

**Labour Market and Skill Gap Analysis for Readymade
Garment Industry in Bangladesh:
Findings from Enterprise and Employee Surveys**

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Table of Contents

| | |
|---|----|
| Executive Summary..... | vi |
| Chapter 1..... | 1 |
| Introduction | 1 |
| 1.1 The Context..... | 1 |
| 1.2 Review of Literature..... | 3 |
| 1.3 Chapter Outline..... | 5 |
| Chapter 2..... | 7 |
| Objectives, Scope, and Methodological Framework | 7 |
| 2.1 Objectives and Scope of the Study | 7 |
| 2.2 Research Design | 8 |
| 2.3 Sample Size Determination..... | 8 |
| 2.3.1 Sample Selection..... | 8 |
| 2.3.2 Survey design | 10 |
| Chapter 3..... | 11 |
| Bangladesh RMG Industry and Technological Changes..... | 11 |
| 3.1 Brief Overview of Bangladesh RMG Industry..... | 11 |
| 3.1.1 RMG Export from Bangladesh..... | 11 |
| 3.1.2 Major RMG Products..... | 13 |
| 3.1.3 Export Destinations of RMG Products | 14 |
| 3.2 Technological changes in RMG Industry: Challenges Posed by the 4IR..... | 14 |
| 3.3 Skill Needs in RMG Industry and SEIP | 15 |
| Chapter 4..... | 17 |
| Enterprise Survey: Features of the Surveyed Firms..... | 17 |
| 4.1 General Features of the Surveyed RMG Firms..... | 17 |
| Chapter 5..... | 22 |
| Enterprise survey: Understanding Employment and Skills in the RMG Industry of Bangladesh..... | 22 |
| 5.1 Distribution of Occupation among Different Grades of the Industry | 22 |
| 5.2 Occupation and Gender Composition of Employment..... | 25 |
| 5.3 Occupation and Gender Disaggregated Wages and other Benefits to the RMG Employees | 27 |

| | |
|---|----|
| 5.3.1 Occupation and Gender Disaggregated Wage of the RMG Employees..... | 27 |
| 5.3.2 Occupation and Gender Disaggregated ‘Other Benefits’ Provided to the RMG Employees | 27 |
| 5.4 Recruitment Process in the RMG Industries..... | 28 |
| 5.5 Employees’ Desired and Actual Qualifications | 29 |
| 5.6 Existing Skills in the Employees of the RMG Industry..... | 29 |
| Chapter 6..... | 32 |
| Enterprise Survey: Employers’ Perspectives on Skills in the RMG Industry | 32 |
| 6.1 Analyzing the Skill Shortage-Evidence from Empirical Survey..... | 32 |
| 6.1.1 Prevalence of skill shortage | 32 |
| 6.1.2 Causes of hard-to-fill vacancies | 32 |
| 6.1.3 Impacts of skill shortage | 34 |
| 6.2 Analyzing the Skill Gap | 35 |
| 6.2.1 Prevalence of Skill Gap..... | 35 |
| 6.2.2 Reasons behind skill gap | 36 |
| Chapter 7..... | 37 |
| Enterprise Survey: Employers’ Perspective on Future Projection of Skills and Addressing the Skill Needs | 37 |
| 7.1 Future Labor Demand by Occupation in the RMG Industries..... | 37 |
| 7.2 Addressing Issues Related to Skill Shortage, Skill Gap and Future Skill Development | 39 |
| 7.2.1 Firms' Prerogative on Solving Issues related to Skill Shortage | 39 |
| 7.2.2 Firms Prerogative on Solving Issues related to Skill Gap | 40 |
| 7.2.3 Firms Prerogative on Future Training Needs | 42 |
| Chapter 8..... | 45 |
| Employee Survey: Perspectives on Skills in the RMG Industry | 45 |
| 8.1 Characteristics of the Participants | 45 |
| 8.2 Profession Characteristics of Workers | 46 |
| 8.3 Perception of Demand for Training for Career Development | 47 |
| 8.4 Proficiency Level, Education and Benefit of Training | 49 |
| 8.5 Job Contract, Benefits and Opportunities..... | 52 |
| 8.6 Sickness, Absenteeism and Coping Strategies during COVID-19 among RMG Garment Workers ... | 55 |
| 8.7 Level of Satisfaction among Workers | 56 |
| Chapter 9..... | 60 |

| | |
|--|----|
| Concluding Remarks and Recommendations | 60 |
| References | 66 |
| Appendix | 68 |

List of Table

| | |
|--|----|
| Table 2. 1: Sample of the Survey | 9 |
| Table 3. 1: Top 10 (at the HS 6-Digit level) Bangladesh Knit and Woven RMG Items Exported to the World (Value in Million USD) | 13 |
| Table 4. 1: Location of the Factories | 17 |
| Table 4. 2: Basic Features of the Surveyed Firms | 18 |
| Table 4. 3: List of Most-Produced Knit and Woven Products in the Surveyed Firms..... | 21 |
| Table 5. 1: Occupation wise Highest Grade Match in the Knit and Woven Industries | 24 |
| Table 5. 2: Benefits to the RMG Employees | 28 |
| Table 5. 3: Existing Skill Levels in the RMG Industry..... | 30 |
| Table 6. 1: Causes of hard to fill vacancies | 33 |
| Table 6. 2: Impact of hard to fill vacancies..... | 34 |
| Table 7. 1: Addressing Skill Shortage in the Industry | 40 |
| Table 7. 2: Addressing Skill Gap in the Industry..... | 41 |
| Table 7. 3: Minimizing Skill Gap through Training and Prior Qualifications of the Employees | 42 |
| Table 7. 4: Training by the Enterprises and TVET Knowledge | 42 |
| Table 7. 5: Training needs of the Employees: Employer’s Perspective..... | 43 |
| Table 8. 1: Background characteristic of the study participants, (N=476) | 45 |
| Table 8. 2: Professional characteristic of the study participants across type of Garments, (N=476)..... | 47 |
| Table 8. 3: Demand for training for future role | 48 |
| Table 8. 4: Proficiency level, education, and benefit of training | 50 |
| Table 8. 5: Types of job contract, benefits and opportunities from their garments | 53 |
| Table 8. 6: Sickness, absent and coping strategies during COVID-19 among garments worker | 55 |
| Table 8. 7: Level of satisfaction across types of garments worker | 57 |

List of Figures

| | |
|--|----|
| Figure 3. 1: Strength of Bangladesh RMG Industry | 11 |
| Figure 3. 2: Trend of Contribution of RMG Industry to the Country’s Total Export..... | 12 |
| Figure 3. 4: Knit and Woven garment’ share of Contribution to the Country’s Total Export Earnings..... | 12 |
| Figure 3. 5: Annual RMG Exports of Bangladesh in Various Markets | 14 |
| Figure 4. 1: Occupation Categories in the RMG Industry | 19 |
| Figure 5. 1: Employees in Different Grades of Knit Garment Firms..... | 22 |
| Figure 5. 2: Employees in Different Grades of Woven Garment Firms | 23 |
| Figure 5. 3: Proficiency of Male Employees in RMG Industry | 31 |
| Figure 5. 4: Proficiency of Female Employees in RMG Industry | 31 |
| Figure 7. 1: Projected Direction of Labor Growth Changes in the Knit Industry | 37 |

Figure 7. 2: Projected Direction of Labor Growth Changes in the Woven Industry 38
Figure 7. 3: Present and Projected Employment in the Surveyed RMG Enterprises 39
Figure 7. 4: Employers' Willingness to Fund Trainings for Employees in Different Occupation Categories
..... 44

Executive Summary

Readymade Garment (RMG) is the largest export-oriented industry in Bangladesh. This industry contributes approximately 81.16% to the country's total export (BGMEA, 2021) employing more than 4 million people, a substantial proportion of the country's total labor force of 69 million (ILO, 2020). RMG industry's expansion has specifically contributed to a rise in women's employment, pushing Bangladesh's female labour force participation rate to 36.4 percent in 2017 from around 8 percent in the 1970s.

Low-cost labor is often considered to be the main competitive strength of Bangladesh's RMG industry, while the low productivity of workers raises questions about the real labour cost of production. Despite the remarkable growth achieved by the RMG industry over the past decades, fulfillment of Bangladesh's global commitment to attain the SGD goals, to be precise, the goals of "decent work and economic growth" and "industry innovation and infrastructure", is largely constrained by the shortage of professional and technical skills in this industry. Moreover, in the context of Bangladesh's graduation out of the Least Developed Country status, this industry needs to prepare to face the upcoming changes. In the post-Graduation world, competition will be higher and therefore the industry should take steps to improve efficiency further.

In Bangladesh, the RMG industry flourished with the abundance of locally sourced low-cost labor. However, the low skill of these workers will no longer be adequate to keep competitiveness. As Bangladesh is experiencing the golden period of demographic dividend, we need to make the best use of of the youths by providing them with adequate skills. Moreover, rapidly changing technology has already been posing challenges to this labour-intensive industry. If we can equip our workforce with the right skills, both technical and managerial as well as with soft skills, they will be able to cope with the new realities. Thus, there is an utmost need to design right kind of skills training programmes for the workers in the RMG industry.

The issue of skill enhancement in the RMG industry has received considerable attention in recent years. It is envisaged that developing skills of the existing manpower will increase productivity and improve the quality of products which is critical for enhancing competitiveness in the international market. However, initiating appropriate programmes for skill development involves looking into the existing skill sets, understanding the skill gaps and ways to minimize or address the gap while nourishing and increasing the multifaceted skill components. This study was initiated to understand skill gaps in the RMG industry of Bangladesh.

Objectives and Scope

The main objective of this study is to assess the skills demand and skills supply situation in the RMG industry of Bangladesh and forecast training requirements to minimise the gap. The study has discussed the existing occupational and gender composition in the RMG industry and skill gap in the major occupational categories and evaluate the capacity of the industry to ensure skill development across the major occupations. The analysis also includes a discussion on the types of skill training programs that can be institutionalized in this industry at large.

Research Design

This study has followed a mixed method approach i.e., a combination of quantitative and qualitative approach in collecting and analysis data. The survey was conducted on 119 of RMG factories, chosen by applying a stratified multistage sampling method considering their geographical location, nature, and size of factories. According to BGMEA, about 96 percent of the RMG factories are in four districts- Dhaka, Gazipur, Chattogram and Narayanganj and we kept our sample firms limited to those areas. The surveyed factories included 47 woven and 72 knit industries. Knit industries included sweater factories as well. The enterprise survey involved responses from the employer. To get the workers' perspective on skills need, a total of 476 workers were interviewed randomly selected from above mentioned 119 sample enterprises including at least 1 worker from each production unit of the enterprise (Cutting, Sewing, Finishing and Quality). Thus, responses from 476 (4*119) workers were analyzed for this study.

Characteristics of the Surveyed Firms

Most of the surveyed firms (knit and woven) were found to have private single ownership. After an initial discussion with several RMG enterprises, we divided the existing occupations into 10 major categories and then identified some sub-categories. This division allowed us to include all occupations from the woven and knit firms in the RMG industry of Bangladesh. The 10 broader categories include managers, management employees, cutting machine operators, sewing machine operators, finishing machine operators, fusing machine operators, printing machine operators, embroidery machine operators, quality controllers and others. Some of the categories were further divided. As we intended to focus more on the product categories, these sub-divisions allowed us to explore almost all possible jobs involved in the production process in most of the factories.

Many of the knit and woven firms produce multiple products. T-shirt is the highest produced good (31.84%) for the knit firms in our study followed by other knit products (14.61%), polo shirts (11.24%) and ladies' items (10.49%). For the surveyed woven firms Pant is the highest produced good (39.23%), followed by shirts (20.00%), other woven goods (16.15%) and jackets (10.77%).

Employment and Skills in the RMG Industry

There are seven skill-grades in the RMG industry starting from helpers (Grade-7) to management leaders (Grade 1). The female share of employment is higher than their male counterparts in most production categories, quality controllers and quality inspectors. The average age for managers and management employees is higher than that of the production and other employees.

The surveyed firms in our study did not report having any temporary or foreign employment in their factories. According to our sample data, the average working hours for managers, management employees and printing machine operators are 8 hours and each of the other employee categories has an average working hour of 9 hours.

For both the knit and woven industry, salaries and other conveniences paid to the employees differ for males and females. This is not because the wage rate for a particular position is different, rather payment differences arise mostly due to differences in the overtime earnings by male and female employees. There is no gender bias in general for recruiting employees (for 76.37% for knit and 77.65% for woven industry, the recruitment is free from gender bias).

There is a definite mismatch in the desired and actual educational qualifications for most of the employment categories in both knit and woven industries. For example, employers prefer master's degree holders for managerial posts but mostly they receive applications from bachelor graduates. Data shows that the interest of the employers mostly centers on public and private institute graduates for administrative and management level positions.

The quality of performance of male and female employees are evaluated using a scale of 1 to 10 considering three attributes- less proficient (score 1-3), moderately proficient (score 4-7) and very proficient (score 8-10). We find that 9.50% of the total employees in the RMG industry are less proficient, 22.86% of the employees are moderately proficient and 67.64% are highly proficient or very proficient in doing their jobs.

Skill Shortage and Skill Gap

Skill shortage refers to not having the required number of employees in the firms or having vacancies (meaning that the firm has the capacity to employ more people but is unable to do so due to shortage in supply of right quality job seekers) and skill gap refers to the lacking on part of the qualifications of the employees in effusively fulfilling their job responsibilities. The survey data reveal that skill shortages is minimum in the RMG factories. Enterprises reported to not having many difficulties in finding people for the vacancies in various occupational categories of knit and woven firms. Interestingly, while woven firms reported that they do not face any difficulties at all to fill up vacancies for printing machine operators and embroidery machine operators, for employers in knit industries, filling up vacancies for these two posts seem to be highest and most daunting. For most posts in both the knit and woven industries, most enterprises reported to fill up the vacancies in less than a week (78% in knit industry and 73% in woven industry).

The study reveals that 53.74% of the surveyed RMG enterprises face skill gaps in general. In terms of categories, skill gaps faced by enterprises are as follows: lockstitch machine operator (74.65% firms), flatlock machine operator (72.31% firms), overlock machine operator (66.99% firms), printing machine operator (66.67% firms), quality inspector (64.91% firms), chain stitch machine operator (63.48% firms), embroidery machine operator (62.50% firms), iron man/woman (60.3% firms), quality controller (57.23% firms) and feed of the arm machine operator (56.64% firms). In the broad category, most of the surveyed firms' responses indicated highest prevalence of skill gap in the sewing machine operator category along with quality category (both inspector and controller) and printing machine operator and embroidery machine operator categories.

Labor Growth in the RMG Industry

When the employers were asked about the direction of labor demand growth, they based their answers on 5 options including no growth in the labor demand, moderate growth, high growth, very high growth and negative growth. According to the survey data, labor growth in the knit industry would mostly be moderate (76% respondents/firms) in the next 5-10 years, followed by high labor growth projection by 12% of firms, negative growth projection by 6% of firms, no growth projection by 4% firms and very high growth projection by 2% firms. As this is a perception-based estimate, we can say that most knit firms expect to see moderate growth in the labor demand market. Labor growth projection by the woven garment firms indicates that like in the knit industry most firms expect moderate growth in the labor demand scenario (81%), followed by a projection of high growth by 11% firms, no growth by 5% firms and negative growth for 2% firms. To sum up, in the next 5-10 years, employers expect there to be a moderate increase in the demand for labor. As a whole industry, the future employment in this industry shows a steady upward trend.

Enterprises' prerogative on Solving Issues related to Skill Shortage, Skill gap and Future Needs of the Industry

Both for combatting skill shortage and skill gap, most enterprises are interested to increase salaries, increasing/ expanding training programs (e.g., even via partnerships with local or international consultants/training institutes), redefining the existing jobs in the industry, providing the existing workforce/employees with training opportunities etc. When asked about the training needs for the existing employees there were multiple opinions from the employers. We have collated all the training needs mentioned by them and clustered the training program into broad categories under each occupation. It is noted that training for overall skill development of all the employment categories is a major concern. Employers ascertain that basic employment training for all the employees at the entry-level is a must. Higher level training could be arranged for employees showing potential to learn those and keep working in the factory. Other than that, the need for safety and health-related training including emergency training in case of fire or any other accidents, first aid training and maternal health care training for all the employees have been highlighted.

Funding choices of training for the employers vary among different occupation categories of their employees. While none of the surveyed employees commented on funding any training for printing machine operators, none of them are willing to fund embroidery machine operator training either. This may be because the output of these machines depends on the functioning and designing ability of the machines, not the operators themselves. Fusing machine operators are the employees that employers are most enthusiastic about in terms of funding their training programme. Funding for training programmes for finishing operators, managers and quality inspectors holds the second, third and fourth appeal for the employers of this industry. It is also mentionable here that, other than training the fusing machine operators, more than 60% of the employees showed no interest at

all in funding for the training of the other employee categories i.e., more than 60% of them do not want to spend any amount for these employee categories.

Employee Skill and Satisfaction: findings from the employee survey

Out of the 476 surveyed workers, 42% belonged to medium firms while 34% and 24% of workers were from large and medium firms respectively. Most of the workers are young adults (82%) aged below 30 years and only 2% of the workers were aged 40 and above. The proportion of male and female workers are almost the same. It is noted that more than half of the workers completed secondary school level education (56%). The proportion of workers from Cutting Machine Operator, Sewing Machine Operator, Finishing Machine Operator, Quality Controller and Quality Inspector were 24%, 26%, 25%, 10% and 15%, respectively.

Around 45% of the small knit factories reported that they faced no skill-related difficulties while working in their workplace. However, almost half of the workers (48%) from large industries reported that they faced various difficulties to perform their work due to lack of training while it was 51% and 45% for medium and small industries respectively.

Almost all of the workers (93% and above) believed that training must need for the upcoming technological changes and also for future job progression. 35% and 29% of RMG workers of small garments considered formal education to be very important and important respectively, to perform their work proficiently and 20% of RMG workers denied the role of formal education at all. However, 71% of workers of medium garments recognized the role of formal education as important or very important. Similarly, around 69% of workers in large garments defined formal education as important or very important to perform work proficiently. About 65%, 54% and 51% RMG workers from small, medium and large garments respectively found off-the-job training to be very helpful to perform their jobs. However, more workers consider on-the-job training to be effective. Around 91%, 84% and 84% of garment workers from small, medium and large garments respectively found training arranged by the employer to be helpful or very helpful in performing their jobs.

About 35%, 37% and 29% of RMG workers from small, medium and large garments respectively thought to face no difficulties to find a similar job after leaving the present job. The remaining workers face difficulties to find a similar jobs.

Overall, 27%, 21% and 17% of large, small and medium-sized garment factory workers were dissatisfied with their job prospects/promotion/salary increase respectively.

Regarding the workplace safety/workplace environment, 79% of large knit garment workers showed their satisfaction with their workplace safety/workplace environment. Workers from Knit factories believed that the benefits that they received from their factories were better than any other similar firms. Overall, almost 87%, 78% and 81% of the large, medium and small garment workers shared a congenial relationship with their colleagues. Around 51% of medium-sized woven

garment factory workers didn't receive any rewards/appreciation for hard work whereas 34% of large knit garment workers reported that they get rewards/appreciation.

Job satisfaction is defined as the level of contentment employees feel with their job. Hence, we tried to find out the level of satisfaction of the workers regarding their current job. Workers who belonged to the small woven factories (19%) were relatively unsatisfied with those of the other factories. This study shows that approximately 36%, 25% and 33% of the workers from large, medium and small factories were satisfied with their current job. About 41% of medium-sized woven garment workers and 37% of small knit garment workers are strongly unsatisfied with their current job status.

Based on the analysis the study has made several recommendations to reduce the skill gap.

This study has revealed various gaps prevailing in the RMG industry of Bangladesh. We observe such gaps both in knit and woven RMG industries in general. However, gaps differ between different occupation categories. Therefore, future skill-enhancing programmes need to provide more attention to the occupations where the gap is higher. Indeed, the RMG industry is the lifeline of manufacturing employment and is a strong pillar of our economy. In a changing global economy with COVID-recovery challenges and changed world orders of the supply chain, we need to invest more substantially for enhancing the competitiveness of RMG employees at all levels. The SEIP programme of the government has played an accommodative role in designing and providing skill training to meet the needs of various sectors. In the next phase, it is expected that it will continue to do so.

Chapter 1

Introduction

1.1 The Context

Readymade Garment (RMG) is the largest export-oriented industry in Bangladesh. This industry contributes approximately 81.16% to the country's total export (BGMEA, 2021) employing more than 4 million people, a substantial proportion of the country's total labor force of 69 million (ILO, 2020). The growth of this industry is a key driver of the manufacturing sector growth of the country. The industry's expansion has specifically contributed to a rise in women's employment, pushing Bangladesh's female labour force participation rate up to 36.4 per cent in 2017 from around 8% in 1970s.

Low-cost labor is often considered to be the main competitive strength of Bangladesh's RMG industry, while the low productivity of workers raises questions about the real labour cost of production. Despite the growth made by Bangladesh in the RMG industry over the past decades, fulfillment of its global commitment to attain the SGD goals, to be precise, the goals of "decent work and economic growth" and "industry innovation and infrastructure", is severely constrained by the shortage of professional and technical skills in this industry. As we're graduating out of the Least Developed Country (LDC) list country in 2026, this industry needs to take preparation to face or to adjust the upcoming changes. In the fiscal year 1983-84, the RMG industry of Bangladesh had a percentage share of 3.89% of the total export of the country which rose to 75.61% during the fiscal year of 1999-2000 (BGMEA 2019a). RMG industry thus became a key factor of development. More specifically, since the beginning of the 1990's, the RMG industry started growing rapidly (BIDS Study Report 2017). In FY 2017-2018, Bangladesh's total GDP was TK 22,504,793 million whereas the RMG industry's contribution was TK 2,513,471 million (Dey 2019).

In Bangladesh, RMGs flourished with the abundance of locally sourced low-cost labor. However, this advantage will not prevail for long without their efficient enhancement with education or skill endowment. Bangladesh is now experiencing the golden period of demographic dividend (dominance of youths in total population), it would be dreadful if we cannot utilize the young population due to lack in skills. With increasing demand and industrialization, the labor-intensive industry, RMG, is likely to be watchful about coping with the moving economic environment. Regardless of a large pool of unemployed workers, recruiters fight to find skilled talent to fill their

vacant positions. Appropriate skills enable persons to contribute to countries economy and function in the workplace (Comyn and Sanchez 2015). On the contrary, a skill gap can be defined as a state of a fundamental mismatch between the skills that employers expect in their employees, and the skills that job seekers own. This incompatibility results in a challenging situation for the job seekers to find desired jobs and for the employers in recruiting suitable employees for them (Mann and Friday 2020). If an industry invests in enhancing the skills of its workers, it can reap the benefit of reduced recruitment costs and initial training costs, improved productivity of new workers, reduced labor turnover and improved industry planning (Comyn and Sanchez 2015).

Compared to some other competitor countries, the labor productivity of Bangladesh is said to be poorer (As-Saber S, Wilson B, Waheduzzaman W 2016). A significant number of foreigners are currently employed in the RMG industry where, at least 13% of factories hire skilled people sourced from India, Sri Lanka and other countries (The Daily Star 2019). The top management is recruited with different expertise and highly skilled professionals from neighboring countries at higher costs generating a sharp rise in the cost of production. Apart from the technical skills, soft skills (e.g. communication skills, accountability, leadership skill, work ethics, positive attitudes, self-motivation, the degree of collaboration, interpersonal skills, conflict resolution, negotiation skills etc.) are very low among our RMG employees (As-Saber S, Wilson B, Waheduzzaman W 2016). Supplying our workforce with the right skills, both technical and managerial as well as with soft skills, can largely prevent this and also create more job opportunities for local people. Indeed, there is an utmost need for skilled workers in the RMG industry. Inefficiency and relatively more expensive apparel products are the results of unskilled labor presence in the garment factories (As-Saber S, Wilson B, Waheduzzaman W 2016).

A report published in 2019 estimated that about 35 lakh workers were engaged in the RMG industry in 3,596 active RMG factories in Bangladesh (Aker 2019). Unfortunately, in 2020, an unprecedented disaster, COVID-19, caused millions of job losses in the RMG industry as almost \$2.25bn RMG export orders got canceled and suspended (Textile Today 2020). The same article mentioned that about 8% of the total garment workers were unemployed in September and about 0.5 million workers in the textile and RMG industries are permanently jobless. Overall, the economy of our country has faced a huge negative shift during the lockdown period. To ensure a swift economic recovery, a skilled workforce can play a significant role (Sarno 2020). It was observed that there prevails a lack of 8,577 unskilled, 48,130 semi-skilled and 119,479 skilled workers in this industry (Murshid 2016). To ensure a skilled labor force in this industry, demand for training will be the largest with estimated workers of 1.5 million (462,000 workers) in 2021 and 2.1 million (802,000 workers) in 2026, the same report suggested (Murshid, 2016). The way the industry expanded in the last couple of years, the skill needs is even more.

Regarding the skill enhancement of the labor force, there is a dearth of training facilities in our country (BIDS 2016). In the last 15 years, Technical and Vocational Education and Training (TVET) which provides knowledge and skills for employment, has expanded rapidly in Bangladesh. Engaging external Technical and Vocational Education and Training (TVET)

providers might be an option to train the RMG workers. Besides that, the report suggests that RMG companies can utilize in-house expertise to develop human resource skill in RMG companies (Hearle 2016). The study reports that the RMG industry is the third most common area of training, with 9% of total trainees, or more than 400,000 annually (ADB 2016). The Government of Bangladesh has already developed the National Skills Development Policy (NSDP) 2020 to ensure the technical and vocational skills training to create a highly skilled workforce across diverse industry industries and National Skills Development Authority (NSDA) has already started working. The government also initiated the Skills for Employment Investment Program (SEIP) with financial support from the Asian Development Bank (ADB) to transform the labor market of our country from a “low-skill, low-wage equilibrium” to a “higher skill, higher scale virtuous cycle”. This endeavor also focused commonly on the entry-level skills and some mid-level skills at the earlier stage and later, they designed their program to address the “mid-level management gap (Panth and Maclean 2020). As long as these initiatives are trying to solve the issues with technical, managerial and soft skills, emphasizing digital skills is also very necessary nowadays to enlighten the workers with the use of modern equipment which is important for production efficiency (a2i programme 2019). Indeed, to accelerate the GDP growth of the nation, a highly skilled workforce can play a critical developmental role. Therefore, if we embark on focusing on quality training facilities for the RMG workers, it will result in the alleviation of skill shortage and this skilled manpower will positively affect the long-term economic effect while contributing as a GDP booster of the country.

Indeed, the issue of skill enhancement in the RMG industry has received considerable attention in recent years. It is envisaged that developing skills of the existing manpower will increase productivity and improve the quality of products which is critical for enhancing competitiveness in the international market. Realizing the importance of this industry in the economy, policymakers have come forward to support the skills development of the people working in major occupational categories of the RMG industry. However, initiating appropriate programmes for skill development involves looking into the existing skill sets, understanding the skill gaps and ways to minimize or address the gap while nourishing and increasing the multifaceted skill components. This study was initiated to understand skill gaps in the RMG industry of Bangladesh.

1.2 Review of Literature

The RMG industry of Bangladesh with its ever-increasing export growth and contribution is a critical factor in the country’s development. The global competition in the RMG industry has also intensified over the period. To remain competitive the Bangladesh RMG industry needs to increase productivity and quality while maintaining compliance and product diversity. The technology has also advanced fast, and many countries have already started installing technologies compatible with 4IR (4th industrial revolution). All these changing features expose the need for skill

enhancement of the people working in this industry for its survival and future growth. They need new skills to adapt to new technologies. Before designing effective skill enhancement programmes, we need to understand the prevalent skills gap in the industry at various levels of the production chain. The current report attempts to discuss the gaps.

Skill development has been a major concern for stakeholders and policymakers all over the world in recent years. Chowdhury et al (2018) found that less scope for self-skill development of the employees is a factor contributing to a high level of employee turnover which in turn affects productivity in the RMG firms contributing to disruption in productivity and output delivery of the whole industry. So, analyzing the supply and demand sides of the labor skills and addressing the existing gap is crucial (Tahmid, 2018).

World Bank (2012) pointed out the prevalence of low-skilled workers in the industry to be one of the major impediments to increasing the export of RMG from Bangladesh. World Bank (2018) also deems it to be important to focus on demand and supply-side interactions of skills.

In recent years, several studies have covered existing skill levels in the RMG industry along with training needs for upskilling the employees. Qualitative studies based on several in-depth interviews and case studies of the RMG personnel found a lack of managerial skills in the industry and emphasized redesigning curriculums and facilitating training for skill development at the manager level (Islam and Islam, 2018; Hossan et al, 2012).

Cabi (2008) deduced that top management employees emphasize training and development to ascertain better productivity and performance. Skill gaps were found to be prevalent among most of the employees and training needs were prioritized with the highest importance, especially for technical training followed by management-related training. Training needs for marketing, financial management and quality management were also mentioned to be necessary. The same study provided importance to top management's training where management training has received the highest priority, followed by marketing-related training, technology training, and quality enhancing training or more specifically ISO certification-related training.

Raihan and Sanchoy (2016) also found evidence of positive changes after studying the impacts of targeted training programs in Bangladesh. Stovel and Bontis (2002) noted that training for employees should be organized on a regular interval to continuously improve their skills at work. Karim (2019) found that orientation training and career development training including training on environment, health and safety issues, play a significantly important role in employees' performance at the job. This argument has been supported by findings from Nasazzi (2013), Kanwal (2015) and Ngari (2015) where they stated that *off-the-job* training is more effective for increasing workers' capabilities at jobs.

A study by Zohir and Majumder (2008) found evidence of the Bangladesh RMG industry having more unskilled and semi-skilled workers (48% of their survey sample) than skilled (44%) or highly skilled (8%) workers. UNDP (2014) explored employment and skills in seven industries including

the textile and apparel industry and their findings suggest that skills both in some managerial jobs and operational jobs including several categories of managers, supervisors, and technicians lack behind necessary skills needs of the industry.

Rahman et. al. (2008) found skill-shortage of 5% in the industry in contrast with BGMEA and BKMEA findings of 15% to 20% skill shortage. Berg et al (2012) suggested that if Bangladesh wants to move toward more diversified and sophisticated garment products, the factories need to do better in ensuring skilled employees, especially at the mid-management level. Kamal (2019) found that technical, analytical, problem-solving skills, decision-making skills and communication and leadership skills of employees are major skills affecting the output of the RMG industry and policymakers should focus on developing those skills.

Akter (2016) found that employee training, employee development, and employee performance are highly correlated and the relationship among the three components is highly positive. Skills training results in greater productivity, less injury, better work ethics, and provide better work quality as evidenced by Adhvaryu et al (2016), ILO (2016), Maitra and Mani (2012) and Macchiavello et al (2014).

Kuttner (2008) argued that targeting the up skilling of young and female workers may beget economic growth and reduce poverty of the whole economy. Rahman and Islam (2016) predicted the skill gap in the RMG industry to be quite high compared to the situation in other major industries including leather, agro-food processing, shipbuilding, nursing and health care, construction, light engineering, ICT, Hospitality, and tourism industry. Considering all these scenarios, in this study we try to address the research gap focusing on skill availability and skill gap in the RMG industry of Bangladesh and try to focus on skill-related needs and future plausible outcomes to address these needs.

1.3 Chapter Outline

The study findings are summarized in nine chapters. In the introductory chapter, the objectives, scope and methodological framework of the study have been included in chapter 2. In Chapter 3 we present a brief overview of the industry to show the gradual change and present condition of some important factors of the industry along with exiting training and technological features of the industry. Then, in Chapter 4, we discuss some of the general features of the surveyed firms. Chapter 5 concentrates on employment structure in the RMG firms, employees' salaries and other benefits provided to them by the firms. This chapter also includes the recruitment process and skill component of the existing employees in the firms. Chapter 6 includes the analysis of skill shortage and skill gap in the RMG industry from the perspective of the entrepreneurs or employers. The impact of skill shortage and skill gap has also been discussed in this chapter. In chapter 7, future projections of labor demands and their implications on the existing employment are included. Avenues for addressing the skill shortage, skill gap and future labor demand by the employers and

stakeholders along with their training needs have been discussed. Lastly, Chapter 8 covers findings from the employees' survey and discusses the views of the employees on their exiting skill components and their take on skill gaps. Finally, Chapter 9 provides with some conclusions and recommendations for the industry.

Chapter 2

Objectives, Scope, and Methodological Framework

2.1 Objectives and Scope of the Study

The main objective of this study is to assess the skills demand and skills supply situation in the RMG industry of Bangladesh and forecast training requirements to minimise the gap. The study will thus attempt to understand the existing occupational and gender composition in the RMG industry and skill gap in the major occupational categories and evaluate the capacity of the industry to ensure skill development across the major occupations. The analysis will also help to unveil areas of skill training programs that can be institutionalized in this industry at large.¹ The analysis will help to suggest and implement policies to further garner or polish the competency of the employees and guide the concerned authorities in the right direction to support moving into regional and global value chain up-gradation and facilitate training to improve employee productivity and wage composition. In line with this goal, this study will more precisely address the following issues:

- a) Identifying the key categories of occupations in the industry,
- b) Assessing the occupational and gender composition in the industry,
- c) Estimating the present condition of skill by categories of occupation in the industry,
- d) Analyzing the expected changes in the requirements for existing skill types in the current occupation structure of the industry,
- e) Identifying potential future occupational category changes/needs for occupation,
- f) Recommending ways to facilitate the improvement of the present skill set by their occupation and to meet their future needs.

Apart from all these attempts, this analysis will unveil the areas of new and potential skill training programs that can be institutionalized in this industry at large.

¹ Though RMG industry sources intermediate goods from the textile industry and no doubt the textile industry is very important, this study only focuses on the RMG industry as skills gap analysis in textile requires all together another industrial study. The discussion or analysis on textile industry requires a completely different branch of employment and skill components which was out of the scope of this study.

2.2 Research Design

The study involved both quantitative and qualitative approaches to get a reliable analysis of the study objectives. The quantitative approach entails field surveys and collecting data from secondary sources. Two separate questionnaires were developed: one for addressing the skill gaps from the perspectives of the enterprises and the other one covering the skills gap perspectives of the employees. The questionnaires covered various industrial and skill components. And the qualitative approach entailed conducting in-depth interviews with the key stakeholders i.e., industry owners and industry experts of the RMG industry. Moreover, desk reviews of reference materials for the analysis involved collecting secondary data and literature on the experiences of the industries of Bangladesh and other RMG exporting countries. Issues covered in various study instruments and KIIs have been noted in Appendix Figure-A.1.1.

To conduct the survey the first step was to select a representative sample for the industry. As we produce and export both knit and woven RMG products (Appendix Table-1.2) and all the RMG factories are either members of Bangladesh Garment Manufacturers and Exporters Association (BGMEA) or Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA) or both², we took the member lists from these associations as the population group for conducting our primary quantitative surveys.

2.3 Sample Size Determination

In determining the sample size of the factory survey, the study uses the methodology widely used by the World Bank. The following formula will be used in determining the sample size:

$$n = \left[\frac{1}{N} + \frac{N-1}{N} \cdot \frac{1}{PQ} \left(\frac{k}{Z_{1-\alpha/2}} \right)^2 \right]$$

where, N=population size, P=population proportion, Q=1-P, k=desired level of precision, $Z_{1-\alpha/2}$ is the value of the normal standard coordinate for the desired level of confidence, $1-\alpha$.

As has been done in the World Bank Enterprise Survey 2009 of the World Bank, we shall use a 90 percent confidence interval and 7.5 percent level of precision in selecting sample RMG factories for the survey. Here, the population is the total number of RMG factories, which is 4560 (BGMEA, 2018)³. Thus, assuming these parameters, the estimated sample size using the above formula is 117 factories.

2.3.1 Sample Selection

The study applies a stratified multistage sampling procedure considering geographical location, nature, and size of factories to select the required 120 enterprises. According to BGMEA, about

² BMKEA member factories belong only to the knitwear category and BGMEA member factories include both woven wear and knitwear producing factories.

³ According to BKMEA (2017) total number of factories in RMG is 4690. Appear Export Statistics of Bangladesh, FY 2016-2017, BKMEA.

96 percent of the RMG factories are in four districts- Dhaka, Gazipur, Chattogram and Narayanganj. So, our field survey involves factories situated in those regions. To make the sample representative of the industry, we have included large, medium, and small factories under both knit and woven categories in each location. For the size category of factories, we have followed the definition of the Industrial Policy 2016 of Bangladesh. Small RMG industries are defined as factories having up to 300 employees, medium ones are defined as having 301-1000 employees and large factories have more than 1000 employees. Though we surveyed 120 factories, we could utilise data collected from 119 factories including 47 woven and 72 knit industries. Knit industries included sweater factories as well. Out of the 119 factories, 28 were small, 50 were medium and 41 were large factories including both knit and woven producing ones in all the districts. Among them a total of 50 firms (42.02%) including 20 woven and 30 knit firms are located in Chattogram; 43 firms (36.13%) are located in Dhaka including 17 woven and 26 knit firms; 9 (7.56%) are in Gazipur including 7 woven and 2 knit firms and 17 firms (14.29%) including 3 woven and 14 knit firms are in Narayanganj.

The objective of the employee survey was to capture the existing skill and educational level, demands for future training for career development, various aspects of perception of labors in terms of job satisfaction, sickness and various type of benefits and opportunities that received from their respective enterprises. To meet these objectives a worker survey was conducted along with the enterprise survey. A total of 476 workers were interviewed from 119 enterprises while at least 1 worker from each production unit of a particular enterprise (Cutting, Sewing, Finishing and Quality) were randomly selected from the list of all workers. Therefore, 476 (4*119) workers were analyzed for this study. A detailed table of the sample firms is given below:

Table 2. 1: Survey Sample

| Location | Woven | | | Knit | | | Total |
|--------------|----------------|--------|-------|-------|--------|-------|--------|
| | Number | | | | | | |
| | Small | Medium | Large | Small | Medium | Large | |
| Chattogram | 3 | 9 | 8 | 8 | 14 | 8 | 50 |
| Dhaka | 4 | 9 | 4 | 9 | 11 | 6 | 43 |
| Gazipur | 1 | 1 | 5 | 0 | 0 | 2 | 9 |
| Narayanganj | 1 | 1 | 1 | 2 | 5 | 7 | 17 |
| Total | 9 | 20 | 18 | 19 | 30 | 23 | 119 |
| | Percentage (%) | | | | | | |
| Chattogram | 2.52 | 7.56 | 6.72 | 6.72 | 11.76 | 6.72 | 42.02 |
| Dhaka | 3.36 | 7.56 | 3.36 | 7.56 | 9.24 | 5.04 | 36.13 |
| Gazipur | 0.84 | 0.84 | 4.20 | 0.00 | 0.00 | 1.68 | 7.56 |
| Narayanganj | 0.84 | 0.84 | 0.84 | 1.68 | 4.20 | 5.88 | 14.29 |
| Total | 7.56 | 16.81 | 15.13 | 15.97 | 25.21 | 19.33 | 100.00 |

Source: Authors' Primary Survey Sample

2.3.2 Survey design

After designing two primary survey questionnaires for the RMG enterprises and the employees, a pilot study was conducted to validate the questionnaire. From the piloting, the major occupation categories for both the woven and knit industries were identified (through sending the questionnaires to some factories and discussing with BGMEA, BKMEA and industry personnel) and the questionnaires were modified accordingly. Finally, the questionnaires were sent out and survey data was collected and processed. Along with this procedure, consultations with the industry people and experts were conducted (See the report in the Appendix section) and qualitative interviews were done. Literature reviews and secondary data collection were accomplished simultaneously. Secondary data sources included Export Promotion Bureau (EPB), BKMEA, BGMEA etc.

