Worker Satisfaction in Health, Hygiene and Safety Measures Undertaken by the Readymade Garments Industry of Bangladesh: A Case Study on Gazipur

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ABSTRACT

Purpose: The main purpose of the study is to explore the effects of health, hygiene and safety measures on worker satisfaction in readymade garments sector in Gazipur district of Bangladesh.

Methodology: Based on review of literatures and collection of 260 usable responses the study is conducted by partial least squares structural equation modeling (PLS-SEM) method using Smart PLS 3.0.

Findings: The findings of the study have revealed that health and hygiene measures significantly influence workers’ satisfaction towards readymade garments sector in Bangladesh. However, the study results show that safety measures insignificantly influence the workers’ satisfaction towards garment Sector in Bangladesh.

Practical implications: The study might be useful for garment industry operators in formulating strategies of improving health and Hygiene measures, and safety measures to improve workers' satisfaction in garment sector in Bangladesh.

Originality: The study has uniquely presented a case comprising the factors helping devising a strategy for industry professionals through measuring the integrated effects of health, hygiene and safety measures on workers’ satisfaction of readymade garment sector in Bangladesh.

1. Introduction

The lion’s share of foreign currency is gained through the RMG sector (around 81.32% of total export earnings), which influences the economy of Bangladesh. Moreover, it greatly
reduces unemployment, especially for women living hand to mouth and the country's GDP (Hossan, 2019). Bangladesh garment industry workers do not enjoy a significant level of benefits and facilities. A study by Kamal et al. (2010) shows that some important factors like wage rate are very low as well as the environment, the relationship between superiors and subordinates, job security, safety, health and hygiene facilities, leave policy, recognition and reward, medical facilities and so on are not available in the satisfactory level in the RMG sector of Bangladesh. Because of health hazards in the working environment, professional ailments need to be encouraged. Besides, it also seems to enrage subsisting non-occupational ill-health or medical conditions. On the other hand, various working methods and manufacturing systems are mechanized and set for many factories in a way where workers are treated as the tools of production without evaluating the risky health and lives of the front liners (Ahmed et al., 2020).

Implementing significant rules for occupational health and safety hygiene issues prolongs the working environment, which may turn into a productive economy. In addition, if poor workers work in hazardous environments, there will be no chance of a healthy and sound economy, excellence in products and services and sustainable economies (Solomon et al., 2012). Due to insufficient and ineffective government policies, many workers often go on strike, achieving their numerous wants and rights, including bonuses, overtime, salary and various issues which seem to raise conflicts between workers and the owner of garment factories. Workers want job satisfaction (M. Islam et al., 2016), which depends on essential factors like an in-depth relationship with co-workers and supervisors, their needs and objectives, pay structures, working conditions and finally some other environment highly linked with performing their job. In today’s highly competitive market, many organizations have started to realize the significance of job satisfaction among their staff because motivated workers seem to keep the business running in critical situations and enhance customer loyalty to organizations (Farhana et al., 2015).

Moreover, dissatisfied workers arise new problems among their workmates, which can be used by their competitors as a strategic technique to formulate their new unique strategies. Moreover, in our garment industry, artificial lighting produces an unbearable hot working environment that turns into an uncomfortable climate. There are not enough emergency exits for their workers, and factories do not consider the heights, depth, equipment, volume and good systems essential for sustainable economic and social development (Kamal et al., 2010).

However, limited research has focused on factors influencing employee satisfaction in the readymade garment sector. Therefore, the study attempts to investigate the important and liable factors for employees’ pride in the readymade garment sector.

The study will contribute to academics, policymakers, and garment industrialists by revealing the significant factors influencing employees’ satisfaction with the readymade garment sector in Bangladesh.
1.1 Objectives of the study

The prime objective of this study is to explore the effects of health, hygiene and safety measures on workers’ satisfaction in readymade garment sector at Gazipur district in Bangladesh. Nevertheless, the study has the following specific objectives:

i. Exploring the issues related to health and hygiene measurement in the study area.

ii. Understanding the factors of safety measures in the study area.

