

PERFORMANCE OF WOMEN WITH DISABILITY WORKING AT READY-MADE GARMENT FACTORIES IN BANGLADESH

By

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Submitted in Partial Fulfillment of the Requirements for the Degree of

M.Sc. in Rehabilitation Science

May 2019



BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)

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Supervisor's Statement

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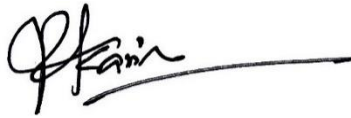
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This dissertation is the result of my own independent work/investigation, except where otherwise stated. Other sources are acknowledged by giving explicit references. A Bibliography is appended.

I confirm that if anything identified in my work that I have done plagiarism or any form of cheating that will directly awarded me fail and I am subject to disciplinary actions of authority.

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A handwritten signature in black ink, appearing to read 'P. K. Singh', with a long horizontal line extending to the right.

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Acknowledgement

At first I want to pay my gratitude to almighty Allah who gave me the passion to complete the study.

I am very much grateful to my honourable teacher and supervisor Professor Md. Obaidul Haque, Vice Principal, Bangladesh Health Professions Institute (BHPI), CRP, Savar, Dhaka, for giving me his valuable time, his thoughtful supervision and excellent guidance, without which I could not able to complete this research project.

I would like to express my gratefulness to Professor Md. Fazlul Karim Patwary, Institute of Information Technology, Jahangirnagar University for recommend me to analyse the study procedure and guide me to write the Results section.

Thanks to Dr. Dorine van Ravensberg, Human Movement Scientist, PhD, PT for helping me to choose the topic, for giving me the courageous to conduct the study and also provide valuable and constructive feedback regarding the study. I would also like to mention the names of Muhammad Millat Hossain, Assistant Professor and Course Co-ordinator, Department of M.Sc. in Rehabilitation Science, BHPI, Shamima Islam Nipa, Lecturer, Department of M.Sc. in Rehabilitation Science, BHPI and Ummul Ambia, Lecturer, Department of M.Sc. in Rehabilitation Science, BHPI guide me to overcome the limitations.

I am glad to acknowledge Professor Dr. Md. Mahmudul Haque, National Institute of Preventive and Social Medicine (NIPSOM), who dedicatedly taught us Research Methodology subject and supervised us to accomplish the thesis project from the very beginning.

I would like to acknowledge the name of Josephina Nupur Gomes, Project Officer, Marks and Starts Project, VTI, CRP to help me contact the Human Recourses and Compliance Department of different Ready-Made Garment Factories of Bangladesh.

I would like to thank Mosammat Mohesana, Librarian of Bangladesh Health Professions Institute (BHPI) and her associates for their kind support to provide access to HINARI and find out related books, reports and journals

I would like to thank to all the management staff of different Ready-Made Garment factories for their enormous co-operation.

My special thanks to the data collectors and friends for their continuous suggestions and supports to take challenges and that have inspired me throughout the project.

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Acronyms

ABS: Australian Bureau of Statistics

BHPI: Bangladesh Health Professions Institute

BMRC: Bangladesh Medical Research Council

CRP: Centre for the Rehabilitation of the Paralysed

CSLBs: Competency Skills Log Books

HINARI: Health Inter-Network Access to Research Initiative

ILO: International Labour Organization

IRB: Institutional Review Board

NIPSOM: National Institute of Preventive and Social Medicine

RMG: Ready-Made Garments

SACDIR: South Asia Centre for Disability Inclusive Development and Research

SPSS: Statistical Package for the Social Sciences

VTI: Vocational Training Institute

WHO: World Health Organization

Abstract

Purpose: Women with disabilities are much more disadvantaged when it comes to employment. They are sometimes neglected and less paid than normal worker or women without any disability for the same kind of activity. So, it is very important to find whether their work performance and productivity is less or equal in comparison with normal worker / women without any disabilities.

Objectives: The aim of the study is to find out the differences in work related performance and efficiency of the women worker with disabilities and woman worker without any kinds of disability who are working in various ready-made garment factories in Bangladesh.

Methodology: The study has been designed using a cross-sectional design.

Result: Some of the indicators of performance measurement are significantly different in between woman worker with disability and woman worker without any kind of disability. Although, the statistical tests that were carried out in this study is only limited to the samples presented in the study. The significance tests and the results of this study doesn't represent the whole population and cannot be generalised. The study revealed disabled workers face challenges to achieve target, performance and skill related issues.

Conclusion: There are some similarity as well as noteworthy differences were found in the performance of women worker with disability in contrast with women worker without any kind of disability. The study assumes that more friendly work environment and policy level changes may help to improve the overall performance of the women with disabilities.

Keywords: *Performance, Women with disability, Productivity, Absenteeism, Skills, Ready-Made Garments*

1.1 Background:

In Bangladesh, more than 4 million people are working in the ready-made garment factories and around 80% of them are women (World Bank, 2017). The majority of the garment workers in Bangladesh are underprivileged women and they are working to provide financial support to themselves and to their family and relatives for a better life (Hossain N. , 2012).

In comparison to non-disabled people, persons with disability faces significantly higher level of discrimination in the access of employment, physical environment, health and education sectors (Byrne, 2018). In working environment, the ready-made garments sector has created a large opportunity of employment access and economic growth especially for women in Bangladesh. Despite the hard work and day to night effort of these women for the country's economic growth, the women worker are not getting appropriate appreciation from the employer's end that they deserves (Mridula & Khan, 2009).