Chapter 3

Bangladesh RMG Industry and Technological Changes

3.1 Brief Overview of Bangladesh RMG Industry

Bangladesh is a top-ranking RMG exporter in the world. Bangladesh ranks second after China in RMG export. Starting its journey in the late 1970s, this industry grew fast. The reasons behind this noteworthy success of this industry include the industry's competitive price in the global market, low labor cost, growing backward linkage industry, increasing the versatility of products, compliance and quality.

Figure 3. 1: Strength of Bangladesh RMG Industry

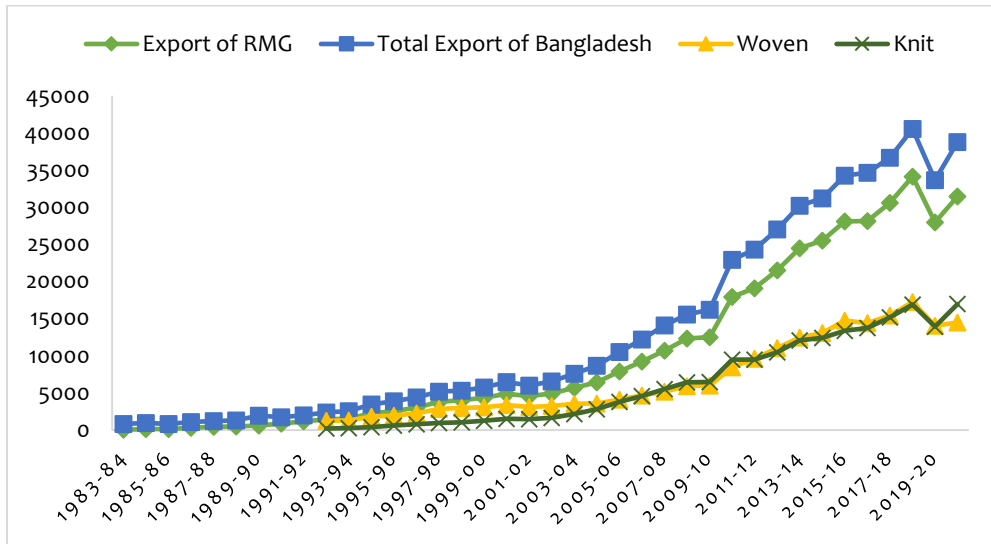


Source: BGMEA Website (2021)

3.1.1 RMG Export from Bangladesh

Starting from the last part of the 1970s, the export of RMG products from Bangladesh experienced a rapid rise. In 1982-83, the industry contributed to 3.89% of the country's total export earnings. In the early 1990s' this share became 50.47% and now in 2020-21, this share is 81.16% (BGMEA, 2021). Bangladesh started exporting woven RMG products while knit RMG started growing since the early 1990s.

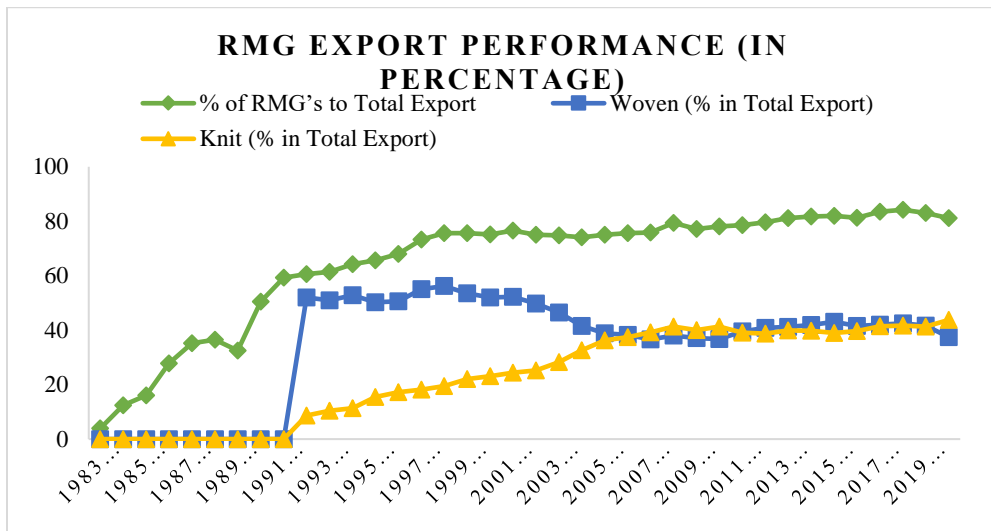
Figure 3. 2: Trend of Contribution of RMG Industry to the Country’s Total Export



Source: Authors’ Calculation based on BGMEA Data (2021)

In 1991-92 RMG industry’s contribution to export was 60.64% in which the woven industry’s share was 52.06% and knit industry’s share was 8.58%. This gap started to decline during the next few years and in 2006-07 the gap between the two industry’s contributions became 0.85%. From 2007-08 to 2010-11 and in 2020-21, knit export earnings exceed that of woven (BGMEA, 2021). And in the years in between (from 2011-12 to 2019-20) both woven and knit industries’ contribution was almost the same/ equal.

Figure 3. 3: Knit and Woven garment’ share of Contribution to the Country’s Total Export Earnings



Source: Authors’ Calculation based on BGMEA Data (2021)

3.1.2 Major RMG Products

According to the available export information from EPB, T-shirts, singlets, vests, jerseys, pullovers of cotton, man-made fibers and other textiles, women's or girls' cotton trousers, men's or boys' cotton shirts, babies' cotton garments and men's and women's cotton undergarment are among the top exporting knit products and men's and women's breeches and trousers of cotton, synthetic fibers and other textiles, men's, boys' and women's shirts of cotton, brassieres of all types of textile materials and men's or boys' and women's anoraks, wind-cheaters etc. of man-made fibers are among the top exporting woven products for Bangladeshi RMG industries. We have enlisted the top export products in the following table for recent years.

Table 3. 1: Top 10 (at the HS 6-Digit level) Bangladesh Knit and Woven RMG Items Exported to the World (Value in Million USD)

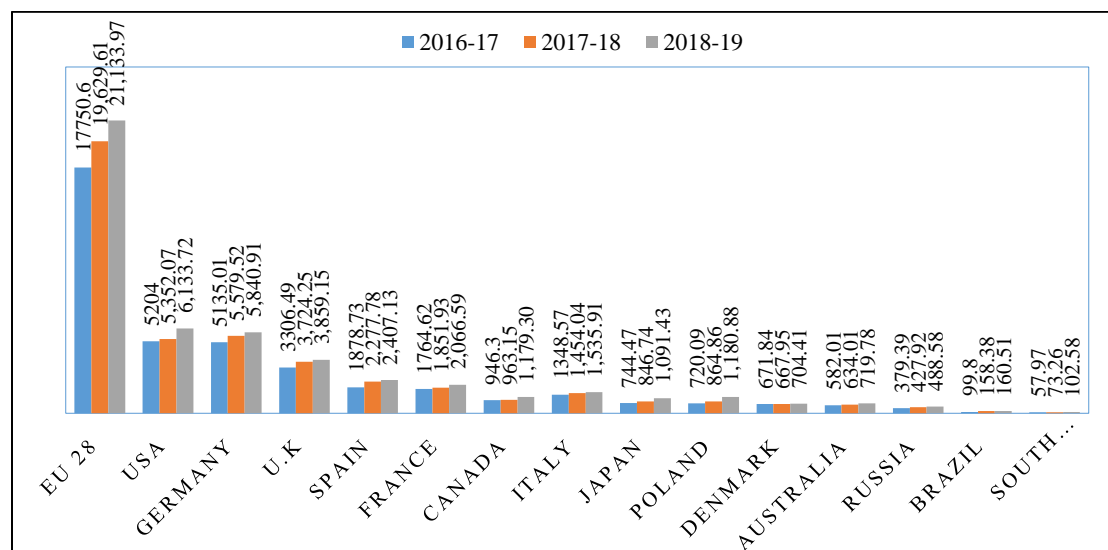
| | HS Code | Product Name | 2015 - 16 | 2016 - 17 | 2017 - 18 | 2018 - 19 | Growth (%) |
|------------|---------|--|-----------|-----------|-----------|-----------|------------|
| Knitwear | 610910 | T-shirts, singlets and other vests, of cotton | 5,850.51 | 5,486.67 | 5,866.90 | 6,552.84 | 11.69 |
| | 611020 | Jerseys, pullovers, etc., of cotton | 1,362.82 | 1,677.22 | 1,926.73 | 2,209.26 | 14.66 |
| | 611030 | Jerseys, pullovers, etc., of man-made fibers | 538.85 | 860.22 | 1,070.05 | 1,384.11 | 29.35 |
| | 610462 | Women's or girls' trousers, etc., of cotton | 548.26 | 698.74 | 819.87 | 933.29 | 13.83 |
| | 610510 | Men's or boys' shirts of cotton | 714.42 | 707.76 | 788.33 | 805.94 | 2.23 |
| | 611090 | Jerseys, pullovers, etc., of other textiles, nes. | 1,200.78 | 726.57 | 549.73 | 516.26 | -6.09 |
| | 610990 | T-shirts, singlets, etc., of other textiles, nes | 268.03 | 375.31 | 425.35 | 458.42 | 7.78 |
| | 611120 | Babies' garment, etc., of cotton | 222.11 | 327.10 | 395.17 | 432.33 | 9.41 |
| | 610821 | Women's or girls' briefs and panties of cotton | 302.11 | 344.93 | 361.24 | 399.51 | 10.59 |
| | 610711 | Men's or boys' underpants and briefs of cotton | 289.15 | 334.14 | 353.56 | 391.99 | 10.87 |
| Woven Wear | 620342 | Men's or boys' trousers, breeches, etc., of cotton | 5,192.18 | 4,797.43 | 5,208.96 | 5,555.87 | 6.66 |
| | 620462 | Women's or girls' trousers, breeches, etc, of cotton | 2,492.22 | 2,506.94 | 2,877.51 | 3,062.47 | 6.43 |
| | 620520 | Men's or boys' shirts of cotton | 1,671.83 | 1,664.41 | 1,668.04 | 1,954.25 | 17.16 |
| | 620343 | Men's or boys' trousers, breeches of synthetic fibers | 362.20 | 690.78 | 645.89 | 815.65 | 26.28 |
| | 621210 | Brassieres of all types of textile materials, whether or not elasticated | 312.37 | 365.02 | 403.00 | 499.82 | 24.02 |
| | 620193 | Men's or boys' anoraks, wind-cheaters, etc., of man-made fibers | 224.28 | 261.43 | 321.59 | 404.62 | 25.82 |
| | 620293 | Woman's or girls' anoraks, wind-cheaters, etc., of man-made fibers | 126.31 | 173.45 | 200.80 | 290.21 | 44.53 |
| | 620630 | Women's or girls' blouses, shirts, etc., of cotton | 346.80 | 344.00 | 301.72 | 275.38 | -8.73 |
| | 620469 | Women's or girls' trousers, breeches, etc., of other textiles, nes. | 463.13 | 357.32 | 289.57 | 273.41 | -5.58 |
| | 620349 | Men's or boys' trousers, breeches of other textiles, nes. | 396.93 | 257.14 | 253.95 | 255.87 | 0.75 |

Source: Export Promotion Bureau (EPB, 2021)

3.1.3 Export Destinations of RMG Products

USA, Germany, UK, Spain, France, Italy, Canada, Japan, Denmark, Australia, Poland, Russia, Brazil and South Africa are the top RMG export destinations for Bangladesh. The European Countries (28 European countries) together constitute the largest market for Bangladesh’s RMG export. All these markets show a more or less rising trend as export destinations (details in Appendix Table-A.2.3). From 2016-17 to 2018-19, the top 5 knitwear destinations for Bangladesh have been EU 28, Germany, UK, USA and Spain consecutively. For woven wear export, the same 5 countries are at the top though their ranking among themselves change i.e. EU 28, USA, Germany, UK and Spain in different years.

Figure 3. 4: Annual RMG Exports of Bangladesh in Various Markets



Source: Authors’ Compilation from Export Promotion Bureau (EPB) [Value in Million USD]

3.2 Technological changes in RMG Industry: Challenges Posed by the 4IR

Though labor has been a driving factor for RMG industry’s growth in Bangladesh, with the upcoming technological and technical changes all over the world, renovation and replacement of the existing types of machinery have been a must consideration in Bangladesh. This particular term of technological change that has been announced as the 4th Industrial Revolution (4IR) is expected to bring about many changes in the coming future. This global trend will accelerate industrial automation and productivity, and enhance possibilities for newer and better-skilled population, while threatening the jobs of many low-skilled incompetent employees. According to a2i (2022), 47% of the workforce from the RMG and textile sector, furniture sector, agro-food processing sector, leather and footwear, and tourism and hospitality sector would be unemployed in the 4iR era. RMG and the textile sector alone would suffer job losses of 2.5 million people

(around 60% of the sectoral workforce) among them 50% would be less educated women folks. Better and combined technologies including artificial intelligence, additive printing, nanotechnology, automation and robotics are likely to bring about many changes in this industry. The study also mentions “Sewbot” technology- an entire assembly production line manned by robots that can pick up a piece of garment, arrange it and sew it properly which would replace the delicate and difficult human task of doing the same which is privy to many mistakes and loss of products or resources. The number of new jobs added to the sector has fallen from 300,000 to 60,000 between 2003 and 2010 (a2i report, 2022). Sewing machine operators, floor supervisors, pattern makers, production planners, merchandisers, portfolio developers and fashion designers are the ones most under threat of job losses in this sector (including both RMG and Textile). Moreover, more technologically skilled professionals like computer-aided process planning professional, computer-aided quality control professionals, computer-aided training professionals, automated inspection, automated material handling devices, artificial neural network experts, pick and place robot operators, numerical controllers, automated fusing and pressing machine operator and enterprise resource planning expert in the existing categories of quality controllers and inspectors, sewing machine operator, fusing machine operators, finishing machine operators, management employees and managers are likely to be of more in demand in the era of 4IR.

3.3 Skill Needs in RMG Industry and SEIP

Skill or human resources can be termed as one of the major factors for ensuring industrial growth and increased productivity. Asian Development Bank (ADB) also recognizes the low competitiveness of the firms, low productivity and low skills to be a prime reason for industrial low growth. Recognizing the importance of the same, the government has established National Skill Development Authority (NSDA) and tried to bring all the skill development activities under one singular banner. This agency would be supplemented by the National Human Resource Development Fund (NHRDF) which would oversee the fiscal support of the government for quality skill development and training along with additional fund disbursement. Along the line, ADB in 2014 has signed a Multi-Tranche Financing Facility (MFF) agreement with the government of Bangladesh to support the long-term and comprehensive skill development plans. This agreement is aimed at skilling and up-skilling the existing workforce of the major thrust sectors. Thus, the Skill for Employment Investment Program (SEIP) has come into action. The main executing division of this program is the finance division of the government. This division is being supported by the Ministry of expatriate welfare, education and industries, BRTC under the ministry of roads transport and highways, Bangladesh Bank, PKSF, and 13 industry associations. Support to skill development coordination and monitoring unit (SDCMU) has been acting as the implementing agency. There have been three tranches under the SEIP initiative for the duration of 2014 to 2024. The total cost of the tranches is estimated to be BDT 3712.33 crore.

There are four major components or outputs of SEIP which aim at market responsive inclusive skills training being delivered, quality assurance system is strengthened, institutions being strengthened, and effective program management and governance system is ensured. SEIP has a

target of providing training to more than 0.8 million people by 2024 in more than 130 occupations out of which 60% will be provided with gainful employment (SEIP, 2022)⁴. Along with the private sector industry training, public sector training institutions like BMET, DTE, BITAC and BRTC are playing a vital role in this regard. Among all the priority sectors selected under this project, RMG sector is one of the top priority ones considering its contribution to the economy of Bangladesh. These training initiatives are conducted with a direct affiliation of BGMEA and BKMEA. A total of 44 courses have been taught through BGMEA and 41 courses have been taught through BKMEA. These courses include teachings on different management, manufacturing and compliance issues of the RMG industry. A summary of the training goals and achievements are presented in table 3.2 below:

Table 3. 2: Status of SEIP Training Activities for BGMEA and BKMEA

| Status of Training Activities | | | | | | | |
|-------------------------------|-----------------------------------|--------------------------------|------------|------------|---------------|---------------|----------------|
| SL. | Industry Association/Organization | Total Target (As Per Contract) | Enrollment | | Certification | Job Placement | |
| | | | Total | O/W Female | | Total | % On Certified |
| Tranche-1 | | | | | | | |
| | BGMEA | 42,315 | 40,148 | 24,810 | 39,423 | 28,815 | 73.09 |
| | BKMEA | 23,971 | 23,980 | 9,491 | 23,411 | 21,492 | 91.80 |
| Tranche-2 | | | | | | | |
| | BGMEA | 25,740 | 25,728 | 15,991 | 23,382 | 17,608 | 75.31 |
| | BKMEA | 17160 | 17750 | 12152 | 16745 | 14050 | 172.68 |
| Tranche-3 | | | | | | | |
| | BKMEA | 15,000 | 2,791 | 2,065 | 1,375 | 759 | 55.20 |

Source: SEIP Website (2022)

⁴ See SEIP website. Online Link (as of 24 March, 2022): <https://seip-fd.gov.bd/about-us/background/>

Chapter 4

Enterprise Survey: Features of the Surveyed Firms

4.1 General Features of the Surveyed RMG Firms

Bangladeshi RMG industry comprises both woven and knit garments. The firms surveyed in this study portray data that represent both these sub-industries of the industry. We have also collected data for sweater factories which we have included in the analysis of the knit industry. We have devised our findings according to the size of the surveyed firms under each sub-category. As findings from the large, medium and small firms do not vary much from each kind of factory's aggregate results in terms of skill and related issues, we keep our analysis limited to the type variant of the firms. RMG firms surveyed in this study have been described in Table-2.1.

In Table-4.1 we present the surveyed firms according to their location (urban and rural). Details are provided in appendix table- A.3.1. It is noted that out of 119 surveyed firms, 22 firms (18.5%) are situated in the rural areas and 97 firms (81.5%) are situated in the urban areas. Both for women and knit most of the firms are in the urban areas.

Table 4. 1: Location of the Factories

| Number of Surveyed Firms | | | |
|------------------------------------|-------|-------|-------|
| Product/ Firm Type | Rural | Urban | Total |
| Woven | 14 | 58 | 72 |
| Knit | 8 | 39 | 47 |
| Total | 22 | 97 | 119 |
| Percentage Share of Surveyed Firms | | | |
| Woven | 11.8 | 48.8 | 60.5 |
| Knit | 6.7 | 32.8 | 39.5 |
| Total | 18.5 | 81.5 | 100.0 |

Source: Authors' Calculation based on Primary Survey Data

To get a general idea about the basic features of the surveyed firms in the industry, we asked them about the type of ownership, head office location, the total number of factories under each firm, product variability in firms' production, provision for the employees in the firms, etc. Among the 119 firms, 62 firms (52.10% of total firms) have their head offices located in a different place than the factory. The majority (40) of these firms are knit factories. It is also noted that 55 firms have more than one production factory. And it appears like most of the knit factories have multiple

factories. Of all the 119 firms in our sample, 74 firms (62.18%) have private single ownership, 25 firms (21.01%) have joint ownership, 19 firms (15.9%) are private limited companies and only 1 firm (0.84%) is a public limited company.

None of the surveyed firms were government-owned or nationalized. It is also evident that most knit firms in our sample have private single ownership, followed by joint ownership and private limited company ownership and none have any affiliation with public or government entities regarding their ownership. Most of the woven firms are under private single ownership, followed by equal proportions of joint and private limited company ownership. Only 6 firms (5%) reported having foreign ownership.

When asked about their knowledge of TVET, 68 firms (57.14%) reported of having known about TVET, while 107 firms (89.92%) give preference to TVET trainees and 78 firms (65.55%) realize the need for TVET training related to the industry.

Table 4. 2: Basic Features of the Surveyed Firms

| Factory Information | Woven | | Knit | | Total |
|--|--------|-----------|--------|-----------|-----------------------|
| | Number | Share (%) | Number | Share (%) | Number & Share |
| Head Office located elsewhere | 22 | 46.81 | 40 | 55.56 | 62 (52.10) |
| Have multiple factories | 19 | 40.43 | 36 | 50.00 | 55 (46.22) |
| Ownership Type | | | | | |
| Private Single | 28 | 59.57 | 46 | 63.89 | 74 (62.18) |
| Joint | 9 | 19.15 | 16 | 22.22 | 25 (21.01) |
| Private Limited Company | 9 | 19.15 | 10 | 13.89 | 19 (15.97) |
| Public Limited Company | 1 | 2.13 | 0 | 0 | 1 (0.84) |
| Government/ Nationalized | 0 | 0 | 0 | 0 | 0 |
| Foreign Ownership | 2 | 4.26 | 4 | 5.56 | 6 (5.04) |
| TVET | | | | | |
| TVET Knowledge | 24 | 51.06 | 44 | 61.11 | 68 (57.14) |
| Giving Preference to TVET Trainees | 41 | 87.23 | 66 | 91.67 | 107 (89.92) |
| Need for TVET Training in the Industry | 26 | 55.32 | 52 | 72.22 | 78 (65.55) |

Source: Authors' Calculation from Primary Survey Data

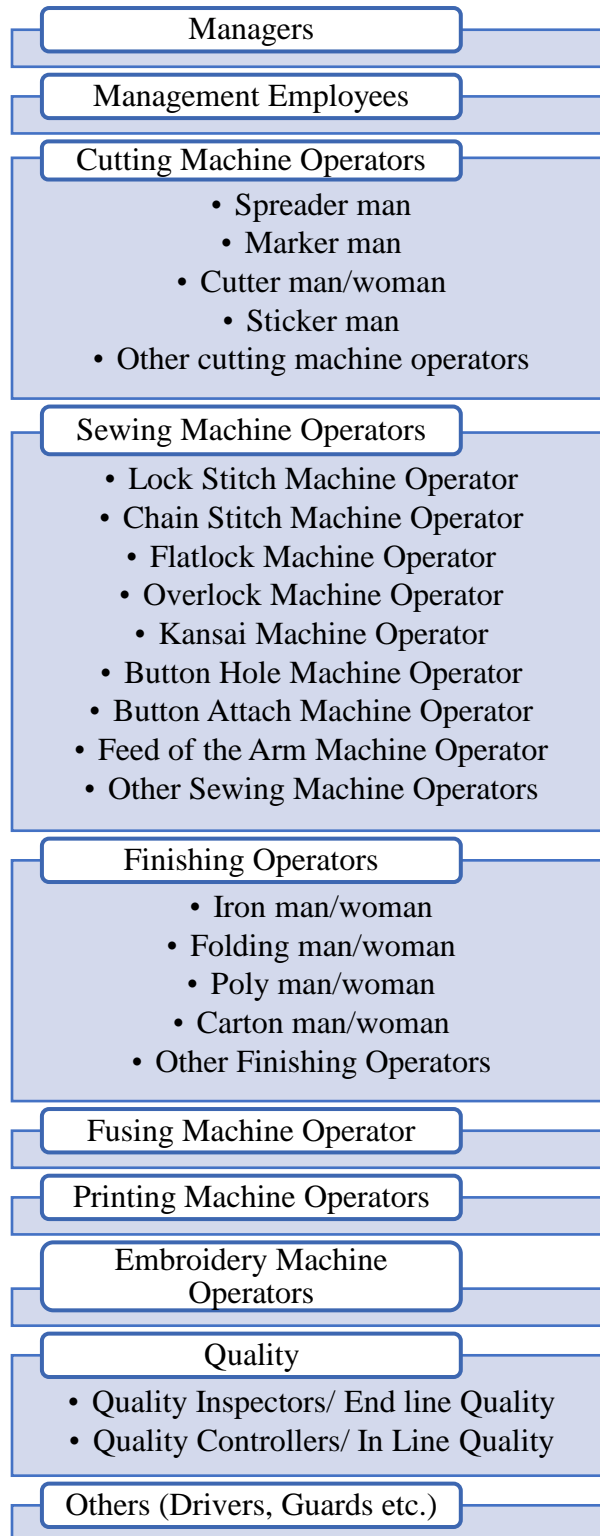
One of the major contributions of this study is identifying the key occupations in the industry. Cutter man/woman, the sewing machine operator, fusing machine operator, overlock machine operator, button machine operator, *Kansai* machine operator, finishing (iron), quality inspector, embroidery machine operator folder man, poly man/woman, packer/ packing man/woman and

quality controllers were identified as the key production units by Rahman and Hossain (2017). Given the scope of revising this recognized occupation structure, we have tried to be more thorough and give a complete view of the same. From our discussions with the stakeholders including BGMEA and BKMEA personnel and concerned persons from some firms we confirmed and identified the key occupations related to the production section of the firms. We have divided the existing occupations into 10 major categories and have identified the sub-industries of some of these categories. This division allows us to include all occupations from the woven and knit firms in the RMG industry of Bangladesh. In the 10 broader categories, we have managers, management employees, cutting machine operators, sewing machine operators, finishing machine operators, fusing machine operators, printing machine operators, embroidery machine operators, quality controllers and others. Categories including cutting machine operators, sewing machine operators, finishing machine operators and quality are further divided into some sub-sections of occupations.

The cutting machine operators category has 5 sub-divisions including spreader man, marker man, cutter man/woman, sticker man and other cutting machine operators (denoted as CMO); the sewing machine operators category has 9 sub-divisions including lock stitch machine operator, chain stitch machine operator, flatlock machine operator, overlock machine operator, *Kansai* machine operator, buttonhole machine operator, button attaching machine operator, feed of the arm machine operator and other sewing machine operators (denoted as SMO); finishing machine operators category has 5 sub-divisions including iron man/woman, folding man/woman, poly man/woman, carton man/woman and other finishing operators and quality has two sub-divisions quality controller/ inline quality and quality inspector/ end line quality. As we intend to focus more on the product categories, these sub-divisions allowed us to explore all jobs involved in the production process. Throughout our further analysis and discussion, we focus on all these categories and sub-categories and try to depict the bigger picture in terms of the existing occupations in the RMG industry and their skills.

The following figure (Figure-4.1) shows all the employment/ occupation categories of the RMG industry. All these categories include every type of production employee in both the knit and woven industries.

Figure 4. 1: Occupation Categories in the RMG Industry



Source: Authors' deduction from KIIs and FGDs

Knit firms produce more types of products than woven firms in our sample. Many of the firms in knit and woven industries produce multiple products.

Table 4. 3: List of Most-Produced Knit and Woven Products in the Surveyed Firms

| Knit | | | Woven | | |
|--------------|-----------|------------|--------------|-----------|------------|
| Products | Frequency | Percentage | Products | Frequency | Percentage |
| T-Shirt | 85 | 31.84 | | | |
| Shirt | 8 | 3.00 | | | |
| Polo-Shirt | 30 | 11.24 | Shirt | 26 | 20.00 |
| Pant | 21 | 7.87 | Pant | 51 | 39.23 |
| KIDS Item | 14 | 5.24 | KIDS Item | 7 | 5.38 |
| Jacket | 15 | 5.62 | Jacket | 14 | 10.77 |
| Boxer | 11 | 4.12 | Boxer | 2 | 1.54 |
| Trousers | 12 | 4.49 | Trousers | 4 | 3.08 |
| Ladies Items | 28 | 10.49 | Ladies Items | 5 | 3.85 |
| Sweater | 4 | 1.50 | Others | 21 | 16.15 |
| Others | 39 | 14.61 | | | |
| Total | 267 | 100 | Total | 130 | 100 |

Source: Authors' Calculation from Primary Survey Data

T-shirt is the highest produced good (31.84%) for the knit firms in our study followed by other knit products (14.61%), polo shirts (11.24%) and ladies' items (10.49%). For the surveyed woven firms Pant is the highest produced good (39.23%), followed by shirts (20.00%), other woven goods (16.15%) and jackets (10.77%).

Chapter 5

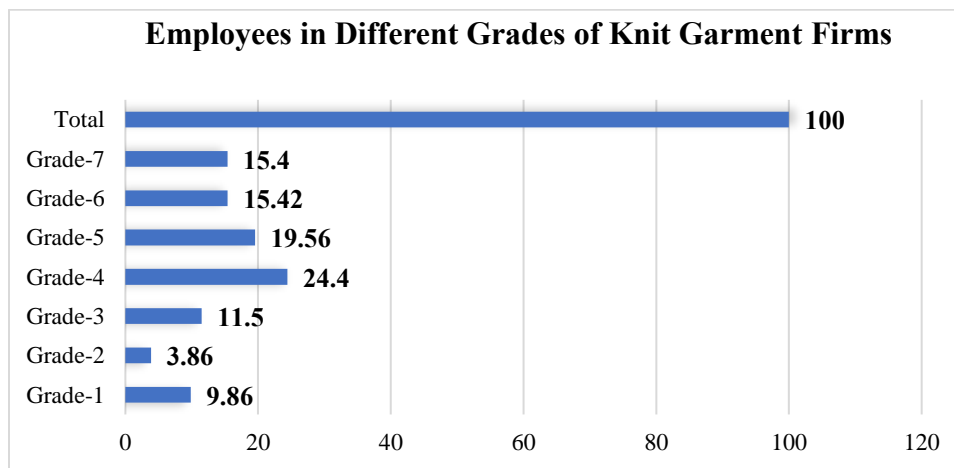
Enterprise survey: Understanding Employment and Skills in the RMG Industry of Bangladesh

5.1 Distribution of Occupation among Different Grades of the Industry

The analysis in this chapter, and in a few subsequent chapters, is based on the survey of 119 enterprises (detail of the sample selection is discussed in the methodology section). Here we have discussed the employment distribution and other employment-related information for all the 10 major occupation categories of the RMG industry including their sub-divisions. Thus, the analysis covers a total of 27 occupation categories. We further base and differentiate between the findings of the woven and knit RMG factories. This helps to understand differences, if any, in skill needs in these two sub-industries of the RMG industry.

There are seven grades (in terms of salary scale) for the RMG employees in our country, where Grade 7 is the lowest tier. Therefore, we tried to decipher the distribution of our identified occupation categories among different grades. We collected data from all the 119 industries and have separated the distribution for knit and woven industries to see if they differ. The distribution of workers in the knit industry among various occupation groups is presented in Figure-5.1 where we see that most employees in knit industries belong to the mid-level category, i.e., Grade-4 (24.4%), followed by Grade-5, Grade-6 and Grade-7.

Figure 5. 1: Employees in Different Grades of Knit Garment Firms



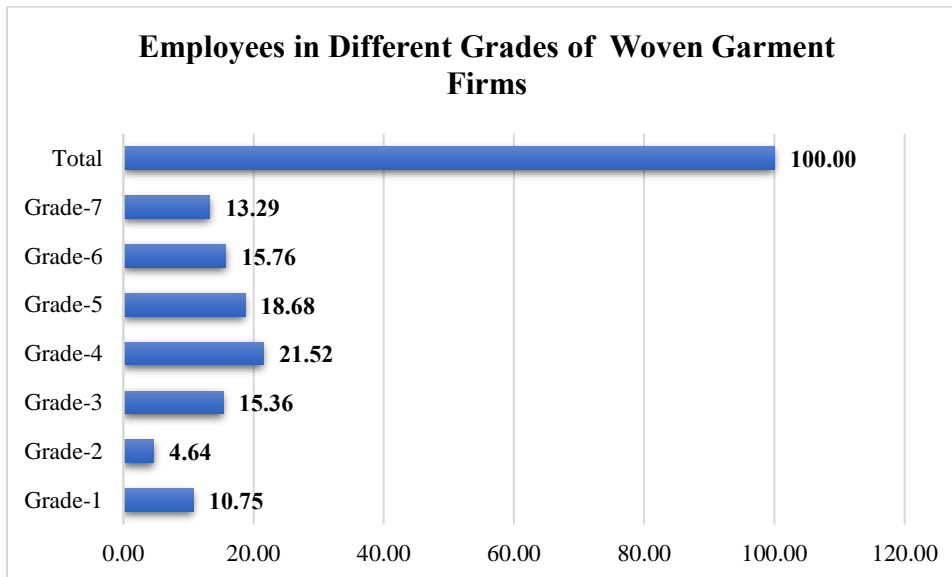
Source: Authors' Observations from Surveyed Firms

It is noted that almost all the managers (98.91%) in RMG firms belong to Grade-1. For management employees, the highest percentage belongs to Grade-1, followed by Grade-2 (16.70%), Grade-3, Grade-7, Grade-4, Grade-6 and Grade-5. It is understandable as the

management employee category encompasses different assistant managerial positions over the industries. Most of the spreader man belong to Grade-4 (29.35%), Grade-5 (22.46%) and Grade-6 (21.12%). For marker man category, most belong to Grade-4, Grade-3 (20.27%) and Grade-5 (20.08%); sticker man category mostly belongs to Grade-4 (26.67%), Grade-6 (25.28%) and Grade-5 (20.07%). In this way, most of the production workers from spreader man to embroidery machine operator categories belong to Grade-4, Grade-5 and Grade-6 (except other cutting machines, other sewing machines and other finishing operators who are mostly the “helpers” and quality ensuring employees and other non-production related employees including drivers and guards). For quality inspectors and quality controllers and other non-productive employees in the knit garment, most belong to Grade-4. The ‘helpers’ from different production categories belong mostly to Grade-7 (details in appendix table A.4.1).

Most of the workers in the woven garment industry belong to Grade-4 (21.52%), followed by Grade-5 (18.68%), Grade-6 (15.76%) and Grade-3 (15.36%). The distribution of workers in the woven industry among various occupation groups is presented in Figure-5.2. The distribution of the production workers in the woven industries is somewhat different than that of the knit industries (details in appendix table-A.4.2). In those industries, most employees belong to a varied mixture of Grade-3, Grade-4 and Grade-5. Just like in the knit industry, the ‘helpers’ of the woven industries belong mostly to Grade-7 (other cutting machines, other sewing machines and other finishing operators with percentages of 66.77%, 62.29% and 65.27% respectively). Quality inspectors and quality controllers (30.47% of woven industries belong mostly to Grade-5 (34.50% and 30.47% respectively) and other non-productive employees belong mostly to Grade-3 (22.83%).

Figure 5. 2: Employees in Different Grades of Woven Garment Firms



Source: Authors' Observations from Surveyed Firms

Table-5.1 presents occupation categories mostly belonging to a salary Grade. We have the information for both the knit and woven industries in this table. For most of the occupations, the Grade distribution of the highest number is found to be similar in both the knit and woven industries. The difference is observed in the case of spreader man i.e. highest occupancy in Grade-4 in the knit industry and Grade-5 in the woven industry; cutter man/woman i.e. highest occupancy in Grade-4 in knit industry and Grade-3 in the woven industry. Mapping of occupation categories with salary grades is noted for all categories in Table 5.1. This information is important in our analysis as different grades pertain to a different level of minimum wage meaning that the higher the labor occupancy, the higher the relative minimum wage and resulting total wage.

Table 5. 1: Occupation-wise Highest-Grade Match in the Knit and Woven Industries

| Occupation | Knit | | Woven | |
|----------------------------------|----------------------------------|---------------------------------------|----------------------------------|---------------------------------------|
| | Grade with Most Employment Share | Percentage of Employment in the Grade | Grade with Most Employment Share | Percentage of Employment in the Grade |
| Managers | Grade-1 | 98.91 | Grade-1 | 98.38 |
| Management Employees | Grade-1 | 72.17 | Grade-2 | 65.46 |
| Spreader Man | Grade-4 | 29.35 | Grade-5 | 24.41 |
| Marker man | Grade-4 | 25.48 | Grade-4 | 27.05 |
| Cutter man/woman | Grade-4 | 35.12 | Grade-3 | 26.26 |
| Sticker man | Grade-4 | 26.67 | Grade-5 | 20.61 |
| Other CMOs | Grade-7 | 79.00 | Grade-7 | 66.77 |
| Lock Stitch Machine Operator | Grade-4 | 28.33 | Grade-4 | 26.87 |
| Chain Stitch Machine Operator | Grade-4 | 24.46 | Grade-4 | 23.18 |
| Flatlock Machine Operator | Grade-4 | 26.42 | Grade-4 | 27.44 |
| Overlock Machine Operator | Grade-4 | 26.82 | Grade-4 | 28.53 |
| Kansai Machine Operator | Grade-4 | 25.98 | Grade-3 | 26.56 |
| Button Hole Machine Operator | Grade-5 | 26.98 | Grade-4 | 27.11 |
| Button Attach Machine Operator | Grade-5 | 29.76 | Grade-4 | 24.93 |
| Feed of the Arm Machine Operator | Grade-4 | 26.3 | Grade-4 | 27.18 |
| Other SMOs | Grade-7 | 69.18 | Grade-7 | 62.29 |
| Iron man/woman | Grade-4 | 33.44 | Grade-5 | 32.31 |

| Occupation | Knit | | Woven | |
|-------------------------------------|----------------------------------|---------------------------------------|----------------------------------|---------------------------------------|
| | Grade with Most Employment Share | Percentage of Employment in the Grade | Grade with Most Employment Share | Percentage of Employment in the Grade |
| Folding man/woman | Grade-4 | 33.18 | Grade-5 | 34.86 |
| Poly man/woman | Grade-4 | 30.04 | Grade-5 | 36.32 |
| Carton man/woman | Grade-5 | 29.22 | Grade-5 | 23.79 |
| Other Finishing Operators | Grade-7 | 75.63 | Grade-7 | 65.27 |
| Fusing Machine Operator | Grade-4 | 34.26 | Grade-6 | 31.55 |
| Printing Machine Operator | Grade-4 | 61.40 | Grade-4 | 65.00 |
| Embroidery Machine Operator | Grade-4 | 57.5 | Grade-3 | 50.00 |
| Quality Inspector/ End line Quality | Grade-4 | 36.81 | Grade-4 | 34.50 |
| Quality Controller/ In line Quality | Grade-4 | 30.46 | Grade-4 | 31.47 |
| Others (Guards, Drivers etc.) | Grade-4 | 29.34 | Grade-3 | 22.83 |

Source: Authors' Observations from Surveyed Firms

5.2 Occupation and Gender Composition of Employment

Our survey collected gender and occupation disaggregated data that feature some interesting findings. Data collected through our primary survey, displayed in Appendix Table-A.4.2, present the employment composition in the knit industry according to their occupation and gender. In the 47 knit firms, there are 58356 people employed of whom 24334 (41.70%) are male and 34022 (58.30%) are female. We observe some dominance of female workers over male workers in the knit factories. Interestingly, in the occupation category, the managers and management employees are mostly male. In our sample of knit firms, 96.17% of the managers are male and 3.83% of them are female. Among management employees, 88.94% are males. The female share of employment is higher than their male counterparts in most i.e., 17 categories (details in Appendix Table-A.4.3) which are mostly production categories. In all the helper categories, most of the floor production employees and quality controllers and quality inspectors are mostly female. Male employees engage more than female ones in categories that need more physical activities than finesse such as spreader man, marker man, cutter man/woman, iron man/woman, carton man/woman, printing machine operator, embroidery machine operator and other non-production workers i.e., guards, drivers etc.

The average age for males in the knit industry is 29 years and that of all females is 25 years. The average age for managers and management employees is higher than that of the production and other employees. For male managers, the average age is 47 years and for female managers, the average age is 38 years in the knit industry. For male management employees and female employees, the average age is 39 and 35 years respectively. Incidentally in the case of other non-production workers i.e., guards, drivers etc. the average age is higher for both male and female employees than those of the production employees. It supports the general idea that guards and drivers and such employees are preferred with more maturity and experience. As may be expected, the ‘helpers’ category has the lowest average age in both male and female employees in the knit industry (this is the entry-level position).