2. Literature review

Job satisfaction combines psychological, psychological and environmental circumstances (Akinwale & George, 2020). However, this is not a perfect definition of job satisfaction because it only points out various situations that help enhance workers’ job satisfaction. Judge et al. (2020) mentioned job satisfaction as an employee’s judgment. It means an employee justified his job satisfaction by comparing it with his various purposes. Moreover, Pfister et al. (2020) defined job satisfaction as a pleasurable emotional state that comes from the perception of one’s job values. Therefore, when a person receives important job values, the parson endeavors to well-match them with their needs. There is a relationship between what one expects and obtains from one’s job because this brings the level of employees’ job satisfaction and dissatisfaction. Then, employees get ready to contribute to their organization.

The New Bangladesh Labor Act 2006 has revoked 27 existing laws, including the payment Act 1936, the Factories Act 1965, the Shops and Establishment Act 1965, the Maternity Benefit Act 1939, the Employment of Labor Act 1965 and so on (Kamal et al., 2010). For this study, from Bangladesh Labor Act, 2006, the following major factors are taken into consideration: (a) Safety and Health: The Act (Section 61-72, Bangladesh Labor Act, 2006) describes the safety of building and machinery, fencing of machinery, precaution in case of fire, work on or near machinery in motion, hoists and lifts, cranes and other lifting machinery, stairs, floors, and means of access, etc. (b) Health and Hygiene: it includes the terms and conditions of cleanliness, temperature and ventilation, dust and fumes, lighting, disposal of effluents and waste, drinking water, lavatories, overcrowding, urinals, and so on. (Section 51-59, Bangladesh labor Act 2006).

Slaper & Hall (2011) suggest employee welfare falls into the Triple Bottom Line theory of business. Economic and environment lead to the sustainability of the company. Even the stakeholder theory of business (Phillips, 2003) defines managers as emphasizing stakeholders’ interests such as employees’ welfare instead of only maximizing the shareholders’ profits. It is also suggested that employee welfare is an integral part of social welfare, which refers to the well-being of the human resources of an organization (Hasan, Shakib, et al., 2022). This process increases employees' satisfaction and motivates them to work hard for their organization. A study on Australian companies found that employee welfare includes the development of employees' personal and social life-standard and
working conditions. Employee welfare creates a sense of self-satisfaction among workers, contributing to the improvement of the organization’s performance and sustainability (Gadenne et al., 2012; Hasan & Sabbir, 2020). According to (Patro, 2012), there are two kinds of Employee welfare facilities. The facilities offered to the workers inside the factory are called intra-mural facilities. They include enough lighting conditions, a first-aid facility, a good layout of the plant and machinery, a covering of the machine, and so on.

On the other hand, when an organization offers facilities to the workers outside the factory is called extra-mural facilities. Housing accommodation, indoor and outdoor sports, and educational facilities are some examples of extra-mural facilities. ILO (2015) observed in Bangladesh that the development of the RMG sector is hindered by frequent accidents and insufficient safety facilities. Therefore, this sector falls in high risk with 5000 factories and around 3.6 million of workers out of a workforce of over 75 million (Alama et al., 2020).

2.1 Health and hygiene measures in the RMG sector of Bangladesh

Employee welfare enormously contributes to the mindset of employees (Johnston & Kong, 2011; Hasan & Hasan, 2019). From a comprehensive and holistic point of view, employees do not always see the workplace as just money earning. Employee welfare means maintaining a safe and sound working environment, which generates a sense of ownership among employees for their company (Carnevale & Hatak, 2020; Hasan, 2018). This helps the company build stable productivity, economic development and sustainability. Similarly, Obrenovic et al. (2020) and Hasan et al. (2021) also explain that employee welfare helps create a positive correlation between mental and physical health of employees, which greatly contributes to improving productivity, efficiency and sustainability of a business. Similarly, the study of (Ma & Park, 2021) observes a positive relationship between workplace environment and corporate sustainability. Contradictorily, Thomas et al. (2021) and Hasan et al. (2022) claim that a business’s sustainability is not completely dependent on employee welfare. This is because; there are some other issues like financial matters and competitive business advantages to run a business efficiently.