Usually a woman worker in a ready-made garments factory comes from the poor and actually disadvantaged family background from rural part of Bangladesh (Kabir, Maple, & Fatema, 2018). Despite their struggle for getting a decent job, still a woman from rural part of Bangladesh is not sufficiently accepted in many level of the existing society. On the other hand, the woman with 'disability' tag itself is an extra cause to experience severe restriction and embarrassment for a woman with disability in the family, community and societal level. Even if a woman overcomes all these obstacles, she is then challenged with discrimination or rejection in the labour market. In many cases, women with disabilities are paid less in salary on the grounds of their disability, and they have no choice but to agree to this unfairness (Kang, 2010).

Considerably women with disabilities are further deprived than the non-disabled women and even than the men with disabilities, when it is regarding the access to employment opportunities. Unfortunately the women with disabilities have relatively higher unemployment rates rather than the women without any kind of disabilities. Moreover, it is also reported that, they are probably less in number to get a well-paid managerial job positions like men with disabilities (Lindsay, 2011).

There are negative individual perceptions among the employers to offer a job towards the individuals with disabilities. In addition to that, there are perceived barriers among many employers are found regarding working skills of the employees with disabilities, extra resources needed to include them and managing accommodation and material costs. Still negative attitudes about disabilities is present among employers and in general people. (Houtenville, 2012).

Disability is still a neglected issue in Bangladesh. There are very few policy level work has been done so far in this area. But a major problem in this policy work process is the implementation of that policy. In Bangladesh there are some legal obligation for making and ensuring equivalent access and opportunities for the people with disabilities. But very minor improvement has been seen in the current job situation or employment of the persons having disabilities. For this reason there is very small change is found in the employment status of persons having disabilities in the both public or private sectors, which can be partly caused by their doubtfulness to join the employment related formal sectors, because of presence of various problems at the workplace environment (Jalil, 2012).

Recent statistics from American Community Survey (ACS) shows that only 37.3 percent of working age (in between the age of 21 to 64 years) population having various types of disability was in a job in the USA in the year of 2017, whereas for the same age group, the percentage was 79.4 for the people without any kind of disability. Therefore for the employment rates, the gap between working age people with and without disability is 42.1 percent (Erickson, 2019). In Australia, about 53% population of working age (in between the age of 15 to 64 years) having different types of disability had comparatively lower number of participation in labour force and higher unemployment rates of 9.4% in the year of 2015. However among the persons without any kind of disabilities, this percentage of participation in employment situation was 83% and unemployment rate was 4.9% (ABS, 2016).

In India, the participation rate among persons with disabilities in the labour market was 38.8% whereas the rate was 64% among the non-disabled persons (Mitra & Sambamoorthi, 2009).

In Bangladesh the total number of participation rate among persons with disabilities who are employed is below 1% (Jalil, 2012). Here in this country, the persons having

different sorts of disability primarily lack the access to get the educational opportunities and facilities, job related skills and relevant experiences which could be the qualifications that is required for getting involved in a decent employment. The lack in job skill and relevant experience related qualifications places their position at behind for finding job in the competitive labour market. Therefore, in Bangladesh the overall involvement of persons with disabilities in to the mainstream job is very low in number and maximum of them may not possess appropriate work related skills to be engaged in financial activities (Šiška & Habib, 2013).

It is obviously important to have an access to employment opportunity for the person with disabilities because it can help them with economical advantage, develop their skills and in the long run integrate them into mainstream society (Jalil, 2012).

From the government level in Bangladesh, a declaration has been announced regarding 10% at least as the target quota should be considered for the persons having disabilities while recruiting people by the employers to ensure that the people with disabilities can be participated in public or private job sectors. But this facility was not sufficiently implemented in the most of the job enrollment procedures (Jalil, 2012).

The attitudinal and organizational barriers are common causes behind the social process of classifying persons with disabilities as negligible and their exclusion from the work place. General people usually shows negative behavioral approach towards the persons with disabilities which ultimately decreases the value of persons with disabilities within the societal level and for that reason, they are remaining deprived from the equal access of the existing social opportunities (Naraine & Lindsay, 2011).

Perception of the employers is one of the key factors for a person to be involved in a job in an industry otherwise in a public or private institution/organization. There is a common belief among employers that the persons with disabilities are not that much productive or efficient and do not contribute fully in their work than the workers without any disability in the similar kind of work. Consequently, persons with disabilities are often being discriminated compared with the other workers. Many employers assume that a person with disability lacks the capability to do a work and as well as their productivity which put them away from the mainstream industrious activities. For that motive of the employers in Bangladesh, we found most of the employers are unwilling to employ the persons with disabilities into their labor force,

commonly caused by their ignorance about the latent talent of persons having different sorts of disabilities. In many cases in Bangladesh, the employers fail to understand their special needs and therefore in the formal sector of employment, the persons with disabilities hardly get any encouragement to take part. Moreover, persons with disabilities frequently face challenges as a consequence of lack of their importance towards the employers to get an equal opportunity and gain access to public sector services. The misconception among the employers about the ability and competences of the persons having disabilities is one of the main reasons behind this. So in Bangladesh, a very small scale change is observed in the current situation of employment of persons having disabilities in either the public services or in the private sectors (Jalil, 2012).

The industries that are employing workers with disabilities have realized the significant benefits in hiring persons with disabilities for their devotion to the company, better attendance record and less absenteeism, higher job retention and lower turnover rates, better work performance and upgraded brand image of the company. Many employers have realized that disability inclusion also improves the determination and the productivity in the workplace (ILO, 2016).