The survey firms in our study did not report having any temporary or foreign employment in their factories. And so, we have not shared data tables on permanent, temporary and foreign employee numbers or shares. Employees in the knit industry reported having an average working hour of 9 hours. According to our sample data, the average working hours for managers, management employees and printing machine operators are 8 hours and each of the other employee categories has an average working hour of 9 hours in the knit industry.

The 72 woven firms in our survey employ a total of 46280 employees of whom 17780 are male and 28500 are female. Thus, the male and female shares in the woven industry are 38.42% and 61.58% respectively. Like in the knit industry, most managers and management employees in the woven industry are male (93% and 92% respectively). Female share of employment in the woven industry is higher than their male counterparts in most i.e. 17 categories (details in Appendix Table-A.4.4) which are mostly production categories. The categories show a similar trend in the male-female share of employees in the case of the woven industry and all the categories have a higher female share than their male counterparts’ share coincide. For all the helper categories, most of the floor production employees and quality controllers, and quality inspectors in the woven industry are also mostly female just like in the knit industry. Our assumption that male employees engage in more physically strenuous activities than female employees, holds for woven industries too. The same categories of employment i.e., spreader man, marker man, cutter man/woman, iron man/woman, carton man/woman, printing machine operator, embroidery machine operator and other non-production workers i.e., guards, drivers etc. thus have a greater male share in the total employment of woven industry.

The average age for all males is 29 years and the average age for all females in the woven industry is 25 years. For male managers, the average age is 45 years and for female managers, the average age is 33 years in the woven industry. This could be because women becoming managers is a new phenomenon while many older male managers have been holding management positions for a long time and thus contribute to a higher average age of male managers. Similarly for male management employees and female management employees, the average ages are 38 and 34 years respectively. Incidentally in the case of other non-production workers i.e. guards, drivers, etc. the average age is higher for both male and female employees than those of the production employees. It supports

the general idea that guards and drivers and such employees are preferred with more maturity and experience and once trusted they are hardly changed. Also interestingly, the ‘helpers’ category has the lowest average age in the case of both male and female employees in the woven industry as has been found in the knit industry. The average working time for all employees in the woven industry is 9 hours.

5.3 Occupation and Gender Disaggregated Wages and other Benefits to the RMG Employees

5.3.1 Occupation and Gender Disaggregated Wage of the RMG Employees

This section discusses the wage and benefits given to the employees in the RMG industry. We have collected data for both the male and female employees in both woven and knit industries for the different occupation categories (Appendix Table-A.4.5). For both the knit and woven industry, salaries and other conveniences are paid to the employees differ for males and females. This is not because the wage rate for a particular position is different, rather payment differences arise mostly due to differences in the overtime earnings by male and female employees. Only in some cases, female income is higher than male income. In the knit industry, income for females in the positions of sticker man, other CMOs, lock stitch machine operator, chain stitch machine operator, flatlock machine operator, overlock machine operator, Kansai machine operator, buttonhole machine operator, and poly man are higher than that of males. Conveniences’ payments other than salaries for females in knit industries are much higher than the male employees for all but of managers, management employees, flatlock machine operator and printing machine operator categories.

In the woven industry, income for female employees in the positions of spreader man, overlock machine operator, Kansai machine operator, buttonhole machine operator, other SMOs, folding man/woman, other finishing operators, printing machine operator and embroider machine operator are higher than that of males. Female employees usually face the dual burden of home and workplace and therefore, they prefer to leave the factory as early as possible and are less attracted by overtime work.

5.3.2 Occupation and Gender Disaggregated ‘Other Benefits’ Provided to the RMG Employees

In our survey, we have collected information on the ‘other benefits’ which included provision for the bonus, pension, life insurance, health insurance, loan facilities and aid, stipend etc. given to employees (Table-5.2). For knit industry employees it is 62.99% and for woven employees, it is 61.41%. Health insurance, loan facilities, other benefits, pension, and bonuses for RMG industry employees consecutively have a higher share in the benefits given to them. 17.60% of the knit employees and 19.11% of woven employees get health insurance. 8.66% of the knit and 8.51% of the woven employees get loan facilities in their enterprises. Details regarding benefits could be found in appendix tables Table-A.4.6 and Table-A.4.7 for knit and woven firms respectively.

Table 5. 2: Benefits to the RMG Employees

| Benefits | Knit (1545) | | |
|------------------|--------------|----------------------|------------------|
| | Frequency | Percent of responses | Percent of cases |
| Bonus | 7 | 0.29 | 0.45 |
| Pension | 118 | 4.84 | 7.64 |
| Life insurance | 1535 | 62.99 | 99.35 |
| Health insurance | 429 | 17.60 | 27.77 |
| Loan Facilities | 211 | 8.66 | 13.66 |
| Others (Specify) | 137 | 5.62 | 8.87 |
| Total | 2437 | 100.00 | 157.73 |
| | Woven (1034) | | |
| Bonus | 3 | 0.18 | 0.29 |
| Pension | 64 | 3.83 | 6.19 |
| Life insurance | 1025 | 61.41 | 99.13 |
| Health insurance | 319 | 19.11 | 30.85 |
| Loan Facilities | 142 | 8.51 | 13.73 |
| Others (Specify) | 116 | 6.95 | 11.22 |
| Total | 1669 | 100.00 | 161.41 |

Source: Authors' Calculation based on Primary Survey Data

5.4 Recruitment Process in the RMG Industries

We asked the employers about the required attributes of the employees for different occupations and also asked for information about the percentage of informal recruitment prevailing in the industry. We also enquired about the average time spent to fill a post along with the associated cost of recruitment. We have summarized this information in Appendix Table-A.4.8. We note that for managerial, management employees, printing machine operators, and embroidery machine operators in both the knit and woven industries, much less physical strength is required than that of the other identified employee categories of the industry. We also find that the average time for recruitment in the production and non-production categories (except managers and management employees) is 7-8 days. For recruiting managers and management employees it takes 12-15 days in both knit and woven industries. While recruiting printing and embroidery machine operators is the least costly of them all for both types of factories. In most cases, the recruitment process is informal (A notice is given in front of the factory and selection is made by walk-in interviews).

Appendix Table-A.4.8 and Appendix Table-A.4.9 present the findings of our query to understand any possible gender bias for any particular occupational category. We note that both in knit and

woven industries, there is no gender bias in general for recruiting employees (for 76.37% for knit and 77.65% for woven industry the recruitment is without bias), though in nearly 25% of the cases there is bias.

5.5 Employees' Desired and Actual Qualifications

The survey inquired about the educational qualities (degree and educational institutes) and experiences the employers demand in hiring employees. We also collected information on the prevailing educational qualities of the employees in both the existing knit and woven industries. This is an indicator to understand the qualification mismatch in the industry. Data on desired and actual educational qualifications and experiences are summarized in Appendix Table-A.4.10 and data on the desired and actual educational institutes are listed in Appendix Table-A.4.11.

The survey data shows a definite mismatch in the desired and actual educational qualifications for most of the employment categories in both knit and woven industries. For example, employers prefer master's degree holders for managerial posts but mostly they receive applications from bachelor graduates. Required and actual education level mismatch is observed for all categories in the industry except a few. Only for quality inspectors in both the industries and printing and embroidery machine operators in the knit industry, do survey firms show a matching of desired and actual qualifications of the employees. In case of desired and acquired experience of the employees, employers' desirability and availability match for cutter man/woman, folding man/woman, poly man/woman, carton man/woman, printing machine operator, embroidery machine operator, quality inspector and quality controller in the knit industry. An employer's desirability and availability match for managers, helpers (other CMOs, other SMOs, and other finishing operators), buttonhole machine operators, printing machine operators, embroidery machine operators and quality inspectors.

Appendix Table-A.4.11 presents the percentage of desirability and availability of employees in the RMG industry as a whole for all the occupation categories. Data shows that the interest of the employers mostly centers on public and private institute graduates for administrative and management level positions. For managers and management employees. Recruitment and prevalence of national institute graduates are higher for both these occupation categories than private educational institutes. The prevalence of employees graduating from public institutes surpass the enterprises' desirability to get students from those institutes.

5.6 Existing Skills in the Employees of the RMG Industry

We asked the enterprises to identify the skill level of their employees. We also asked them to evaluate the performance quality of male and female employees on a scale of 1 to 10 considering

three attributes- less proficient (score 1-3), moderately proficient (score 4-7) and very proficient⁵ (score 8-10). For both knit and woven industries we have categorized the skill level and presented them in Table-5.3. We find that 9941 (9.50%) of the total employees in the RMG industry are less proficient, 23922 (22.86%) of the employees are moderately proficient and 70772 (67.64%) are highly proficient or very proficient in doing their jobs. The share of less proficient employees are the lowest, followed by moderately proficient employees and very proficient employees respectively. We may also note that both in the knit and woven industries, the share of less proficient employees is the lowest and the share of very proficient employees are the highest. In the knit industry, 68.60% of employees are very proficient, 22.09% are moderately proficient and 9.31% are less proficient among a total of 58356 knit factory employees. In the woven industry, 66.42% are very proficient, 23.84% are moderately proficient and 9.31% are less proficient among 46280 employees in the woven industry. Very proficient employees are more in the knit industry than the woven industry and less proficient employees and moderately proficient employees are more in the woven industry compared to the knit industry.

Table 5. 3: Existing Skill Levels in the RMG Industry

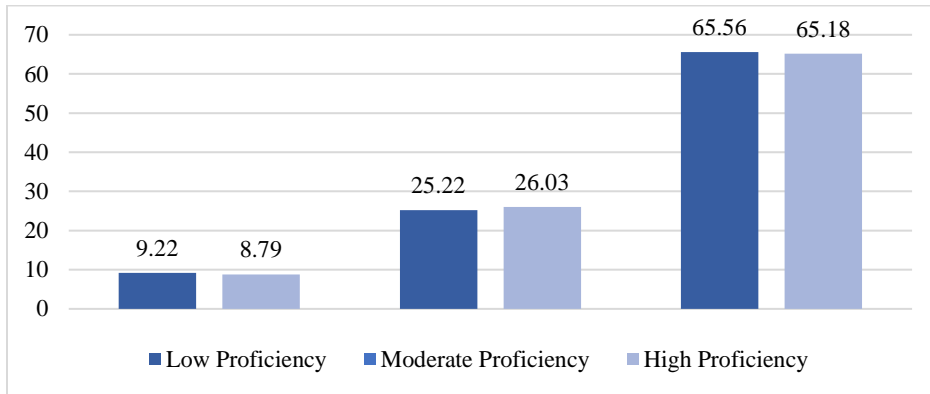
| Skills in the Knit and Woven Industries (Numbers) | | | | |
|---|------------------------|------------------------------|------------------------|--------------|
| | Less Proficient | Moderately Proficient | Very Proficient | Total |
| Knit | 5431 | 12890 | 40034 | 58356 |
| Woven | 4510 | 11032 | 30738 | 46280 |
| Total | 9941 | 23922 | 70772 | 104636 |
| Skills in the Knit and Woven Industries (Percentage Share) | | | | |
| Knit | 9.31 | 22.09 | 68.60 | 100.00 |
| Woven | 9.74 | 23.84 | 66.42 | 100.00 |
| Total Share | 9.50 | 22.86 | 67.64 | 100.00 |
| Share of Knit Industry | 5.19 | 12.32 | 38.26 | 55.77 |
| Share of Woven Industry | 4.31 | 10.54 | 29.38 | 44.23 |

Source: Authors' Calculation based on Primary Survey Data

The survey further included employers' perceptions of the proficiency of the employed males and females in each industry for each category. The findings show that most male employees in the RMG industry are highly proficient (65.56% in knit and 65.18% in woven), and less than 10% of the male employees are less proficient (9.22% in knit and 8.79% in woven) (Figure-5.3). Detailed information on proficiency and skill segregation for the male and female employees of each industry has been included in Appendix Table-A.4.11 and Appendix Table-A.4.12.

⁵ A proficient employee is usually defined as someone who is able to do their job to the required level.

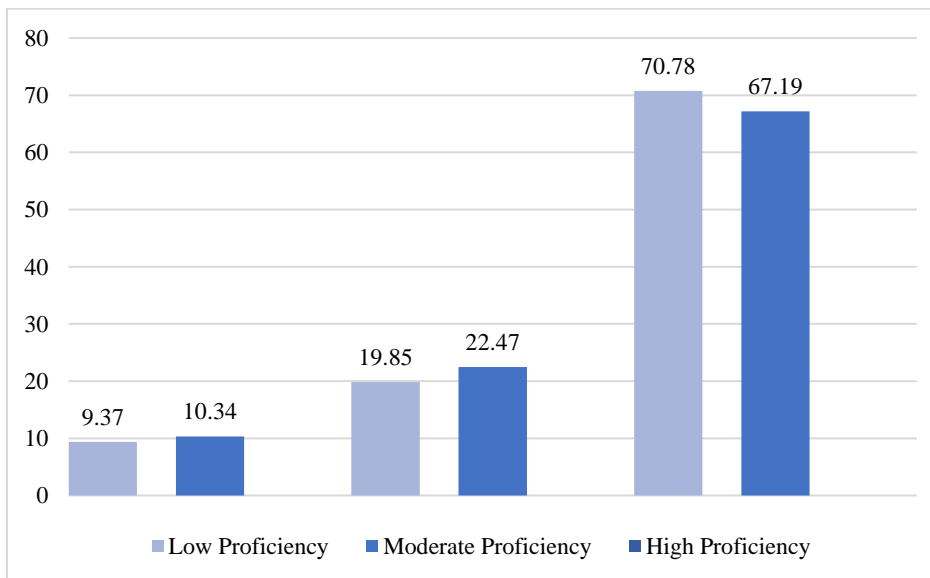
Figure 5. 3: Proficiency of Male Employees in the RMG Industry



Source: Authors' calculation of comparative proficiency of male employees in the knit and woven industries (Dark-toned bars are for the knit industry and light-toned bars are for the woven industry)

For the female employees in the RMG industry (Figure-5.4), most of them are highly proficient (70.78% in knit firms and 67.19% in woven firms), followed by moderately proficient female employees (19.85% in knit firms and 22.47% in woven firms) and less proficient employees (9.37% in knit and 10.34% in woven firms). High proficiency and low proficiency rates in female employees in both industries are higher than that of male employees. In the case of moderately proficient employees, their share is higher than that of their female counterparts.

Figure 5. 4: Proficiency of Female Employees in the RMG Industry



Source: Authors' calculation of comparative proficiency of female employees in the knit and woven industries (Light toned bars are for knit industry and dark-toned bars are for the woven industry)

Chapter 6

Enterprise Survey: Employers' Perspectives on Skills in the RMG Industry

This study has differentiated between the skill shortage and skill gap components. Skill shortage refers to not having the required number of employees in the firm or having vacancies (meaning that the firm has the capacity to employ more people but is unable to do so due to a shortage in supply of right quality job seekers) and skill gap refers to the lacking on part of the qualifications of the employees in effusively fulfilling their job responsibilities.

6.1 Analyzing the Skill Shortage-Evidence from Empirical Survey

6.1.1 Prevalence of skill shortage

The survey data reveal that skill shortage is minimum in the RMG factories (details in Appendix Table-A.5.1). However, there are some positions for which we observe vacancies. The positions with a higher average level of vacancy for the knit industry are in lockstitch machine operators and overlock machine operator categories. Other categories in this industry have 1 to 2 vacancies on an average. For woven industry, higher level of average vacancy is observed in categories including lockstitch machine operator, overlock machine operator and other SMOs (helpers in the sewing machine operator category).

Enterprises reported to not having many difficulties in finding people for the vacancies in different occupational categories of knit and woven firms. In the overall scoring of measuring difficulties (1 for no difficulties and 10 for a very high level of difficulties), employers in both knit and woven industries' average difficulty stand at most to level 4 for most occupational categories. Interestingly, while woven firms reported that they do not face any difficulties at all to fill up vacancies for printing machine operators and embroidery machine operators, for employers in knit industries, filling up vacancies for these two posts seems to be the highest and most daunting (Appendix Table-A.5.1).

For most posts in both the knit and woven industries, most enterprises reported filling up the vacancies in less than a week (78% in the knit industry and 73% in the woven industry). Though for some (12% of knit and 14% of the woven industries reported that) it takes more than a week but less than a month and 10% of the knit and 13% of the woven industries reported that they can fill up the available vacancies almost immediately (details for each occupation in Appendix Table-A.5.2).

6.1.2 Causes of hard-to-fill vacancies

Employers also reported on the probable causes of hard-to-fill vacancies in their enterprises. The reported causes are presented in Table-6.1. The main cause of having difficulties in filling up the

vacant posts in the knit industry is the lack of experience of the applicants compared to the firm demands (25.43%), followed by lack of qualification in the candidates that the firms seek (17.19%) and the low number of applicants with required skills for the post (15.84%).

For the woven industry, lack of work experience in the available candidates (21.05%) is the most plausible cause for hard-to-fill vacancies followed by the low number of candidates with required skills (20.95%) and poor terms and conditions (e.g., pay) in the firms (20.56%). Other causes include the low number of applicants with the required attitude, motivation and personality, a low number of available candidates in general, lacking provision of career progression, unsociable work hours, too much competition from other firms, and not enough interested candidates for the posts and in a very low number of cases, seasonal work period.

Table 6. 1: Causes of hard-to-fill vacancies

| | Reason (Valid N) | Knit | | |
|--|---------------------|---------------|-------------------------|---------------------|
| | | Freque ncy | Percent of responses | Percent of cases |
| Poor terms and conditions (e.g., pay) offered for post | 520 | 182 | 11.72 | 35.00 |
| Low number of applicants with the required skills | 520 | 246 | 15.84 | 47.31 |
| Low number of applicants with the required attitude, motivation or personality | 520 | 147 | 9.47 | 28.27 |
| Low number of applicants in general | 520 | 115 | 7.41 | 22.12 |
| Lack of work experience compared to that the company demands | 520 | 395 | 25.43 | 75.96 |
| Lack of qualifications than demanded by the company | 520 | 267 | 17.19 | 51.35 |
| Poor career progression/ lack of prospects | 520 | 92 | 5.92 | 17.69 |
| Job entails shift work/ unsociable hours | 520 | 21 | 1.35 | 4.04 |
| Too much competition from other employers | 520 | 19 | 1.22 | 3.65 |
| Not enough people interested in doing this type of job | 520 | 64 | 4.12 | 12.31 |
| Seasonal Work | 520 | 5 | 0.32 | 0.96 |
| Total | 520 | 1553 | 100.00 | 298.65 |
| | Reason (Valid N) | Woven | | |
| | | Freque ncy | Percent of responses | Percent of cases |
| Poor terms and conditions (e.g., pay) offered for post | 347 | 212 | 20.56 | 61.10 |
| Low number of applicants with the required skills | 347 | 216 | 20.95 | 62.25 |
| Low number of applicants with the required attitude, motivation or personality | 347 | 94 | 9.12 | 27.09 |
| Low number of applicants generally | 347 | 79 | 7.66 | 22.77 |
| Lack of work experience the company demands | 347 | 217 | 21.05 | 62.54 |
| Lack of qualifications the company demands | 347 | 152 | 14.74 | 43.80 |
| Poor career progression/ lack of prospects | 347 | 27 | 2.62 | 7.78 |
| Job entails shift work/ unsociable hours | 347 | 1 | 0.10 | 0.29 |
| Too much competition from other employers | 347 | 7 | 0.68 | 2.02 |
| Not enough people interested in doing this type of job | 347 | 25 | 2.42 | 7.20 |
| Seasonal Work | 347 | 1 | 0.10 | 0.29 |
| Total | | 1031 | 100.00 | 297.12 |

Source: Authors' Calculation based on Primary Survey Data

6.1.3 Impacts of skill shortage

There are some major impacts of having difficulties in filling up vacancies. According to the respondents in our survey, the prevalence of hard-to-fill vacancies makes introducing new working practices difficult for employers (19.31% of the knit respondents and 24.40% of the woven respondents), followed by causing operating costs to increase (15.72% of the knit and 17.58% of the woven firms) and impeding the firms to meet quality standards (13.93% of knit and 16.62% of woven RMG respondents). Other impacts listed in Table-6.2 include causing difficulties in starting a new type of work (which may be more efficient and cost and energy efficient), delaying innovation of new products and services in the industry etc.

Table 6. 2: Impact of hard-to-fill vacancies

| | Impact (N) | Knit | | |
|--|------------|-----------|----------------------|------------------|
| | | Frequency | Percent of responses | Percent of cases |
| Loose business or orders to competitors (National/International) | 520 | 181 | 11.61 | 34.81 |
| Delay developing new products or services | 520 | 197 | 12.64 | 37.88 |
| Have difficulties meeting quality standard | 520 | 217 | 13.92 | 41.73 |
| Experience increased operating costs | 520 | 245 | 15.72 | 47.12 |
| Have difficulties in introducing new working practice | 520 | 301 | 19.31 | 57.88 |
| Increase workload for other staff | 520 | 199 | 12.76 | 38.27 |
| Outsource work | 520 | 4 | 0.26 | 0.77 |
| Withdraw from offering certain products or services altogether | 520 | 23 | 1.48 | 4.42 |
| Have difficulties meeting customer service objective | 520 | 86 | 5.52 | 16.54 |
| Have difficulties starting new type of work | 520 | 106 | 6.80 | 20.38 |
| | | 1559 | 100.00 | 299.81 |
| | | Woven | | |
| | Impact (N) | Frequency | Percent of responses | Percent of cases |
| Loose business or orders to competitors (National/International) | 347 | 98 | 9.41 | 28.24 |
| Delay developing new products or services | 347 | 112 | 10.76 | 32.28 |
| Have difficulties meeting quality standard | 347 | 173 | 16.62 | 49.86 |
| Experience increased operating costs | 347 | 183 | 17.58 | 52.74 |
| Have difficulties in introducing new working practice | 347 | 254 | 24.40 | 73.20 |
| Increase workload for other staff | 347 | 64 | 6.15 | 18.44 |
| Outsource work | 347 | | | |
| Withdraw from offering certain products or services altogether | 347 | 8 | 0.77 | 2.31 |
| Have difficulties meeting customer service objective | 347 | 15 | 1.44 | 4.32 |
| Have difficulties starting new type of work | 347 | 134 | 12.87 | 38.62 |
| Total | | 1041 | 100.00 | 300.00 |

Source: Authors' Calculation based on Primary Survey Data

6.2 Analyzing the Skill Gap

6.2.1 Prevalence of Skill Gap

This chapter analyses the skills gaps in the existing enterprises. According to the survey data on the overall RMG industry, we see that among all the participants RMG firms 53.74% reported to have skill gaps in different categories of their industry. For the RMG industry, categories include lockstitch machine operator (74.65%), flatlock machine operator (72.31%), overlock machine operator (66.99%), printing machine operator (66.67%), quality inspector (64.91%), chain stitch machine operator (63.48%), embroidery machine operator (62.50%), iron man/woman (60.3%), quality controller (57.23%) and feed of the arm machine operator (56.64%). In the broad category, most of the surveyed firms' responses indicated the highest prevalence of skill gap in the sewing machine operator category along with quality category (both inspector and controller) and printing machine operator and embroidery machine operator categories.

From the overall firms having skill gaps at different occupation levels, 60.49% of the responses indicated the prevalence of skill gaps at different occupations in the knit industry, whereas 39.51% of responses from the woven industry reported having skill gaps. Also from employers' perception of prevailing skill gaps in the knit industry, flatlock machine operators (68.79%), other SMOs (including helpers in the sewing m machine operator category) (68.04%), printing machine operators (66.67%), spreader man (66.22%), overlock machine operator (65.94%), quality inspector (65.54%), other finishing operators (including helpers in the finishing operator category) (64.79%), lockstitch machine operator (62.26%) and other CMOs (including helpers in the cutting machine operator category) (62.03%) are among the major categories having been reported as having the highest level of skill gap. in broader category terms, it seems that helpers, most of the sewing machine operators, quality inspectors and some of the finishing operators in the knit industry reported having higher skill gap than other categories.

In the case of the occupations in the woven industry, managers (47.83%), management employees (46.55%), sticker man (46.15%), marker man (45.59%), other non-productive employees (including drivers, guards etc.) (45.45%), fusing machine operator (44.44%), buttonhole machine operator (43.93%), folding man/woman (43.21%), iron man/woman (42.45%), quality controllers (42.52%) and cutter man/woman (42.11%) have been reported as having higher skill gap than the other categories in the woven industry. In terms of broader category managers, management employees, quality controllers and some of the finishing operators have more share among the prevailing total share of skill gaps in employees.

We also investigated the gender composition of the skill gap in the industry. For the male employees in knit industries, the percentage of skill gap is 53% and for female employees, this percentage is 54%. For male employees in the woven industry, the percentage is 54% and for female employees, there seems to be a 53% skill gap. This data shown in Appendix Table-A.5.3 present that firms producing both knit and woven products generally report having a skill gap in more than half of their employed population. More details on occupation and gender disaggregated

skill gap among the employees of knit and woven garment industries are presented in Appendix Table-A.5.4 and Appendix Table-A.5.5. Survey data shows that male managers in both the knit and woven industry have a very low level of skill gap according to their employer's perceptions meaning that they are good at what they do or require to do. For female employees in the knit industry, categories identified as cutter man/woman, carton man/woman and other non-productive employees (drivers, guards etc.) have the lowest level of skill gap (35%, 29% and 37%). In the woven industry, females in their jobs as cutter man/women and others (helpers in the sewing machine operator category) have less skill gap (40% and 36% respectively).

Skill gap data for males in the knit industry show that managers, sticker men, and other non-productive employees (drivers, guards etc.) have less skill gap than in other occupation categories (25%, 35% and 33%) and among the male in the woven industry, managers and other finishing operators have less skill gap than others in the firms (36% and 33%). It may be inferred that firms whether knit or woven, prefer and do have more skilled managers in their enterprises (details on the occupation-wise skill gap are shown in Appendix Table-A.5.3).

6.2.2 Reasons behind skill gap

When asked about the reason behind the prevailing skill gap in the industry, all the surveyed firms were asked if the existing skill gap is prevailing due to firms' organizational shortcomings or lack of training on part of the employees. Again, data listed in Appendix table- A.5.6 indicate that both are responsible for the existing skill gap in some capacity or another. In the knit industry, organization-specific reasons are among the least responsible ones for the prevailing skill gaps in occupation categories including managers, button attaches machine operators and embroidery machine operators. The reason for the skills gap in most cases of the other occupations is training related or more specifically due to lack of training among the employees. In general, 55% of the skill gap emerges from organizational shortcomings for both male and female employees whereas lack of training is the reason working behind the skill gap scenario in the knit industry.

In the woven industry, organizational shortcomings are the major reason for the skill gap in most of the occupation categories including management employees, spreader man, marker man, sticker man, etc. For skill gap in the male employees of the knit industry, organization-specific shortcomings or issues are more relevant than lack of training in the employees (55% and 45% respectively). For female employees, this percentage is 53% and 47% respectively.

Chapter 7

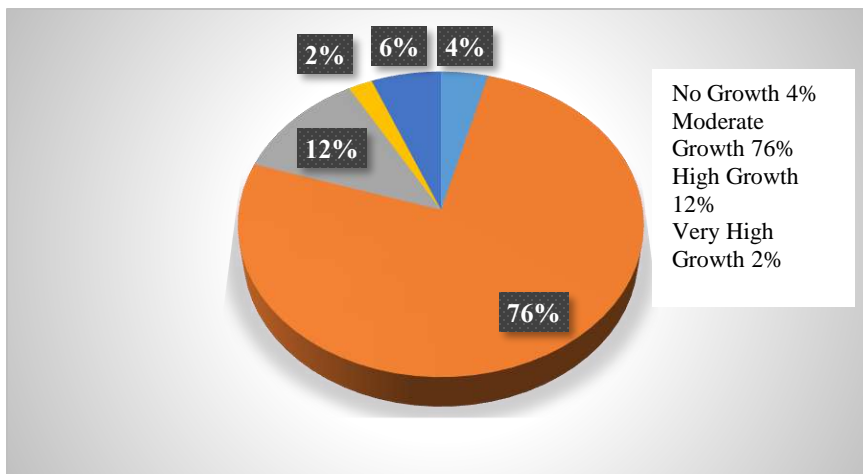
Enterprise Survey: Employers' Perspective on Future Projection of Skills and Addressing the Skill Needs

Apart from concerns regarding skill gap and skill shortage-related issues, there is also the future possibility of growth or change in the existing labor demand with the changing dynamics of supply and demand sides and technological and technical changes in the RMG industry. So, while we need to address the multiple issues related to skill shortage and skill gap and try to overcome them, we also need to know about the changing labor dynamics. This chapter deals with those issues.

7.1 Future Labor Demand by Occupation in the RMG Industries

We asked the employers about their projections about possible changes in the labor demand market of the RMG industry. Data has been collected for each category of the occupations in the RMG industry (details in Appendix Table-A.6.1 and Appendix Table-A.6.2). Below we show the graphical presentation of the projected changes in both the knit and woven industry. When the employers were asked about the direction of labor demand growth, they based their answers on 5 options including no growth in the labor demand, moderate growth, high growth, very high growth and negative growth. According to the survey data, labor growth in the knit industry would mostly be moderate (76% of respondents/firms) in the next 5-10 years, followed by high labor growth projection by 12% of firms, negative growth projection by 6% of firms, no growth projection by 4% firms and very high growth projection by 2% firms. As this is a perception-based estimate, we can say that most knit firms expect to see moderate growth in the labor demand market.

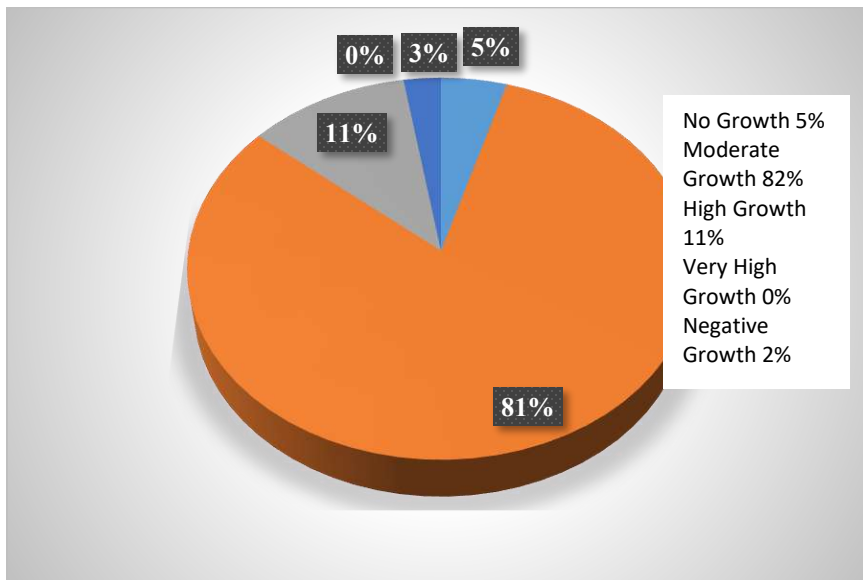
Figure 7. 1: Projected Direction of Labor Growth Changes in the Knit Industry



Source: Authors' Calculation based on Primary Survey Data

Labor growth projection by the woven garment firms indicates that like in the knit industry most firms expect moderate growth in the labor demand scenario (81%), followed by a projection of high growth by 11% firms, no growth by 5% firms and negative growth for 2% firms. To sum up, in the next 5-10 years, employers expect there to be an increase in the demand for labor.

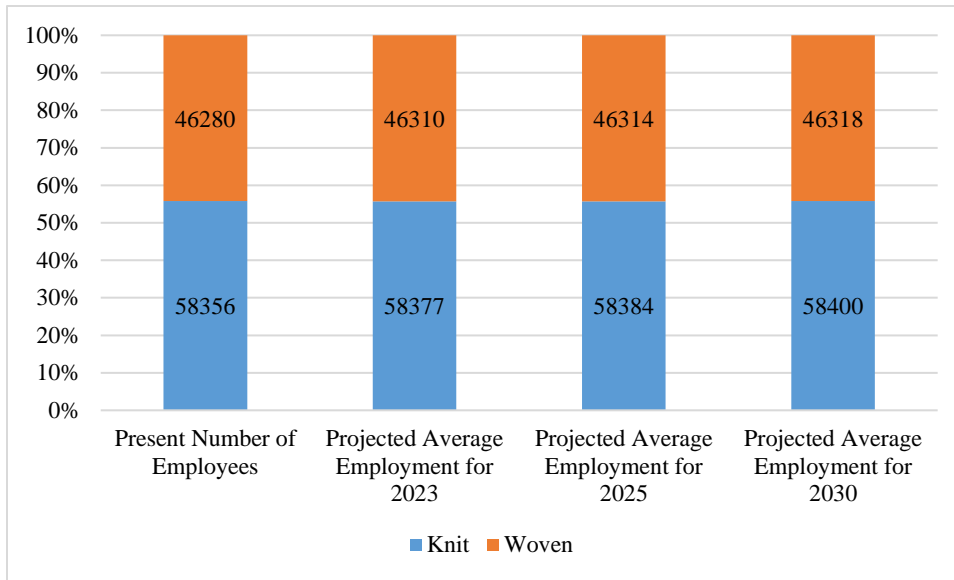
Figure 7. 2: Projected Direction of Labor Growth Changes in the Woven Industry



Source: Authors' Calculation based on Primary Survey Data

We further see if there is growth in labor demand in the future what would be the extent of growth in the employees of the RMG industry. We asked both knit and woven RMG employers to predict the possible composition of labor in the next few years. The employers predicted labor changes for 2023, 2025 and 2030 are presented in Figure-7.3. It is noted that employment growth is predicted to be moderate in those years as was predicted and reported through the direction of labor growth projection. Overall employment in both the knit and woven industries would increase in the upcoming years.

Figure 7. 3: Present and Projected Employment in the Surveyed RMG Enterprises



Source: Authors’ Calculation based on Primary Survey Data

The enterprises in our survey predicted labor employment for all categories of both the knit and woven industries. These data are enlisted in Appendix Table-A.6.3. Employment for categories of employment increased steadily for both the knit and woven industries except for embroidery machine operators in the woven industry (employment remains unchanged for embroidery machine operators from 2023 to 2030). As a whole industry, the future employment in this industry shows a steady upward trend.

7.2 Addressing Issues Related to Skill Shortage, Skill Gap and Future Skill Development

We have so far discussed and analyzed data on skill shortage, skill gap and future employment projection. To accommodate the positive changes in labor employment in RMG industry, we need to solve skill shortage and skill gap problems in the industry.

7.2.1 Firms’ Prerogative on Solving Issues related to Skill Shortage

We wanted to know the reasons behind firms’ interest to address the skill shortage in the industry. As has been noted in Table-7.1 to solve issues regarding prevalent skill shortage in the industry, knit firms are willing to increase salaries (21.78% of the respondents), increase / expand trainee programs (e.g., even via a partnership with local or international consultants/training institutes) (19.39%), redefine the existing jobs in the industry (17.07%) etc. respectively.

Woven firms are willing to increase/expand trainee programs (e.g., even via partnership initiatives with local or international consultants/training institutes) (23.17%), increase employee salaries (23.08%), provide the existing workforce/employees with training opportunities (22.31%) etc. respectively.

Table 7. 1: Addressing Skill Shortage in the Industry

| Action | Knit | | |
|---|-----------|----------------------|------------------|
| | Frequency | Percent of responses | Percent of cases |
| Increasing salaries | 338 | 21.78 | 65.00 |
| Increasing the training given to your existing workforce | 209 | 13.47 | 40.19 |
| Redefining existing jobs | 265 | 17.07 | 50.96 |
| Increasing advertising/recruitment spend | 59 | 3.80 | 11.35 |
| Increasing / expanding trainee programs (e.g., partnership with local or international consultants/training institutes) | 301 | 19.39 | 57.88 |
| Using new recruitment methods or channels | 151 | 9.73 | 29.04 |
| Recruiting workers who are foreigners | 48 | 3.09 | 9.23 |
| Bringing in contractors to do the work, or contracting it out | 8 | 0.52 | 1.54 |
| Offering training to less qualified recruits | 173 | 11.15 | 33.27 |
| Total | 1552 | 100.00 | 298.46 |
| | Woven | | |
| Action | Frequency | Percent of responses | Percent of cases |
| Increasing salaries | 240 | 23.08 | 69.16 |
| Increasing the training given to your existing workforce | 232 | 22.31 | 66.86 |
| Redefining existing jobs | 139 | 13.37 | 40.06 |
| Increasing advertising/recruitment spend | 9 | 0.87 | 2.59 |
| Increasing / expanding trainee programs (e.g., partnership with local or international consultants/training institutes) | 241 | 23.17 | 69.45 |
| Using new recruitment methods or channels | 73 | 7.02 | 21.04 |
| Recruiting workers who are foreigners | 24 | 2.31 | 6.92 |
| Bringing in contractors to do the work, or contracting it out | 11 | 1.06 | 3.17 |
| Offering training to less qualified recruits | 71 | 6.83 | 20.46 |
| Total | 1040 | 100.00 | 299.71 |

Source: Authors' Calculation based on Primary Survey Data

7.2.2 Firms Prerogative on Solving Issues related to Skill Gap

To address the issues related to skill gap in the industry both knit and woven firms are willing to take several steps. Survey data show that, 33.26% of the knit firms in the industry are interested in increasing training activity/spend or increase/expand trainee programs, 24.65% are willing to increase frequency of staff appraisals/ performance reviews, 22.23% intends to increase supervision of the existing employees in their firms etc. 33.23% of the woven firms in the industry are interested in increasing training activity/spend or increase/expand trainee programs, 18.87% are willing to increase frequency of staff appraisals/ performance reviews and 13.00% are willing to implement mentoring/ buddying scheme for employee supervisions etc. (Table-7.2)

Table 7. 2: Addressing Skill Gap in the Industry

| Actions | Knit | | |
|--|------------------|-----------------------------|-------------------------|
| | Frequency | Percent of responses | Percent of cases |
| Increase training activity / spend or increase / expand trainee programs | 456 | 33.26 | 99.78 |
| Reallocating work | 9 | 0.66 | 1.97 |
| Increase recruitment activity / spend | 54 | 3.94 | 11.82 |
| More staff appraisals / performance reviews | 338 | 24.65 | 73.96 |
| Implementation of mentoring / buddying scheme | 163 | 11.89 | 35.67 |
| More supervision of staffs | 306 | 22.32 | 66.96 |
| Recruiting workers who are foreigners | 41 | 2.99 | 8.97 |
| Changing working practice | 4 | 0.29 | 0.88 |
| Total | 1371 | 100.00 | 300.00 |
| | Woven | | |
| | Frequency | Percent of responses | Percent of cases |
| Increase training activity / spend or increase / expand trainee programs | 317 | 33.23 | 99.69 |
| Reallocating work | 112 | 11.74 | 35.22 |
| Increase recruitment activity / spend | 48 | 5.03 | 15.09 |
| More staff appraisals / performance reviews | 180 | 18.87 | 56.60 |
| Implementation of mentoring / buddying scheme | 124 | 13.00 | 38.99 |
| More supervision of staffs | 109 | 11.43 | 34.28 |
| Recruiting workers who are foreigners | 62 | 6.50 | 19.50 |
| Changing working practice | 2 | 0.21 | 0.63 |
| Total | 954 | 100.00 | 300.00 |

Source: Authors' Calculation based on Primary Survey Data

While firms are willing to take measures to address the existing skill shortages and skill gaps in the industry, there are more that can be beneficial in addressing these concerning issues. Employers were asked about addressing the needs of the stakeholders to address skill shortages, skill gaps, and future employment and skill needs. According to primary survey data, these issues can be resolved by ensuring prior qualifications in the employees and providing training to them. Almost 84% of the skill gap in the male employees and 88% of the skill gap in the female employees of the knit industry can be absorbed by providing training to them (Table-7.3).