A study explained that 18% of industrial machines are in excellent condition, 56% are in good condition, and 17% are simply acceptable (Alam et al., 2004). However, 5% are found in bad situations. The majority of respondents feel that they have adequate working space. However, 23% of workers find the area surrounding the machines insufficient. According to disturbance from the temperature and noise study, it has been shown that 14% of workers think that noise is high; however, 56% think it is medium, and the rest, 30%, found it low. Regarding thread and dust, 83% of garment workers think these can cause them health hazards. Besides, the overall cleanliness of the garment factory is found to be moderate. In addition, in the case of personal hygiene issues, it has been found that 47% of workers are working in insufficient light and air environment (Mahmud et al., 2018).
2.2 Safety measures in the RMG sector of Bangladesh

Female garment workers in Bangladesh face different types of security problems in the workplace. These problems include harassment at the workplace, accidents, injuries, appointments, promotion and dismissal rules and job security (Mahmud et al., 2018; Hasan et al., 2020). According to garment workers, workplace security is a crucial issue. There are two types of accidents and injuries such as external (fire) and internal (personal injuries). Minor injuries are highly common in their working place. It has been found that most factories do not have a proper plan and suitable location for manufacturing plants (Alam et al., 2004). They don't have anti-fire measures for emergencies and wide passages that workers can use to come out easily at an emergency moment. This is why factory workers remain vulnerable to fire accidents (Rakib & Adnan, 2015). On the other hand, internal incidents include finger pricking, cuts, falling with a bad headache and so on. 74% of respondents mentioned that finger pricking and finger cutting are common incidents at their workstation (M. Hasan & Mahmud, 2017). A few workers, around 7%, face high pressure at work and fall with severe headaches because they had to finish production targets within an estimated time. Moreover, in serious accidents, employers do not provide enough treatment and compensation (Rakib & Adnan, 2015).

Moreover, women workers are often harassed by their supervisors, managers, and owners of the garment industry. The nature of harassment includes scolding with rude behavior, teasing, pronouncing sexual words etc. According to a study, 57% of female workers find work-related harassment (Paul-Majumder & Begum, 2000). Jobs in the garment sector are highly vulnerable, insecure, and fragile because there are no structured rules to appoint, promote, and dismiss employees from a factory. As a result, the garment owners have full liberty (Farhana et al., 2015). Most garment organizations do not have proper training or skill development programs for their employees. A study observed that 44% of garment workers are losing their job because they lack the negotiating power with garment workers and the absence of a distinct work policy between the company and the government. There are no protection measures from the garment company for their employees during physical injury. 68% of workers found no first aid facilities in their factory. In terms of insurance protection, 98% of respondents found it absent in their establishment. Regarding maternity and other leaves, workers do not have enough facilities. A study explained that 65% of female workers are deprived of maternity leave, and 58% of workforce do not receive their sick days (Farhana et al., 2015).

2.3 The relation between health and hygiene measures and workers' job satisfaction

A study explored the fact that many business leaders do not comprehend the significance of the working conditions and environment for enhancing the job satisfaction of their laborers. As a result, the organization falls into difficult situations during their work, and they become internally weak for which they are incapable of introducing innovative items into the marketplace to outperform their competitors (Alauddin et al., 2019; Biswas et al., 2020).
Moreover, Henry Gaziel (1986) and Hasan (2021) divided job-related factors into two categories such as hygiene factors and motivation factors. The Hygiene factors turn dissatisfaction into no dissatisfaction or work as short-term motivation, so this factor cannot bring satisfaction. On the other hand, motivation factors fetch positive spirits towards a job and alter no dissatisfaction to satisfaction, which has a lifelong consequence. Working conditions, company policy and administration, supervision quality and level, job security, salary, etc., are hygiene factors. Therefore, in their absence, the number of dissatisfied employees increases. It is highly important for companies to optimize working circumstances because employees spend most of the time in their working conditions. The working environment and several psychosocial variables, such as social support, the behavior of supervisors, and job security, greatly impact job satisfaction. The growth of reward cannot certainly recover the dissatisfaction level of workers (Sell & Cleal, 2011). Therefore, it was hypothesized that:

\[ H_1: \text{Health and hygiene measures significantly positively influence worker satisfaction in the RMG industry of Bangladesh.} \]

The relation between safety measures and workers’ job satisfaction

Job satisfaction means the satisfaction employees feel with their job; sometimes, this satisfaction level goes beyond their daily duties, and their job impacts their personal life (Dziuba et al., 2020). The factors, which include compensation, job security, promotion, workplace environment, training and development, transport facilities, and behavior of administrators and supervisors, greatly impact a person's job satisfaction. Because of unemployment and the destabilization of the economy in developing countries, people cannot think from their brains. As a result, their job satisfaction only depends on earning a handsome salary and promotion (Malik et al., 2012). Besides, compensation is also essential to determine the job satisfaction level of workers. Different authors explain compensation in various ways. Compensation is a vital part of Human Resource Management (HRM). This approach is applied to improve the productivity of the worker. When an organization's effective compensation system is designed, implemented and maintained, it accelerates the overall performance of individuals, teams and organizations. This is also applied to reduce the turnover rate (Fang et al., 2010). Salary is another factor which motivates workers and creates job satisfaction. Therefore, they feel highly committed to their organization when they get a handsome salary. Besides, it helps to enhance the retention and attraction of employees (Jiang & Iles, 2011). If employees have the opportunity to move up to the top-most ranks in the company, they feel more satisfied.