In the industrial job market, though the statistics say regarding the participation rate of the persons having disabilities is relatively lesser in most countries of the world, the developed countries have implemented the anti-discriminatory laws and relieved adverse effects of disabilities to bring an inclusive society (Jalil, 2012).

A study conducted in Bangladesh regarding the people with disabilities and their accessibility in both the public and private services show that, approximately 27% of the persons having disabilities had to switch their job on account of comparatively lower amount of salary, undesirable behavioral approach from the co-workers as well as the employers, unfavorable environment in the workplace, strict administrative procedures and inaccessible physical environment, structures and buildings. The persons with different kinds of disability have to struggle with the physical environment of their workplace who are working in different industries in Bangladesh. Problem related to accessibility of different infrastructures is a significant barrier for the persons with disabilities to avail their rights and enjoy different privileges. Besides the problems of the accessibility as well as the adaptability together, the persons having different

kinds of disabilities also experience refusal and negative behavioral approach from both the co-workers as well as employers at their factory or place of work. Therefore, favorable work setting is very much important for the persons with disabilities to get access and continue work in the industrial labour force (Jalil, 2012).

1.2 Justification:

Although woman worker with disability are being trained in different vocational institutes and given opportunities to get involved in different ready-made garment factories, but we actually don't know how much they are skillful in their work performance.

We know that the persons with disabilities repeatedly face different types of inequity due to numerous types of reasons ranging from personal to traditional beliefs regarding the causes, sense and meaning of disability. As well as there are discriminations and lots of stereotypes about their productivity in the workplace. They are sometimes neglected and less paid than normal worker or women without any disability for the same kind of activity.

One of the reasons behind that could be the perception of employer towards them that they have the very limited essential work related skills and productivity to get involved in financial activities.

So, it is very important to find whether their work performance and productivity is less or equal in comparison with normal worker / women without any disabilities. If any discrepancy is found in work performance, then it is also important to explore and know what the possible causes behind their poor skills and performance are and what steps should be taken to overcome the current situation.

In very recent days, the decent job opportunities have been created for women with disabilities through different national and international projects. Moreover, data regarding the work related performance of the women worker having disability is very less among the existing and recent literatures, so it is important to know the current situation of women worker with disability through studying their track record so far in the ready-made garments factory.

As well as, it may help the Employer, Stakeholders and Policy makers to rethink about their condition on the basis of current situation and renovate the ways to mitigate the discrepancy.

1.3 Research Question

What are the differences in work performance and productivity among women with disabilities working in different Ready-Made Garment (RMG) factories in Bangladesh?

1.4 Objectives

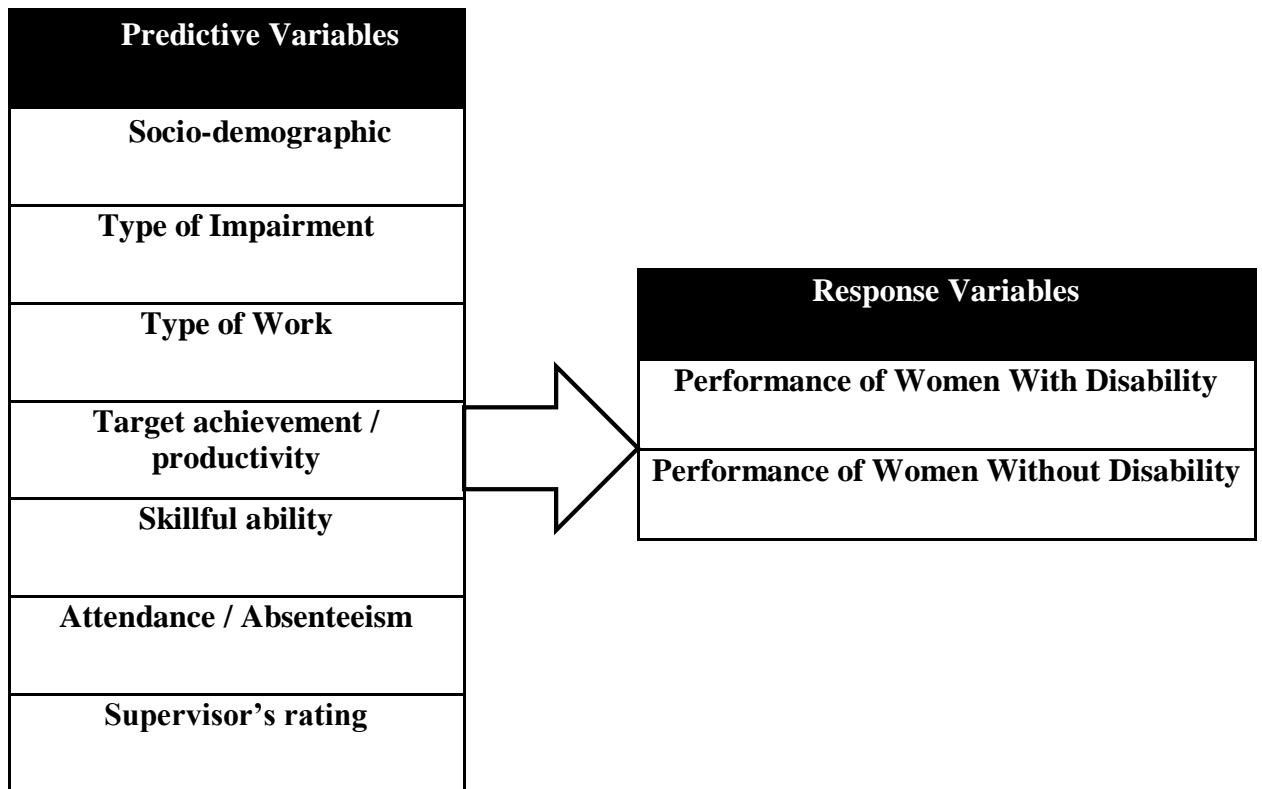
General objective

- To find out the differences in work performance and efficiency in between women workers with disabilities and non-disabled women workers who are employed in different Ready-Made Garment factories in Bangladesh.