In the woven industry, these percentages are 82% for male and 84% for female employees. There is no evidence found from employers' perception that training does not help in removing or addressing the skill gap in the industry (employment category wise details in Appendix Table-A.6.4). Ensuring prior qualifications among the employees in the knit firms can help greatly in removing skill gap in the industry. In knit industry, 60% of the skill gap can be fully narrowed down in case of the male employees by dint of their personal prior qualifications and 62% of the skill gap in the female employees of the industry can be fully removed by ensuring their prior qualifications or achievements. For woven industry, 40% skill gap among the male employees and 35% skill gap among the female employees can be minimized through their prior qualifications. There is evidence of perception of employers that 43% of the skill gap among male and 46% skill

gap among the female in woven industries can be minimized through their previous acquisition of qualifications (employment category wise details in Appendix Table-A.6.5). Again, there is very little evidence of employees' prior qualifications in not having any influence on minimizing the skill gap in existing male and female RMG employees.

Table 7.3: Minimizing Skill Gap through Training and Prior Qualifications of the Employees

| Minimizing Skill Gap through Providing Training to the Employees | | | | | | | | |
|--|-------|--------|-----------|--------|------------|--------|-------------------|--------|
| Industry | Fully | | Partially | | Not at all | | Total Respondents | |
| | Male | Female | Male | Female | Male | Female | Male | Female |
| Knit | 0.84 | 0.88 | 0.16 | 0.12 | 0.00 | 0.00 | 764 | 643 |
| Woven | 0.82 | 0.84 | 0.17 | 0.16 | 0.00 | 0.00 | 485 | 434 |
| Minimizing Skill Gap through Prior Qualifications of the Employees | | | | | | | | |
| Knit | 0.60 | 0.62 | 0.36 | 0.34 | 0.04 | 0.04 | 764 | 643 |
| Woven | 0.40 | 0.35 | 0.43 | 0.46 | 0.17 | 0.19 | 485 | 434 |

Source: Authors' Calculation based on Primary Survey Data

7.2.3 Firms Prerogative on Future Training Needs

Considering the response of enterprises about the benefits of training and employee's previous qualifications, there must be some initiatives taken to ascertain these issues immediately. Employers in the RMG industry have certain views on the training-related issues of their employees. 65.55% of the employers claimed to have organized or financed trainings for their employees (Table 7.4). 57.14% of them know about TVET trainings organized by the government agencies and 89.92% employers prioritize recruiting trained TVET employees over others. The later percentage more or less depicts the importance of trained employees from employers' perspectives.

Table 7. 4: Training by the Enterprises and TVET Knowledge

| Component | Percentage of Enterprises |
|---|---------------------------|
| Enterprises That Organized or Financed Training for their Employees | 65.55 |
| Enterprises that Know about TVET Training | 57.14 |
| Enterprises that Give Priority to TVET Trainees while Recruiting | 89.92 |

Source: Authors' Calculation based on Primary Survey Data

When asked about the training needs for the existing employees there were multiple opinions from the employers. We have gone through all the training needs mentioned by them and clustered the training program into broad categories under each occupation. This has also been done in the broad occupation categories. For example, a broad category of 'cutting machine operator' mentioned earlier has 5 sub-categories including spreader man/woman, marker man/woman, cutter man/woman, sticker man/woman and other cutting machine operators (including helpers).

Survey data indicate that training for overall skill development of all the employment categories is a major concern. Employers ascertain that basic employment training of all the employees at the entry-level is a must. Other than that, need for safety and health-related training including emergency training in case of fire or any other accidents, first aid training and maternal health care training for all the employees have been highlighted.

In Table-7.5, we include all the training needs as clusters under some broad categories. It is important to mention here that other non-productive employees have been excluded from this list as employers did not mention any specific training program/need for the employees involved in that category other than training on health and safety issues in the enterprises and training on their moral and immoral behavior. All the employees training on skill and development needs include the automation, technological change or technical know-how of business operations.

Table 7. 5: Training needs of the Employees: Employer’s Perspective

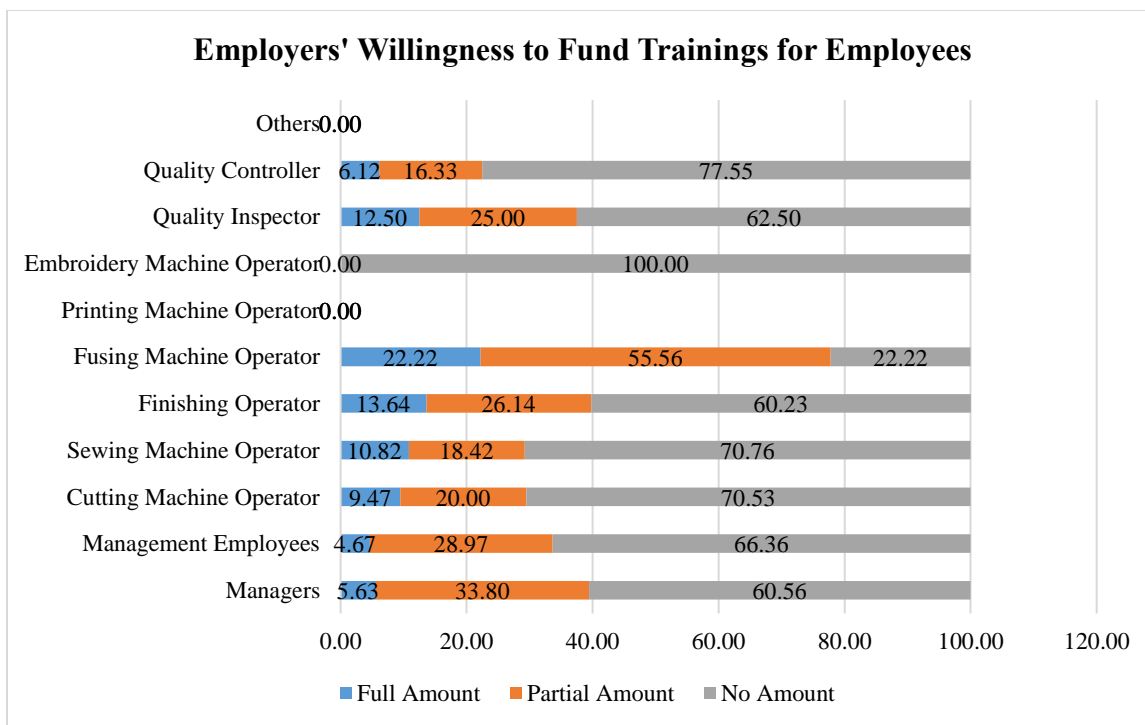
| Occupation | Rank 1 | Rank 2 | Rank 3 | Rank 4 | Rank 5 |
|------------------------------------|----------------------------------|--|---|---|---|
| Managers | Management Training | ISO 9000 Training | Skill Development Training | Moral And Harassment Issue Related Training | Employees’ Health and Safety Related Training |
| Management Employees | Skill Development Training | Computer Training | Administrative Training | Merchandising Related Training | Employees’ Health and Safety Related Training |
| Cutting Machine Operator | Skill Development Training | Technology and Skill Training | TVET | Employees’ Health and Safety Related Training | |
| Sewing Machine Operator | Skill Development Training | Technology and Skill Training | Auto Machine | Machine Speed Controlling | Employees’ Health and Safety Related Training |
| Finishing Operator | Skill Development Training | TVET | Automated Technology | Employees’ Health and Safety Related Training | |
| Fusing Machine Operator | Skill Development Training | Moral And Immoral Behavior | Employees’ Health and Safety Related Training | | |
| Printing Machine Operator | Skill Development Training | Technology Training i.e., Digital Machine related Training | Employees’ Health and Safety Related Training | | |
| Embroidery Machine Operator | Moral And Immoral Behavior | Employees’ Health and Safety Related Training | | | |
| Quality Inspector | Skill and Technological Training | Quality Check Training (Measurement | Employees’ Health and Safety Related Training | | |

| | | | | | |
|---------------------------|----------------------------|---------------------------|---|--|--|
| Quality Controller | Skill Development Training | Product Quality Assurance | Employees' Health and Safety Related Training | | |
|---------------------------|----------------------------|---------------------------|---|--|--|

Source: Authors' Observations based on Primary Survey Data

Funding choices of training for the employers vary among different occupation categories of their employees. While none of the surveyed employees commented on funding training for printing machine operators, none of them are willing to fund for embroidery machine operator training either. This may be because the output of these machines depends on the functioning and designing ability of the machines, not the operators themselves. Fusing machine operators are the employees that employers are most enthusiastic about in terms of funding their training. Funding for trainings for finishing operators, managers and quality inspectors holds the second, third and fourth appeal for the employers of this industry. It is also mentionable here that, other than training the fusing machine operators, more than 60% of the employees showed no interest at all in funding for the training of the other employee categories i.e., more than 60% of them do not want to spend any amount for these employee categories.

Figure 7. 4: Employers' Willingness to Fund Trainings for Employees in Different Occupation Categories



Chapter 8

Employee Survey: Perspectives on Skills in the RMG Industry

The employee survey has been conducted to analyse the present condition of the RMG workers. We focus mainly on the production employees of the industry. And identified four major product categories for the employee survey namely the cutting machine operators, the sewing machine operators, the finishing operators and the quality checking employees i.e., quality inspectors and quality controllers. Targeting one employee for each category, we randomly picked and interviewed four from each enterprise. All in all, there were 476 (4X119) employees in this survey. These employees were interviewed on various aspects of their lives, work and working environments.

8.1 Characteristics of the Participants

The background characteristic of the study participants has been represented in Table 8.1. A total of 476 RMG workers were interviewed and analyzed for this survey. Among them, 42% of the workers belonged to the medium firms while 34% and 24% of workers were from large and medium firms respectively. Most of the workers are young adults (82%) aged below 30 years and only 2% of the workers were aged 40 and above. The proportion of male and female workers is almost the same. It is noted that more than half of the workers completed secondary school level education (56%) followed by primary school level education (28%) while about 15% of the workers completed a higher level of education. About half of the workers (54%) come from a larger family consisting of more than 4 members. Regarding the occupations of the employees, the proportion of workers from Cutting Machine Operator, Sewing Machine Operator, Finishing Machine Operator, Quality Controller and Quality Inspector were 24%, 26%, 25%, 10% and 15%, respectively. Most of the workers (54%) come from urban area (88%) and were married (67%). The average income of the workers was BDT 10,899 while the total households of that income and expenditure were BDT 25,525 and BDT 19,030 respectively.

Table 8. 1: Background characteristics of the study participants, (N=476)

| Indicators | Knit | | Woven | | Overall | |
|--|------------|-------|------------|-------|------------|-------|
| | N/ Mean | %/SD | N/ Mean | %/SD | N/ Mean | %/SD |
| Size of firm | | | | | | |
| Small (1-300) | 76 | 26.39 | 36 | 19.15 | 112 | 23.53 |
| Medium (301-1000) | 120 | 41.67 | 80 | 42.55 | 200 | 42.02 |
| Large (1000+) | 92 | 31.94 | 72 | 38.3 | 164 | 34.45 |
| Age of the respondents (in years) | | | | | | |
| Less than 20 | 35 | 12.15 | 22 | 11.70 | 57 | 11.97 |
| 21-25 | 101 | 35.07 | 73 | 38.83 | 174 | 36.55 |
| 26-30 | 100 | 34.72 | 60 | 31.91 | 160 | 33.61 |
| 31-40 | 45 | 15.63 | 29 | 15.43 | 74 | 15.55 |
| More than 40 | 7 | 2.43 | 4 | 2.13 | 11 | 2.31 |
| Sex | | | | | | |

| | | | | | | |
|---|-------|----------|-------|----------|-------|----------|
| Male | 150 | 52.08 | 89 | 47.34 | 239 | 50.21 |
| Female | 138 | 47.92 | 99 | 52.66 | 237 | 49.79 |
| Education of the respondents | | | | | | |
| No formal education | 4 | 1.39 | 2 | 1.06 | 6 | 1.26 |
| Up to primary | 78 | 27.08 | 55 | 29.26 | 133 | 27.94 |
| Secondary | 172 | 59.72 | 95 | 50.53 | 267 | 56.09 |
| Higher | 34 | 11.81 | 36 | 19.15 | 70 | 14.71 |
| Occupation | | | | | | |
| Cutting Machine Operator | 69 | 23.96 | 45 | 23.94 | 114 | 23.95 |
| Sewing Machine Operator | 76 | 26.39 | 47 | 25.00 | 123 | 25.84 |
| Finishing Machine Operator | 71 | 24.65 | 50 | 26.60 | 121 | 25.42 |
| Quality Controller | 27 | 9.38 | 20 | 10.64 | 47 | 9.87 |
| Quality Inspector | 45 | 15.63 | 26 | 13.83 | 71 | 14.92 |
| Residence | | | | | | |
| Urban | 247 | 85.76 | 174 | 92.55 | 421 | 88.45 |
| Rural | 41 | 14.24 | 14 | 7.45 | 55 | 11.55 |
| Marital Status | | | | | | |
| Single | 85 | 29.51 | 62 | 32.98 | 147 | 30.88 |
| married | 197 | 68.4 | 123 | 65.43 | 320 | 67.23 |
| Divorcee | 1 | 0.35 | 2 | 1.06 | 3 | 0.63 |
| Widow/ Widower | 3 | 1.04 | 1 | 0.53 | 4 | 0.84 |
| Others | 2 | 0.69 | - | - | 2 | 0.42 |
| Household Size | | | | | | |
| Single | 32 | 11.11 | 25 | 13.30 | 57 | 11.97 |
| Two to three | 107 | 37.15 | 57 | 30.32 | 164 | 34.45 |
| Four to Five | 103 | 35.76 | 77 | 40.96 | 180 | 37.82 |
| Six and more | 46 | 15.97 | 29 | 15.43 | 75 | 15.76 |
| Total earning member of the households | | | | | | |
| One | 42 | 14.63 | 37 | 19.79 | 79 | 16.67 |
| Two | 198 | 68.99 | 118 | 63.10 | 316 | 66.67 |
| Three or more | 47 | 16.38 | 32 | 17.11 | 79 | 16.67 |
| Average monthly income of worker (Mean, SD) | | | | | | |
| | 10980 | 3020.29 | 10775 | 3744.43 | 10899 | 3322.86 |
| Average monthly income of household (Mean, SD) | | | | | | |
| | 25643 | 11914.84 | 25346 | 10452.93 | 25525 | 11349.55 |
| Average monthly expenditure of household (Mean, SD) | | | | | | |
| | 18434 | 8101.39 | 19944 | 12092.92 | 19030 | 9888.06 |
| Average household income by income quintile (Mean, SD) | | | | | | |
| First | 13509 | 3447.87 | 12237 | 3574.24 | 13005 | 3535.42 |
| Second | 20460 | 1099.98 | 20482 | 863.99 | 20468 | 1016.63 |
| Third | 24235 | 1271.12 | 23863 | 1125.15 | 24102 | 1227.96 |
| Fourth | 28823 | 1765.40 | 28978 | 1735.30 | 28889 | 1743.99 |
| Fifth | 44154 | 14293.15 | 39693 | 8780.61 | 42182 | 12312.68 |

8.2 Profession Characteristics of Workers

Table-8.2 shows the professional characteristics of the study participants who were involved in small, medium and large factories from both the knit and woven industries. Around 46% of the small knit factory workers were working on their current workplace for 2-5 years. It was observed that almost 66% of workers from large firms had more than 5 years' experience while from small and medium factories it was 60% and 54% respectively. It can be noted that most of the

experienced workers were involved in the Knit Garments than those of the Woven Garments. This tendency was found in all types of firms irrespective of the size of the firms. From all firms, most of the workers reported that they were involved in physical intensive work. In this regard, workers from small and medium firms in Knit industries reported being involved in more physically intensive work than large firms. A similar pattern was also observed in the Woven industries. It was found that the workers from Woven industries switched their job more than those of the workers from Knit industries.

Table 8. 2: Professional characteristics of the study participants across the type of Garments, (N=476)

| Indicators | Knit | | | Woven | | | Overall | | |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|
| | Small | Medium | Large | Small | Medium | Large | Small | Medium | Large |
| | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) |
| Job duration in current factory (in year) | | | | | | | | | |
| Less than one year | 16 (21.05) | 11 (9.17) | 10 (10.87) | 13 (36.11) | 7 (8.75) | 6 (8.33) | 29 (25.89) | 18 (9) | 16 (9.76) |
| 2 to 5 years | 35 (46.05) | 58 (48.33) | 40 (43.48) | 19 (52.78) | 50 (62.5) | 39 (54.17) | 54 (48.21) | 108 (54) | 79 (48.17) |
| More than 5 years | 25 (32.89) | 51 (42.5) | 42 (46.65) | 4 (11.11) | 23 (28.75) | 27 (37.5) | 29 (25.89) | 74 (37) | 69 (42.07) |
| Total year of experience in Garments sectors | | | | | | | | | |
| Less than one year | 4 (5.26) | 4 (3.33) | 4 (4.35) | 5 (13.89) | 4 (5.0) | 2 (2.78) | 9 (8.04) | 8 (4) | 6 (3.66) |
| 2 to 5 years | 27 (35.53) | 37 (30.83) | 29 (31.52) | 16 (44.44) | 35 (43.75) | 21 (29.17) | 43 (38.39) | 72 (36) | 50 (30.49) |
| More than 5 years | 45 (59.21) | 79 (65.83) | 59 (64.13) | 15 (41.67) | 41 (51.25) | 49 (68.06) | 60 (53.57) | 120 (60) | 108 (65.85) |
| Physical intensive work | | | | | | | | | |
| Little | 7 (13.73) | 6 (6.38) | 13 (17.11) | 3 (12.5) | 5 (8.62) | 8 (16) | 10 (13.33) | 11 (7.24) | 21 (16.67) |
| Moderate | 4 (7.84) | 14 (14.89) | 13 (17.11) | 4 (16.67) | 8 (13.79) | 8 (16) | 8 (10.67) | 22 (14.47) | 21 (16.67) |
| High | 38 (74.51) | 61 (64.89) | 44 (57.89) | 13 (54.17) | 41 (70.69) | 34 (68) | 51 (68) | 102 (67.11) | 78 (61.9) |
| Very high | 2 (3.92) | 13 (13.83) | 6 (7.89) | 4 (16.67) | 4 (6.9) | - | 6 (8) | 17 (11.18) | 6 (4.76) |

8.3 Perception of Demand for Training for Career Development

The perception of demand for future training for their career development is depicted in Table-8.3. Around 45% of the small knit factories reported that they faced no difficulties while working in their workplace. However, almost half of the workers (48%) from large industries reported that they faced various difficulties to perform their work due to lack of training while it was 51% and 45% from large and small industries respectively. Also, most of the workers were expecting a promotion in the future. Over 75% of workers from large and medium industries were expecting to be promoted while such expectation was relatively lower among workers who were involved in

small firms. Almost all of the workers from large (95%), medium (93) and small firms (87%) believed that training was the most crucial component to improve their current work proficiency in those particular firms. Almost all of the workers (93% and above) believed that training is must be needed for the upcoming technological changes and also for future job progression (Table 8.3). It was observed that about half of the workers from large, medium and small industries felt that further training is required as they believed that their job could be in trouble due to automation. Bangladesh is on the verge of the fourth industrial revolution (4IR). To begin with, 4IR is largely about various new digital technologies and how these technologies can be managed with optimal training. Indeed, there need to be proper policies of various training and skill development program for the industrial workers so that they become are fully prepared when the time comes.

Table 8. 3: Demand for training for the future role

| Indicators | Knit | | | Woven | | | Overall | | |
|--|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|----------------|
| | Small | Medium | Large | Small | Medium | Large | Small | Medium | Large |
| | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) |
| Felt difficulties while working | | | | | | | | | |
| No problem | 34 (44.74) | 33 (27.5) | 32 (34.78) | 9 (25) | 26 (32.5) | 27 (37.5) | 43 (38.39) | 59 (29.5) | 59 (35.98) |
| Few Problem | 10 (13.16) | 25 (20.83) | 14 (15.22) | 9 (25) | 13 (16.25) | 12 (16.67) | 19 (16.96) | 38 (19) | 26 (15.85) |
| Problem | 32 (42.11) | 61 (50.83) | 45 (48.91) | 18 (50) | 40 (50) | 33 (45.83) | 50 (44.64) | 101 (50.5) | 78 (47.56) |
| Severe problem | - | 1 (0.83) | 1 (1.09) | - | 1 (1.25) | - | - | 2 (1) | 1 (0.61) |
| Expecting promotion in future | | | | | | | | | |
| Yes | 51 (67.11) | 94 (78.33) | 76 (82.61) | 24 (66.67) | 58 (72.5) | 50 (69.44) | 75 (66.96) | 152 (76) | 126 (76.83) |
| No | 25 (32.89) | 26 (21.67) | 16 (17.39) | 12 (33.33) | 22 (27.5) | 22 (30.56) | 37 (33.04) | 48 (24) | 38 (23.17) |
| Training is needed to improve current work proficiency | | | | | | | | | |
| Yes | 64 (84.21) | 110 (91.67) | 91 (98.91) | 33 (91.67) | 76 (95) | 64 (88.89) | 97 (86.61) | 186 (93) | 155 (94.51) |
| No | 12 (15.79) | 10 (8.33) | 1 (1.09) | 3 (8.33) | 4 (5) | 8 (11.11) | 15 (13.39) | 14 (7) | 9 (5.49) |
| Training is needed for future job progression | | | | | | | | | |
| Yes | 66 (86.84) | 113 (94.17) | 92 (100) | 32 (88.89) | 77 (96.25) | 66 (91.67) | 98 (87.5) | 190 (95) | 158 (96.34) |
| No | 10 (13.16) | 7 (5.83) | - | 4 (11.11) | 3 (3.75) | 6 (8.33) | 14 (12.5) | 10 (5) | 6 (3.66) |
| Training is needed for technological change | | | | | | | | | |
| Yes | 72 (94.74) | 113 (94.17) | 92 (100) | 33 (91.67) | 77 (96.25) | 67 (93.06) | 105 (93.75) | 190 (95) | 159 (96.95) |
| No | 4 (5.26) | 7 (5.83) | - | 3 (8.33) | 3 (3.75) | 5 (6.94) | 7 (6.25) | 10 (5) | 5 (3.05) |
| Further Training is needed as job will be taken due to automation | | | | | | | | | |
| Not agreed | 36 (47.37) | 42 (35) | 30 (32.61) | 10 (27.78) | 25 (31.25) | 23 (31.94) | 46 (41.07) | 67 (33.5) | 53 (32.32) |
| Moderately agreed | 3 (3.95) | 17 (14.17) | 7 (7.61) | 7 (19.44) | 15 (18.75) | 15 (20.83) | 10 (8.93) | 32 (16) | 22 (13.41) |
| Agreed | 36 (47.37) | 61 (50.83) | 54 (58.7) | 19 (52.78) | 40 (50) | 34 (47.22) | 55 (49.11) | 101 (50.5) | 88 (53.66) |

| | | | | | | | | | |
|--------------|-------------|---|----------|---|---|---|----------|---|-------------|
| Fully agreed | 1 (1.32) | - | 1 (1.09) | - | - | - | 1 (0.89) | - | 1 (0.61) |
|--------------|-------------|---|----------|---|---|---|----------|---|-------------|

8.4 Proficiency Level, Education and Benefit of Training

Table-8.4 indicates the proficiency level, education and benefit of training among the RMG workers. Almost 42% and 36% of RMG workers from small garments considered themselves as higher and highest proficient workers respectively while 7.14% of workers didn't have any proficiency. Similarly, 47% and 37% of knit workers from small garments had the higher and highest level of proficiency separately as per their responses. But in terms of woven workers in small garments, 33% of the workers were highest proficient followed by higher proficiency (31%) while 17% of workers had no proficiency at all. The highest number of workers from medium (46%) and large (54%) garments were higher proficient followed by the highest proficiency for both media (38%) and large (34%) garments. Similar results were found for the knit workers in both medium and large garments and the woven workers in large garments. But a worker with the highest proficiency (43%) accounted for more than the higher proficient worker (39%) in medium garments for woven workers. This study has shown that 35% and 29% of RMG workers of small garments considered formal education to be very important and important respectively, to perform their work proficiently and 20% of RMG workers (16% knit workers and 28% woven workers) denied the role of formal education at all while similar results were found for both knitting and woven workers in small garments. However, 71% of medium garments workers recognized the role of formal education as important or very important while 70% of knit workers and 72% of woven workers reported the same. Similarly, around 69% of workers in large garments defined formal education as important or very important to perform work proficiently while 76% of knit workers and 59% of woven workers thought the same way. About 65%, 54% and 51% of RMG workers from small, medium and large garments respectively found training (not arranged by the employer) was very helpful to perform their jobs. Similar results were found for knit and woven workers in small, medium and large garments and very few workers denied the role of training in performing their jobs.

Around 91%, 84% and 84% of garment workers from small, medium, and large garments respectively found training (arranged by the employer) helpful or very helpful in performing their jobs. Similar reports were observed among the knit and woven workers of small, medium and large garments. In terms of small and medium garments, 45% and 51% of workers respectively agreed on that the experience in this enterprise has increased their skills while another 36% and 41% of workers respectively fully agreed on that particular matter. On the other hand, 47% of large garment workers fully agreed and 44% agreed on the same issue and similar pictures were found for woven workers in medium and large garments. About 19% of woven workers in small garments thought their experience in this enterprise didn't increase their skill at all. More than 83%, 89%, and 87% of RMG workers from small, medium and large garments respectively considered their skills as demanding or highly demanding in the industry they work for. Almost 9% of small

garment workers and 17% of woven workers from small garments workers thought that their skill has no demand at all in the industry they work for.

A large number of workers (small=79%; medium=88% and large=73%) assessed their skills as demanding or highly demanding outside the industry they work for. Similar result was found among knit workers (small=83%; medium=90% and large=75%) and woven workers (small=72%; medium=85% and 70%). About 35%, 37% and 29% of RMG workers from small, medium and large garments particularly thought to have no difficulties finding a similar job after leaving the present job while 33%, 25% and 36% from small, medium and large garments respectively thought to have difficulties or very difficulties to find a similar job. On the other hand, knit workers (small=42%; medium=27% and large=39%) are thought to have more difficulties to find a similar job than woven workers (small=14%; medium=23% and large=32%).

Table 8. 4: Proficiency level, education, and benefit of training

| Indicators | Knit | | | Woven | | | Overall | | |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | Small | Medium | Large | Small | Medium | Large | Small | Medium | Large |
| | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) |
| How do you assess your level of proficiency in performing your job? | | | | | | | | | |
| No proficiency | 2 (2.63) | 3 (2.5) | 3 (3.26) | 6 (16.67) | 7 (8.75) | 4 (5.56) | 8 (7.14) | 10 (5) | 7 (4.27) |
| Little | 6 (7.89) | 4 (3.33) | 3 (3.26) | 4 (11.11) | 2 (2.5) | 5 (6.94) | 10 (8.93) | 6 (3) | 8 (4.88) |
| Moderate | 4 (5.26) | 11 (9.17) | 1 (1.09) | 3 (8.33) | 6 (7.5) | 3 (4.17) | 7 (6.25) | 17 (8.5) | 4 (2.44) |
| Higher | 36 (47.37) | 61 (50.83) | 54 (58.7) | 11 (30.56) | 31 (38.75) | 35 (48.61) | 47 (41.96) | 92 (46) | 89 (54.27) |
| Highest | 28 (36.84) | 41 (34.17) | 31 (33.7) | 12 (33.33) | 34 (42.5) | 25 (34.72) | 40 (35.71) | 75 (37.5) | 56 (34.15) |
| How do you think your formal education helps to perform your work proficiently? | | | | | | | | | |
| Not at all | 12 (15.79) | 19 (15.83) | 4 (4.35) | 10 (27.78) | 8 (10) | 12 (16.67) | 22 (19.64) | 27 (13.5) | 16 (9.76) |
| Little | 3 (3.95) | 7 (5.83) | 7 (7.61) | 3 (8.33) | 11 (13.75) | 5 (6.94) | 6 (5.36) | 18 (9) | 12 (7.32) |
| Moderate | 8 (10.53) | 10 (8.33) | 11 (11.96) | 5 (13.89) | 4 (5) | 12 (16.67) | 13 (11.61) | 14 (7) | 23 (14.02) |
| Important | 24 (31.58) | 55 (45.83) | 42 (45.65) | 8 (22.22) | 27 (33.75) | 24 (33.33) | 32 (28.57) | 82 (41) | 66 (40.24) |
| Very Important | 29 (38.16) | 29 (24.17) | 28 (30.43) | 10 (27.78) | 30 (37.5) | 19 (26.39) | 39 (34.82) | 59 (29.5) | 47 (28.66) |
| How helpful is your training (not arranged by the employer) in performing your job? | | | | | | | | | |
| Not at all | 1 (1.32) | 8 (6.67) | 5 (5.43) | - | 6 (7.5) | 1 (1.39) | 1 (0.89) | 14 (7) | 6 (3.66) |
| Little | 1 (1.32) | 2 (1.67) | 4 (4.35) | 1 (2.78) | 3 (3.75) | 4 (5.56) | 2 (1.79) | 5 (2.5) | 8 (4.88) |
| Moderate | 1 (1.32) | 1 (0.83) | 2 (2.17) | 3 (8.33) | 2 (2.5) | 2 (2.78) | 4 (3.57) | 3 (1.5) | 4 (2.44) |
| Helpful | 21 (27.63) | 47 (39.17) | 50 (54.35) | 11 (30.56) | 24 (30) | 12 (16.67) | 32 (28.57) | 71 (35.5) | 62 (37.8) |
| Very helpful | 52 (68.42) | 62 (51.67) | 31 (33.7) | 21 (58.33) | 45 (56.25) | 53 (73.61) | 73 (65.18) | 107 (53.5) | 84 (51.22) |

| How helpful is your training (arranged by the employer) in performing your job? | | | | | | | | | |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Not at all | 4 (5.26) | 8 (6.67) | 2 (2.17) | 2 (5.56) | 3 (3.75) | 4 (5.56) | 6 (5.36) | 11 (5.5) | 6 (3.66) |
| Little | - | 4 (3.33) | 5 (5.43) | 2 (5.56) | 5 (6.25) | 5 (6.94) | 2 (1.79) | 9 (4.5) | 10 (6.1) |
| Moderately | 1 (1.32) | 8 (6.67) | 5 (5.43) | 2 (5.56) | 5 (6.25) | 5 (6.94) | 3 (2.68) | 13 (6.5) | 10 (6.1) |
| Helpful | 28 (36.84) | 57 (47.5) | 43 (46.74) | 13 (36.11) | 37 (46.25) | 29 (40.28) | 41 (36.61) | 94 (47) | 72 (43.9) |
| Very helpful) | 43 (56.58) | 43 (35.83) | 37 (40.22) | 17 (47.22) | 30 (37.5) | 29 (40.28) | 60 (53.57) | 73 (36.5) | 66 (40.24) |
| Do you think your experience in this enterprise has increased your skill? | | | | | | | | | |
| Not at all | 4 (5.26) | 2 (1.67) | 1 (1.09) | 7 (19.44) | 2 (2.5) | 3 (4.17) | 11 (9.82) | 4 (2) | 4 (2.44) |
| Little | 2 (2.63) | 1 (0.83) | 5 (5.43) | 1 (2.78) | 3 (3.75) | 6 (8.33) | 3 (2.68) | 4 (2) | 11 (6.71) |
| Moderate | 5 (6.58) | 6 (5) | - | 3 (8.33) | 3 (3.75) | - | 8 (7.14) | 9 (4.5) | - |
| Agreed | 36 (47.37) | 67 (55.83) | 45 (48.91) | 14 (38.89) | 34 (42.5) | 27 (37.5) | 50 (44.64) | 101 (50.5) | 72 (43.9) |
| Fully agreed | 29 (38.16) | 44 (36.67) | 41 (44.57) | 11 (30.56) | 38 (47.5) | 36 (50) | 40 (35.71) | 82 (41) | 77 (46.95) |
| How do you assess the market demand of your skill in the industry you are work? | | | | | | | | | |
| Not at all | 4 (5.26) | 4 (3.33) | - | 6 (16.67) | 1 (1.25) | 4 (5.56) | 10 (8.93) | 5 (2.5) | 4 (2.44) |
| Little | 4 (5.26) | 1 (0.83) | 5 (5.43) | 1 (2.78) | 5 (6.25) | 2 (2.78) | 5 (4.46) | 6 (3) | 7 (4.27) |
| Moderate | 2 (2.63) | 6 (5) | 4 (4.35) | 2 (5.56) | 6 (7.5) | 6 (8.33) | 4 (3.57) | 12 (6) | 10 (6.1) |
| Demand | 34 (44.74) | 74 (61.67) | 51 (55.43) | 15 (41.67) | 31 (38.75) | 33 (45.83) | 49 (43.75) | 105 (52.5) | 84 (51.22) |
| High demand | 32 (42.11) | 35 (29.17) | 32 (34.78) | 12 (33.33) | 37 (46.25) | 27 (37.5) | 44 (39.29) | 72 (36) | 59 (35.98) |
| How did you assess the market demand of your skill outside the industry you work? | | | | | | | | | |
| Not at all | 2 (2.63) | 3 (2.5) | 2 (2.17) | 4 (11.11) | 2 (2.5) | 4 (5.56) | 6 (5.36) | 5 (2.5) | 6 (3.66) |
| Little | 8 (10.53) | 5 (4.17) | 14 (15.22) | 5 (13.89) | 6 (7.5) | 13 (18.06) | 13 (11.61) | 11 (5.5) | 27 (16.46) |
| Moderate | 3 (3.95) | 5 (4.17) | 7 (7.61) | 1 (2.78) | 4 (5) | 5 (6.94) | 4 (3.57) | 9 (4.5) | 12 (7.32) |
| Demand | 31 (40.79) | 68 (56.67) | 39 (42.39) | 14 (38.89) | 33 (41.25) | 23 (31.94) | 45 (40.18) | 101 (50.5) | 62 (37.8) |
| High demand | 32 (42.11) | 39 (32.5) | 30 (32.61) | 12 (33.33) | 35 (43.75) | 27 (37.5) | 44 (39.29) | 74 (37) | 57 (34.76) |
| If you want to leave this job now how difficult will it to be to find a similar? | | | | | | | | | |
| Not at all | 28 (36.84) | 40 (33.33) | 27 (29.35) | 11 (30.56) | 33 (41.25) | 21 (29.17) | 39 (34.82) | 73 (36.5) | 48 (29.27) |
| Little | 10 (13.16) | 25 (20.83) | 16 (17.39) | 14 (38.89) | 19 (23.75) | 17 (23.61) | 24 (21.43) | 44 (22) | 33 (20.12) |
| Moderate | 6 (7.89) | 23 (19.17) | 13 (14.13) | 6 (16.67) | 10 (12.5) | 11 (15.28) | 12 (10.71) | 33 (16.5) | 24 (14.63) |
| Difficult | 28 (36.84) | 32 (26.67) | 34 (36.96) | 4 (11.11) | 17 (21.25) | 19 (26.39) | 32 (28.57) | 49 (24.5) | 53 (32.32) |
| Very difficult | 4 (5.26) | - | 2 (2.17) | 1 (2.78) | 1 (1.25) | 4 (5.56) | 5 (4.46) | 1 (0.5) | 6 (3.66) |

8.5 Job Contract, Benefits and Opportunities

The types of job contract, benefits and opportunities the RMG workers get from their garments has been illustrated in Table-8.5. In terms of small garments, more than half of the (53%) of the employees got their contract through direct conversation and the rest were either recruited through test (21%) or were contracted through personal recommendation (27%). More than double workers from knit factories (33%) were getting their contract through the personal recommendation than the woven workers (14%). In case of woven workers, more than half of the workers (64%) were contracted through direct conversation than those of the knit workers (47%). In the medium garments, highest percentage of worker (48%) got their contract through direct conversation followed by test (32%) and personal recommendation (19%) while highest percentage of workers (39%) in knit sector was contracted through some test and direct conversation (64%) in the woven sector. In terms of large garments, the highest percentage of employees got their job contract through direct conversation (overall=47%; knit=45% and woven=50%) while 28% percentage of knit workers were contracted through personal recommendation. About 70%, 74% and 80% of RMG workers of small, medium and large garments respectively got their weekly paid leave through the written application while the woven workers (small=42%; medium=33% and large=21%) got more weekly paid leave orally than the knit workers (small=25%; medium=23% and large=20%). Almost all the RMG workers (small=100%; medium=99% and large=99%) got paid leaves for one day. In medium and large garments all workers got sick leaves with their salary while the salary of the 4% small garment worker got deducted for sick leaves and it was seen among the woven workers only. Almost all workers (small=96%; medium=99% and large=100%) got their salary when they were on casual leaves while the salary of the 11% woven workers was subtracted for their casual leaves.

About 11%, 11% and 12% of RMG workers from small, medium, and large garments respectively didn't get maternity/paternity leaves with a salary while woven workers faced the problem more than the knit workers. Almost all the employees from medium and large garments got their salary while only 5% of workers from the small garments didn't get their salary when they were on sick leaves. Similarly, almost all the RMG employee got their regular salary while they were on casual leaves. About 9%, 10% and 6% of RMG workers from small, medium and large garments respectively got maternity/paternity leaves without salary while woven workers of small and medium garments had to face this situation more than the knit workers. Only a few percent of workers (small=4%, medium=9% and large=10%) got pension facilities while knit workers got it more than the woven workers. In this study, we also investigated insurance facilities. About 38%, 57% and 68% of RMG workers from small, medium and large garments severally were covered with life insurance while knit workers got more life insurance coverage (small=39%, medium=63%) than the woven workers (small=33%, medium=49%); but woven workers in large garments (76%) got more life insurance coverage than the knit workers (62%). Around 15%, 28% and 29% of garment workers from small, medium and large garments respectively had health

insurance coverage while large garments knit workers (33%) got the highest coverage and medium garments woven workers (34%) had the highest coverage.

A few percentages of RMG workers (small=4%, medium=12% and large=10%) had loan facilities while woven workers had more loan facilities than the knit workers. However, 82%, 90% and 95% of RMG workers from small, medium and large garments respectively, worked overtime while knit workers (small=84%, medium=90%) had to work overtime more than those of the woven workers (small=78%, medium=89%) and 100% woven workers in large garments had to work overtime which is greater than the knit workers (91%). In terms of payment for overtime, about 19%, 11% and 5% of workers from small, medium and large garments respectively didn't get paid for their overtime work while 17% and 22% of small garment knit workers and woven workers particularly didn't get paid for their overtime work. About 28%, 41% and 37% of small, medium and large garments respectively paid the same hourly wage for overtime work while 60%, 44% and 35% of small, medium and large garments separately got paid a less hourly wage for overtime work. In contrast, 12%, 15% and 29% of small, medium and large garment workers particularly got higher payment for overtime work when both knit (24%) and woven (35%) workers of large garments got higher payment for overtime work compared to small and medium enterprises. Almost 86%, 89% and 93% of workers from small, medium and large enterprises respectively got informed in advance before laying off.