Along with that, employees are more satisfied when they are given more responsibilities and higher compensation. As a result, there is a association between employee behavior and job satisfaction (De Vito et al., 2018). Many research works have been studied on the job satisfaction of workforces. However, few studies have been done specifically on worker satisfaction of the RMG industry of Bangladesh in health, hygiene and safety measures. Thus, the study proposes the following hypothesis.
H2: Safety measures significantly positively influence worker satisfaction in the Readymade garment industry of Bangladesh.

3. Research design and methods

This paper aims to measure worker satisfaction regarding health, hygiene, and safety measures in the RMG sector of Gazipur district in Bangladesh. The study follows descriptive research method and data collected to fulfill the purpose through qualitative and quantitative method.

3.1 Sources & collection of data

There are two data collection methods; primary and secondary. For this study, we applied both methods. To collect preliminary data from workers, a structured questionnaire is designed on a five-point Likert scale ranging from strongly agree (5) to strongly disagree (1) to answer the main research question. Additionally, secondary data is collected from different published materials like journals, newspapers and books.

3.2 Sampling technique, sample size and data analysis

Data is collected from 260 respondents of 8 garment factories in Tongi thana of Gazipur in Bangladesh. Of these eight factories, five are from Gazipur and the rest three are from Tongi. Among 270 respondents, 120 female workers and 140 male workers aged from 20 to 40. We collected 170 data from Gazipur Sadar and 90 from Tongi thana of Gazipur. Due to some problem in response, 10 data is not added, and 260 responses are analyzed through smart pls 3.0.
4. Results

4.1 Evaluation of Measurement Model

A measurement model, which is revealed in Table 1, is examined through its internal reliability (Cronbach’s alpha and composite reliability), convergent validity (average variance extracted and item loading), and discriminant validity (square root of the AVE and cross-loading). It has been found that the threshold value of internal reliability is above 0.70 for both Cronbach’s alpha and composite reliability in this study (Nunnally, 1994). We evaluated the convergent validity of this study with an AVE between 0.530 and 0.730, as well as item loading between 0.528 and 0.938. In addition, as the diagonal elements are greater than the entries in the corresponding rows and columns, we had discriminant validity. The discriminant validity results are given in Table 2.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Items</th>
<th>Loadings</th>
<th>C.R</th>
<th>Cronbach's Alpha</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Satisfaction</strong></td>
<td>SAT1</td>
<td>0.351</td>
<td>0.748</td>
<td>0.523</td>
<td>0.473</td>
</tr>
<tr>
<td></td>
<td>SAT2</td>
<td>0.331</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SAT3</td>
<td>0.883</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SAT4</td>
<td>0.937</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Health and Hygiene Measures</strong></td>
<td>HH1</td>
<td>0.601</td>
<td>0.849</td>
<td>0.804</td>
<td>0.430</td>
</tr>
<tr>
<td></td>
<td>HH2</td>
<td>0.264</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HH3</td>
<td>0.819</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HH4</td>
<td>0.847</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HH5</td>
<td>0.605</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HH6</td>
<td>0.665</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HH7</td>
<td>0.690</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HH8</td>
<td>0.583</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Safety Measures</strong></td>
<td>SF1</td>
<td>0.596</td>
<td>0.415</td>
<td>0.574</td>
<td>0.207</td>
</tr>
<tr>
<td></td>
<td>SF2</td>
<td>-0.087</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SF3</td>
<td>-0.245</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SF4</td>
<td>0.177</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SF5</td>
<td>0.191</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SF6</td>
<td>0.819</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SF7</td>
<td>0.534</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Here, AVE= Average Variance Extracted, CR= Composite Reliability
Table 2: Correlation matrix and square root of the AVE (Latent Variable Correlations)