Specific objective

1. To know the socio-demographic information.
2. To find out the type of work at RMG factories those are being contributed by women worker with disabilities.
3. To compare the attendance report or absenteeism from work record as an important work performance indicator in between women with disabilities and non-disabled women who are working in different Ready-Made Garment factories.
4. To compare the target achievement status or productivity in between women with disabilities and non-disabled women who are working in different Ready-Made Garment factories.
5. To compare the skillful ability to operate a machine or perform a task in between women with disabilities and non-disabled women who are working in different Ready-Made Garment factories.
6. To compare the supervisor's rating in between women with disabilities and non-disabled women who are working in different Ready-Made Garment factories.
7. To find out the association between worker's disability and the performance indicators used in this study such as, absenteeism record, target achievement status, skillful ability and supervisor's rating.

1.5 Conceptual Framework



1.6 Operational Definition

Performance: It is the ability to do a particular task or to operate a particular process with proficiency. Performance could be measured by setting the standard target or value or on the basis of given indicators of competence of productive effort, target achievement and environmental concerns such as: the time, the capability, the productivity and other regulatory compliance.

Efficiency / Productivity: In industrial settings, the efficiency or productivity is specifically measured on the basis of target achievement rate.

Women with disability: Women with disability are the adult vulnerable and marginalized female who are living their life along with different types of disability and often encounter numerous circumstances of physical, mental or social obstacles.

Woman Worker: An adult female worker who performs services for a certain period of time under the observation of a supervisor or another manager and she receives remuneration in return for that particular service. In ready-made garment factories, we found woman worker both types having some sorts of disability and not having any kind of disability.

Garment Worker: Someone whose occupation is preparing or repairing garments products through being a part of a large team of supply chain in a ready-made garment factory.

Absenteeism: Absenteeism denotes the days absent from work. In any attendance report someone's or worker's absenteeism inspects the on-duty status on a particular day, period of time, extent of frequency of staying out of work (e.g., due to sicknesses or any other personal reason).

Someone's disability indicates that the person surviving with a permanent or long-lasting physical, psycho-social, sensory and developmental deficiency and the inter-relationship of that impairment with various environmental or social barriers which obstructs their participation in different individual, inter-personal and social level (ILO, 2016).

Particularly women with disabilities are to be expected to experience high level barriers to inclusion in employment, because of the twice over discrimination from gender norms in many countries in the world (Banks & Polack, 2014). The patterns of these types of barriers are different from each other. There are a few barriers which can be removed very easily, and many of these barriers are systematic and more challenging to remove. Negative attitudes of people and society is one of the strong barriers that persons with disabilities face frequently and it is believed that they cannot do a job or participate in any kind of decent work. Women and girls with disabilities are mainly disadvantaged by the negative attitudes related to their gender and disability as well (ILO, 2016).

Employers may possibly have a mindset that someone having some sort of disability denotes that their disability associates with extreme physical or mental limitations, they possess comparatively lower level of performance as well as capability (Tilly, 2013).

Despite having significantly increased in the presence of woman in labour force, Bangladeshi women still face disadvantages and discrimination at home and in the workplace as well. They are continuously being discouraged from utilizing the existing law to stand up for their rights. Many female workers are kept to low-wage positions (Khatun, 2018).

People with disabilities are usually ignored in the labor based industries. Many industries have employed persons with disabilities, but not everyone hire them proactively. A number of employers willingly do not offer job to those people with disabilities due to their job related performance issues. Some of these issues are related to the job related qualifications and job performance, along with the direct and indirect costs associated with recruiting the persons with disabilities, as well as the responses and criticisms of others (Kulkarni & Lengnick-Hall, 2011).

There is some information available that differ from each other regarding the issue whether the turnover rates for people with disabilities are higher or lower or approximately the same. Some study has shown that the persons with disabilities stay similar time period or even longer than their non-disabled co-workers in the workplace. One report had described a fact regarding a program which had over four thousand participants. Over two-thirds of the participants among them had some form of disability. The turnover rate among the persons with disabilities were considerably lower (only 20%) compared to their non-disabled co-workers who had a higher turnover rate of 150% approximately (Disabled World, 2009).

A study found that low social communication skills, inter-personal troubles, and lack of support from family were the major contributing factors for the termination of persons with disabilities from their job. The investigators has revealed that the lessons of social skills, techniques of solving emerged problem, lessons of communication skills and support from co-worker or peer mentors were effective job retention tactics for them. Another study found that alteration of work schedules, time distribution and tasks, in addition modification of work environments were successful accommodations for persons with disabilities (Kalargyrou, 2012).