Table 8. 5: Types of job contracts, benefits and opportunities from their garments

| Indicators | Knit | | | Woven | | | Overall | | |
|---|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|----------------|
| | Small | Medium | Large | Small | Medium | Large | Small | Medium | Large |
| | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) |
| Type of the contract of the employee | | | | | | | | | |
| Direct conversation | 36 (47.37) | 44 (36.67) | 41 (44.57) | 23 (63.89) | 51 (63.75) | 36 (50) | 59 (52.68) | 95 (47.5) | 77 (46.95) |
| Notification/Written test/Oral test | 15 (19.74) | 47 (39.17) | 25 (27.17) | 8 (22.22) | 17 (21.25) | 23 (31.94) | 23 (20.54) | 64 (32) | 48 (29.27) |
| Through agency | - | 3 (2.5) | - | - | 1 (1.25) | - | - | 4 (2) | - |
| Personal recommendation (through friend) | 25 (32.89) | 26 (21.67) | 26 (28.26) | 5 (13.89) | 11 (13.75) | 13 (18.06) | 30 (26.79) | 37 (18.5) | 39 (23.78) |
| How weekly paid leave do you get? | | | | | | | | | |
| Written | 57 (75) | 93 (77.5) | 74 (80.43) | 21 (58.33) | 54 (67.5) | 57 (79.17) | 78 (69.64) | 147 (73.5) | 131 (79.88) |
| Oral | 19 (25) | 27 (22.5) | 18 (19.57) | 15 (41.67) | 26 (32.5) | 15 (20.83) | 34 (30.36) | 53 (26.5) | 33 (20.12) |
| Which of the following paid leaves do you get? | | | | | | | | | |
| One day | 76 (100) | 118 (98.33) | 92 (100) | 36 (100) | 79 (98.75) | 70 (97.22) | 112 (100) | 197 (98.5) | 162 (98.78) |
| Two days | - | 2 (1.67) | - | - | 1 (1.25) | 2 (2.78) | - | 3 (1.5) | 2 (1.22) |
| Did you get sick leaves with salary? | | | | | | | | | |
| Yes | 76 (100) | 120 (100) | 92 (100) | 32 (88.89) | 80 (100) | 72 (100) | 108 (96.43) | 200 (100) | 164 (100) |
| No | - | - | - | 4 (11.11) | - | - | 4 (3.57) | - | - |

| | | | | | | | | | |
|--|---------------|----------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|
| Did you get casual leaves with salary? | | | | | | | | | |
| Yes | 76 (100) | 118 (98.33) | 92 (100) | 32 (88.89) | 80 (100) | 72 (100) | 108 (96.43) | 198 (99) | 164 (100) |
| No | - | 2 (1.67) | - | 4 (11.11) | - | - | 4 (3.57) | 2 (1) | - |
| Did you get maternity/paternity leaves with salary? | | | | | | | | | |
| Yes | 68 (89.47) | 108 (90) | 82 (89.13) | 32 (88.89) | 70 (87.5) | 63 (87.5) | 100 (89.29) | 178 (89) | 145 (88.41) |
| No | 8 (10.53) | 12 (10) | 10 (10.87) | 4 (11.11) | 10 (12.5) | 9 (12.5) | 12 (10.71) | 22 (11) | 19 (11.59) |
| Did you get sick leaves without salary? | | | | | | | | | |
| Yes | 1 (1.32) | 2 (1.67) | 92 (100) | 4 (11.11) | 1 (1.25) | 1 (1.39) | 5 (4.46) | 3 (1.5) | 1 (0.61) |
| No | 75 (98.68) | 118 (98.33) | 32 (88.89) | 79 (98.75) | 71 (98.61) | 107 (95.54) | 197 (98.5) | 163 (99.39) | |
| Did you get casual leaves without salary? | | | | | | | | | |
| Yes | 1 (1.32) | - | - | - | 1 (1.25) | 1 (1.39) | 1 (0.89) | 1 (0.5) | 1 (0.61) |
| No | 75 (98.68) | 120 (100) | 92 (100) | 36 (100) | 79 (98.75) | 71 (98.61) | 111 (99.11) | 199 (99.5) | 163 (99.39) |
| Did you get maternity/paternity leaves without salary? | | | | | | | | | |
| Yes | 6 (7.89) | 11 (9.17) | 8 (8.7) | 4 (11.11) | 8 (10) | 1 (1.39) | 10 (8.93) | 19 (9.5) | 9 (5.49) |
| No | 70 (92.11) | 109 (90.83) | 84 (91.3) | 32 (88.89) | 72 (90) | 71 (98.61) | 102 (91.07) | 181 (90.5) | 155 (94.51) |
| Did you get pension facilities? | | | | | | | | | |
| Yes | 4 (5.26) | 13 (10.83) | 16 (17.39) | 4 | 4 (5.06) | - | 4 (3.57) | 17 (8.54) | 16 (9.76) |
| No | 72 (94.74) | 107 (89.17) | 76 (82.61) | 36 (100) | 75 (94.94) | 72 (100) | 108 (96.43) | 182 (91.46) | 148 (90.24) |
| Life Insurance | | | | | | | | | |
| Yes | 30 (39.47) | 75 (62.5) | 57 (61.96) | 12 (33.33) | 39 (48.75) | 55 (76.39) | 42 (37.5) | 114 (57) | 112 (68.29) |
| No | 46 (60.53) | 45 (37.5) | 35 (38.04) | 24 (66.67) | 41 (51.25) | 17 (23.61) | 70 (62.5) | 86 (43) | 52 (31.71) |
| Health Insurance | | | | | | | | | |
| Yes | 17 (22.37) | 29 (24.17) | 30 (32.61) | - | 27 (33.75) | 18 (25) | 17 (15.18) | 56 (28) | 48 (29.27) |
| No | 59 (77.63) | 91 (75.83) | 62 (67.39) | 36 (100) | 53 (66.25) | 54 (75) | 95 (84.82) | 144 (72) | 116 (70.73) |
| Loan Facilities | | | | | | | | | |
| Yes | - | 11 (9.17) | 7 (7.61) | 4 (11.11) | 12 (15) | 9 (12.5) | 4 (3.57) | 23 (11.5) | 16 (9.76) |
| No | 76 (100) | 109 (90.83) | 85 (92.39) | 32 (88.89) | 68 (85) | 63 (87.5) | 108 (96.43) | 177 (88.5) | 148 (90.24) |
| Did you work overtime? | | | | | | | | | |
| Yes | 64 (84.21) | 108 (90) | 84 (91.3) | 28 (77.78) | 71 (88.75) | 72 (100) | 92 (82.14) | 179 (89.5) | 156 (95.12) |
| No | 12 (15.79) | 12 (10) | 8 (8.7) | 8 (22.22) | 9 (11.25) | - | 20 (17.86) | 21 (10.5) | 8 (4.88) |
| Do you get paid for working overtime? | | | | | | | | | |
| Yes | 63 (82.89) | 108 (90) | 84 (91.3) | 28 (77.78) | 71 (88.75) | 72 (100) | 91 (81.25) | 179 (89.5) | 156 (95.12) |
| No | 13 (17.11) | 12 (10) | 8 (8.7) | 8 (22.22) | 9 (11.25) | - | 21 (18.75) | 21 (10.5) | 8 (4.88) |
| Hourly overtime wage per hour compared to the hourly wage | | | | | | | | | |

| | | | | | | | | | |
|---|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| Less | 43 (67.19) | 41 (37.96) | 28 (33.33) | 12 (42.86) | 38 (53.52) | 26 (36.11) | 55 (59.78) | 79 (44.13) | 54 (34.62) |
| Same | 16 (25) | 51 (47.22) | 36 (42.86) | 10 (35.71) | 22 (30.99) | 21 (29.17) | 26 (28.26) | 73 (40.78) | 57 (36.54) |
| Higher | 5 (7.81) | 16 (14.81) | 20 (23.81) | 6 (21.43) | 11 (15.49) | 25 (34.72) | 11 (11.96) | 27 (15.08) | 45 (28.85) |
| Does the enterprise inform you in advance before laying off? | | | | | | | | | |
| Yes | 64 (84.21) | 107 (89.17) | 84 (91.3) | 32 (88.89) | 71 (88.75) | 68 (94.44) | 96 (85.71) | 178 (89) | 152 (92.68) |
| No | 12 (15.79) | 13 (10.83) | 8 (8.7) | 4 (11.11) | 9 (11.25) | 4 (5.56) | 16 (14.29) | 22 (11) | 12 (7.32) |

8.6 Sickness, Absenteeism and Coping Strategies during COVID-19 among RMG Garment Workers

The history of sickness, illness and COVID-19-related issues are reported in Table-8.6. Regarding illness, almost all of the workers from medium firms (99.5%) reported that they never remained absent from work due to sickness, accident, or any other reason whereas around 5% of the large knit factory and 4% of workers of knit factories were unable to work for 2 days and 3 days respectively. It seems that the woven workers were less vulnerable than the knit factory workers. Only 3% and 2% of worker from small and large factories reported that they suffered from chronic illnesses such as diabetes, asthma and high blood pressure. In terms of COVID -19, although we observed none of the respondents of this study had coronavirus infection some of the workers reported there are some few COVID cases in their factories (Table-8.6). Indeed, more than half of the workers from medium and large factories reported that they had some expectation from their employers in the COVID-19 crisis time while such expectation was relatively lower (45%) for small factory workers.

Table 8. 6: Sickness, absent and coping strategies during COVID-19 among garments worker

| Indicators | Knit | | | Woven | | | Overall | | |
|---|---------------|----------------|---------------|-------------|---------------|---------------|----------------|---------------|----------------|
| | Small | Medium | Large | Small | Medium | Large | Small | Medium | Large |
| | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) |
| How many days did you absent/unable to work due to sickness, accident or other reason? | | | | | | | | | |
| No problem | 72 (94.74) | 120 (100) | 85 (92.39) | 36 (100) | 79 (98.75) | 71 (98.61) | 108 (96.43) | 199 (99.5) | 156 (95.12) |
| 2 days | 1 (1.32) | - | 5 (5.43) | - | 1 (1.25) | - | 1 (0.89) | 1 (0.5) | 5 (3.05) |
| 3 days | 3 (3.95) | - | 1 (1.09) | - | - | - | 3 (2.68) | - | 1 (0.61) |
| 4 days | - | - | 1 (1.09) | - | - | 1 (1.39) | - | - | 2 (1.22) |
| Did you suffer from any chronic illness? | | | | | | | | | |
| Yes | 3 (3.95) | 1 (0.83) | 2 (2.17) | - | - | 1 (1.39) | 3 (2.68) | 1 (0.5) | 3 (1.83) |
| No | 73 (96.05) | 119 (99.17) | 90 (97.83) | 36 (100) | 80 (100) | 71 (98.61) | 109 (97.32) | 199 (99.5) | 161 (98.17) |
| Types of illness (if yes) | | | | | | | | | |

| | | | | | | | | | |
|--|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|----------------|
| Diabetes | 1 (33.33) | 1 (100) | 2 (100) | - | - | - | 1 (33.33) | 1 (100) | 2 (66.67) |
| Asthma | 2 (66.67) | - | - | - | - | - | 2 (66.67) | - | 1 (33.33) |
| High blood pressure | - | - | - | - | - | 2 (100) | - | - | - |
| Has your factory taken any safety measure during coronavirus period? | | | | | | | | | |
| Yes | 70 (92.11) | 119 (99.17) | 92 (100) | 36 (100) | 80 (100) | 72 (100) | 106 (94.64) | 199 (99.5) | 164 (100) |
| No | 6 (7.89) | 1 (0.83) | - | - | - | - | 6 (5.36) | 1 (0.5) | - |
| Did anyone else in your factory suffered due to coronavirus? | | | | | | | | | |
| Yes | 1 (1.32) | 15 (12.5) | 4 (4.35) | - | 1 (1.25) | 2 (2.78) | 1 (0.89) | 16 (8) | 6 (3.66) |
| No | 75 (98.68) | 105 (87.5) | 88 (95.65) | 36 (100) | 79 (98.75) | 70 (97.22) | 111 (99.11) | 184 (92) | 158 (96.34) |
| If yes, how many people in your factory were infected due to COVID | | | | | | | | | |
| 1 | - | 14 (93.33) | 4 (100) | - | - | - | - | 14 (87.5) | 4 (66.67) |
| 2 | 1 (100) | 1 (6.67) | - | - | - | 2 (100) | 1 (100) | 1 (6.25) | 2 (33.33) |
| 5 | | | | | 1 (100) | | | 1 (6.25) | |
| Did you suffer due to coronavirus? | | | | | | | | | |
| No | 76 (100) | 120 (100) | 92 (100) | 36 (100) | 80 (100) | 72 (100) | 112 (100) | 200 (100) | 164 (100) |
| Yes | | | | | | | | | |
| Did you have any kind expectation from your employers in the COVID-19 crisis? | | | | | | | | | |
| Yes | 36 (47.37) | 64 (53.33) | 52 (56.52) | 14 (38.89) | 37 (46.25) | 33 (45.83) | 50 (44.64) | 101 (50.5) | 85 (51.83) |
| No | 40 (52.63) | 56 (46.67) | 40 (43.48) | 22 (61.11) | 43 (53.75) | 39 (54.17) | 62 (55.36) | 99 (49.5) | 79 (48.17) |

8.7 Level of Satisfaction among Workers

The satisfaction level of the garment workers was depicted in Table-8.7. Around 33% of the small knit factory workers showed slight disagreement with the fact that they are being paid adequately for their work while about 26% and 24% of workers from large and small factories showed their strong belief on being paid adequately for the work they do in the particular garments. However, around 45% and 36% of the workers of medium woven and knit factories reported slight disagreement regarding this statement. Overall, 27%, 21% and 17% of large, small and medium garment factory workers disagreed with the notion that they were satisfied with their job prospect/promotion/salary increase, respectively. Around 66% of the small garment workers reported that their supervisor/boss understand their work and more than 70% of the large garment workers also agreed with this statement while it was around 61% for medium size factories. Regarding the workplace safety/workplace environment, 79% of large knit garment workers showed satisfaction whereas only 39% of the small and medium woven garment workers were satisfied with their workplace safety/workplace environment. About 39% of the small woven garment workers showed slight disagreement with the statement that the benefits that they received

was better than other similar firms while 29% of large knit garment workers think that their benefits were better than those of the other similar firms.

Indeed, workers from Knit factories relatively believed that the benefits received from their factories were better than any other similar firms. About 75%, 56% and 49% of large, medium and small factory workers reported that their factories offered training opportunities respectively. In this regard, workers from knit factories had a better opportunity for training. Albeit, most of the workers from large (74%), medium (70%) and small (73%) factories reported that their work assignments were fully explained (ToR is followed). Overall, almost 87%, 78% and 81% of the large, medium and small garment workers shared a congenial relationship with their colleagues. Around 51% of garment workers of medium-sized woven factories didn't receive any rewards/appreciation for hard-working whereas 34% of large knit garment workers reported that they get rewards/appreciation. Job satisfaction is defined as the level of contentment employees feel with their job. Hence, we tried to find out the level of satisfaction of the workers regarding their current job. Workers who belonged to the small woven factories (19%) were relatively unsatisfied with those of the other factories. This study shows that approximately 36%, 25% and 33% of workers from large, medium and small factories were satisfied with their current job. About 41% medium woven garment workers and 37% of small-knit garment workers are strongly unsatisfied with their current job status.

Table 8. 7: Level of satisfaction across types of garments worker

| Indicators | Knit | | | Woven | | | Overall | | |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|
| | Small | Medium | Large | Small | Medium | Large | Small | Medium | Large |
| | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) |
| I feel I am paid adequately for the work I do | | | | | | | | | |
| Strongly disagree | 11 (14.47) | 18 (15) | 9 (9.78) | 9 (25) | 11 (13.75) | 6 (8.33) | 20 (17.86) | 29 (14.5) | 15 (9.15) |
| Slightly disagree | 25 (32.89) | 43 (35.83) | 23 (25) | 12 (33.33) | 36 (45) | 23 (31.94) | 37 (33.04) | 79 (39.5) | 46 (28.05) |
| Neutral | 4 (5.26) | 9 (7.5) | 6 (6.52) | - | 8 (10) | 6 (8.33) | 4 (3.57) | 17 (8.5) | 12 (7.32) |
| Slightly agree | 15 (19.74) | 28 (23.33) | 25 (27.17) | 9 (25) | 13 (16.25) | 23 (31.94) | 24 (21.43) | 41 (20.5) | 48 (29.27) |
| Strongly agree | 21 (27.63) | 22 (18.33) | 29 (31.52) | 6 (16.67) | 12 (15) | 14 (19.44) | 27 (24.11) | 34 (17) | 43 (26.22) |
| I am satisfied with my job prospect/promotion/salary increase | | | | | | | | | |
| Strongly disagree | 9 (11.84) | 9 (7.5) | 12 (13.04) | 7 (19.44) | 10 (12.5) | 8 (11.11) | 16 (14.29) | 19 (9.5) | 20 (12.2) |
| Slightly disagree | 25 (32.89) | 46 (38.33) | 15 (16.3) | 13 (36.11) | 24 (30) | 16 (22.22) | 38 (33.93) | 70 (35) | 31 (18.9) |
| Neutral | 10 (13.16) | 11 (9.17) | 6 (6.52) | 1 (2.78) | 14 (17.5) | 10 (13.89) | 11 (9.82) | 25 (12.5) | 16 (9.76) |
| Slightly agree | 16 (21.05) | 33 (27.5) | 28 (30.43) | 8 (22.22) | 20 (25) | 24 (33.33) | 24 (21.43) | 53 (26.5) | 52 (31.71) |
| Strongly agree | 16 (21.05) | 21 (17.5) | 31 (33.7) | 7 (19.44) | 12 (15) | 14 (19.44) | 23 (20.54) | 33 (16.5) | 45 (27.44) |
| My supervisor/boss is understand my job | | | | | | | | | |

| | | | | | | | | | |
|-------------------|---------------|-----------------|---------------|---------------|---------------------|---------------------|---------------------|------------------|---------------------|
| Slightly disagree | 2 (2.63) | 7 (5.83) | 1 (1.09) | 3 (8.33) | 9 (11.25) | 2 (2.78) | 5 (4.46) | 16 (8) | 3 (1.83) |
| Neutral | 5 (6.58) | 6 (5) (3.26) | 3 (2.78) | 1 (2.78) | 5 (6.25) (61.25) | 2 (2.78) (61.11) | 6 (5.36) (66.07) | 11 (5.5) (61) | 5 (3.05) (70.73) |
| Slightly agree | 15 (19.74) | 34 (28.33) | 16 (17.39) | 12 (33.33) | 17 (21.25) | 24 (33.33) | 27 (24.11) | 51 (25.5) | 40 (24.39) |
| Strongly agree | 54 (71.05) | 73 (60.83) | 72 (78.26) | 20 (55.56) | 49 (61.25) | 44 (61.11) | 74 (66.07) | 122 (61) | 116 (70.73) |

I am satisfied with my workplace safety/workplace environment

| | | | | | | | | | |
|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------------|
| Strongly disagree | 6 (7.89) | - | - | 8 (22.22) | 5 (6.25) | 7 (9.72) | 14 (12.5) | 5 (2.5) | - |
| Slightly disagree | 5 (6.58) | 9 (7.5) | 1 (1.09) | 8 (22.22) | 24 (30) | | 13 (11.61) | 33 (16.5) | 8 (4.88) |
| Neutral | 4 (5.26) | 4 (3.33) | 4 (4.35) | | 4 (5.0) | - | 4 (3.57) | 8 (4) | 4 (2.44) |
| Slightly agree | 27 (35.53) | 38 (31.67) | 14 (15.22) | 6 (16.67) | 16 (20) | 22 (30.56) | 33 (29.46) | 5 (27) (50) | 3 (21.95) (70.73) |
| Strongly agree | 34 (44.74) | 69 (57.5) | 73 (79.35) | 14 (38.89) | 31 (38.75) | 43 (59.72) | 48 (42.86) | 100 (50) | 116 (70.73) |

The benefits that have I received is better than other similar firms

| | | | | | | | | | |
|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|
| Strongly disagree | 11 (14.47) | 7 (5.83) | 4 (4.35) | 8 (22.22) | 11 (13.75) | 3 (4.17) | 19 (16.96) | 18 (9) | 7 (4.27) |
| Slightly disagree | 19 (25) | 42 (35) | 21 (22.83) | 14 (38.89) | 27 (33.75) | 20 (27.78) | 33 (29.46) | 69 (34.5) | 41 (25) |
| Neutral | 11 (14.47) | 19 (15.83) | 10 (10.87) | - | 11 (13.75) | 13 (18.06) | 11 (9.82) | 30 (15) | 23 (14.02) |
| Slightly agree | 21 (27.63) | 26 (21.67) | 30 (32.61) | 10 (27.78) | 20 (25) | 20 (27.78) | 31 (27.68) | 46 (23) | 50 (30.49) |
| Strongly agree | 14 (18.42) | 26 (21.67) | 27 (29.35) | 4 (11.11) | 11 (13.75) | 16 (22.22) | 18 (16.07) | 37 (18.5) | 43 (26.22) |

My employers offer me training opportunities

| | | | | | | | | | |
|-------------------|---------------|---------------|---------------|---------------|---------------|---------------------|---------------|-------------------|----------------------|
| Strongly disagree | 15 (19.74) | 5 (4.17) | 2 (2.17) | 9 (25) | 7 (8.75) | 7 (9.72) | 24 (21.43) | 12 (6) | 9 (5.49) |
| Slightly disagree | 15 (19.74) | 24 (20) | 6 (6.52) | 8 (22.22) | 21 (26.25) | 15 (20.83) | 23 (20.54) | 45 (22.5) | 21 (12.8) |
| Neutral | 10 (13.16) | 16 (13.33) | 7 (7.61) | - | 15 (18.75) | 3 (4.17) (18.06) | 10 (8.93) | 31 (15.5) | 10 (6.1) |
| Slightly agree | 22 (28.95) | 53 (44.17) | 34 (36.96) | 14 (38.89) | 26 (32.5) | 33 (45.83) | 36 (32.14) | 79 (39.5) | 67 (40.85) |
| Strongly agree | 14 (18.42) | 22 (18.33) | 43 (46.74) | 5 (13.89) | 11 (13.75) | 14 (19.44) | 19 (16.96) | 33 (16.5) (20) | 57 (34.76) (31.1) |

My employers care for my career advancement

| | | | | | | | | | |
|-------------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|-------------------|----------------------|
| Strongly disagree | 14 (18.42) | 22 (18.33) | 8 (8.7) | 8 (22.22) | 18 (22.5) | 17 (23.61) | 22 (19.64) | 40 (20) (15.5) | 25 (15.24) (12.8) |
| Slightly disagree | 7 (9.21) | 20 (16.67) | 9 (9.78) | 9 (25) | 11 (13.75) | 12 (16.67) | 16 (14.29) | 31 (15.5) | 21 (12.8) |
| Neutral | 9 (11.84) | 13 (10.83) | 7 (7.61) | 3 (8.33) | 20 (25) | 14 (19.44) | 12 (10.71) | 33 (16.5) | 21 (12.8) |
| Slightly agree | 28 (36.84) | 38 (31.67) | 32 (34.78) | 9 (25) | 18 (22.5) | 14 (19.44) | 37 (33.04) | 56 (28) | 46 (28.05) |
| Strongly agree | 18 (23.68) | 27 (22.5) | 36 (39.13) | 7 (19.44) | 13 (16.25) | 15 (20.83) | 25 (22.32) | 40 (20) | 51 (31.1) |

My work assignment are fully explained (ToR is followed)

| | | | | | | | | | |
|-------------------|------------|--------------|--------------|---------------|---------------|---------------|---------------|------------|---------------|
| Slightly disagree | - | 1 (0.83) | - | - | 3 (3.75) | 2 (2.78) | - | 4 (2) | 2 (1.22) |
| Neutral | - | - | - | 1 (2.78) | 2 (2.5) | 1 (1.39) | 1 (0.89) | 2 (1) | 1 (0.61) |
| Slightly agree | 19 (25) | 33 (27.5) | 15 (16.3) | 10 (27.78) | 21 (26.25) | 25 (34.72) | 29 (25.89) | 54 (27) | 40 (24.39) |

| | | | | | | | | | |
|---|---------------|-----------------|---------------|---------------|---------------|---------------|---------------|--------------|----------------|
| Strongly agree | 57 (75) | 86 (71.67) | 77 (83.7) | 25 (69.44) | 54 (67.5) | 44 (61.11) | 82 (73.21) | 140 (70) | 121 (73.78) |
| My relationship with my colleagues is congenital | | | | | | | | | |
| Slightly agree | 14 (18.42) | 19 (15.83) | 6 (6.52) | 7 (19.44) | 25 (31.25) | 16 (22.22) | 21 (18.75) | 44 (22) | 22 (13.41) |
| Strongly agree | 62 (81.58) | 101 (84.17) | 86 (93.48) | 29 (80.56) | 55 (68.75) | 56 (77.78) | 91 (81.25) | 156 (78) | 142 (86.59) |
| There are rewards/appreciation for hard working | | | | | | | | | |
| Strongly disagree | 35 (46.05) | 42 (35) | 21 (22.83) | 16 (44.44) | 41 (51.25) | 28 (38.89) | 51 (45.54) | 83 (41.5) | 49 (29.88) |
| Slightly disagree | 11 (14.47) | 26 (21.67) | 15 (16.3) | 5 (13.89) | 14 (17.5) | 14 (19.44) | 16 (14.29) | 40 (20) | 29 (17.68) |
| Neutral | 5 (6.58) | 7 (5.83) | 5 (5.43) | 2 (5.56) | 7 (8.75) | 7 (9.72) | 7 (6.25) | 14 (7) | 12 (7.32) |
| Slightly agree | 7 (9.21) | 22 (18.33) | 20 (21.74) | 7 (19.44) | 11 (13.75) | 15 (20.83) | 14 (12.5) | 33 (16.5) | 35 (21.34) |
| Strongly agree | 18 (23.68) | 23 (19.17) | 31 (33.7) | 6 (16.67) | 7 (8.75) | 8 (11.11) | 24 (21.43) | 30 (15) | 39 (23.78) |
| How satisfied you are with your current job? | | | | | | | | | |
| Strongly unsatisfied | 28 (36.84) | 40 (33.33) | 27 (29.35) | 11 (30.56) | 33 (41.25) | 21 (29.17) | 39 (34.82) | 73 (36.5) | 48 (29.27) |
| Slightly satisfied | 8 (10.53) | 15 (12.5) | 10 (10.87) | 10 (27.78) | 12 (15) | 12 (16.67) | 18 (16.07) | 27 (13.5) | 22 (13.41) |
| Neutral | 8 (10.53) | 33 (27.5) | 19 (20.65) | 10 (27.78) | 17 (21.25) | 16 (22.22) | 18 (16.07) | 50 (25) | 35 (21.34) |
| Satisfied | 28 (36.84) | 32 - (26.67) | 34 (36.96) | 4 (11.11) | 17 (21.25) | 19 (26.39) | 32 (28.57) | 49 (24.5) | 53 (32.32) |
| Strongly satisfied | 4 (5.26) | - | 2 (2.17) | 1 (2.78) | 1 (1.25) | 4 (5.56) | 5 (4.46) | 1 (0.5) | 6 (3.66) |

Chapter 9

Concluding Remarks and Recommendations

This study was aimed at assessing the skills gap in the RMG industry of Bangladesh and forecasting training requirements to minimise the gap. The study attempted to understand the existing occupational and gender composition in the RMG industry and the skill gap in the major occupational categories and evaluate the capacity of the industry to ensure skill development across the major occupations. The discussion on the RMG industry and its multifaceted employment and skill components presented in the previous chapters involved exploring and analysing the findings from the quantitative, qualitative, and secondary data and information. In this chapter, we try to present the key understandings of discourse discussed earlier. This will help us mobilize future recommendations in the later part of this last section. Thus, we first bring forth major issues flagged earlier and then make plausible recommendations for the improvement of the skills of the industry.

The study is based on sample surveys of 119 RMG enterprises and 476 workers. The enterprise survey included both knit and woven RMG factories. Primarily, 10 major categories of occupations have been identified through a pilot survey and consultation with the stakeholders and some of these categories have been further disaggregated. In the 10 broader categories, we have managers, management employees, cutting machine operators, sewing machine operators, finishing machine operators, fusing machine operators, printing machine operators, embroidery machine operators, quality controllers and others. Categories including cutting machine operators, sewing machine operators, finishing machine operators and quality are further divided into some sub-sections of occupations. Throughout our analysis and discussion, we focus on all these categories and sub-categories.

In terms of skill and salary, there are seven grades in the RMG industry. It starts from helpers (Grade-7) to management leaders (Grade 1). It is observed that the female share of employment is higher than their male counterparts in most production categories, quality controllers and quality inspectors. Almost all the managers (98.91%) belong to Grade-1, which is expected. Workers from the production units are spread over the remaining grades depending on their expertise. The more the expertise the upper the grades. Helpers of different production units mostly belong to Grade-7. This information is important in our analysis as different grades pertain to different levels of skill needs. Moreover, different grades have different minimum wage levels meaning that the higher the labor occupancy, the higher the relative minimum wage and resulting total wage.

We observe some dominance of female workers over male workers in the knit factories. Interestingly, in the occupation category, the managers and management employees are mostly male. The female share of employment is higher than their male counterparts in most i.e., 17

categories which are mostly production categories. In all the helper categories, most of the floor production employees and quality controllers and quality inspectors are mostly female. Male employees engage more than female ones in categories that need more physical activities than finesse. The average age for managers and management employees is higher than that of the production and other employees. Incidentally in the case of other non-production workers i.e., guards, drivers etc. the average age is higher for both male and female employees than those of the production employees. It supports the general idea that guards and drivers and such employees are preferred with more maturity and experience. As may be expected, the 'helpers' category has the lowest average age for both male and female employees in the knit industry (this is the entry-level position).

The discussion revealed that there is a clear mismatch in the desired and actual educational qualifications for most of the employment categories in both knit and woven industries. For example, employers prefer master's degree holders for managerial posts but mostly they receive applications from bachelor graduates. Required and actual education level mismatch is observed for all categories in the industry except a few. Data shows that the interest of the employers mostly centers on public and private institute graduates for administrative and management level positions. For managers and management employees. Recruitment and prevalence of national institute graduates are higher for both these occupation categories than for private educational institutes. The prevalence of employees graduating from public institutes surpass the enterprises' desirability to get students from those institutes.

The quality of performance of male and female employees is evaluated using a scale of 1 to 10 considering three attributes- less proficient (score 1-3), moderately proficient (score 4-7) and very proficient (score 8-10). We find that 9.50% of the total employees in the RMG industry are less proficient, 22.86% of the employees are moderately proficient and 67.64% are highly proficient or very proficient in doing their jobs. Skill shortage refers to not having the required number of employees in the firm or having vacancies (meaning that the firm can employ more people but is unable to do so due to a shortage in supply of right quality job seekers) and skill gap refers to the lacking on part of the qualifications of the employees in effusively fulfilling their job responsibilities. Enterprises reported to not having many difficulties in finding people for the vacancies in different occupational categories of knit and woven firms. Interestingly, while woven firms reported that they do not face any difficulties at all to fill up vacancies for printing machine operators and embroidery machine operators, for employers in knit industries, filling up vacancies for these two posts seems to be the highest and most daunting. For most posts in both the knit and woven industries, most enterprises reported filling up the vacancies in less than a week (78% in the knit industry and 73% in the woven industry).

According to the survey data, around half (53.74%) of the factories reported having skill gaps in some occupational categories of their industry. These categories include lockstitch machine operator (74.65%), flatlock machine operator (72.31%), overlock machine operator (66.99%), printing machine operator (66.67%), quality inspector (64.91%), chain stitch machine operator

(63.48%), embroidery machine operator (62.50%), iron man/woman (60.3%), quality controller (57.23%) and feed of the arm machine operator (56.64%). Most of the surveyed firms indicated high prevalence of skill gap in the sewing machine operator category along with quality category (both inspector and controller) and printing machine operator and embroidery machine operator categories.

Overall, the survey data reveal that conventionally one may consider that skill shortage is minimum in the RMG factories. However, if we compare the skills level of the workers in the Bangladesh RMG industry with workers of leading RMG producing countries, we will notice that the productivity of Bangladeshi RMG workers is low. Though the entrepreneurs do not feel skill shortages, it is evident if we compare the current productivity level with the potential productivity level. Some entrepreneurs avoid this kind of analysis as they think that they will need to provide higher salaries if the workers have higher productivity levels. However, given our discussion on the 4IR, it is quite clear that we cannot remain in a low-skill tier just for avoiding the possibility of an increase in the wage bill for more productive work. Rather the employers need to change their mindset that competitiveness will be strong if the workers have modern-day skills and there is a system in place to regularly enhance of skills of the workers according to the modernization of technology. We must consider the skill gap issue from this perspective.

When the employers were asked about the direction of labor demand growth, they based their answers on 5 options including no growth in the labor demand, moderate growth, high growth, very high growth, and negative growth. According to the survey data, 76% of knit RMG enterprises anticipate that labor growth in the knit industry would mostly be moderate in the next 5-10 years, while 12% project that there will be high labor growth and 2% project very high growth. As this is a perception-based estimate, we can say that most knit firms expect to see moderate growth in the labor demand market. Labor growth projection by the woven garment firms indicates that firms expect moderate growth in the labor demand scenario (81%), followed by a projection of high growth by 11% firms, no growth by 5% firms and negative growth for 2% firms. To sum up, in the next 5-10 years, employers expect there to be a moderate increase in the demand of labor. As a whole industry, the future employment in this industry shows a steady upward trend. Employment for categories of employment increased steadily for both the knit and woven industries except for embroidery machine operators in the woven industry (employment is anticipated to remain unchanged for embroidery machine operators from 2023 to 2030).

Both for combatting skill shortage and skill gap, enterprises are ready to increase salaries for more productive workers and they also want to expand training programs (e.g., even via a partnership with local or international consultants/training institutes), provide training opportunities to the existing workforce. When asked about the training needs for the existing employees there were multiple opinions from the employers. We have gone through all the training needs mentioned by them and clustered the training program into broad categories under each occupation. It is noted that training for overall skill development of all the employment categories is a major concern. Employers ascertain that basic employment training of all the employees at the entry-level is a

must. Higher level training could be arranged for employees showing potential to learn those and keep working in the factory. Other than that, the need for safety and health-related training including emergency training in case of fire or any other accidents, first aid training and maternal health care training for all the employees have been highlighted.

Funding choices of training for the employers vary among different occupation categories of their employees. However, where there is a high possibility of value addition, employers are interested to invest and provide training to their employees. The workers also desire to receive training mainly in the context of rapidly changing technology. It was observed that about half of the workers from large, medium and small industries felt that further training is required as they believed that their job could be in trouble due to automation. Workers value skill training more than formal education. However, in many cases workers are satisfied with their current level of proficiency. This contradicts their desire for receiving training. This implies that they anticipate large changes in technology in near future and therefore additional skills will provide them with job security.

Given the findings from the surveys and discussion with experts, we may suggest the following for addressing issues related to skill gaps in the RMG industry of Bangladesh.

- This study has revealed various gaps prevailing in the RMG industry of Bangladesh. We observe such gaps both in knit and woven RMG industries in general. However, gaps differ between different occupation categories. Therefore, future skill-enhancing programmes need to provide more attention to the occupations where the gap is higher. According to the survey findings, skill training programmes are mostly required for lockstitch machine operators, flatlock machine operators, overlock machine operators, printing machine operators, quality inspectors, chain stitch machine operators, embroidery machine operators and cutting activities. However, the situation is rapidly changing.
- The Skill for Employment Investment Program (SEIP) under the Finance Division of the government which is providing several training programmes for the RMG industry (along with other strategic industries), should have a mechanism to modify course curricula according to the rapidly changing technology. Also, after the basic training, advanced training of some of the same ones could be introduced in the curricula.
- We need more public-private partnerships to ensure training on various cognitive and non-cognitive skill development for existing employees and entry-level employees. As we noted that employers are ready to pay higher for quality workers, enterprises should have close linkages with training providers so that trainees could get an internship in factories and in turn, the enterprises will get good quality workers.
- More agencies should be there to ascertain job placement for the trained and new graduates. This could be done through diversifying the training faculties i.e., trainers into making contacts with the employers or through employing altogether a different set of skilled employees i.e., coordinators or counseling advisors who could provide advice and

counseling for the trainees after the scheduled training period. Trainees can share their experiences or difficulties with them in situating themselves at better employment or finding appropriate jobs for them.

- National Skills Development Policy, 2020 should be implemented with proper human resource enhancement of the National Skill Development Authority.
- As RMG is the prime industry in Bangladesh, we may include RMG-related skill training in the post-secondary level of education.
- Collaboration between regional colleges/universities that provide management and technical training to the employees and RMG industries. A program was introduced in Taiwan, China like this.
- Workers face an information gap regarding good quality training programmes. SEIP needs to expand its communication network in rural areas. Union digital centers of the government could be utilized as an information hub for informing remotely located people regarding the availability of RMG industry-related training in the closest possible proximity. Circulating information on TVET should also be enhanced as many still are not well aware of the skill training available there.
- We need to expand more entry level training programmes. These training programmes can be further accentuated/complimented by some intermediate and advanced training programs as well.
- Introducing management and moral courses or trainings for the managers and management employees. Evidence from survey data indicates that these occupation categories in the woven industry have higher skill gaps than others in the same industry.
- Introducing technological courses for the employees specializing on their job description i.e., under broad categories of cutting machine operator, sewing machine operator, finishing operator, fusing machine operator, printing machine operator, embroidery machine operator, quality inspector and quality controllers.
- Introducing longer on-the-job training for the employees can help employers get better quality workers. This can be done for one day a week to go for facilitating training for a duration of a few weeks to one to three months. Employees involved in the production industry can be rotated in the training to make them familiar with the whole production process. Countries including Sri Lanka, China, Taiwan, Philippines etc. reaped great benefits from introducing this type of training.
- Introducing overseas training program on management, technological and vocational training for the skilled and core employees in the industry (Example-Thailand) (World Bank, 2018). This may open up a new dimension for the industry personnel.
- Introducing training on computer programming, technical engineering, and design work so that the industry can work on product diversification and move to upper-value chain RMG products.
- Training the sewing machine operators is the most important part of this industry. As told earlier, other operators are recruited mostly from the existing sewing machine operators.

Moreover, if the sewing machine operator is really good at his/ her job, he/she can take over the job of the quality inspector (in many countries other than Bangladesh, there is no such category as “Quality Inspector” as their sewing machine operator does the job for them). If they are efficient and good, the sewing machine operators can ensure that other operators are doing their jobs properly and the end product’s quality is good. So, the focus of training should be more on this category of RMG workers.

- Factories can arrange for internships in this industry which would help them and subsequently the industry to recruit newer people from the fresh graduates. For doing this, the government could provide the factories with some internship funds, which could in turn help them to solve the problem of ‘Educated Unemployment’ to some extent.
- As women workers face the dual burden of factory work and household activities, it becomes difficult for them to participate in training programmes that are organized after office hours. Therefore, potential women workers should have the opportunity to take part in training programmes during working hours (with no implications on their salary).
- When a factory is working in a full employment capacity, upskilling of the existing workforce can be useful. And so, the government can introduce and arrange or fund the training of the existing operators and mid-level employees to mitigate the problems of the turnover rate of employees (shifting to and from factories and retiring from factories).

The RMG industry is the lifeline of manufacturing employment and is a strong pillar of our economy. In a changing global economy with COVID-recovery challenges and changed world orders of the supply chain, we need to invest more substantially for enhancing the competitiveness of RMG employees at all levels. The SEIP programme of the government has played an accommodative role in designing and providing skill training to meet the needs of various sectors. In the next phase, it is expected that it will continue to do so.