<table>
<thead>
<tr>
<th></th>
<th>Health and Hygiene Measures</th>
<th>Safety Measures</th>
<th>Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health and Hygiene Measures</td>
<td>0.656</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety Measures</td>
<td>0.817</td>
<td>0.455</td>
<td></td>
</tr>
<tr>
<td>Satisfaction</td>
<td>0.911</td>
<td>0.637</td>
<td>0.688</td>
</tr>
</tbody>
</table>

4.2 Hypotheses Testing

In this research model, we apply the structured model to determine the relationship among the constructs. We assess the relationship between independent and dependent variables through the path coefficient (β) as well as t- statistics. Table 3 represents the PLS results of the structured model for this study indicating the relationship between HH and satisfaction (SAT) (t = 6.750, β = 1.104, p <0.05), SF and SAT (t = 1.551, β = -0.234, p < 0.05). So H1 is significant and accepted in the current study; however, H2 is rejected because it is not significant. In this research, we use the structural model shown below in table 3:

Table 3: Structural model

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>(β)</th>
<th>t- statistics</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>HH -&gt; SAT</td>
<td>1.104</td>
<td>6.750</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2</td>
<td>SF -&gt; SAT</td>
<td>-0.234</td>
<td>1.551</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

5. Discussion

There are five important factors considered through the factor analysis of this study. However, to improve the workers' job satisfaction, all the factors are not crucial similarly. A survey by Islam (2019) explained that workers' satisfaction in the RMG sector is not only dependent on financial factors like salary, bonuses, and incentives but also on non-financial factors such as job security, training, the behavior of supervisors, working conditions, and so on. Another study also explored the relationship between workers and supervisors, existing pay structure, category of work, as well as opportunity for promotion straightly impact on the job satisfaction of workers (McPhail et al., 2015). Therefore, by comparing this study with the previous research, it has been observed that some of the most influential factors like salary, work and personal life, benefits, and the behaviour of supervisors for the satisfaction of workers. Contradictorily, working environment and conditions do not play a crucial role in increasing worker job satisfaction in Bangladesh's RMG sector.

6. Conclusion, Implications and Recommendations

Most of the workers in this developing country, Bangladesh, are illiterate and have poor knowledge about comparing their working conditions with the workers of developed countries. As a result, basic salaries as well as benefits are their major concerns. The benefits
and salary are not enough for the workers of the developing countries, and on-time payment of salary is also an alarming issue. The workers who came from the countryside to the metropolitan area to change their fate by managing a job cannot always survive in the city because the salary they earn is not enough always. As a result, the garment industry workers in Bangladesh look for handsome salaries and benefits.

Along with that, the supervisors’ behavior directly impacts the job satisfaction of workers because they work under the supervision of the supervisor. This is why, when they feel well behavior by their supervisors. Moreover, they feel stress-free with their job as well as become highly contented at their workplace. To enhance the job satisfaction level of the RMG workforces of Bangladesh, there needs to have a proper balance between personal and work life. Therefore, a study (McPhail et al., 2015) explores that if workers feel happy in their personal life, they also enjoy their working life and become satisfied with their jobs. However, this study observes that the workers of the RMG industry in Bangladesh are not concerned about their working conditions and working environment. Rather, their main focus is on their salary, which brings job satisfaction for them. It has also been suggested in this study that the workers who are paid by sufficient salary and enjoy some facilities such as medical, first-aid, maternity, sick leave, paid vacation, and so on are highly satisfied with their jobs. Finally, to accelerate the job satisfaction of the garment employees of Bangladesh, there needs to be a good relationship with their supervisors and colleagues.

6.1 Limitations and future research directions

All the factors of this study are identified based on the job satisfaction of the lower-level workers because it only focuses on the job satisfaction of the RMG workforces of Bangladesh. Moreover, in this study, job security and the external environment are not examined with job satisfaction. This is why there are huge facilities to perform the further survey by considering various variables such as job security as well as the exterior environment of RMG workforces in Bangladesh to achieve accurate job satisfaction results.

6.2 Acknowledgement:

We are grateful to Dr. Md. Akram Hossain, Professor, Department of Management Information Systems (MIS), Faculty of Business Studies, University of Dhaka, Dhaka, Bangladesh, for providing proper guidelines in this research.

6.3 Conflict of Interest

We declared that we don’t have any conflict of interest.

References