In Bangladesh, the ready-made garment sector has contributed a vital support in national economic growth and the gradual progress of the country over the last decades. Now Bangladesh is the second position holder in the rank of the largest exporting countries in the world for exporting garments product. It is estimated that, there are more than three thousand five hundred export oriented factories which are fictional to support the cost of livings of more than twenty five million people either directly or indirectly, particularly the women and the children are being supported in this process. There is still a huge demand of skilled workers in Bangladesh ready-made garment factories. Among the garment workers majority of them are female. Numerous of them are being moved permanently in urban industrial areas from the rural part of the country for the sake of a decent job and to earn livelihoods (Farhana, 2015).

The Ready - Made Garment (RMG) factories has created employment opportunity for millions of people in Bangladesh. The workforce that is involved in the garments sector in Bangladesh is growing to 25% of the country's total labour force. Whereas, women worker involved in this sector are approximately 40 - 60 percent of the total workforce

(Yunus & Yamagata, 2012). This sector has also become a blessing for many of the people with disabilities at the present time. A number of garment factories have offered decent jobs to disabled people ensuring accessible work environment favorable to their living pattern.

The owners and the employers are recognizing that recruiting persons with disabilities make decent or respectable business sense as well. At this time the most unexplored area of latent talents are the individuals with disabilities (Wehman, 2008).

The overall success of an export focused garment factory depend on the production quality, production related time, product price and consistency, which means there is vast areas of utilizing the opportunities for the women with disabilities, who are usually considered to keep up job for longer time period and work hard in their positions.

Garment worker are the vital force of ready-made garment industries. Majority (more than 85 percent) of them are women worker in the labour force (Farhana, 2015). In garment industries they work from dawn to dusk and most of the time stay engaged in overtime duties to earn little more money for a better life (Bhuiyan, 2012). Majority of woman in a study has expressed their employment access and opportunity in ready-made garment factories as positive, because it has helped to change their life experience better than before (Farhana, 2015).

The measures of work performance among the garments workers can ranges from some form of measurement of behavioral actions, such as absenteeism, ensuring safety and supervisor's assessment ratings etc. The measures of unit based performance are carried out through the following indicators of productivity, cost, quality, timely delivery etc. Moreover, to measure the comprehensiveness of financial performance profit and investment returns are being considered (Ittner & Larcker, 2002).

Performance measurement can be referred as a process of quantifying the work performance, where the word 'measurement' denotes the procedure of quantification and the performance of the work related actions that is being taken by the management. Here the word 'performance' can be referred as the systematic gradation ranking to which an operational procedure fulfills the following performance related goals, such as production cost, quality of the product, flexibility, reliability, and the delivery pace

at any point of the time duration of the course, to satisfy its targeted consumers (Stevenson, 2007).

The measurement of performance provides detail information regarding the worker productivity. Direct performance evaluation and measures has some advantage because they are usually objective evaluation and for that reason they are less probably to be affected by the subjective evaluations. Workers could be assessed separately in different type of performance measures in each of the performance related measurements and indicators. (Sauermann, 2016).

Worker performance is one of many aspects that contribute to indicators of the success of the workplace and well-being of an industry or factory. Accessible workplace enhances better job performance and quality of work, with better safety records (Hossain N. , 2012). In the ready-made garment factories, suitable working environment is greatly depends on compliance issues of the factory (Billah, 2018). Job performance may specifically correlates with individual satisfaction. Although it is a matter of argument that if job satisfaction sources job performance or if job performance bases job satisfaction (Westover, Westover, & Westover, 2010).

In most of the studies we found that, for measuring performance the studies have measured the productivity of the worker which is actually one of the basis of performance evaluation and analysis throughout different sectors, typically focusing on the decisions related to human research management of a public or private industry (Sauermann, 2016).

Worker's productivity is often measured by the count of days absent from work (Beaton, 2009). Most of the literature stated that absenteeism causes lower or reduced productivity (Tang, Beaton, Boonen, Gignac, & Bombardier, 2011). Absenteeism is an integral part of performance measurement that is being used by many standard questionnaires. Absenteeism of workers from workplace is a major problem faced by employers and this causes a large amount of expenditures for the factories (Westover, Westover, & Westover, 2010). One literature stated that sometimes the companies or factories may have to adjust with or find an alternative for the employee who is absent, as well as pay an additional employee for the overtime to adjust the duty shift due to absenteeism of the assigned employee (Cimera, 2009).

Absenteeism and productivity are inversely related to each other. Decrease of absenteeism normally increases productivity. If the workers can remain healthy, with a good working environment, then productivity rate increases spontaneously (Hossain, Mahmud, Bajracharya, Rob, & Reichenbach, 2017). An individual worker's physical and mental capacities can be reduced due to sickness, which ultimately causes decrease in productivity of that worker at workplace (Banks & Polack, 2014).

A recent research work from Sri Lanka has investigated the apparel industries based in that country. They have itemized key behavioral factors which may affect the employment related performance among workers, such as rate of absenteeism from workplace, job related satisfaction, and the commitment of the organization which may sequentially have emotional impact on their work productivity (Piyasena & Kottawatta, 2015). Another Sri Lankan study has identified that the key factor that affects the productivity of the worker are the rate of absenteeism from job place, overall working environments of different units and alteration from the high volume orders towards the low volume orders or vice-versa (Shanmugasundaram & Panchanatham, 2011).

Evidence recommends that persons with disabilities have similar or below average absentee rates when they are compared to non-disabled workers. A report stated that 86 percent of employed persons with disabilities are rated average or better attendance comparative to other workers. (Hossain N. , 2012).