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Appendix

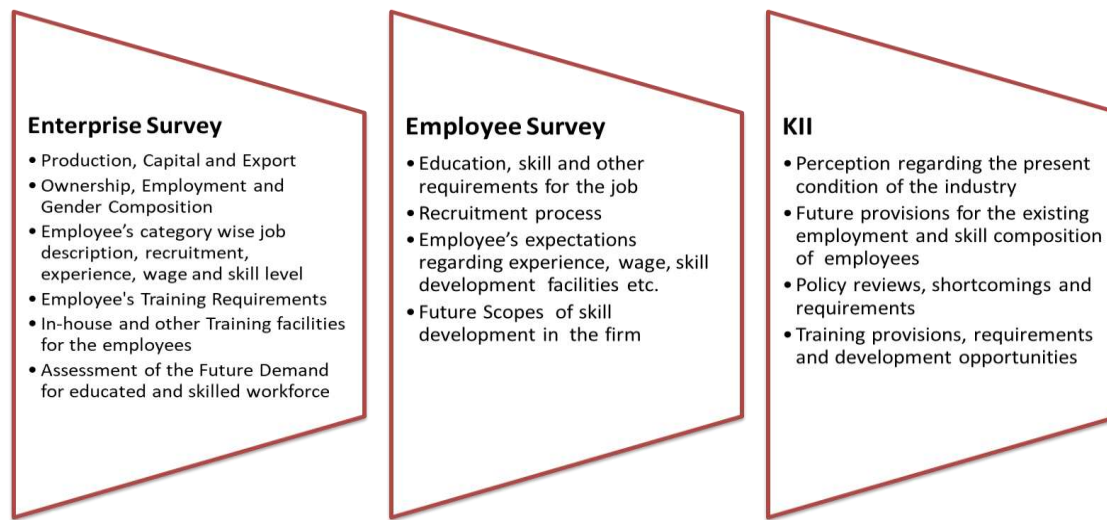
Attached in separate files

Labour Market and Skill Gap Analysis for Readymade Garment Industry in Bangladesh:

Findings from Enterprise and Employee Surveys (SEIP-II)

Appendix

Figure-A.1.1: Highlights of the Survey Questionnaires



Source: Authors' Own perception based on various literature and study objectives

Table-A.2.1: Comparative Statement on Export of RMG & Total Export of Bangladesh

| Year | Export of RMG (Million USD) | Total Export of Bangladesh (Million USD) | % of RMG's to Total Export |
|---------|-----------------------------|--|----------------------------|
| 1983-84 | 31.57 | 811.00 | 3.89 |
| 1984-85 | 116.2 | 934.43 | 12.44 |
| 1985-86 | 131.48 | 819.21 | 16.05 |
| 1986-87 | 298.67 | 1076.61 | 27.74 |
| 1987-88 | 433.92 | 1231.2 | 35.24 |
| 1988-89 | 471.09 | 1291.56 | 36.47 |
| 1989-90 | 624.16 | 1923.70 | 32.45 |
| 1990-91 | 866.82 | 1717.55 | 50.47 |
| 1991-92 | 1182.57 | 1993.90 | 59.31 |
| 1992-93 | 1445.02 | 2382.89 | 60.64 |
| 1993-94 | 1555.79 | 2533.90 | 61.40 |
| 1994-95 | 2228.35 | 3472.56 | 64.17 |
| 1995-96 | 2547.13 | 3882.42 | 65.61 |
| 1996-97 | 3001.25 | 4418.28 | 67.93 |
| 1997-98 | 3781.94 | 5161.20 | 73.28 |

| Year | Export of RMG (Million USD) | Total Export of Bangladesh (Million USD) | % of RMG's to Total Export |
|---------|-----------------------------|--|----------------------------|
| 1998-99 | 4019.98 | 5312.86 | 75.67 |
| 1999-00 | 4349.41 | 5752.20 | 75.61 |
| 2000-01 | 4859.83 | 6467.30 | 75.14 |
| 2001-02 | 4583.75 | 5986.09 | 76.57 |
| 2002-03 | 4912.09 | 6548.44 | 75.01 |
| 2003-04 | 5686.09 | 7602.99 | 74.79 |
| 2004-05 | 6417.67 | 8654.52 | 74.15 |
| 2005-06 | 7900.80 | 10526.16 | 75.06 |
| 2006-07 | 9211.23 | 12177.86 | 75.64 |
| 2007-08 | 10699.80 | 14110.80 | 75.83 |
| 2008-09 | 12347.77 | 15565.19 | 79.33 |
| 2009-10 | 12496.72 | 16204.65 | 77.12 |
| 2010-11 | 17914.46 | 22924.38 | 78.15 |
| 2011-12 | 19089.73 | 24301.90 | 78.55 |
| 2012-13 | 21515.73 | 27027.36 | 79.61 |
| 2013-14 | 24491.88 | 30186.62 | 81.13 |
| 2014-15 | 25491.40 | 31208.94 | 81.68 |
| 2015-16 | 28094.16 | 34257.18 | 82.01 |
| 2016-17 | 28149.84 | 34655.90 | 81.23 |
| 2017-18 | 30614.76 | 36668.17 | 83.49 |
| 2018-19 | 34133.27 | 40535.04 | 84.21 |
| 2019-20 | 27949.19 | 33674.09 | 83.00 |
| 2020-21 | 31456.73 | 38758.31 | 81.16 |

Source: BGMEA Website (2021)

Table-A.2.2: Bangladesh's Apparel Export to World (Fiscal Year Basis)

| Year | Woven Export (Million USD) | Knit Export (Million USD) | Total Export (Million USD) |
|-----------|----------------------------|---------------------------|----------------------------|
| 1992-1993 | 1240.48 | 204.54 | 1445.02 |
| 1993-1994 | 1291.65 | 264.14 | 1555.79 |
| 1994-1995 | 1835.09 | 393.26 | 2228.35 |
| 1995-1996 | 1948.81 | 598.32 | 2547.13 |
| 1996-1997 | 2237.95 | 763.30 | 3001.25 |
| 1997-1998 | 2844.43 | 937.51 | 3781.94 |
| 1998-1999 | 2984.96 | 1035.02 | 4019.98 |
| 1999-2000 | 3081.19 | 1268.22 | 4349.41 |
| 2000-2001 | 3364.32 | 1495.51 | 4859.83 |
| 2001-2002 | 3124.82 | 1458.93 | 4583.75 |
| 2002-2003 | 3258.27 | 1653.82 | 4912.09 |
| 2003-2004 | 3538.07 | 2148.02 | 5686.09 |
| 2004-2005 | 3598.20 | 2819.47 | 6417.67 |
| 2005-2006 | 4083.82 | 3816.98 | 7900.80 |
| 2006-2007 | 4657.63 | 4553.60 | 9211.23 |
| 2007-2008 | 5167.28 | 5532.52 | 10699.80 |
| 2008-2009 | 5918.51 | 6429.26 | 12347.77 |

| Year | Woven Export (Million USD) | Knit Export (Million USD) | Total Export (Million USD) |
|-----------|----------------------------|---------------------------|----------------------------|
| 2009-2010 | 6013.43 | 6483.29 | 12496.72 |
| 2010-2011 | 8432.40 | 9482.06 | 17914.46 |
| 2011-2012 | 9603.34 | 9486.39 | 19089.73 |
| 2012-2013 | 11039.85 | 10475.88 | 21515.73 |
| 2013-2014 | 12442.07 | 12049.81 | 24491.88 |
| 2014-2015 | 13064.61 | 12426.79 | 25491.40 |
| 2015-2016 | 14738.74 | 13355.42 | 28094.16 |
| 2016-2017 | 14392.59 | 13757.25 | 28149.84 |
| 2017-2018 | 15426.25 | 15188.51 | 30614.76 |
| 2018-2019 | 17244.73 | 16888.54 | 34133.27 |
| 2019-2020 | 14041.19 | 13908.00 | 27949.19 |
| 2020-2021 | 14496.70 | 16960.03 | 31456.73 |

Source: BGMEA Website (2021)

Appendix Box-1: Report on the Consultation Workshop

List of information on:

- *Type of trainings organized by BKMEA under the SEIP project*
- *Duration of the trainings*
- *Selection criteria for the trainings*
- *Number of trainings and trainees per year for each category*
- *Level of improvement after receiving the trainings*
- *Comment on the existing skill sets and future need from government*

Information about the trainings:

BKMEA arranges for trainings under the Skills and Employment Investment Program for three kinds of personnel- Fresh Graduates who want to enter the readymade garments sector, Fresh Operators who have recently joined the sector mostly the sewing machine operators, and, Operators and Mid-level Employees from the existing employee groups. From these groups most newly appointed workers (fresh operators) gain the know-how of their jobs through learning by doing process. As tasks are redistributed to different sections based on the skills or lack of skills of the sewing machine operators, training of the fresh operators specifically targets the group of sewing machine operators. The fresh graduate trainings mostly involve making the graduates acquainted with this sector and the workings of different sections of the industry, whereas the trainings of the existing operators and mid-level employees mostly focus on the up skilling of the existing ones. The duration of the trainings for each of these three categories vary. The fresh graduates receive training of 180 hours over a period of 4 months, fresh operators receive trainings of a total 200 hours over a period of 2 months and existing employees receive trainings of 60 hours over 1 and a half months' time.

Advertising or circulation of the training opportunities mostly prompt the interested fresh graduates to apply and come forward for the trainings. Similarly hanging banners, miking near the garments and posters or circulars in written format often works for getting fresh operators to attend the training sessions. In-house workers may show personal interest to attend the trainings or the upper management may select them and send them for training in the third category. In each training session (full training period), 30 persons are selected for training from each category. Throughout the year, 1080 fresh graduates, 3000 to 3500 fresh operators and 100 in-house employees (operators and mid-level) are provided with these trainings in different batches. Trainings of the in-house employees are always arranged in the factory premises during working hours. The after training assessment gives quite a positive vibe from the training facilities.

It is seen that 40 to 50 percent of the fresh graduates find jobs in this sector after receiving their training. The success rate of the trainings for the fresh operators is also very satisfactory. It is even seen that their skill improvement pertaining to their working capabilities is 70 to 80 percent after receiving the said training. And though the improvement in the skill of the already working operators and mid-level employees cannot be measured, they have been reported to have gained improved efficiency, often leading them to enjoying yearly higher increment in wages and salaries, gaining quick promotions and being prioritized for newer or modernized tasks and availing better future opportunities.

Comment on the existing skill sets and future need from government:

- Training the sewing machine operators is the most important part for this sector. As told earlier, other operators are recruited mostly from the existing sewing machine operators. Moreover if the sewing machine operator is really good at his/ her job, he/she can take over the job of the quality inspectors (in many countries other than Bangladesh, there is no such category as “Quality Inspector” as their sewing machine operator does the job for them). If they are efficient and good, the sewing machine operators can ensure that other operators are doing their jobs properly and the end product’s quality is really good. So, focus of training should be more for this category of RMG workers.
- Factories can arrange for internship in this sector which would help them and the subsequently the sector to recruit newer people from the fresh graduates. For doing this, government could provide the factories with their internship fund, which could in turn help them to solve the problem of ‘Educated Unemployment’ to some extent.
- When a factory is working at a full employment capacity, up skilling of the existing workforce can be really useful. And so, government can introduce and arrange or fund for the training of the existing operators and mid-level employees to mitigate the problems of turnover rate of employees (shifting to and from factories and retiring from factories).

Source: Consultation Seminar (Primary Information)

Appendix Box-2: Skill Training at Industrial Zone in Selected Asian Countries

Box 1: Skills training at Industrial Zones – Cases of Asian countries

| Category | Areas/activities of partnership and collaboration |
|----------------------------------|--|
| China (Shenzen) | Three months of on-the-job training for operators (one month for class and two months for production practice); more than 80 adult education institutes (1990) but weak links between needs of enterprises in the EPZ and skills provided. |
| Korea (Masan) | Three months of on-the-job training for operators; overseas training for skilled workers (mainly in Japan). |
| Malaysia | Three months of on-the-job training for operators; Quality Control Cycles with monetary and other incentives (gifts, medals and commendation letters, etc.) for identifying problems and suggesting ways of solving them); little training for computer programming, technical engineering, and design work. |
| Philippines | One day to a few weeks of on-the-job training for operators; some firms (Japanese) rotate operators to make them familiar with between 10 and 18 interrelated tasks (three-month rotation). |
| Sri Lanka | One to three months of on-the-job training for operators. |
| Taiwan, China (Kaohsiung) | Three months of on-the-job training for operators; cooperative training programs between school/college and the firm in the EPZ. School/college provides the general education and the firms provide special technology training; some overseas training. |
| Thailand (Lat Krabang) | Three months of on-the-job training for operators; off-the-job training; study and experiment in the classroom and laboratory for some workers; overseas training (at parent company) for core employees in management and technology. |
| Turkey (OSTIM) | Vocational training for low-skilled workers; partnership with regional universities under which management trainings are provided to companies in cluster; research collaboration with regional university. |

Source: Expanded based on White (2011); Elci (2010);

Source: World Bank (2018)

Table-A.2.3: Annual RMG Export of Bangladesh (destination wise)

(Value in Million USD)

| Country | Knitwear | FY 2016-17 | | | Knitwear | FY 2017-18 | | | Knitwear | FY 2018-19 | | |
|----------------|----------|------------|---------|-----------------|----------|------------|-----------|-----------------|-----------|------------|-----------|-----------------|
| | | Woven Wear | RMG | RMG Growth Rate | | Woven Wear | RMG | RMG Growth Rate | | Woven Wear | RMG | RMG Growth Rate |
| EU 28 | 9893.58 | 7857.02 | 17750.6 | 3.48 | 11,010 | 8,619.61 | 19,629.61 | 10.59 | 11,957.82 | 9,176.15 | 21,133.97 | 7.66 |
| USA | 1302.06 | 3901.94 | 5204 | -7.48 | 1374.37 | 3977.7 | 5,352.07 | 2.85 | 1,514.65 | 4,619.07 | 6,133.72 | 14.6 |
| Germany | 2814.77 | 2320.24 | 5135.01 | 10.35 | 3216.58 | 2,362.94 | 5,579.52 | 8.66 | 3,302.46 | 2,538.45 | 5,840.91 | 4.68 |
| U.K | 1668.95 | 1637.54 | 3306.49 | -6.16 | 1897.63 | 1,826.62 | 3,724.25 | 12.63 | 2,017.55 | 1,841.60 | 3,859.15 | 3.62 |
| Spain | 1050.65 | 828.08 | 1878.73 | 0.78 | 1220.95 | 1,056.83 | 2,277.78 | 21.24 | 1,333.73 | 1,073.40 | 2,407.13 | 5.68 |
| France | 1050.29 | 714.33 | 1764.62 | 2.93 | 1071.53 | 780.4 | 1,851.93 | 4.95 | 1,232.34 | 834.25 | 2,066.59 | 11.59 |
| Italy | 870.61 | 477.96 | 1348.57 | 5.51 | 947.83 | 506.21 | 1,454.04 | 7.82 | 980.1 | 555.81 | 1,535.91 | 5.63 |
| Canada | 404.81 | 541.49 | 946.3 | -5.22 | 411.02 | 552.13 | 963.15 | 1.78 | 528.16 | 651.14 | 1,179.30 | 22.44 |

| Country | Knitwear | FY 2016-17 | | | RMG Growth Rate | Knitwear | FY 2017-18 | | | RMG Growth Rate | Knitwear | FY 2018-19 | | RMG Growth Rate |
|--------------|----------|------------|--------|-----------------|-----------------|----------|------------|-------|-----------------|-----------------|----------|------------|-----|-----------------|
| | | Woven Wear | RMG | RMG Growth Rate | | | Woven Wear | RMG | RMG Growth Rate | | | Woven Wear | RMG | |
| Japan | 399.04 | 345.43 | 744.47 | -3.87 | 444.8 | 401.94 | 846.74 | 13.74 | 603.71 | 487.72 | 1,091.43 | 28.9 | | |
| Denmark | 442.17 | 229.67 | 671.84 | 4.54 | 438.86 | 229.09 | 667.95 | -0.58 | 472.88 | 231.54 | 704.41 | 5.46 | | |
| Australia | 371.55 | 210.46 | 582.01 | -8.52 | 391.16 | 242.85 | 634.01 | 8.93 | 406.71 | 313.07 | 719.78 | 13.53 | | |
| Poland | 460.07 | 260.02 | 720.09 | 16.84 | 536.19 | 328.67 | 864.86 | 20.1 | 709.76 | 471.12 | 1,180.88 | 36.54 | | |
| Russia | 207.37 | 172.02 | 379.39 | 52.26 | 260.68 | 167.24 | 427.92 | 12.79 | 292.78 | 195.8 | 488.58 | 14.18 | | |
| Brazil | 51.42 | 48.38 | 99.8 | -16.97 | 77.74 | 80.64 | 158.38 | 58.7 | 77.65 | 82.86 | 160.51 | 1.34 | | |
| South Africa | 28.85 | 29.12 | 57.97 | -13.3 | 40.68 | 32.58 | 73.26 | 26.38 | 52.56 | 50.03 | 102.58 | 40.03 | | |

Source: EPB

Table- A.3.1: Location of the Factories

| Location | Rural | | | Urban | | | Total |
|----------|-------|--------|-------|-------|--------|-------|--------|
| | Small | Medium | Large | Small | Medium | Large | |
| Woven | 4 | 7 | 3 | 15 | 23 | 20 | 72 |
| Knit | 4 | 3 | 1 | 5 | 17 | 17 | 47 |
| Total | 8 | 10 | 4 | 20 | 40 | 37 | 119 |
| % | | | | | | | |
| Woven | 5.56 | 9.72 | 4.17 | 20.83 | 31.94 | 27.78 | 100.00 |
| Knit | 8.51 | 6.38 | 2.13 | 10.64 | 36.17 | 36.17 | 100.00 |
| Total | 6.72 | 8.40 | 3.36 | 16.81 | 33.61 | 31.09 | 100.00 |

Source: Authors' Calculation based on Primary Survey Data

Table- A.4.1: Grade wise Employment Distribution of Employees- Knit Industries

| Occupation | Grade-1 | Grade-2 | Grade-3 | Grade-4 | Grade-5 | Grade-6 | Grade-7 | Total |
|-------------------------------|---------|---------|---------|---------|---------|---------|---------|--------|
| Managers | 98.91 | 1.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 |
| Management Employees | 72.17 | 16.70 | 4.81 | 1.63 | 1.34 | 1.41 | 1.94 | 100.00 |
| Spreader Man | 0.88 | 0.88 | 15.77 | 29.35 | 22.46 | 21.12 | 9.54 | 100.00 |
| Marker man | 7.94 | 4.76 | 20.27 | 25.48 | 20.08 | 12.56 | 8.92 | 100.00 |
| Cutter man/woman | 4.64 | 2.17 | 19.97 | 35.12 | 18.41 | 10.32 | 9.38 | 100.00 |
| Sticker man | 0.00 | 3.33 | 7.45 | 26.67 | 20.07 | 25.28 | 17.20 | 100.00 |
| Other CMO | 0.00 | 2.13 | 0.15 | 2.26 | 5.55 | 10.91 | 79.00 | 100.00 |
| Lock Stitch Machine Operator | 4.93 | 2.24 | 12.75 | 28.30 | 24.34 | 17.51 | 9.94 | 100.00 |
| Chain Stitch Machine Operator | 2.37 | 5.61 | 12.72 | 24.46 | 23.09 | 19.86 | 11.89 | 100.00 |
| Flatlock Machine Operator | 4.24 | 4.39 | 13.32 | 26.42 | 24.03 | 17.98 | 9.61 | 100.00 |

| Occupation | Grade-1 | Grade-2 | Grade-3 | Grade-4 | Grade-5 | Grade-6 | Grade-7 | Total |
|-------------------------------------|---------|---------|---------|---------|---------|---------|---------|--------|
| Overlock Machine Operator | 3.38 | 2.96 | 13.81 | 26.82 | 24.10 | 19.65 | 9.28 | 100.00 |
| Kansai Machine Operator | 6.94 | 5.16 | 13.11 | 25.98 | 22.34 | 18.23 | 8.24 | 100.00 |
| Button Hole Machine Operator | 3.48 | 3.79 | 9.94 | 25.09 | 26.98 | 21.89 | 8.82 | 100.00 |
| Button Attach Machine Operator | 3.65 | 1.90 | 13.83 | 23.44 | 29.76 | 19.68 | 7.73 | 100.00 |
| Feed of the Arm Machine Operator | 1.14 | 4.55 | 17.45 | 26.30 | 25.34 | 13.36 | 11.86 | 100.00 |
| Other SMOs | 0.20 | 1.43 | 1.76 | 3.00 | 9.39 | 15.04 | 69.18 | 100.00 |
| Iron man/woman | 1.37 | 2.74 | 11.12 | 33.44 | 24.23 | 15.68 | 11.41 | 100.00 |
| Folding man/woman | 1.49 | 2.24 | 6.04 | 33.18 | 26.39 | 19.75 | 10.91 | 100.00 |
| Poly man/woman | 1.45 | 2.17 | 4.71 | 30.04 | 28.33 | 22.01 | 11.28 | 100.00 |
| Carton man/woman | 2.90 | 2.17 | 10.07 | 26.80 | 29.22 | 17.28 | 11.57 | 100.00 |
| Other Finishing Operators | 0.00 | 2.44 | 0.24 | 2.85 | 6.32 | 12.51 | 75.63 | 100.00 |
| Fusing Machine Operator | 0.00 | 1.43 | 16.00 | 34.26 | 20.91 | 18.17 | 9.23 | 100.00 |
| Printing Machine Operator | 0.00 | 0.00 | 10.40 | 61.40 | 10.80 | 8.80 | 8.60 | 100.00 |
| Embroidery Machine Operator | 0.00 | 0.00 | 2.50 | 57.50 | 27.50 | 12.50 | 0.00 | 100.00 |
| Quality Inspector/ End line Quality | 1.78 | 3.34 | 21.64 | 36.81 | 17.19 | 13.33 | 5.90 | 100.00 |
| Quality Controller/ In line Quality | 7.68 | 9.37 | 17.35 | 30.46 | 17.28 | 8.91 | 8.95 | 100.00 |
| Others (Guards, Drivers etc.) | 3.13 | 6.80 | 18.22 | 29.34 | 11.55 | 12.39 | 18.58 | 100.00 |
| Total | 9.86 | 3.86 | 11.50 | 24.40 | 19.56 | 15.42 | 15.40 | 100.00 |

Source: Authors' Calculation based on Primary Survey Data

Table- A.4.2: Grade wise Employment Distribution of Employees- Woven Industries

| Occupation | Grade-1 | Grade-2 | Grade-3 | Grade-4 | Grade-5 | Grade-6 | Grade-7 | Total |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|--------|
| Managers | 98.38 | 1.62 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 |
| Management Employees | 65.46 | 26.56 | 3.59 | 0.97 | 1.15 | 1.26 | 1.00 | 100.00 |
| Spreader Man | 3.53 | 2.00 | 14.85 | 24.32 | 24.41 | 22.09 | 8.79 | 100.00 |
| Marker man | 13.64 | 5.84 | 25.30 | 27.05 | 16.39 | 7.89 | 3.91 | 100.00 |
| Cutter man/woman | 10.00 | 2.61 | 26.26 | 25.85 | 20.93 | 9.46 | 4.89 | 100.00 |
| Sticker man | 1.39 | 9.72 | 9.72 | 18.33 | 20.61 | 14.17 | 26.06 | 100.00 |
| Other CMO | 0.00 | 3.33 | 2.17 | 7.17 | 7.33 | 13.23 | 66.77 | 100.00 |
| Lock Stitch Machine Operator | 6.89 | 2.02 | 15.62 | 26.87 | 17.62 | 19.38 | 11.60 | 100.00 |

| Occupation | Grade-1 | Grade-2 | Grade-3 | Grade-4 | Grade-5 | Grade-6 | Grade-7 | Total |
|--|---------|---------|---------|---------|---------|---------|---------|--------|
| Chain Stitch Machine Operator | 5.91 | 3.34 | 17.39 | 23.18 | 21.14 | 17.41 | 11.64 | 100.00 |
| Flatlock Machine Operator | 5.38 | 4.13 | 15.15 | 27.44 | 19.54 | 17.23 | 11.13 | 100.00 |
| Overlock Machine Operator | 3.56 | 3.89 | 15.00 | 28.53 | 18.96 | 19.67 | 10.40 | 100.00 |
| Kansai Machine Operator | 8.44 | 0.89 | 26.56 | 23.47 | 14.38 | 20.47 | 5.80 | 100.00 |
| Button Hole Machine Operator | 3.56 | 4.64 | 14.87 | 27.11 | 25.16 | 18.82 | 5.84 | 100.00 |
| Button Attach Machine Operator | 3.25 | 3.05 | 18.58 | 24.93 | 21.65 | 24.23 | 4.33 | 100.00 |
| Feed of the Arm Machine Operator | 5.13 | 1.79 | 23.41 | 27.18 | 21.28 | 17.10 | 4.10 | 100.00 |
| Other SMOs | 0.00 | 1.47 | 11.18 | 5.44 | 4.62 | 15.00 | 62.29 | 100.00 |
| Iron man/woman | 5.11 | 1.56 | 15.04 | 28.20 | 32.31 | 12.82 | 4.96 | 100.00 |
| Folding man/woman | 4.77 | 1.14 | 9.73 | 27.34 | 34.86 | 16.57 | 5.59 | 100.00 |
| Poly man/woman | 5.12 | 1.22 | 9.51 | 19.22 | 36.32 | 20.22 | 8.39 | 100.00 |
| Carton man/woman | 4.19 | 6.28 | 8.37 | 20.86 | 23.79 | 21.51 | 15.00 | 100.00 |
| Other Finishing Operators | 0.00 | 3.33 | 1.33 | 3.33 | 6.33 | 20.40 | 65.27 | 100.00 |
| Fusing Machine Operator | 1.61 | 3.23 | 19.42 | 18.45 | 17.52 | 31.55 | 8.23 | 100.00 |
| Printing Machine Operator | 0.00 | 0.00 | 35.00 | 65.00 | 0.00 | 0.00 | 0.00 | 100.00 |
| Embroidery Machine Operator | 0.00 | 0.00 | 50.00 | 12.50 | 0.00 | 37.50 | 0.00 | 100.00 |
| Quality Inspector/ End line Quality | 3.13 | 4.00 | 23.60 | 34.50 | 21.63 | 10.58 | 2.56 | 100.00 |
| Quality Controller/ In line Quality | 10.84 | 16.59 | 18.34 | 30.47 | 12.53 | 6.75 | 4.47 | 100.00 |
| Others (Guards, Drivers etc.) | 4.35 | 5.43 | 22.83 | 17.70 | 13.76 | 17.61 | 18.33 | 100.00 |
| Total | 10.75 | 4.64 | 15.36 | 21.52 | 18.68 | 15.76 | 13.29 | 100.00 |

Source: Authors' Calculation based on Primary Survey Data

Table- A.4.3: Occupation and Gender wise Employment in the Knit Industries

| Occupation | Total number of various occupations in total production workers | | | Share of various occupations in total production workers | | | Average age of workers (Years) | | Average working hours |
|----------------------|---|--------|-------|--|--------|--------|--------------------------------|--------|-----------------------|
| | Male | Female | Total | Male | Female | Total | Male | Female | |
| Managers | 754 | 30 | 784 | 96.17 | 3.83 | 100.00 | 47 | 38 | 8 |
| Management Employees | 5011 | 623 | 5634 | 88.94 | 11.06 | 100.00 | 39 | 35 | 8 |
| Spreader Man | 421 | 230 | 651 | 64.67 | 35.33 | 100.00 | 27 | 24 | 9 |

| Occupation | Total number of various occupations in total production workers | | | Share of various occupations in total production workers | | | Average age of workers (Years) | | Average working hours |
|-------------------------------------|---|--------------|--------------|--|--------------|---------------|--------------------------------|-----------|-----------------------|
| | Male | Female | Total | Male | Female | Total | Male | Female | |
| Marker man | 423 | 211 | 634 | 66.72 | 33.28 | 100.00 | 27 | 24 | 9 |
| Cutter man/woman | 613 | 192 | 805 | 76.15 | 23.85 | 100.00 | 28 | 24 | 9 |
| Sticker man | 325 | 421 | 746 | 43.57 | 56.43 | 100.00 | 26 | 24 | 9 |
| Other CMO | 678 | 710 | 1388 | 48.85 | 51.15 | 100.00 | 24 | 22 | 9 |
| Lock Stitch Machine Operator | 2780 | 6333 | 9113 | 30.51 | 69.49 | 100.00 | 27 | 25 | 9 |
| Chain Stitch Machine Operator | 1010 | 2758 | 3768 | 26.80 | 73.20 | 100.00 | 27 | 25 | 9 |
| Flatlock Machine Operator | 938 | 2939 | 3877 | 24.19 | 75.81 | 100.00 | 27 | 25 | 9 |
| Overlock Machine Operator | 1630 | 3400 | 5030 | 32.41 | 67.59 | 100.00 | 27 | 25 | 9 |
| Kansai Machine Operator | 343 | 772 | 1115 | 30.76 | 69.24 | 100.00 | 28 | 25 | 9 |
| Button Hole Machine Operator | 368 | 926 | 1294 | 28.44 | 71.56 | 100.00 | 27 | 25 | 9 |
| Button Attach Machine Operator | 246 | 821 | 1067 | 23.06 | 76.94 | 100.00 | 27 | 25 | 9 |
| Feed of the Arm Machine Operator | 423 | 602 | 1025 | 41.27 | 58.73 | 100.00 | 28 | 25 | 9 |
| Other SMOs | 1808 | 4534 | 6342 | 28.51 | 71.49 | 100.00 | 24 | 22 | 9 |
| Iron man/woman | 1251 | 331 | 1582 | 79.08 | 20.92 | 100.00 | 28 | 24 | 9 |
| Folding man/woman | 475 | 1482 | 1957 | 24.27 | 75.73 | 100.00 | 26 | 24 | 9 |
| Poly man/woman | 237 | 1038 | 1275 | 18.59 | 81.41 | 100.00 | 25 | 24 | 9 |
| Carton man/woman | 809 | 288 | 1097 | 73.75 | 26.25 | 100.00 | 27 | 25 | 9 |
| Other Finishing Operators | 464 | 946 | 1410 | 32.91 | 67.09 | 100.00 | 24 | 21 | 9 |
| Fusing Machine Operator | 125 | 268 | 393 | 31.81 | 68.19 | 100.00 | 29 | 26 | 9 |
| Printing Machine Operator | 67 | 45 | 112 | 59.82 | 40.18 | 100.00 | 31 | 26 | 8 |
| Embroidery Machine Operator | 32 | 9 | 41 | 78.05 | 21.95 | 100.00 | 29 | 25 | 9 |
| Quality Inspector/ End line Quality | 1457 | 2695 | 4152 | 35.09 | 64.91 | 100.00 | 29 | 26 | 9 |
| Quality Controller/ In line Quality | 584 | 878 | 1462 | 39.95 | 60.05 | 100.00 | 29 | 26 | 9 |
| Others (Guards, Drivers etc.) | 1062 | 540 | 1602 | 66.29 | 33.71 | 100.00 | 32 | 28 | 9 |
| Total | 24334 | 34022 | 58356 | 41.70 | 58.30 | 100.00 | 29 | 25 | 9 |

Source: Authors' Calculation based on Primary Survey Data

Table- A.4.4: Occupation and Gender wise Employment in the Woven Industries

| Occupation | Total number of various occupations in total production workers | | | Share of various occupations in total production workers | | | Average Age of Workers (Years) | | Average Working Hours |
|----------------------------------|---|--------|-------|--|--------|--------|--------------------------------|--------|-----------------------|
| | Male | Female | Total | Male | Female | Total | Male | Female | |
| Managers | 618 | 46 | 664 | 93.07 | 6.93 | 100.00 | 45 | 33 | 8 |
| Management Employees | 3966 | 342 | 4308 | 92.06 | 7.94 | 100.00 | 38 | 34 | 9 |
| Spreader Man | 270 | 230 | 500 | 54.00 | 46.00 | 100.00 | 27 | 23 | 9 |
| Marker man | 328 | 314 | 642 | 51.09 | 48.91 | 100.00 | 27 | 23 | 9 |
| Cutter man/woman | 436 | 265 | 701 | 62.20 | 37.80 | 100.00 | 29 | 24 | 9 |
| Sticker man | 468 | 739 | 1207 | 38.77 | 61.23 | 100.00 | 27 | 23 | 9 |
| Other CMO | 422 | 415 | 837 | 50.42 | 49.58 | 100.00 | 24 | 22 | 9 |
| Lock Stitch Machine Operator | 2333 | 6870 | 9203 | 25.35 | 74.65 | 100.00 | 27 | 25 | 9 |
| Chain Stitch Machine Operator | 542 | 2346 | 2888 | 18.77 | 81.23 | 100.00 | 27 | 24 | 9 |
| Flatlock Machine Operator | 447 | 1739 | 2186 | 20.45 | 79.55 | 100.00 | 28 | 25 | 9 |
| Overlock Machine Operator | 582 | 1918 | 2500 | 23.28 | 76.72 | 100.00 | 27 | 25 | 9 |
| Kansai Machine Operator | 555 | 803 | 1358 | 40.87 | 59.13 | 100.00 | 27 | 24 | 9 |
| Button Hole Machine Operator | 248 | 986 | 1234 | 20.10 | 79.90 | 100.00 | 27 | 24 | 9 |
| Button Attach Machine Operator | 271 | 874 | 1145 | 23.67 | 76.33 | 100.00 | 27 | 24 | 9 |
| Feed of the Arm Machine Operator | 354 | 754 | 1108 | 31.95 | 68.05 | 100.00 | 27 | 25 | 9 |
| Other SMOs | 770 | 2371 | 3141 | 24.51 | 75.49 | 100.00 | 23 | 21 | 9 |
| Iron man/woman | 909 | 464 | 1373 | 66.21 | 33.79 | 100.00 | 28 | 25 | 9 |
| Folding man/woman | 399 | 1222 | 1621 | 24.61 | 75.39 | 100.00 | 27 | 24 | 9 |
| Poly man/woman | 285 | 762 | 1047 | 27.22 | 72.78 | 100.00 | 27 | 23 | 9 |
| Carton man/woman | 557 | 174 | 731 | 76.20 | 23.80 | 100.00 | 28 | 24 | 9 |
| Other Finishing Operators | 528 | 1442 | 1970 | 26.80 | 73.20 | 100.00 | 24 | 22 | 8 |
| Fusing Machine Operator | 123 | 202 | 325 | 37.85 | 62.15 | 100.00 | 30 | 26 | 9 |
| Printing Machine Operator | 5 | 2 | 7 | 71.43 | 28.57 | 100.00 | 30 | 23 | 8 |

| Occupation | Total number of various occupations in total production workers | | | Share of various occupations in total production workers | | | Average Age of Workers (Years) | | Average Working Hours |
|-------------------------------------|---|--------------|--------------|--|--------------|---------------|--------------------------------|-----------|-----------------------|
| | Male | Female | Total | Male | Female | Total | Male | Female | |
| Embroidery Machine Operator | 7 | 2 | 9 | 77.78 | 22.22 | 100.00 | 32 | 23 | 8 |
| Quality Inspector/ End line Quality | 1095 | 2034 | 3129 | 35.00 | 65.00 | 100.00 | 29 | 26 | 9 |
| Quality Controller/ In line Quality | 537 | 824 | 1361 | 39.46 | 60.54 | 100.00 | 31 | 28 | 9 |
| Others (Guards, Drivers etc.) | 725 | 360 | 1085 | 66.82 | 33.18 | 100.00 | 33 | 29 | 9 |
| Total | 17780 | 28500 | 46280 | 38.42 | 61.58 | 100.00 | 29 | 25 | 9 |

Source: Authors' Calculation based on Primary Survey Data

Table-A.4.5: Salaries and Other Benefits to the Employees in the RMG Industries

| Occupation | Knit | | | | Woven | | | |
|---------------------------------------|--------------------------------|--------|--|--------|--------------------------------|--------|--|--------|
| | Average salary/wage/honorarium | | Convenience without salary (Cash benefit/non-cash benefit/social security/pension) | | Average salary/wage/honorarium | | Convenience without salary (Cash benefit/non-cash benefit/social security/pension) | |
| | (In taka) | | (In taka) | | (In taka) | | (In taka) | |
| | Male | Female | Male | Female | Male | Female | Male | Female |
| Managers | 46242 | 44762 | 22748 | 14167 | 45135 | 44750 | 24735 | 20834 |
| Management Employees | 26695 | 25415 | 13226 | 11196 | 27016 | 24492 | 13656 | 9846 |
| Spreader Man | 10704 | 9818 | 5586 | 10592 | 11981 | 13003 | 10935 | 14320 |
| Marker man | 10518 | 9576 | 5098 | 9759 | 10986 | 9635 | 7409 | 10389 |
| Cutter man/woman | 10047 | 9167 | 4182 | 9751 | 10528 | 10011 | 6650 | 10292 |
| Sticker man | 8872 | 8971 | 3357 | 9134 | 8923 | 8825 | 5644 | 8133 |
| Other CMOs | 8243 | 8282 | 4130 | 7159 | 7823 | 7545 | 5923 | 5831 |
| Lock Stitch Machine Operator | 9257 | 9372 | 4413 | 6634 | 9119 | 9356 | 5398 | 7018 |
| Chain Stitch Machine Operator | 9368 | 9452 | 4567 | 7296 | 9307 | 9360 | 5923 | 7150 |
| Flatlock Machine Operator | 9302 | 9343 | 4325 | 6086 | 9184 | 9398 | 5584 | 6758 |
| Overlock Machine Operator | 9197 | 9306 | 4457 | 6365 | 9256 | 9314 | 6134 | 6884 |
| Kansai Machine Operator | 9156 | 9489 | 4833 | 9827 | 9368 | 9395 | 6259 | 7026 |
| Button Hole Machine Operator | 9109 | 9314 | 3688 | 7440 | 9082 | 9400 | 5777 | 6828 |
| Button Attach Machine Operator | 9243 | 9187 | 4541 | 9010 | 9273 | 9270 | 5669 | 6887 |

| Occupation | Knit | | | | Woven | | | |
|-------------------------------------|--------------------------------|--------------|--|-------------|--------------------------------|--------------|--|-------------|
| | Average salary/wage/honorarium | | Convenience without salary (Cash benefit/non-cash benefit/social security/pension) | | Average salary/wage/honorarium | | Convenience without salary (Cash benefit/non-cash benefit/social security/pension) | |
| | (In taka) | | (In taka) | | (In taka) | | (In taka) | |
| | Male | Female | Male | Female | Male | Female | Male | Female |
| Feed of the Arm Machine Operator | 9210 | 9234 | 4614 | 8422 | 9476 | 9465 | 6064 | 8663 |
| Other SMOs | 8347 | 8329 | 3627 | 5667 | 7964 | 8179 | 5208 | 6296 |
| Iron man/woman | 9101 | 8870 | 3861 | 9054 | 8995 | 8882 | 5883 | 5894 |
| Folding man/woman | 9105 | 9102 | 3829 | 6378 | 9008 | 9021 | 4901 | 6888 |
| Poly man/woman | 8959 | 8978 | 3920 | 6498 | 8881 | 8869 | 6029 | 5585 |
| Carton man/woman | 9048 | 8812 | 3946 | 8333 | 9038 | 8533 | 5610 | 6443 |
| Other Finishing Operators | 8288 | 8249 | 3303 | 5861 | 7743 | 7686 | 5231 | 5396 |
| Fusing Machine Operator | 9062 | 9023 | 4460 | 8876 | 9134 | 9185 | 5791 | 6990 |
| Printing Machine Operator | 9513 | 8699 | 5020 | 2499 | 9778 | 10333 | 7500 | 11667 |
| Embroidery Machine Operator | 9174 | . | 5166 | . | 9033 | 10666 | 7500 | . |
| Quality Inspector/ End line Quality | 9601 | 9501 | 3873 | 6782 | 9963 | 9933 | 7475 | 6086 |
| Quality Controller/ In line Quality | 10480 | 10038 | 4801 | 8355 | 12637 | 11269 | 12950 | 9769 |
| Others (Guards, Drivers etc.) | 9717 | 9552 | 4469 | 7522 | 9631 | 9624 | 6130 | 8277 |
| Total | 11720 | 10645 | 6335 | 7795 | 11636 | 10673 | 7891 | 7624 |

