respect to common practice of post training evaluation, the compliance auditors evaluates on the learning of the workers through random qualitative interviews. However, according to OSHA (2003) training manual, all the factors of post training evaluation (Table 1) should be considered and factories should administer questionnaire survey on the participants for authentic feedback and transparent review.

Kirkpatrick & Kirkpatrick (2006) model of evaluating training program is suggested in this regard. Experts have advised to develop an effective implementation plan on post training evaluation as in most cases people get confused about what to do after the training program. Appropriate skill of the evaluator is also a vital aspect of post training evaluation. The item with least mean value is 'convenient training schedule (2.33)'. Training scheduled should be aligned with the master production schedule at the beginning of the year so that it does not hamper daily production schedule and disturbs the leisure& personal time of the workers.

7. CONCLUSION AND FUTURE RESEARCH POTENTIALS

According to Textile Today (2018) RMG industry of Bangladesh has reached at the pinnacle of success in terms of capabilities and competitiveness amongst all the garments manufacturing countries of the world. To maintain this insignia of achievement we must standardize all spheres of its operational requirements with special reference to H&S initiatives. This study, considering the quantitative data as well as qualitative comments of the H&S training beneficiaries (the RMG workers), identified the degree of effectiveness of the stated program in Bangladeshi RMG sector. As the available studies are mostly qualitative in nature, this quantitative study based on a large sample size can be considered as a pioneer attempt in Bangladesh.

The results of the study revealed a significant improvement in the area of workers' competency development through effective engagement and regularity of H&S training. It was found that the trainers of H&S training are very supportive which motivated the participants to involve in the process. Respondents found the trainers competent too; which is a prime reason to make the training sessions more effective. However, it was observed that participants are not satisfied with the training schedule, equipment used in the process, and materials covered. Top management should ensure convenience of the workers through effective scheduling that promotes effective learning environment. A nominal financial incentive with a better training environment can make the sessions more useful to the workers. Government and international bodies may help in financing the training programs. It is equally important to ensure that the trainers are up to date about the training materials.

The findings of this study can be beneficial to different stakeholders of RMG sector of Bangladesh. First, this research work can be used as a benchmark by the decision making authorities (especially RMG factory owners) to formulate policies regarding H&S training program in the RMGs of Bangladesh. Second, regulatory bodies (especially government agencies) can identify those aspects of H&S training where they can contribute more for further improvement of the sessions. Third, from the results of the study, the supporting authorities (the international organizations such as ILO) can explore the degree to which their training materials are up to date and what else can be done to enhance the effectiveness of the training programs.

For instance, a benchmark value for each determinant of the H&S training can be set. And the supporting authorities with the help of government can monitor the status of individual RMG factories in fulfilling that benchmark value. Finally, the recommendations provided in this study can also play a vital role in bringing a positive change in the manufacturing sectors of the world. It is worth mentioning that Bangladesh has achieved the status of developing nation in recent times and we should not take much time in conceptualizing the context, concepts, principles, and practices of H&S training to sustain this precious achievement.

The scope of this research work was limited to the RMGs operating in non EPZ areas of Chittagong. This study didn't consider the management employees as samples. Future researchers may apply the method used in this paper to explore the degree of effectiveness of H&S training in other sectors or RMGs in other developing countries. A cross-country comparative analysis on the degree of fulfillment of the said determinants of H&S training can be of interest to the readers and policy makers. This research work may also open the window for comprehensive study on H&S training through rigorous investigation of the empirical validity of the variables at a large scale in RMG and other sectors of economic preference.

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BIOGRAPHY

Mr. Kazi Nazmul Huda is a passionate researcher and instructor of Human Resource Management who has a rigorous experience of conducting more than 30 courses in Marketing and Management discipline in Undergraduate and Graduate level. At present, he has been working as an Associate Professor in the Department of Business Administration, Southern University Bangladesh. More than 40 research papers of Mr. Huda have been published in reputed national and international journals. Mr. Huda is very much interested in participating various academic trainings and seminars. Mr. Huda is very much open minded and contributive to academic arena. He can be reached at
knhuda@yahoo.com.

Mr. Rashed Mahmud Shakil, is a lecturer in the Faculty of Business Administration, BGC Trust University Bangladesh. He has been pursuing Master of Philosophy at University Technology Malaysia. His area of research is primarily concentrated in Human Resource Development and Human Resource Competency. He can be reached at rs.shakil1310@gmail.com.

Dr. Mohammad Sirajul Islam is an Assistant Professor in the Department of Business Administration, Southern University Bangladesh. He obtained his Ph.D. degree from the University of Dhaka. He has been awarded for his distinguished research works. Dr. Islam is very keen to empirical research work. Numbers of his research papers published in both national and international journals. Many of his research papers are paid tribute for methodological genre and sited in further undertaken research. Dr. Islam is very devoted to his activities in a view contributing the arena of knowledge. His core area of research is marketing and sustainable business development.
He can be reached at sirajulislam@southern.edu.bd