Many companies' human resources and compliance related department have shared that the workers with disabilities have showed comparatively higher job retention rates, better attendance records and higher safety records than the workers without any kinds of disability. Moreover, their performance is rated as consistent and better than their co-workers without disabilities (Banks & Polack, 2014).

Measure of worker's productivity or performance typically depends on setting targets, and the process through which they are being collected or achieved (Sauermann, 2016).

Some studies have presented that persons having disability often exceed their colleagues without having any kinds of disability on the basis of trustworthiness and better productivity in the workplace. A research mentioned by the Australian Network on Disability points out that 90% of workers with disability have the record of productivity rates equal or superior than other co-workers and 86% of them have similar

or superior attendance reports (Tilly, 2013). Unfortunately the investigator didn't find any relevant statistics regarding the performance record of productivity in industry based context of Bangladesh.

Productivity is an estimated indicator of individual worker's performance measure. It is sometime problematic to find suitable methods for various performance related measurements. There are some commonly used measurements we found which are the quality management at which the job is executed, and how quickly or timely the work is done (quantitative measure). For example, if the productivity of the worker in manufacturing is evaluated by means of a quantity related measure of output, such as the number of products produced per hour or per minute (Sauermann, 2016).

Evidence also shows that well-paid jobs and better working conditions enhance women's capability for better productivity (Hossain N. , 2012).

People with disabilities represent a qualified but unexplored pool of potential workers, when provided with a favorable and enabling environment, we may call it direct productivity. People with disabilities contribute to a diverse labor force, with benefits for workplace cultural values, morale and organizational reputation (Saleh & Bruyère, 2018).

Studies have revealed that employing the persons with disabilities can increase self-esteem and cooperation in the midst of all the staff and workers, which can result in increased amount of productivity. In the United States, concentrated efforts to hire a significant numbers of persons with disabilities by two major companies saw improvements for instance about 20% increase in the amount of productivity and a 67% returns in investment respectively (Banks & Polack, 2014).

Quantifying someone's skillful ability is one of the most important indicators in performance measurement. There are some negative views and perception of people and employers about the skills, abilities and competences of persons with disabilities. These could be the attitudinal, environmental and institutional barriers which is still existing among employers and in societal level (SACDIR, 2016). One of the major cause behind the restriction to access employment and participate in decent job for persons with disability is misunderstanding and perception of employers regarding their capacity and skill to perform a task or work. A typical production task or activity could

be performed by hands on or manual technique, by mechanical means and through electronic devices. Either skilled or unskilled labour forces are involved in production activities. It is obvious that, employing skilled labour force are the most important approach that facilitates and contributes to economic growth (Yunus & Yamagata, 2012).

According to a case study, where the principal objective of the research work was to identify the various factors that mostly influences the performance of a textile industry, found the significant influencing factors described in following sentences. The management role of human resources was found vital as the garment or textile industries in Bangladesh are majorly labour force concentrated. The main concern for the human resource as a factor that influence performance was found 37.66 %. Another factor that is labor absenteeism was observed to influence the performance about 23.97 %, which shows absenteeism from job place has very high impact on the work related performance. The culture and trend of absenteeism of labour force indicates that there is loss of overall production from the factory. Training and orientation related facility for the different level workers and the management team is also an essential factor; the significance of this factor upon work related performance is about 20.01 %. In order to achieve a higher performance rate, a work force with positive and appropriate motivation is another significant factor that influences 20.02 %. An additional influencing element is the product; that means the characteristics (design, volume etc.) of the product and the product quality which was found with an impact of 22.56 % priority on the performance. Raw materials having poor quality and other accessories was found with a high influence result on work related performance which is 40.32 %, because it may direct to low quality and low value of the products (Dulange, Pundir, & Ganapathy, 2014).

Supervisor's rating is a subjective measure of performance provided by the respective supervisor. Supervisor's rating may contain different event or term based observational feedback and some kind of worker based biasness, but it can provide broader and even bigger picture of performance measure than any other indicators (Sauer mann, 2016).

According to a study that investigated the organization or factory based outcomes have revealed that, there is a strong evidence of a good impact on work capability and absences because of sickness, while there is moderate evidence for target achievement,

supervisor's rating, work satisfaction, productivity, and work participation (Murphy, 2018).

According to a study statement, supervisors can work in partnership with the affected workers through organization or factory based resources i.e. professional development training to help improve their inclusion status in the work place. It is also recommended that, social or psychological support from co-workers or supervisors, increases worker's motivation and job engagement (Leung, Wu, Chen, & Young, 2011).

In addition, if the performance evaluations of employees in a factory or organization are being conducted based on reality and impartially, and then even the employees who receive negative feedback in an advanced goal setting condition will still work hard to achieve the target accordingly. It also increases employee's work attitude if it gives them chances to provide their own idea of the job during the performance evaluation. It positively affects the supervisor's rating during the performance evaluation process (David, 2013).

3.1 Study Design

This study has been conducted in cross-sectional type of study design. Quantitative measures has been taken to compare the work performance and efficiency between women worker with disabilities and women worker without any kind of disabilities at various Ready-Made Garments in Bangladesh. To compare the work performance and efficiency of women with disability and women without any disability, garment factory based evaluation and integrated measurement tools has been used for measuring their work performance in regularity record (attendance report), target achievement in time (productivity), skillful ability (to perform task or operate machine) and supervisor's rating for individual worker.