Source: Authors' Calculation from Surveyed Firms

Table-A.4.6: Benefits to the Employees in Knit Industries

| Occupation | Bonus | Pension | Life Insurance | Health Insurance | Loan Facilities | Other Benefits | Total Number | Valid Cases |
|-------------------------------|-------|---------|----------------|------------------|-----------------|----------------|--------------|-------------|
| Managers | 1 | 20 | 72 | 22 | 19 | 2 | 136 | 72 |
| Management Employees | 0 | 19 | 73 | 22 | 19 | 2 | 135 | 73 |
| Spreader Man | 2 | 5 | 55 | 18 | 7 | 2 | 89 | 57 |
| Marker man | 0 | 4 | 63 | 16 | 8 | 6 | 97 | 63 |
| Cutter man/woman | 0 | 4 | 65 | 16 | 8 | 6 | 99 | 65 |
| Sticker man | 1 | 5 | 59 | 16 | 7 | 7 | 95 | 61 |
| Other CMOs | 0 | 1 | 52 | 15 | 7 | 5 | 80 | 52 |
| Lock Stitch Machine Operator | 1 | 4 | 68 | 21 | 7 | 5 | 106 | 69 |
| Chain Stitch Machine Operator | 0 | 3 | 55 | 15 | 6 | 2 | 81 | 55 |
| Flatlock Machine Operator | 0 | 4 | 63 | 18 | 7 | 6 | 98 | 63 |

| Occupation | Bonus | Pension | Life Insurance | Health Insurance | Loan Facilities | Other Benefits | Total Number | Valid Cases |
|-------------------------------------|----------|------------|----------------|------------------|-----------------|----------------|--------------|-------------|
| Overlock Machine Operator | 0 | 5 | 65 | 16 | 8 | 7 | 101 | 66 |
| Kansai Machine Operator | 0 | 3 | 54 | 14 | 7 | 7 | 85 | 55 |
| Button Hole Machine Operator | 0 | 3 | 63 | 16 | 9 | 8 | 99 | 64 |
| Button Attach Machine Operator | 0 | 3 | 56 | 15 | 6 | 8 | 88 | 57 |
| Feed of the Arm Machine Operator | 0 | 3 | 44 | 16 | 5 | 5 | 73 | 44 |
| Other SMOs | 0 | 2 | 55 | 16 | 8 | 5 | 86 | 55 |
| Iron man/woman | 0 | 4 | 73 | 21 | 9 | 7 | 114 | 73 |
| Folding man/woman | 0 | 4 | 66 | 17 | 9 | 7 | 103 | 66 |
| Poly man/woman | 0 | 4 | 66 | 17 | 8 | 7 | 102 | 66 |
| Carton man/woman | 0 | 4 | 68 | 18 | 9 | 6 | 105 | 68 |
| Other Finishing Operators | 0 | 3 | 52 | 14 | 7 | 7 | 83 | 52 |
| Fusing Machine Operator | 0 | 1 | 43 | 15 | 4 | 1 | 64 | 43 |
| Printing Machine Operator | 0 | 0 | 3 | 0 | 2 | 0 | 5 | 3 |
| Embroidery Machine Operator | 0 | 0 | 3 | 0 | 1 | 0 | 4 | 3 |
| Quality Inspector/ End Line Quality | 0 | 4 | 71 | 20 | 8 | 7 | 110 | 71 |
| Quality Controller/ In Line Quality | 1 | 2 | 57 | 15 | 8 | 5 | 88 | 57 |
| Others (Guards, Drivers etc.) | 1 | 4 | 71 | 20 | 8 | 7 | 111 | 72 |
| Total | 7 | 118 | 1535 | 429 | 211 | 137 | 2437 | 1545 |

Source: Authors' Calculation based on Primary Survey Data

Table-A.4.7: Benefits to the Employees in Woven Industries

| Occupation | Bonus | Pension | Life Insurance | Health Insurance | Loan Facilities | Other Benefits | Total Number | Valid Cases |
|----------------------------------|-------|---------|----------------|------------------|-----------------|----------------|--------------|-------------|
| Managers | 0 | 10 | 47 | 17 | 16 | 2 | 92 | 47 |
| Management Employees | 0 | 7 | 46 | 16 | 14 | 3 | 86 | 47 |
| Spreader Man | 0 | 3 | 34 | 10 | 4 | 4 | 55 | 35 |
| Marker man | 0 | 3 | 40 | 13 | 5 | 5 | 66 | 41 |
| Cutter man/woman | 0 | 2 | 41 | 14 | 5 | 5 | 67 | 41 |
| Sticker man | 0 | 3 | 35 | 10 | 4 | 5 | 57 | 36 |
| Other CMOs | 0 | 1 | 34 | 8 | 4 | 4 | 51 | 34 |
| Lock Stitch Machine Operator | 1 | 2 | 45 | 17 | 4 | 5 | 74 | 46 |
| Chain Stitch Machine Operator | 0 | 2 | 41 | 13 | 5 | 5 | 66 | 41 |
| Flatlock Machine Operator | 0 | 2 | 40 | 12 | 5 | 5 | 64 | 40 |
| Overlock Machine Operator | 0 | 2 | 40 | 12 | 5 | 5 | 64 | 40 |
| Kansai Machine Operator | 0 | 2 | 45 | 15 | 5 | 5 | 72 | 45 |
| Button Hole Machine Operator | 0 | 2 | 45 | 15 | 5 | 5 | 72 | 45 |
| Button Attach Machine Operator | 0 | 2 | 39 | 10 | 5 | 5 | 61 | 39 |
| Feed of the Arm Machine Operator | 1 | 0 | 39 | 13 | 5 | 5 | 63 | 40 |
| Other SMOs | 0 | 1 | 34 | 8 | 5 | 4 | 52 | 34 |
| Iron man/woman | 1 | 2 | 46 | 17 | 5 | 5 | 76 | 46 |
| Folding man/woman | 0 | 2 | 42 | 12 | 5 | 5 | 66 | 42 |
| Poly man/woman | 0 | 2 | 42 | 13 | 5 | 5 | 67 | 42 |
| Carton man/woman | 0 | 2 | 39 | 10 | 5 | 5 | 61 | 39 |

| Occupation | Bonus | Pension | Life Insurance | Health Insurance | Loan Facilities | Other Benefits | Total Number | Valid Cases |
|-------------------------------------|----------|-----------|----------------|------------------|-----------------|----------------|--------------|-------------|
| Other Finishing Operators | 0 | 2 | 36 | 10 | 4 | 4 | 56 | 36 |
| Fusing Machine Operator | 0 | 1 | 36 | 10 | 5 | 5 | 57 | 36 |
| Printing Machine Operator | 0 | 1 | 5 | 0 | 2 | 0 | 8 | 6 |
| Embroidery Machine Operator | 0 | 1 | 3 | 0 | 2 | 0 | 6 | 4 |
| Quality Inspector/ End Line Quality | 0 | 2 | 47 | 17 | 5 | 5 | 76 | 47 |
| Quality Controller/ In Line Quality | 0 | 3 | 37 | 11 | 4 | 5 | 60 | 38 |
| Others (Guards, Drivers etc.) | 0 | 2 | 46 | 16 | 4 | 5 | 73 | 46 |
| Total | 3 | 64 | 1025 | 319 | 142 | 116 | 1669 | 1034 |

Source: Authors' Calculation based on Primary Survey Data

Table-A.4.8: Recruitment in Knit and Woven Industries

| Occupation | Knit | | | | Woven | | | |
|-------------------------------------|--------------------------|---------------------------|--|----------------------------|--------------------------|---------------------------|--|----------------------------|
| | Extent of Physical Labor | % of Informal Recruitment | Time spent to fill the post (from advertisement to hiring) | Cost of Recruitment (taka) | Extent of Physical Labor | % of Informal Recruitment | Time spent to fill the post (from advertisement to hiring) | Cost of Recruitment (taka) |
| | | | (in days) | (in taka) | | | (in days) | (in taka) |
| Managers | 4 | 64.29 | 14 | 2311 | 4 | 56.00 | 15 | 2580 |
| Management Employees | 5 | 82.98 | 12 | 2113 | 5 | 78.13 | 12 | 2311 |
| Spreader Man | 7 | 77.14 | 8 | 943 | 7 | 86.67 | 7 | 1211 |
| Marker man | 7 | 79.31 | 8 | 1127 | 8 | 89.29 | 9 | 1554 |
| Cutter man/woman | 8 | 59.18 | 8 | 906 | 8 | 75.76 | 8 | 1418 |
| Sticker man | 7 | 74.07 | 8 | 1288 | 7 | 89.29 | 8 | 1563 |
| Other CMOs | 7 | 53.66 | 8 | 1025 | 7 | 80.00 | 7 | 1531 |
| Lock Stitch Machine Operator | 7 | 63.93 | 8 | 761 | 8 | 80.49 | 9 | 1156 |
| Chain Stitch Machine Operator | 8 | 73.68 | 8 | 809 | 8 | 90.32 | 9 | 1425 |
| Flatlock Machine Operator | 8 | 58.00 | 7 | 910 | 8 | 83.33 | 9 | 1248 |
| Overlock Machine Operator | 8 | 57.14 | 8 | 850 | 8 | 78.95 | 8 | 1263 |
| Kansai Machine Operator | 8 | 78.13 | 7 | 1066 | 8 | 87.10 | 7 | 1391 |
| Button Hole Machine Operator | 8 | 62.79 | 8 | 992 | 8 | 84.85 | 9 | 1331 |
| Button Attach Machine Operator | 8 | 58.82 | 7 | 1181 | 8 | 81.82 | 8 | 1328 |
| Feed of the Arm Machine Operator | 8 | 80.00 | 8 | 920 | 8 | 96.30 | 8 | 1347 |
| Other SMOs | 7 | 82.35 | 7 | 993 | 7 | 90.00 | 6 | 1433 |
| Iron man/woman | 9 | 59.18 | 7 | 892 | 9 | 78.38 | 8 | 1278 |
| Folding man/woman | 8 | 60.00 | 7 | 1066 | 8 | 82.35 | 8 | 1361 |
| Poly man/woman | 7 | 57.89 | 7 | 1053 | 8 | 78.13 | 7 | 1470 |
| Carton man/woman | 8 | 75.76 | 7 | 1066 | 8 | 90.63 | 8 | 1388 |
| Other Finishing Operators | 7 | 50.00 | 7 | 1170 | 7 | 75.00 | 6 | 1423 |
| Fusing Machine Operator | 8 | 100.00 | 7 | 1111 | 8 | 95.45 | 8 | 1590 |
| Printing Machine Operator | 6 | 100.00 | 9 | 150 | 4 | 100.00 | 6 | 464 |
| Embroidery Machine Operator | 5 | 100.00 | 10 | 183 | 4 | 100.00 | 6 | 458 |
| Quality Inspector/ End Line Quality | 8 | 61.40 | 8 | 881 | 8 | 77.78 | 7 | 1347 |
| Quality Controller/ In Line Quality | 8 | 62.16 | 8 | 1109 | 8 | 85.71 | 7 | 1477 |
| Others (Guards, Drivers etc.) | 8 | 82.76 | 7 | 1204 | 8 | 90.91 | 8 | 1387 |

| | | | | | | | | |
|-------|---|-------|---|------|---|-------|---|------|
| Total | 7 | 66.63 | 8 | 1074 | 7 | 83.31 | 8 | 1439 |
|-------|---|-------|---|------|---|-------|---|------|

Source: Authors' Calculation based on Primary Survey Data

Table-A.4.9: Gender Preferences in RMG Industry (Frequency)

| Occupation Name | Gender Preference for the Occupations | | | | | | | |
|----------------------------------|---------------------------------------|--------|---------------|-------|-------|--------|---------------|-------|
| | Knit | | | | Woven | | | |
| | Male | Female | No preference | Total | Male | Female | No preference | Total |
| Managers | 24 | 1 | 46 | 71 | 13 | 0 | 33 | 46 |
| Management Employees | 4 | 0 | 67 | 71 | 0 | 0 | 46 | 46 |
| Spreader Man | 20 | 3 | 33 | 56 | 9 | 0 | 27 | 36 |
| Marker man | 35 | 0 | 27 | 62 | 21 | 0 | 21 | 42 |
| Cutter man/woman | 43 | 0 | 21 | 64 | 27 | 0 | 16 | 43 |
| Sticker man | 13 | 5 | 41 | 59 | 6 | 4 | 32 | 42 |
| Other CMOs | 3 | 1 | 46 | 50 | 2 | 0 | 36 | 38 |
| Lock Stitch Machine Operator | 0 | 2 | 63 | 65 | 0 | 5 | 40 | 45 |
| Chain Stitch Machine Operator | 1 | 1 | 51 | 53 | 0 | 5 | 37 | 42 |
| Flatlock Machine Operator | 0 | 1 | 61 | 62 | 0 | 4 | 35 | 39 |
| Overlock Machine Operator | 1 | 2 | 62 | 65 | 0 | 4 | 38 | 42 |
| Kansai Machine Operator | 7 | 6 | 48 | 61 | 9 | 3 | 29 | 41 |
| Button Hole Machine Operator | 1 | 4 | 57 | 62 | 0 | 2 | 41 | 43 |
| Button Attach Machine Operator | 1 | 5 | 54 | 60 | 0 | 3 | 35 | 38 |
| Feed of the Arm Machine Operator | 2 | 1 | 40 | 43 | 5 | 4 | 32 | 41 |
| Other SMOs | 0 | 3 | 50 | 53 | 1 | 1 | 39 | 41 |
| Iron man/woman | 35 | 2 | 34 | 71 | 22 | 1 | 24 | 47 |
| Folding man/woman | 0 | 24 | 43 | 67 | 1 | 13 | 29 | 43 |
| Poly man/woman | 1 | 25 | 44 | 70 | 1 | 13 | 30 | 44 |
| Carton man/woman | 40 | 0 | 24 | 64 | 23 | 1 | 16 | 40 |
| Other Finishing Operators | 1 | 3 | 45 | 49 | 1 | 1 | 35 | 37 |

| Occupation Name | Gender Preference for the Occupations | | | | | | | |
|-------------------------------------|---------------------------------------|-----------|---------------|--------------|------------|-----------|---------------|--------------|
| | Knit | | | | Woven | | | |
| | Male | Female | No preference | Total | Male | Female | No preference | Total |
| Fusing Machine Operator | 6 | 6 | 28 | 40 | 9 | 5 | 23 | 37 |
| Printing Machine Operator | 3 | 0 | 2 | 5 | 3 | 1 | 0 | 4 |
| Embroidery Machine Operator | 3 | 0 | 2 | 5 | 1 | 1 | 2 | 4 |
| Quality Inspector/ End Line Quality | 0 | 4 | 68 | 72 | 0 | 3 | 44 | 47 |
| Quality Controller/ In Line Quality | 9 | 0 | 49 | 58 | 3 | 0 | 38 | 41 |
| Others (Guards, Drivers etc.) | 9 | 0 | 61 | 70 | 5 | 0 | 42 | 47 |
| Total | 262 | 99 | 1,167 | 1,528 | 162 | 74 | 820 | 1,056 |

Source: Authors' Calculation based on Primary Survey Data

Table-A.4.9: Gender Preferences in RMG Industry (Percentage)

| Occupation Name | Gender Preference for the Occupations | | | | | |
|-------------------------------|---------------------------------------|--------|---------------|-------|--------|---------------|
| | Knit | | | Woven | | |
| | Male | Female | No preference | Male | Female | No preference |
| Managers | 33.80 | 1.41 | 64.79 | 28.26 | 0.00 | 71.74 |
| Management Employees | 5.63 | 0.00 | 94.37 | 0.00 | 0.00 | 100.00 |
| Spreader Man | 35.71 | 5.36 | 58.93 | 25.00 | 0.00 | 75.00 |
| Marker man | 56.45 | 0.00 | 43.55 | 50.00 | 0.00 | 50.00 |
| Cutter man/woman | 67.19 | 0.00 | 32.81 | 62.79 | 0.00 | 37.21 |
| Sticker man | 22.03 | 8.47 | 69.49 | 14.29 | 9.52 | 76.19 |
| Other CMOs | 6.00 | 2.00 | 92.00 | 5.26 | 0.00 | 94.74 |
| Lock Stitch Machine Operator | 0.00 | 3.08 | 96.92 | 0.00 | 11.11 | 88.89 |
| Chain Stitch Machine Operator | 1.89 | 1.89 | 96.23 | 0.00 | 11.90 | 88.10 |
| Flatlock Machine Operator | 0.00 | 1.61 | 98.39 | 0.00 | 10.26 | 89.74 |
| Overlock Machine Operator | 1.54 | 3.08 | 95.38 | 0.00 | 9.52 | 90.48 |
| Kansai Machine Operator | 11.48 | 9.84 | 78.69 | 21.95 | 7.32 | 70.73 |
| Button Hole Machine Operator | 1.61 | 6.45 | 91.94 | 0.00 | 4.65 | 95.35 |

| Occupation Name | Gender Preference for the Occupations | | | | | |
|-------------------------------------|---------------------------------------|--------|---------------|-------|--------|---------------|
| | Knit | | | Woven | | |
| | Male | Female | No preference | Male | Female | No preference |
| Button Attach Machine Operator | 1.67 | 8.33 | 90.00 | 0.00 | 7.89 | 92.11 |
| Feed of the Arm Machine Operator | 4.65 | 2.33 | 93.02 | 12.20 | 9.76 | 78.05 |
| Other SMOs | 0.00 | 5.66 | 94.34 | 2.44 | 2.44 | 95.12 |
| Iron man/woman | 49.30 | 2.82 | 47.89 | 46.81 | 2.13 | 51.06 |
| Folding man/woman | 0.00 | 35.82 | 64.18 | 2.33 | 30.23 | 67.44 |
| Poly man/woman | 1.43 | 35.71 | 62.86 | 2.27 | 29.55 | 68.18 |
| Carton man/woman | 62.50 | 0.00 | 37.50 | 57.50 | 2.50 | 40.00 |
| Other Finishing Operators | 2.04 | 6.12 | 91.84 | 2.70 | 2.70 | 94.59 |
| Fusing Machine Operator | 15.00 | 15.00 | 70.00 | 24.32 | 13.51 | 62.16 |
| Printing Machine Operator | 60.00 | 0.00 | 40.00 | 75.00 | 25.00 | 0.00 |
| Embroidery Machine Operator | 60.00 | 0.00 | 40.00 | 25.00 | 25.00 | 50.00 |
| Quality Inspector/ End Line Quality | 0.00 | 5.56 | 94.44 | 0.00 | 6.38 | 93.62 |
| Quality Controller/ In Line Quality | 15.52 | 0.00 | 84.48 | 7.32 | 0.00 | 92.68 |
| Others (Guards, Drivers etc.) | 12.86 | 0.00 | 87.14 | 10.64 | 0.00 | 89.36 |
| Total | 17.15 | 6.48 | 76.37 | 15.34 | 7.01 | 77.65 |

Source: Authors' Calculation based on Primary Survey Data

Table-A.4.10: Desired and Actual Education and Experience of the Employees in the RMG Industries

| Occupation | Knit | | | | Woven | | | |
|----------------------|---|--------------------|----------------------------|--------------------|---|--------------------|----------------------------|--------------------|
| | Desired/ Minimum Expected Level on an Average | | Actual Level on an Average | | Desired/ Minimum Expected Level on an Average | | Actual Level on an Average | |
| | Education | Experience (Years) | Education | Experience (Years) | Education | Experience (Years) | Education | Experience (Years) |
| Managers | 16 | 6 | 15 | 5 | 16 | 5 | 15 | 5 |
| Management Employees | 15 | 4 | 14 | 3 | 15 | 4 | 14 | 3 |

| Occupation | Knit | | | | Woven | | | |
|----------------------------------|---|--------------------|----------------------------|--------------------|---|--------------------|----------------------------|--------------------|
| | Desired/ Minimum Expected Level on an Average | | Actual Level on an Average | | Desired/ Minimum Expected Level on an Average | | Actual Level on an Average | |
| | Education | Experience (Years) | Education | Experience (Years) | Education | Experience (Years) | Education | Experience (Years) |
| Spreader Man | 9 | 3 | 8 | 2 | 8 | 3 | 7 | 2 |
| Marker man | 9 | 3 | 8 | 2 | 8 | 3 | 7 | 2 |
| Cutter man/woman | 8 | 3 | 8 | 3 | 8 | 3 | 7 | 2 |
| Sticker man | 9 | 3 | 7 | 2 | 8 | 3 | 6 | 2 |
| Other CMOs | 8 | 2 | 7 | 1 | 8 | 1 | 6 | 1 |
| Lock Stitch Machine Operator | 8 | 3 | 7 | 2 | 8 | 3 | 7 | 2 |
| Chain Stitch Machine Operator | 8 | 3 | 7 | 2 | 8 | 3 | 7 | 2 |
| Flatlock Machine Operator | 9 | 3 | 7 | 2 | 8 | 3 | 7 | 2 |
| Overlock Machine Operator | 8 | 3 | 7 | 2 | 8 | 3 | 7 | 2 |
| Kansai Machine Operator | 8 | 3 | 7 | 2 | 8 | 3 | 7 | 2 |
| Button Hole Machine Operator | 8 | 3 | 7 | 2 | 8 | 3 | 6 | 3 |
| Button Attach Machine Operator | 8 | 3 | 7 | 2 | 8 | 3 | 6 | 2 |
| Feed of the Arm Machine Operator | 8 | 3 | 7 | 2 | 8 | 3 | 7 | 2 |
| Other SMOs | 8 | 2 | 7 | 1 | 7 | 1 | 6 | 1 |
| Iron man/woman | 8 | 3 | 7 | 2 | 8 | 3 | 6 | 2 |
| Folding man/woman | 8 | 2 | 7 | 2 | 8 | 3 | 6 | 2 |
| Poly man/woman | 8 | 2 | 7 | 2 | 8 | 3 | 6 | 2 |
| Carton man/woman | 8 | 2 | 7 | 2 | 8 | 3 | 6 | 2 |
| Other Finishing Operators | 8 | 2 | 6 | 1 | 8 | 1 | 6 | 1 |
| Fusing Machine Operator | 9 | 3 | 8 | 2 | 8 | 3 | 7 | 2 |

| Occupation | Knit | | | | Woven | | | |
|-------------------------------------|---|--------------------|----------------------------|--------------------|---|--------------------|----------------------------|--------------------|
| | Desired/ Minimum Expected Level on an Average | | Actual Level on an Average | | Desired/ Minimum Expected Level on an Average | | Actual Level on an Average | |
| | Education | Experience (Years) | Education | Experience (Years) | Education | Experience (Years) | Education | Experience (Years) |
| Printing Machine Operator | 9 | 2 | 9 | 2 | 5 | 1 | 4 | 1 |
| Embroidery Machine Operator | 9 | 2 | 9 | 2 | 5 | 1 | 4 | 1 |
| Quality Inspector/ End Line Quality | 10 | 3 | 10 | 3 | 10 | 3 | 10 | 3 |
| Quality Controller/ In Line Quality | 11 | 3 | 10 | 3 | 11 | 4 | 10 | 3 |
| Others (Guards, Drivers etc.) | 9 | 3 | 8 | 2 | 9 | 3 | 8 | 2 |
| Total | 9 | 3 | 8 | 2 | 9 | 3 | 8 | 2 |

Source: Authors' Calculation based on Primary Survey Data

Table-A.4.11: Desired and Actual Educational Institution of the Employees in the RMG Industries

| Occupation | Desired | | | | | Actual | | | | |
|--------------------------------|---------|---------|----------|--------|-------|--------|---------|----------|--------|-------|
| | Public | Private | National | Others | Total | Public | Private | National | Others | Total |
| Managers | 58% | 14% | 26% | 1% | 100% | 52% | 17% | 30% | 0% | 100% |
| Management Employees | 54% | 19% | 24% | 3% | 100% | 58% | 17% | 25% | 0% | 100% |
| Spreader Man | 46% | 54% | 0% | 0% | 100% | 58% | 39% | 0% | 3% | 100% |
| Marker man | 45% | 55% | 0% | 0% | 100% | 59% | 39% | 0% | 2% | 100% |
| Cutter man/woman | 43% | 55% | 0% | 1% | 100% | 51% | 46% | 0% | 2% | 100% |
| Sticker man | 43% | 57% | 0% | 0% | 100% | 56% | 41% | 0% | 3% | 100% |
| Other CMOs | 34% | 64% | 0% | 2% | 100% | 59% | 38% | 0% | 3% | 100% |
| Lock Stitch Machine Operator | 36% | 59% | 0% | 4% | 100% | 52% | 46% | 0% | 2% | 100% |
| Chain Stitch Machine Operator | 36% | 58% | 0% | 5% | 100% | 51% | 46% | 0% | 3% | 100% |
| Flatlock Machine Operator | 36% | 59% | 0% | 5% | 100% | 47% | 50% | 0% | 3% | 100% |
| Overlock Machine Operator | 37% | 59% | 0% | 4% | 100% | 49% | 49% | 0% | 2% | 100% |
| Kansai Machine Operator | 34% | 61% | 0% | 5% | 100% | 53% | 44% | 0% | 2% | 100% |
| Button Hole Machine Operator | 43% | 54% | 0% | 3% | 100% | 45% | 50% | 0% | 5% | 100% |
| Button Attach Machine Operator | 41% | 56% | 0% | 3% | 100% | 45% | 50% | 0% | 5% | 100% |

| Occupation | Desired | | | | | Actual | | | | |
|-------------------------------------|---------|---------|----------|--------|-------|--------|---------|----------|--------|-------|
| | Public | Private | National | Others | Total | Public | Private | National | Others | Total |
| Feed of the Arm Machine Operator | 39% | 57% | 0% | 5% | 100% | 50% | 48% | 0% | 2% | 100% |
| Other SMOs | 35% | 64% | 0% | 2% | 100% | 54% | 43% | 0% | 3% | 100% |
| Iron man/woman | 44% | 56% | 0% | 0% | 100% | 56% | 42% | 0% | 2% | 100% |
| Folding man/woman | 42% | 57% | 0% | 1% | 100% | 49% | 49% | 0% | 2% | 100% |
| Poly man/woman | 43% | 55% | 0% | 1% | 100% | 46% | 51% | 0% | 2% | 100% |
| Carton man/woman | 43% | 55% | 0% | 1% | 100% | 49% | 49% | 0% | 2% | 100% |
| Other Finishing Operators | 33% | 65% | 0% | 2% | 100% | 49% | 49% | 0% | 3% | 100% |
| Fusing Machine Operator | 41% | 59% | 0% | 0% | 100% | 50% | 47% | 0% | 3% | 100% |
| Printing Machine Operator | 40% | 60% | 0% | 0% | 100% | 100% | 0% | 0% | 0% | 100% |
| Embroidery Machine Operator | 50% | 50% | 0% | 0% | 100% | 100% | 0% | 0% | 0% | 100% |
| Quality Inspector/ End line Quality | 40% | 59% | 0% | 1% | 100% | 55% | 40% | 2% | 2% | 100% |
| Quality Controller/ In line Quality | 40% | 60% | 0% | 0% | 100% | 54% | 46% | 0% | 0% | 100% |
| Others (Guards, Drivers etc.) | 42% | 57% | 0% | 1% | 100% | 53% | 47% | 0% | 0% | 100% |
| Total | 42% | 54% | 2% | 2% | 100% | 52% | 43% | 3% | 2% | 100% |

Source: Authors' Calculation based on Primary Survey Data

Table-A.4.11: Proficiency and Skill of Employees in Knit Industries

| Occupation | Average Proficiency of Male | | | Average Proficiency of Female | | |
|-------------------------------|-----------------------------|----------|-------|-------------------------------|----------|-------|
| | Low | Moderate | High | Low | Moderate | High |
| Managers | 0.69 | 19.58 | 79.72 | 0.56 | 5.56 | 93.89 |
| Management Employees | 3.40 | 25.28 | 71.32 | 4.10 | 21.46 | 74.44 |
| Spreader Man | 7.23 | 26.32 | 66.46 | 4.82 | 16.32 | 78.86 |
| Marker man | 6.11 | 29.29 | 64.60 | 1.75 | 10.00 | 88.25 |
| Cutter man/woman | 4.92 | 28.94 | 66.14 | 0.83 | 7.20 | 91.97 |
| Sticker man | 7.87 | 26.39 | 65.74 | 6.39 | 15.90 | 77.70 |
| Other CMOs | 37.04 | 21.02 | 41.94 | 29.49 | 11.53 | 58.98 |
| Lock Stitch Machine Operator | 10.18 | 30.52 | 59.30 | 12.46 | 29.78 | 57.76 |
| Chain Stitch Machine Operator | 9.19 | 26.70 | 64.11 | 11.13 | 26.23 | 62.64 |
| Flatlock Machine Operator | 10.24 | 30.08 | 59.68 | 11.94 | 28.31 | 59.76 |
| Overlock Machine Operator | 9.93 | 28.01 | 62.06 | 10.88 | 28.31 | 60.81 |
| Kansai Machine Operator | 5.63 | 25.45 | 68.92 | 7.25 | 19.42 | 73.33 |

| | | | | | | |
|--|-------|-------|-------|-------|-------|-------|
| Button Hole Machine Operator | 6.48 | 25.41 | 68.11 | 8.03 | 32.30 | 59.67 |
| Button Attach Machine Operator | 6.53 | 24.03 | 69.44 | 7.58 | 23.06 | 69.35 |
| Feed of the Arm Machine Operator | 3.95 | 27.91 | 68.14 | 3.84 | 25.58 | 70.58 |
| Other SMOs | 37.31 | 16.72 | 45.96 | 37.87 | 16.76 | 45.37 |
| Iron man/woman | 6.27 | 30.56 | 63.17 | 2.75 | 12.68 | 84.58 |
| Folding man/woman | 2.46 | 13.69 | 83.85 | 10.54 | 30.92 | 58.54 |
| Poly man/woman | 3.82 | 14.49 | 81.69 | 12.87 | 28.01 | 59.12 |
| Carton man/woman | 9.93 | 32.43 | 57.65 | 2.43 | 10.15 | 87.43 |
| Other Finishing Operators | 35.31 | 13.27 | 51.43 | 38.16 | 13.78 | 48.06 |
| Fusing Machine Operator | 5.12 | 11.71 | 83.17 | 6.71 | 8.54 | 84.76 |
| Printing Machine Operator | 4.00 | 78.00 | 18.00 | 0.00 | 2.00 | 98.00 |
| Embroidery Machine Operator | 2.50 | 81.25 | 16.25 | 2.50 | 6.25 | 91.25 |
| Quality Inspector/ End line Quality | 6.60 | 25.56 | 67.85 | 7.64 | 24.72 | 67.64 |
| Quality Controller/ In line Quality | 4.50 | 28.42 | 67.08 | 4.33 | 17.00 | 78.67 |
| Others (Guards, Drivers etc.) | 6.53 | 31.94 | 61.53 | 6.60 | 29.93 | 63.47 |
| Total | 9.22 | 25.22 | 65.56 | 9.37 | 19.85 | 70.78 |

Source: Authors' Calculation based on Primary Survey Data

Table-A.4.12: Proficiency and Skill of Employees in Woven Industries

| Occupation | Average Proficiency of Male | | | Average Proficiency of Female | | |
|-------------------------------------|------------------------------------|-----------------|-------------|--------------------------------------|-----------------|-------------|
| | Low | Moderate | High | Low | Moderate | High |
| Managers | 3.33 | 21.74 | 74.93 | 3.11 | 11.33 | 85.56 |
| Management Employees | 5.00 | 24.02 | 70.98 | 6.56 | 31.85 | 61.60 |
| Spreader Man | 8.14 | 31.62 | 60.24 | 4.71 | 19.17 | 76.12 |
| Marker man | 7.09 | 26.98 | 65.93 | 3.60 | 14.19 | 82.21 |
| Cutter man/woman | 5.88 | 27.25 | 66.88 | 0.88 | 11.50 | 87.63 |
| Sticker man | 7.13 | 24.88 | 68.00 | 6.38 | 21.50 | 72.13 |
| Other CMOs | 33.09 | 30.61 | 36.31 | 32.21 | 26.21 | 41.58 |
| Lock Stitch Machine Operator | 7.80 | 21.89 | 70.31 | 11.84 | 24.17 | 63.98 |

| Occupation | Average Proficiency of Male | | | Average Proficiency of Female | | |
|-------------------------------------|-----------------------------|--------------|--------------|-------------------------------|--------------|--------------|
| | Low | Moderate | High | Low | Moderate | High |
| Chain Stitch Machine Operator | 9.14 | 25.05 | 65.81 | 12.05 | 26.21 | 61.74 |
| Flatlock Machine Operator | 8.61 | 24.74 | 66.65 | 11.76 | 28.82 | 59.43 |
| Overlock Machine Operator | 7.32 | 26.74 | 65.94 | 12.14 | 25.70 | 62.16 |
| Kansai Machine Operator | 5.42 | 24.59 | 69.99 | 4.39 | 19.14 | 76.48 |
| Button Hole Machine Operator | 6.62 | 22.97 | 70.41 | 11.35 | 26.71 | 61.94 |
| Button Attach Machine Operator | 6.35 | 20.41 | 73.24 | 11.22 | 25.68 | 63.11 |
| Feed of the Arm Machine Operator | 2.98 | 28.26 | 68.77 | 5.48 | 19.65 | 74.87 |
| Other SMOs | 36.43 | 27.92 | 35.65 | 40.00 | 28.47 | 31.53 |
| Iron man/woman | 6.25 | 27.28 | 66.47 | 2.73 | 13.48 | 83.79 |
| Folding man/woman | 5.38 | 16.83 | 77.79 | 12.56 | 27.32 | 60.12 |
| Poly man/woman | 5.13 | 25.37 | 69.51 | 11.41 | 32.95 | 55.64 |
| Carton man/woman | 10.36 | 32.14 | 57.50 | 7.38 | 20.98 | 71.64 |
| Other Finishing Operators | 25.00 | 32.65 | 42.35 | 33.24 | 28.82 | 37.94 |
| Fusing Machine Operator | 2.57 | 19.72 | 77.71 | 1.57 | 13.33 | 85.10 |
| Printing Machine Operator | 0.00 | 33.33 | 66.67 | 0.00 | 0.00 | 100.00 |
| Embroidery Machine Operator | 0.00 | 33.33 | 66.67 | 0.00 | 0.00 | 100.00 |
| Quality Inspector/ End line Quality | 5.00 | 24.04 | 70.96 | 8.56 | 23.09 | 68.36 |
| Quality Controller/ In line Quality | 5.14 | 28.78 | 66.07 | 6.43 | 16.89 | 76.68 |
| Others (Guards, Drivers etc.) | 6.56 | 34.36 | 59.08 | 10.56 | 30.11 | 59.34 |
| Total | 8.79 | 26.03 | 65.18 | 10.34 | 22.47 | 67.19 |

Source: Authors' Calculation based on Primary Survey Data

Table-A.5.1: Vacancies and Difficulties in the RMG industry at Present

| Occupation | Average Number of Unfilled Vacancies at Present | | Rate the level of difficulties in filling up the vacancies No difficulty=1, Very Difficult=10 | |
|----------------------|---|-------|--|-------|
| | Knit | Woven | Knit | Woven |
| Managers | 0 | 0 | 4 | 3 |
| Management Employees | 0 | 0 | 3 | 3 |

| Occupation | Average Number of Unfilled Vacancies at Present | | Rate the level of difficulties in filling up the vacancies No difficulty=1, Very Difficult=10 | |
|-------------------------------------|---|----------|--|----------|
| | | | | |
| Spreader Man | 1 | 1 | 3 | 2 |
| Marker man | 1 | 0 | 3 | 2 |
| Cutter man/woman | 1 | 1 | 4 | 3 |
| Sticker man | 0 | 1 | 3 | 2 |
| Other CMOs | 1 | 2 | 3 | 2 |
| Lock Stitch Machine Operator | 3 | 3 | 3 | 2 |
| Chain Stitch Machine Operator | 1 | 1 | 4 | 3 |
| Flatlock Machine Operator | 2 | 1 | 4 | 3 |
| Overlock Machine Operator | 3 | 3 | 4 | 3 |
| Kansai Machine Operator | 1 | 1 | 4 | 3 |
| Button Hole Machine Operator | 1 | 1 | 4 | 3 |
| Button Attach Machine Operator | 1 | 1 | 4 | 3 |
| Feed of the Arm Machine Operator | 1 | 1 | 3 | 3 |
| Other SMOs | 2 | 3 | 3 | 2 |
| Iron man/woman | 1 | 0 | 4 | 3 |
| Folding man/woman | 1 | 1 | 3 | 2 |
| Poly man/woman | 1 | 1 | 3 | 2 |
| Carton man/woman | 1 | 1 | 3 | 2 |
| Other Finishing Operators | 1 | 1 | 3 | 2 |
| Fusing Machine Operator | 0 | 0 | 4 | 3 |
| Printing Machine Operator | 0 | 0 | 5 | 1 |
| Embroidery Machine Operator | 0 | 0 | 6 | 1 |
| Quality Inspector/ End Line Quality | 2 | 1 | 4 | 2 |
| Quality Controller/ In Line Quality | 2 | 2 | 4 | 3 |
| Others (Guards, Drivers etc.) | 0 | 0 | 3 | 2 |
| Total | 1 | 1 | 3 | 2 |

Source: Authors' Calculation based on Primary Survey Data

Table-A.5.2: Filling up the Vacancies

| Occupation Name | If the vacancy is occurred/ posted/advertised today, how long will it take | | | | | | | |
|----------------------|--|------------------|--|-------|-------------|------------------|--|-------|
| | Knit | | | | Woven | | | |
| | immediately | less than a week | more than a week but less than a month | Total | immediately | less than a week | more than a week but less than a month | Total |
| Managers | 3 | 59 | 9 | 71 | 3 | 35 | 6 | 44 |
| Management Employees | 6 | 55 | 10 | 71 | 7 | 31 | 6 | 44 |
| Spreader Man | 3 | 49 | 4 | 56 | 6 | 24 | 4 | 34 |
| Marker man | 6 | 50 | 6 | 62 | 6 | 28 | 6 | 40 |

| Occupation Name | If the vacancy is occurred/ posted/advertised today, how long will it take | | | | | | | |
|--|--|------------------|--|-------|-------------|------------------|--|-------|
| | Knit | | | | Woven | | | |
| | immediately | less than a week | more than a week but less than a month | Total | immediately | less than a week | more than a week but less than a month | Total |
| Cutter man/woman | 6 | 53 | 5 | 64 | 6 | 29 | 6 | 41 |
| Sticker man | 6 | 52 | 1 | 59 | 6 | 30 | 4 | 40 |
| Other CMOs | 5 | 36 | 9 | 50 | 5 | 26 | 5 | 36 |
| Lock Stitch Machine Operator | 8 | 47 | 10 | 65 | 6 | 29 | 8 | 43 |
| Chain Stitch Machine Operator | 8 | 38 | 7 | 53 | 6 | 29 | 5 | 40 |
| Flatlock Machine Operator | 9 | 41 | 12 | 62 | 6 | 25 | 6 | 37 |
| Overlock Machine Operator | 12 | 44 | 9 | 65 | 6 | 26 | 8 | 40 |
| Kansai Machine Operator | 4 | 52 | 5 | 61 | 5 | 27 | 7 | 39 |
| Button Hole Machine Operator | 7 | 48 | 7 | 62 | 5 | 31 | 5 | 41 |
| Button Attach Machine Operator | 7 | 48 | 5 | 60 | 4 | 27 | 5 | 36 |
| Feed of the Arm Machine Operator | 3 | 38 | 2 | 43 | 5 | 29 | 6 | 40 |
| Other SMOs | 8 | 38 | 7 | 53 | 5 | 28 | 7 | 40 |
| Iron man/woman | 7 | 55 | 9 | 71 | 5 | 35 | 5 | 45 |
| Folding man/woman | 6 | 53 | 8 | 67 | 6 | 31 | 4 | 41 |
| Poly man/woman | 6 | 54 | 10 | 70 | 6 | 31 | 5 | 42 |
| Carton man/woman | 6 | 50 | 8 | 64 | 6 | 25 | 7 | 38 |
| Other Finishing Operators | 4 | 34 | 11 | 49 | 6 | 26 | 4 | 36 |
| Fusing Machine Operator | 2 | 37 | 1 | 40 | 4 | 29 | 3 | 36 |
| Printing Machine Operator | 0 | 5 | 0 | 5 | 0 | 3 | 1 | 4 |
| Embroidery Machine Operator | 0 | 5 | 0 | 5 | 0 | 3 | 1 | 4 |
| Quality Inspector/ End Line Quality | 8 | 51 | 13 | 72 | 5 | 34 | 6 | 45 |
| Quality Controller/ In Line Quality | 8 | 38 | 12 | 58 | 5 | 28 | 6 | 39 |
| Others (Guards, Drivers etc.) | 6 | 59 | 5 | 70 | 5 | 37 | 3 | 45 |
| Total | 154 | 1,189 | 185 | 1,528 | 135 | 736 | 139 | 1,010 |
| Share | 10% | 78% | 12% | 100% | 13% | 73% | 14% | 100% |