The study has been designed using cross-sectional design research. Comparative cross sectional study is a research study being conducted at a point in time for 2 or more groups of people etc. for comparison purpose.

In this study, a group of women with disability will be compared with a group of women without any kind of disability. Where the study will describe different variables according to the objectives. This study compares the following variables consists of:

Women with disability and their work performance in regularity record, target achievement in time, skillful ability, and supervisor's rating for individual workers who are working in various ready-made garment factories in Bangladesh

Women without any kind of disability and their work performance in regularity record, target achievement in time, skillful ability, and supervisor's rating for individual workers who are working in various ready-made garment factories in Bangladesh.

3.2 Study Area

The study location was different Ready-Made Garment factories where women with disabilities are working in and around the Savar Export Processing Zone (EPZ), Dhaka and Gazipur district in Bangladesh.

3.3 Study Population

The study population were the women with disabilities who have received vocational training or being placed in job through different job related program arranged by Rehabilitation Wing of CRP and the women worker without any kinds of disability who are working in various Ready-Made Garment factories in Bangladesh.

3.4 Study Period

The study period was 6 months from November 2018 to April 2019.

3.5 Sample Size

The population of interest is all employees of different woman workers having disability and who are working non-disabled co-workers. Before conducting this study, we have not find any accurate data regarding the sample proportion or percentage of incidence of women worker with disabilities and their non-disabled co-workers. Therefore, we consider the sample proportion or percentage of incidence as 50%. The confidence interval was 95% and margin of error level was 5%. So the sample size was determined according to the formula given below:

$$n = \frac{z^2 p (1-p)}{e^2}$$

Here,

Sample proportion or percentage of incidence or prevalence, $p = 50\% = 0.50$

The value of the standard normal deviation set at 95% confidence level, $z = 1.96$

Margin of error, $e = 5\% = 0.05$

Therefore,

$$n = \frac{z^2 p (1-p)}{e^2} = \frac{(1.96)^2 \times 0.50 \times (1-0.50)}{(0.05)^2} = \frac{0.9604}{0.0025} = 384.16$$

The total sample required to conduct this study was 384. But we selected limited participants to conduct the study due to limited time for the study and data availability of women worker with and without disability at a time. Moreover, the participants were selected on the basis of the inclusion and exclusion criteria of the study. The sample size was 120 participants in this study. 60 participants were taken from women with disabilities and 60 participants were taken from women without any kind of disabilities.

Sampling Technique

Purposive sampling strategy has been utilized in this study to identify and select participants according to the characteristics of the population, inclusion and exclusion criteria and objective of the study. Here the selection of women with disability and women without any disability was chosen by the researcher and data collection team according to the characteristics of the participants and the purpose of the study. An effort was made to balance the participants of both women workers who are involved in the same type of work and works in same work environment. Women worker with disability were purposively selected according to the objective of the study to contrast their performance along with their women co-worker without having any kinds of disability.

3.6 Inclusion criteria

- Only women. Reports shows that 80% of ready-made garment workers are women (World Bank, 2017). So, the study will be more applicable throughout the context.
- Women with Disability who are working in RMG factories
- Women without disability who are working as co-worker of Women with Disability in the same type of work in RMG factories
- Age Group: 18 – 50. Reports show the working age is in between 18 – 65 years (Erickson, 2019). But in Bangladesh context, we found the working age range could be more than 60 years (BBS, 2015). The investigator kept the age range 18 – 50 considering the age patterns of the worker of ready-made garment factories

3.7 Exclusion Criteria

- Men with Disability.
- Women without disability who are working in RMG factories but there are no Women with Disability are working in the same type of work.

3.8 Data Collection

3.8.1 Questionnaires for data collection

- Consent Form
- Questionnaire or Data collection form
- Stationary Items (Pen, Papers)

The data collection were carried out by utilizing a survey questionnaire or data collection form. All the information required for the study were obtained by in person interaction with concerned Supervisor and Human Resources representative with the help of secondary information sources i.e. worker's demographic data, factory based individual worker record book, Competency Skills Log Books (CSLBs) and inquiry etc. The survey questionnaires were developed through literature review on work performance measurement, work efficiency and productivity on Ready-Made Garment related publications. A semi-structured questionnaire with simple understandable language was provided to the concerned persons. Generally closed ended questions were conducted with the lists of multiple responses from which the respondent had to select only one response. Multiple choice question-answers are the widely used and most popular type of survey questionnaire, because they are the easiest type of question for a respondent to answer and it is also the easiest type to analyze the data.

The semi-structured questionnaire contained 2 (two) parts:

1. First part of the questionnaire consists of socio-demographic information of the participants.
2. Second part of the questionnaire consists of the semi-structured questionnaire regarding performance with choices where respondent has filled or selected the appropriate answer on different performance indicators, i.e. absenteeism, target achievement status, skillful ability to operate number of machines or perform tasks and their rating from supervisor's perspective.

The details of each section will be explained as follows:

Part – 1: Socio-demographics

This part of questionnaire consisted of 5 items to assess the participant's demographic information including age, name and location of the factory, type of disability / impairment, type of work in the factory (Annexure).

Part – 2: Performance related Questionnaires

This questionnaire was designed to compare the performance level of the participants. Different performance indicators were set compare their performance level. It was composed of 4 indicators with multiple choice questions which had been unified and modified according to the factory based context (Annexure). The relevant data of the participants were requested to filled up or rate the values.