Source: Authors' Calculation based on Primary Survey Data

Table-A.5.3: Prevalence of Skill Gap in the Industry

| Occupation | Skill Gap Observations | | | Total number of Observations | Percentage of Skill Gap Observations | | | Total percentage of Observations |
|-----------------------------|------------------------|-------|-------|------------------------------|--------------------------------------|-------|-------|----------------------------------|
| | Knit | Woven | Total | | Knit | Woven | Total | |
| Managers | 24 | 22 | 46 | 142 | 52.17 | 47.83 | 100 | 32.39 |
| Management Employees | 62 | 54 | 116 | 220 | 53.45 | 46.55 | 100 | 52.73 |

| Occupation | Skill Gap Observations | | | Total number of Observations | Percentage of Skill Gap Observations | | | Total percentage of Observations |
|--|------------------------|-------|-------|------------------------------|--------------------------------------|-------|-------|----------------------------------|
| | Knit | Woven | Total | | Knit | Woven | Total | |
| Spreader Man | 49 | 25 | 74 | 138 | 66.22 | 33.78 | 100 | 53.62 |
| Marker man | 37 | 31 | 68 | 138 | 54.41 | 45.59 | 100 | 49.28 |
| Cutter man/woman | 44 | 32 | 76 | 141 | 57.89 | 42.11 | 100 | 53.90 |
| Sticker man | 35 | 30 | 65 | 153 | 53.85 | 46.15 | 100 | 42.48 |
| Other CMOs | 49 | 30 | 79 | 163 | 62.03 | 37.97 | 100 | 48.47 |
| Lock Stitch Machine Operator | 99 | 60 | 159 | 213 | 62.26 | 37.74 | 100 | 74.65 |
| Chain Stitch Machine Operator | 66 | 47 | 113 | 178 | 58.41 | 41.59 | 100 | 63.48 |
| Flatlock Machine Operator | 97 | 44 | 141 | 195 | 68.79 | 31.21 | 100 | 72.31 |
| Overlock Machine Operator | 91 | 47 | 138 | 206 | 65.94 | 34.06 | 100 | 66.99 |
| Kansai Machine Operator | 57 | 35 | 92 | 164 | 61.96 | 38.04 | 100 | 56.10 |
| Button Hole Machine Operator | 60 | 47 | 107 | 193 | 56.07 | 43.93 | 100 | 55.44 |
| Button Attach Machine Operator | 54 | 37 | 91 | 166 | 59.34 | 40.66 | 100 | 54.82 |
| Feed of the Arm Machine Operator | 49 | 32 | 81 | 143 | 60.49 | 39.51 | 100 | 56.64 |
| Other SMOs | 66 | 31 | 97 | 189 | 68.04 | 31.96 | 100 | 51.32 |
| Iron man/woman | 61 | 45 | 106 | 176 | 57.55 | 42.45 | 100 | 60.23 |
| Folding man/woman | 46 | 35 | 81 | 172 | 56.79 | 43.21 | 100 | 47.09 |
| Poly man/woman | 42 | 27 | 69 | 167 | 60.87 | 39.13 | 100 | 41.32 |
| Carton man/woman | 34 | 22 | 56 | 142 | 60.71 | 39.29 | 100 | 39.44 |
| Other Finishing Operators | 46 | 25 | 71 | 168 | 64.79 | 35.21 | 100 | 42.26 |
| Fusing Machine Operator | 30 | 24 | 54 | 120 | 55.56 | 44.44 | 100 | 45.00 |
| Printing Machine Operator | 4 | 2 | 6 | 9 | 66.67 | 33.33 | 100 | 66.67 |
| Embroidery Machine Operator | 3 | 2 | 5 | 8 | 60.00 | 40.00 | 100 | 62.50 |
| Quality Inspector/ End Line Quality | 97 | 51 | 148 | 228 | 65.54 | 34.46 | 100 | 64.91 |

| Occupation | Skill Gap Observations | | | Total number of Observations | Percentage of Skill Gap Observations | | | Total percentage of Observations |
|--|------------------------|-------|-------|------------------------------|--------------------------------------|-------|-------|----------------------------------|
| | Knit | Woven | Total | | Knit | Woven | Total | |
| Quality Controller/ In Line Quality | 57 | 42 | 99 | 173 | 57.58 | 42.42 | 100 | 57.23 |
| Others (Guards, Drivers etc.) | 48 | 40 | 88 | 223 | 54.55 | 45.45 | 100 | 39.46 |
| Total | 1407 | 919 | 2326 | 4328 | 60.49 | 39.51 | 100 | 53.74 |

Source: Authors' Calculation based on Primary Survey Data

Table-A.5.4: Prevalence of Skill Gap in the Knit Industry (Frequency)

| Occupation Name | Knit | | | | | |
|---|---------------------------------------|--------|------|--------|-------|--------|
| | Do you think that there is still gap? | | | | | |
| | Yes | | No | | Total | |
| | Male | Female | Male | Female | Male | Female |
| Managers | 18 | 6 | 54 | 7 | 72 | 13 |
| Management Employees | 37 | 25 | 35 | 37 | 72 | 62 |
| Spreader Man | 30 | 19 | 21 | 15 | 51 | 34 |
| Marker man | 29 | 8 | 32 | 13 | 61 | 21 |
| Cutter man/woman | 37 | 7 | 27 | 13 | 64 | 20 |
| Sticker man | 18 | 17 | 34 | 25 | 52 | 42 |
| Other CMOs | 27 | 22 | 27 | 22 | 54 | 44 |
| Lock Stitch Machine Operator | 49 | 50 | 16 | 16 | 65 | 66 |
| Chain Stitch Machine Operator | 34 | 32 | 18 | 21 | 52 | 53 |
| Flatlock Machine Operator | 49 | 48 | 14 | 14 | 63 | 62 |
| Overlock Machine Operator | 45 | 46 | 18 | 20 | 63 | 66 |
| Kansai Machine Operator | 30 | 27 | 19 | 16 | 49 | 43 |
| Button Hole Machine Operator | 28 | 32 | 28 | 26 | 56 | 58 |
| Button Attach Machine Operator | 27 | 27 | 21 | 26 | 48 | 53 |
| Feed of the Arm Machine Operator | 26 | 23 | 17 | 15 | 43 | 38 |
| Other SMOs | 33 | 33 | 26 | 26 | 59 | 59 |
| Iron man/woman | 43 | 18 | 28 | 15 | 71 | 33 |
| Folding man/woman | 14 | 32 | 25 | 35 | 39 | 67 |
| Poly man/woman | 14 | 28 | 23 | 39 | 37 | 67 |
| Carton man/woman | 27 | 7 | 42 | 17 | 69 | 24 |
| Other Finishing Operators | 23 | 23 | 25 | 25 | 48 | 48 |
| Fusing Machine Operator | 14 | 16 | 19 | 17 | 33 | 33 |
| Printing Machine Operator | 3 | 1 | 1 | 0 | 4 | 1 |

| | Knit | | | | | |
|--|---------------------------------------|--------|------|--------|-------|--------|
| Occupation Name | Do you think that there is still gap? | | | | | |
| | Yes | | No | | Total | |
| | Male | Female | Male | Female | Male | Female |
| Embroidery Machine Operator | 2 | 1 | 1 | 0 | 3 | 1 |
| Quality Inspector/ End Line Quality | 49 | 48 | 22 | 20 | 71 | 68 |
| Quality Controller/ In Line Quality | 34 | 23 | 25 | 23 | 59 | 46 |
| Others (Guards, Drivers etc.) | 24 | 24 | 48 | 41 | 72 | 65 |
| Total Share | 764 | 643 | 666 | 544 | 1,430 | 1,187 |

Source: Authors' Calculation based on Primary Survey Data

Table-A.5.5: Prevalence of Skill Gap in the Woven Industry (Frequency)

| | Woven | | | | | |
|---|---------------------------------------|--------|------|--------|-------|--------|
| Occupation Name | Do you think that there is still gap? | | | | | |
| | Yes | | No | | Total | |
| | Male | Female | Male | Female | Male | Female |
| Managers | 16 | 6 | 28 | 7 | 44 | 13 |
| Management Employees | 29 | 25 | 16 | 16 | 45 | 41 |
| Spreader Man | 15 | 10 | 17 | 11 | 32 | 21 |
| Marker man | 22 | 9 | 17 | 8 | 39 | 17 |
| Cutter man/woman | 26 | 6 | 16 | 9 | 42 | 15 |
| Sticker man | 15 | 15 | 15 | 14 | 30 | 29 |
| Other CMOs | 17 | 13 | 18 | 17 | 35 | 30 |
| Lock Stitch Machine Operator | 28 | 32 | 10 | 12 | 38 | 44 |
| Chain Stitch Machine Operator | 23 | 24 | 11 | 15 | 34 | 39 |
| Flatlock Machine Operator | 18 | 26 | 13 | 13 | 31 | 39 |
| Overlock Machine Operator | 22 | 25 | 15 | 15 | 37 | 40 |
| Kansai Machine Operator | 21 | 14 | 20 | 17 | 41 | 31 |
| Button Hole Machine Operator | 21 | 26 | 15 | 17 | 36 | 43 |
| Button Attach Machine Operator | 15 | 22 | 13 | 15 | 28 | 37 |
| Feed of the Arm Machine Operator | 19 | 13 | 15 | 15 | 34 | 28 |
| Other SMOs | 15 | 16 | 19 | 21 | 34 | 37 |
| Iron man/woman | 29 | 16 | 16 | 11 | 45 | 27 |
| Folding man/woman | 12 | 23 | 12 | 19 | 24 | 42 |
| Poly man/woman | 10 | 17 | 13 | 23 | 23 | 40 |
| Carton man/woman | 16 | 6 | 19 | 8 | 35 | 14 |
| Other Finishing Operators | 12 | 13 | 24 | 23 | 36 | 36 |
| Fusing Machine Operator | 12 | 12 | 13 | 17 | 25 | 29 |

| | | | | | | |
|--|-----|-----|-----|-----|-----|-----|
| Printing Machine Operator | 1 | 1 | 1 | 1 | 2 | 2 |
| Embroidery Machine Operator | 1 | 1 | 1 | 1 | 2 | 2 |
| Quality Inspector/ End Line Quality | 24 | 27 | 20 | 18 | 44 | 45 |
| Quality Controller/ In Line Quality | 24 | 18 | 13 | 13 | 37 | 31 |
| Others (Guards, Drivers etc.) | 22 | 18 | 23 | 23 | 45 | 41 |
| Total | 485 | 434 | 413 | 379 | 898 | 813 |

Source: Authors' Calculation based on Primary Survey Data

Table-A.5.6: Prevalence of Skill Gap and Reasons related to Skill Gap in the RMG Industry

| Occupation | Prevalence of Skill Gap | | | | Reason for Skill Gap in Knit Industry | | | | Reason for Skill Gap in Woven Industry | | | |
|---|-------------------------|--------|-------|--------|---------------------------------------|--------|---|--------|--|--------|---|--------|
| | Knit | | Woven | | Organization specific | | Lack of training/Qualifications received by employees | | Organization specific | | Lack of training/Qualifications received by employees | |
| | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| Managers | 25% | 46% | 36% | 46% | 33% | 33% | 67% | 67% | 47% | 50% | 53% | 50% |
| Management Employees | 51% | 40% | 64% | 61% | 59% | 52% | 41% | 48% | 67% | 62% | 33% | 38% |
| Spreader Man | 59% | 56% | 47% | 48% | 53% | 74% | 47% | 26% | 56% | 73% | 44% | 27% |
| Marker man | 48% | 38% | 56% | 53% | 55% | 88% | 45% | 13% | 54% | 70% | 46% | 30% |
| Cutter man/woman | 58% | 35% | 62% | 40% | 51% | 71% | 49% | 29% | 46% | 71% | 54% | 29% |
| Sticker man | 35% | 40% | 50% | 52% | 56% | 47% | 44% | 53% | 65% | 69% | 35% | 31% |
| Other CMOs | 50% | 50% | 49% | 43% | 56% | 64% | 44% | 36% | 50% | 64% | 50% | 36% |
| Lock Stitch Machine Operator | 75% | 76% | 74% | 73% | 61% | 58% | 39% | 42% | 62% | 61% | 38% | 39% |
| Chain Stitch Machine Operator | 65% | 60% | 68% | 62% | 56% | 50% | 44% | 50% | 50% | 40% | 50% | 60% |
| Flatlock Machine Operator | 78% | 77% | 58% | 67% | 59% | 54% | 41% | 46% | 63% | 52% | 37% | 48% |
| Overlock Machine Operator | 71% | 70% | 59% | 63% | 53% | 52% | 47% | 48% | 48% | 46% | 52% | 54% |
| Kansai Machine Operator | 61% | 63% | 51% | 45% | 60% | 56% | 40% | 44% | 39% | 33% | 61% | 67% |
| Button Hole Machine Operator | 50% | 55% | 58% | 60% | 57% | 50% | 43% | 50% | 55% | 48% | 45% | 52% |
| Button Attach Machine Operator | 56% | 51% | 54% | 59% | 48% | 48% | 52% | 52% | 47% | 46% | 53% | 54% |
| Feed of the Arm Machine Operator | 60% | 61% | 56% | 46% | 65% | 65% | 35% | 35% | 45% | 43% | 55% | 57% |

| Occupation | Prevalence of Skill Gap | | | | Reason for Skill Gap in Knit Industry | | | | Reason for Skill Gap in Woven Industry | | | |
|-------------------------------------|-------------------------|------|-------|-----|---------------------------------------|------|---|------|--|-----|---|------|
| | Knit | | Woven | | Organization specific | | Lack of training/Qualifications received by employees | | Organization specific | | Lack of training/Qualifications received by employees | |
| Other SMOs | 56% | 56% | 44% | 43% | 58% | 58% | 42% | 42% | 60% | 63% | 40% | 38% |
| Iron man/woman | 61% | 55% | 64% | 59% | 47% | 61% | 53% | 39% | 47% | 59% | 53% | 41% |
| Folding man/woman | 36% | 48% | 50% | 55% | 57% | 44% | 43% | 56% | 54% | 42% | 46% | 58% |
| Poly man/woman | 38% | 42% | 43% | 43% | 71% | 50% | 29% | 50% | 64% | 44% | 36% | 56% |
| Carton man/woman | 39% | 29% | 46% | 43% | 52% | 100% | 48% | 0% | 53% | 29% | 47% | 71% |
| Other Finishing Operators | 48% | 48% | 33% | 36% | 52% | 52% | 48% | 48% | 58% | 69% | 42% | 31% |
| Fusing Machine Operator | 42% | 48% | 48% | 41% | 71% | 63% | 29% | 38% | 46% | 31% | 54% | 69% |
| Printing Machine Operator | 75% | 100% | 50% | 50% | 33% | 100% | 67% | 0% | 100% | 0% | 0% | 100% |
| Embroidery Machine Operator | 67% | 100% | 50% | 50% | 0% | 0% | 100% | 100% | 100% | 0% | 0% | 100% |
| Quality Inspector/ End Line Quality | 69% | 71% | 55% | 60% | 53% | 50% | 47% | 50% | 56% | 57% | 44% | 43% |
| Quality Controller/ In Line Quality | 58% | 50% | 65% | 58% | 50% | 57% | 50% | 43% | 52% | 53% | 48% | 47% |
| Others (Guards, Drivers etc.) | 33% | 37% | 49% | 44% | 63% | 58% | 38% | 42% | 78% | 74% | 22% | 26% |
| Total | 53% | 54% | 54% | 53% | 55% | 55% | 45% | 45% | 55% | 53% | 45% | 47% |

Source: Authors' Calculation based on Primary Survey Data

Table-A.6.1: Labor Demand Growth Change in the Future

| Existing Occupation Name | No growth (as usual) | | Moderate growth | | High growth | | Very high growth | | Negative growth | | Total | |
|-------------------------------|----------------------|-------|-----------------|-------|-------------|-------|------------------|-------|-----------------|-------|-------|-------|
| | knit | woven | knit | woven | knit | woven | knit | woven | knit | woven | knit | woven |
| Manager | 24 | 9 | 40 | 32 | 2 | 1 | 1 | 0 | 5 | 3 | 72 | 45 |
| Management Employees | 8 | 3 | 47 | 33 | 2 | 2 | 1 | 0 | 14 | 8 | 72 | 46 |
| Fusing Machine Operator | 2 | 1 | 33 | 30 | 4 | 3 | 1 | 0 | 6 | 0 | 46 | 34 |
| Printing Machine Operator | 0 | 1 | 7 | 7 | 3 | 1 | 1 | 0 | 0 | 1 | 11 | 10 |
| Embroidery Machine Operator | 0 | 1 | 5 | 6 | 3 | 1 | 1 | 0 | 1 | 0 | 10 | 8 |
| Others (Guards, Drivers etc.) | 5 | 3 | 55 | 38 | 9 | 3 | 1 | 0 | 4 | 1 | 74 | 45 |
| Spreader Man | 3 | 1 | 42 | 31 | 3 | 1 | 1 | 0 | 8 | 2 | 57 | 35 |
| Marker Man | 2 | 2 | 46 | 35 | 6 | 2 | 1 | 0 | 8 | 2 | 63 | 41 |
| Cutter Man/Woman | 3 | 2 | 50 | 36 | 7 | 2 | 1 | 0 | 5 | 1 | 66 | 41 |
| Sticker Man | 2 | 4 | 45 | 32 | 7 | 0 | 1 | 0 | 5 | 1 | 60 | 37 |
| Others | 3 | 3 | 41 | 32 | 6 | 2 | 1 | 0 | 1 | 0 | 52 | 37 |

| | | | | | | | | | | | | |
|-------------------------------------|----|----|-------|-----|-----|-----|----|---|----|----|-------|-------|
| Lock Stitch Machine Operator | 2 | 1 | 53 | 35 | 11 | 9 | 2 | 0 | 1 | 0 | 69 | 45 |
| Chain Stitch Machine Operator | 1 | 1 | 49 | 31 | 8 | 9 | 1 | 0 | 0 | 0 | 59 | 41 |
| Flatlock Machine Operator | 0 | 1 | 51 | 30 | 12 | 6 | 1 | 0 | 1 | 0 | 65 | 37 |
| Overlock Machine Operator | 0 | 1 | 51 | 35 | 12 | 8 | 1 | 0 | 1 | 0 | 65 | 44 |
| Kansai Machine Operator | 1 | 2 | 44 | 36 | 9 | 5 | 1 | 0 | 5 | 0 | 60 | 43 |
| Button Hole Machine Operator | 1 | 1 | 51 | 36 | 11 | 6 | 1 | 0 | 3 | 0 | 67 | 43 |
| Button Attach Machine Operator | 0 | 1 | 49 | 30 | 9 | 6 | 1 | 0 | 3 | 1 | 62 | 38 |
| Feed of the arm Machine Operator | 0 | 1 | 39 | 32 | 7 | 6 | 1 | 0 | 2 | 0 | 49 | 39 |
| Others | 2 | 1 | 48 | 29 | 5 | 8 | 1 | 0 | 2 | 0 | 58 | 38 |
| Iron Man/ Woman | 2 | 1 | 54 | 38 | 7 | 4 | 1 | 0 | 8 | 2 | 72 | 45 |
| Folding Man/ Woman | 2 | 1 | 53 | 37 | 8 | 6 | 2 | 0 | 2 | 1 | 67 | 45 |
| Poly Man/ Woman | 1 | 1 | 56 | 34 | 4 | 3 | 3 | 0 | 2 | 1 | 66 | 39 |
| Carton Man/ Woman | 1 | 1 | 54 | 36 | 5 | 3 | 3 | 0 | 6 | 2 | 69 | 42 |
| Others | 1 | 2 | 45 | 31 | 5 | 6 | 1 | 0 | 2 | 0 | 54 | 39 |
| Quality Inspector/ End line Quality | 0 | 1 | 58 | 38 | 11 | 7 | 2 | 0 | 1 | 0 | 72 | 46 |
| Quality Controller/ In line Quality | 0 | 1 | 48 | 29 | 13 | 8 | 1 | 0 | 1 | 1 | 63 | 39 |
| Total | 66 | 48 | 1,214 | 849 | 189 | 118 | 34 | 0 | 97 | 27 | 1,600 | 1,042 |

Source: Authors' Calculation based on Primary Survey Data

Table-A.6.2: Labor Demand Growth Change Scenario in the Future

| Existing Occupation Name | No growth (as usual) | | Moderate growth | | High growth | | Very high growth | | Negative growth | |
|-------------------------------|----------------------|-------|-----------------|-------|-------------|-------|------------------|-------|-----------------|-------|
| | knit | woven | knit | woven | knit | woven | knit | woven | knit | woven |
| Manager | 33.3 | 20.0 | 55.6 | 71.1 | 2.8 | 2.2 | 1.4 | 0 | 6.9 | 6.7 |
| Management Employees | 11.1 | 6.5 | 65.3 | 71.7 | 2.8 | 4.4 | 1.4 | 0 | 19.4 | 17.4 |
| Fusing Machine Operator | 4.4 | 2.9 | 71.7 | 88.2 | 8.7 | 8.8 | 2.2 | 0 | 13.0 | 0.0 |
| Printing Machine Operator | 0.0 | 10.0 | 63.6 | 70.0 | 27.3 | 10.0 | 9.1 | 0 | 0.0 | 10.0 |
| Embroidery Machine Operator | 0.0 | 12.5 | 50.0 | 75.0 | 30.0 | 12.5 | 10.0 | 0 | 10.0 | 0.0 |
| Others (Guards, Drivers etc.) | 6.8 | 6.7 | 74.3 | 84.4 | 12.2 | 6.7 | 1.4 | 0 | 5.4 | 2.2 |
| Spreader Man | 5.3 | 2.9 | 73.7 | 88.6 | 5.3 | 2.9 | 1.8 | 0 | 14.0 | 5.7 |
| Marker Man | 3.2 | 4.9 | 73.0 | 85.4 | 9.5 | 4.9 | 1.6 | 0 | 12.7 | 4.9 |
| Cutter Man/Woman | 4.6 | 4.9 | 75.8 | 87.8 | 10.6 | 4.9 | 1.5 | 0 | 7.6 | 2.4 |
| Sticker Man | 3.3 | 10.8 | 75.0 | 86.5 | 11.7 | 0.0 | 1.7 | 0 | 8.3 | 2.7 |
| Others | 5.8 | 8.1 | 78.9 | 86.5 | 11.5 | 5.4 | 1.9 | 0 | 1.9 | 0.0 |
| Lock Stitch Machine Operator | 2.9 | 2.2 | 76.8 | 77.8 | 15.9 | 20.0 | 2.9 | 0 | 1.5 | 0.0 |
| Chain Stitch Machine Operator | 1.7 | 2.4 | 83.1 | 75.6 | 13.6 | 22.0 | 1.7 | 0 | 0.0 | 0.0 |
| Flatlock Machine Operator | 0.0 | 2.7 | 78.5 | 81.1 | 18.5 | 16.2 | 1.5 | 0 | 1.5 | 0.0 |
| Overlock Machine Operator | 0.0 | 2.3 | 78.5 | 79.6 | 18.5 | 18.2 | 1.5 | 0 | 1.5 | 0.0 |
| Kansai Machine Operator | 1.7 | 4.7 | 73.3 | 83.7 | 15.0 | 11.6 | 1.7 | 0 | 8.3 | 0.0 |
| Button Hole Machine Operator | 1.5 | 2.3 | 76.1 | 83.7 | 16.4 | 14.0 | 1.5 | 0 | 4.5 | 0.0 |

| Existing Occupation Name | No growth (as usual) | | Moderate growth | | High growth | | Very high growth | | Negative growth | |
|-------------------------------------|----------------------|-------|-----------------|-------|-------------|-------|------------------|-------|-----------------|-------|
| | knit | woven | knit | woven | knit | woven | knit | woven | knit | woven |
| Button Attach Machine Operator | 0.0 | 2.6 | 79.0 | 79.0 | 14.5 | 15.8 | 1.6 | 0 | 4.8 | 2.6 |
| Feed of the arm Machine Operator | 0.0 | 2.6 | 79.6 | 82.1 | 14.3 | 15.4 | 2.0 | 0 | 4.1 | 0.0 |
| Others | 3.5 | 2.6 | 82.8 | 76.3 | 8.6 | 21.1 | 1.7 | 0 | 3.5 | 0.0 |
| Iron Man/ Woman | 2.8 | 2.2 | 75.0 | 84.4 | 9.7 | 8.9 | 1.4 | 0 | 11.1 | 4.4 |
| Folding Man/ Woman | 3.0 | 2.2 | 79.1 | 82.2 | 11.9 | 13.3 | 3.0 | 0 | 3.0 | 2.2 |
| Poly Man/ Woman | 1.5 | 2.6 | 84.9 | 87.2 | 6.1 | 7.7 | 4.6 | 0 | 3.0 | 2.6 |
| Carton Man/ Woman | 1.5 | 2.4 | 78.3 | 85.7 | 7.3 | 7.1 | 4.4 | 0 | 8.7 | 4.8 |
| Others | 1.9 | 5.1 | 83.3 | 79.5 | 9.3 | 15.4 | 1.9 | 0 | 3.7 | 0.0 |
| Quality Inspector/ End line Quality | 0.0 | 2.2 | 80.6 | 82.6 | 15.3 | 15.2 | 2.8 | 0 | 1.4 | 0.0 |
| Quality Controller/ In line Quality | 0.0 | 2.6 | 76.2 | 74.4 | 20.6 | 20.5 | 1.6 | 0 | 1.6 | 2.6 |
| Total | 4.1 | 4.6 | 75.9 | 81.5 | 11.8 | 11.3 | 2.1 | 0 | 6.1 | 2.6 |

Source: Authors' Calculation based on Primary Survey Data

Table-A.6.3: Future Labor Demand by Occupation in the RMG Industry

| Occupation | Knit Industry | | | | Woven Industry | | | |
|-------------------------------|-----------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | Present Number of Employees | Projected Average Employment for 2023 | Projected Average Employment for 2025 | Projected Average Employment for 2030 | Present Number of Employees | Projected Average Employment for 2023 | Projected Average Employment for 2025 | Projected Average Employment for 2030 |
| Managers | 784 | 791 | 793 | 796 | 664 | 675 | 677 | 678 |
| Management Employees | 5634 | 5667 | 5672 | 5682 | 4308 | 4363 | 4363 | 4370 |
| Spreader Man | 651 | 658 | 662 | 672 | 500 | 512 | 514 | 517 |
| Marker man | 634 | 643 | 647 | 658 | 642 | 657 | 659 | 662 |
| Cutter man/woman | 805 | 815 | 819 | 830 | 701 | 713 | 715 | 718 |
| Sticker man | 746 | 756 | 761 | 774 | 1207 | 1234 | 1236 | 1240 |
| Other CMOs | 1388 | 1403 | 1413 | 1435 | 837 | 854 | 856 | 859 |
| Lock Stitch Machine Operator | 9113 | 9193 | 9205 | 9227 | 9203 | 9361 | 9375 | 9386 |
| Chain Stitch Machine Operator | 3768 | 3810 | 3820 | 3843 | 2888 | 2933 | 2938 | 2944 |
| Flatlock Machine Operator | 3877 | 3908 | 3917 | 3936 | 2186 | 2213 | 2217 | 2221 |
| Overlock Machine Operator | 5030 | 5073 | 5084 | 5103 | 2500 | 2544 | 2546 | 2553 |
| Kansai Machine Operator | 1115 | 1126 | 1133 | 1149 | 1358 | 1380 | 1383 | 1387 |

| Occupation Name | Knit | | | | | | | | Woven | | | | | | | |
|-------------------------------------|---|------------|------------|-----------|------------|----------|------------|------------|------------|------------|-----------|-----------|------------|----------|------------|------------|
| | To what extent skill gap can be minimized by potential trainings? | | | | | | | | | | | | | | | |
| | Fully | | Partially | | Not at all | | Total | | Fully | | Partially | | Not at all | | Total | |
| Managers | 11 | 6 | 7 | 0 | 0 | 0 | 18 | 6 | 14 | 6 | 3 | 0 | 0 | 0 | 17 | 6 |
| Management Employees | 29 | 19 | 8 | 5 | 0 | 1 | 37 | 25 | 25 | 22 | 4 | 4 | 1 | 0 | 30 | 26 |
| Spreader Man | 26 | 18 | 4 | 1 | 0 | 0 | 30 | 19 | 13 | 11 | 3 | 0 | 0 | 0 | 16 | 11 |
| Marker man | 26 | 8 | 3 | 0 | 0 | 0 | 29 | 8 | 21 | 10 | 3 | 0 | 0 | 0 | 24 | 10 |
| Cutter man/woman | 30 | 6 | 7 | 1 | 0 | 0 | 37 | 7 | 23 | 6 | 5 | 1 | 0 | 0 | 28 | 7 |
| Sticker man | 16 | 16 | 2 | 1 | 0 | 0 | 18 | 17 | 15 | 15 | 2 | 1 | 0 | 0 | 17 | 16 |
| Other CMOs | 24 | 21 | 3 | 1 | 0 | 0 | 27 | 22 | 15 | 13 | 3 | 1 | 0 | 0 | 18 | 14 |
| Lock Stitch Machine Operator | 42 | 43 | 7 | 7 | 0 | 0 | 49 | 50 | 25 | 28 | 4 | 5 | 0 | 0 | 29 | 33 |
| Chain Stitch Machine Operator | 30 | 29 | 4 | 3 | 0 | 0 | 34 | 32 | 19 | 20 | 5 | 5 | 0 | 0 | 24 | 25 |
| Flatlock Machine Operator | 44 | 42 | 5 | 6 | 0 | 0 | 49 | 48 | 17 | 22 | 2 | 5 | 0 | 0 | 19 | 27 |
| Overlock Machine Operator | 37 | 38 | 8 | 8 | 0 | 0 | 45 | 46 | 18 | 21 | 5 | 5 | 0 | 0 | 23 | 26 |
| Kansai Machine Operator | 27 | 25 | 3 | 2 | 0 | 0 | 30 | 27 | 18 | 13 | 5 | 2 | 0 | 0 | 23 | 15 |
| Button Hole Machine Operator | 26 | 29 | 2 | 3 | 0 | 0 | 28 | 32 | 18 | 21 | 4 | 6 | 0 | 0 | 22 | 27 |
| Button Attach Machine Operator | 23 | 25 | 4 | 2 | 0 | 0 | 27 | 27 | 15 | 19 | 2 | 5 | 0 | 0 | 17 | 24 |
| Feed of the Arm Machine Operator | 23 | 23 | 3 | 0 | 0 | 0 | 26 | 23 | 14 | 12 | 6 | 2 | 0 | 0 | 20 | 14 |
| Other SMOs | 26 | 26 | 7 | 7 | 0 | 0 | 33 | 33 | 12 | 12 | 3 | 4 | 0 | 0 | 15 | 16 |
| Iron man/woman | 33 | 18 | 10 | 0 | 0 | 0 | 43 | 18 | 24 | 17 | 6 | 0 | 0 | 0 | 30 | 17 |
| Folding man/woman | 13 | 27 | 1 | 5 | 0 | 0 | 14 | 32 | 12 | 19 | 1 | 5 | 0 | 0 | 13 | 24 |
| Poly man/woman | 13 | 23 | 1 | 5 | 0 | 0 | 14 | 28 | 10 | 14 | 1 | 4 | 0 | 0 | 11 | 18 |
| Carton man/woman | 22 | 7 | 5 | 0 | 0 | 0 | 27 | 7 | 15 | 3 | 2 | 4 | 0 | 0 | 17 | 7 |
| Other Finishing Operators | 20 | 19 | 3 | 4 | 0 | 0 | 23 | 23 | 9 | 10 | 3 | 3 | 0 | 0 | 12 | 13 |
| Fusing Machine Operator | 13 | 15 | 1 | 1 | 0 | 0 | 14 | 16 | 10 | 12 | 3 | 1 | 0 | 0 | 13 | 13 |
| Printing Machine Operator | 1 | 1 | 2 | 0 | 0 | 0 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| Embroidery Machine Operator | 1 | 1 | 1 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| Quality Inspector/ End Line Quality | 41 | 38 | 8 | 10 | 0 | 0 | 49 | 48 | 20 | 23 | 5 | 5 | 0 | 0 | 25 | 28 |
| Quality Controller/ In Line Quality | 27 | 22 | 7 | 1 | 0 | 0 | 34 | 23 | 20 | 18 | 5 | 1 | 0 | 0 | 25 | 19 |
| Others (Guards, Drivers etc.) | 20 | 19 | 4 | 5 | 0 | 0 | 24 | 24 | 19 | 15 | 4 | 4 | 0 | 0 | 23 | 19 |
| Total | 644 | 564 | 120 | 78 | 0 | 1 | 764 | 643 | 423 | 384 | 89 | 73 | 1 | 0 | 513 | 457 |

Source: Authors' Calculation based on Primary Survey Data

Table-A.6.5: Addressing Skill gap Through Prior Qualifications of Employees

| Occupation Name | Knit | | | | | | | | Woven | | | | | | | |
|---|--|--------|-----------|--------|------------|--------|-------|--------|-------|--------|-----------|--------|------------|--------|-------|--------|
| | To what extent the skill gap can be minimized by employees' prior qualification? | | | | | | | | | | | | | | | |
| | Fully | | Partially | | Not at all | | Total | | Fully | | Partially | | Not at all | | Total | |
| | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| Managers | 3 | 1 | 14 | 5 | 1 | 0 | 18 | 6 | 0 | 0 | 13 | 6 | 4 | 0 | 17 | 6 |
| Management Employees | 18 | 10 | 17 | 13 | 2 | 2 | 37 | 25 | 10 | 6 | 16 | 15 | 4 | 5 | 30 | 26 |
| Spreader Man | 21 | 13 | 9 | 5 | 0 | 1 | 30 | 19 | 7 | 6 | 6 | 3 | 3 | 2 | 16 | 11 |
| Marker man | 17 | 7 | 10 | 1 | 2 | 0 | 29 | 8 | 10 | 7 | 9 | 1 | 5 | 2 | 24 | 10 |
| Cutter man/woman | 18 | 5 | 15 | 2 | 4 | 0 | 37 | 7 | 10 | 4 | 12 | 2 | 6 | 1 | 28 | 7 |
| Sticker man | 9 | 9 | 9 | 7 | 0 | 1 | 18 | 17 | 10 | 8 | 5 | 6 | 2 | 2 | 17 | 16 |
| Other CMOs | 15 | 15 | 9 | 7 | 3 | 0 | 27 | 22 | 7 | 4 | 6 | 5 | 5 | 5 | 18 | 14 |
| Lock Stitch Machine Operator | 33 | 34 | 15 | 15 | 1 | 1 | 49 | 50 | 16 | 16 | 9 | 12 | 4 | 5 | 29 | 33 |
| Chain Stitch Machine Operator | 24 | 22 | 10 | 10 | 0 | 0 | 34 | 32 | 11 | 7 | 11 | 13 | 2 | 5 | 24 | 25 |
| Flatlock Machine Operator | 33 | 32 | 15 | 15 | 1 | 1 | 49 | 48 | 9 | 11 | 7 | 12 | 3 | 4 | 19 | 27 |
| Overlock Machine Operator | 29 | 29 | 15 | 15 | 1 | 2 | 45 | 46 | 9 | 9 | 11 | 12 | 3 | 5 | 23 | 26 |
| Kansai Machine Operator | 19 | 18 | 9 | 8 | 2 | 1 | 30 | 27 | 6 | 3 | 12 | 9 | 5 | 3 | 23 | 15 |
| Button Hole Machine Operator | 21 | 21 | 6 | 9 | 1 | 2 | 28 | 32 | 11 | 10 | 9 | 12 | 2 | 5 | 22 | 27 |
| Button Attach Machine Operator | 17 | 17 | 9 | 9 | 1 | 1 | 27 | 27 | 7 | 8 | 7 | 11 | 3 | 5 | 17 | 24 |
| Feed of the Arm Machine Operator | 16 | 15 | 9 | 6 | 1 | 2 | 26 | 23 | 8 | 4 | 9 | 8 | 3 | 2 | 20 | 14 |
| Other SMOs | 18 | 18 | 13 | 13 | 2 | 2 | 33 | 33 | 5 | 5 | 8 | 9 | 2 | 2 | 15 | 16 |
| Iron man/woman | 21 | 11 | 20 | 6 | 2 | 1 | 43 | 18 | 12 | 7 | 12 | 5 | 6 | 5 | 30 | 17 |
| Folding man/woman | 8 | 17 | 5 | 13 | 1 | 2 | 14 | 32 | 5 | 6 | 5 | 12 | 3 | 6 | 13 | 24 |
| Poly man/woman | 9 | 16 | 5 | 11 | 0 | 1 | 14 | 28 | 4 | 7 | 4 | 7 | 3 | 4 | 11 | 18 |
| Carton man/woman | 16 | 7 | 10 | 0 | 1 | 0 | 27 | 7 | 8 | 2 | 5 | 4 | 4 | 1 | 17 | 7 |
| Other Finishing Operators | 14 | 12 | 8 | 9 | 1 | 2 | 23 | 23 | 3 | 3 | 8 | 8 | 1 | 2 | 12 | 13 |

| Occupation Name | Knit | | | | | | | | Woven | | | | | | | |
|---|--|--------|-----------|--------|------------|--------|-------|--------|-------|--------|-----------|--------|------------|--------|-------|--------|
| | To what extent the skill gap can be minimized by employees' prior qualification? | | | | | | | | | | | | | | | |
| | Fully | | Partially | | Not at all | | Total | | Fully | | Partially | | Not at all | | Total | |
| | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| Fusing Machine Operator | 10 | 10 | 4 | 6 | 0 | 0 | 14 | 16 | 6 | 3 | 5 | 6 | 2 | 4 | 13 | 13 |
| Printing Machine Operator | 1 | 1 | 2 | 0 | 0 | 0 | 3 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Embroidery Machine Operator | 1 | 1 | 1 | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Quality Inspector/End line Quality | 32 | 29 | 16 | 18 | 1 | 1 | 49 | 48 | 11 | 12 | 11 | 12 | 3 | 4 | 25 | 28 |
| Quality Controller/In line Quality | 22 | 17 | 11 | 5 | 1 | 1 | 34 | 23 | 9 | 7 | 10 | 6 | 6 | 6 | 25 | 19 |
| Others (Guards, Drivers etc.) | 12 | 11 | 11 | 12 | 1 | 1 | 24 | 24 | 9 | 5 | 10 | 10 | 4 | 4 | 23 | 19 |
| Total | 457 | 398 | 277 | 220 | 30 | 25 | 764 | 643 | 205 | 160 | 220 | 208 | 88 | 89 | 513 | 457 |

Source: Authors' Calculation based on Primary Survey Data