3.8.2 Measurement Tools

Work Performance Measurement

- Attendance Register
- Garment factory based individual worker record
- Competency Skills Log Books (CSLBs)
- Target achievement record
- Skillful ability to operate number of machines or perform number of tasks
- Supervisor's rating

3.8.3 Data Collection Approaches

Individual worker's record book: The researcher has collected data from Garment factory based individual worker record file / log book. With the help of concerned Supervisor as well as Human Resources and Compliance Department of each factory, the disabled woman worker's record file was observed first and then screening was conducted by comparing with similar non-disabled worker's record file who is performing the same type of work in the same factory. Then the Record or data collection form was filled out by research assistants and the data is provided by the concerned department of the garment factories.

Competency Skills Log Books (CSLBs): Competency Skills Log Books (CSLBs) is a record book of the worker's on the job skill drills and productivity. The researcher and data collection team has reviewed the CSLBs and collected productivity and skill related data with the help of concerned supervisor and human resource officials.

3.8.4 Data Collection Procedure

The study procedure has conducted through assessing the participant's data, initial recording, observation and final recording. After screening the participant's data at their work place, 120 subjects has been chosen for data collection according to the inclusion criteria. All participant's data has been divided according to the type of their work into two groups and coded for Women with disabilities group and Women without any disabilities group.

3.9 Data Analysis

Statistical analysis has been performed by using Microsoft Excel 2013 version and SPSS 22 version.

Descriptive statistics were utilized to analyze the data. The demographic data like age, type of disability, type of work along with different variables were entered into the SPSS and was re-coded as required. Presence of disability was re-coded as 1 and no disability was coded as 2 and so on. For all the demographic data, simple statistical technique like the frequency distribution and percentage of frequency were used to calculate analyze the collected data. The age group of all the participant were distributed along with their count and percentage of frequency calculation. These data were presented through table, bar chart and pie chart.

All the data were inputted in Statistical Package for Social Science (SPSS) and Microsoft Excel through different variables. For analysis and comparison purpose, descriptive measures such as cross tabulations were used between different variables of women with disability and women without any disability.

The hypothesis was tested through chi-square test (χ^2) to see the association between two different variables. The statistical technique was used to determine the degree to which two variables are related. This measure had helped to see the linear association between two variables and with this measure we can find that whether there is any strong or weak influence of dependent variables to independent variables.

A p value of <0.05 was considered as significant. Equation of chi-square test:

$$\chi^2 = \sum \frac{(O-E)^2}{E}$$

Here, O = Observed frequency

E = Expected frequency

Those variables which were significant, were subjected to binary logistic regression analysis. In all the analysis, ($p < 0.05$) was taken as statistically significant value. Significance of statistical association was assured or tested using 95% confidence interval (CI) and p value (< 0.05).

3.10 Ethical Issues

The whole process of this research project has been done by following the Bangladesh Medical Research Council (BMRC) guidelines and World Health Organization (WHO) Research guidelines. The proposal of the dissertation including methodology was approved by Institutional Review Board (IRB) and obtained permission from the concerned authority of ethical committee of Bangladesh Health Professions Institute (BHPI). Again before the beginning of the data collection, the researcher has obtained the permission ensuring the safety of the participants from the concerned authorities of the garment work setting and allotted with a witness from the authority for the verification of the collected data. The researcher has strictly maintained the confidentiality regarding participant's condition and given data.

3.11 Informed Consent

The researcher has obtained informed consent from the Human Resources and Compliance Department of each factory for every subject. A signed informed consent form has been received from each factory. The participants were informed that they have the right to meet with their supervisor any time. There was no likelihood of any harm to the participants and / or participation in the study may benefit the participants or other stakeholders. The participants of the study were also informed by the investigator that they are totally free to withdraw their participation at any time. This withdrawal of participation from the study should not affect their job in the garment factories and they should continue to get the same facilities without any threat or pressure. Every subject have the equal opportunity to discuss their problem with the senior authority or administration of garment factories and have any questioned answer to their satisfaction.

4.1 Socio-demographic information

4.1.1 Age Distribution

The table shows, age of the participants ranging from 18 years to 45 years. The participants were divided into 5 age groups and most of them had age interval of 5 (five) years (4 groups i.e. 26-30 years, 31-35 years, 36-40 years and 41-45 years) in each except the first age group ranging from 18-25 years, which had age interval of 8 years. Most of the woman worker with disability or without disability (42% of the participants) lies in the age group ranging from 26 – 30 years. Among the age ranges of 18 – 25 years, 26 – 30 years and 31 – 35 years maximum women with disability or without disability are working in different ready-made garment factories in Bangladesh. The distribution pattern of number of women workers with disability and without any disability were found more or less similar and their percentage difference were found very less in count number in most of the age group.

The study found 27 women (45% of the participants) with disability were in the age group ranges from 26 – 30 years. 16 women (27% of the participants) with disability were in the age group ranges from 18 – 25 years and 10 women (17% of the participants) with disability were in the age group ranges from 31 – 35 years. On the other hand, there were very few woman worker who were between the age ranges of 41 – 45 years. We found only 3 women (5% of the participants) worker with disability were in the age group ranges from 41 – 45 years.

Table 1: Age distribution of Women worker

Age Range	Women with Disability (in number)	Percentage %	Women without any Disability (in number)	Percentage %
18 – 25 years	16	27%	14	24%
26 – 30 years	27	45%	23	39%
31 – 35 years	10	17%	13	22%
36 – 40 years	4	6%	7	12%
41 – 45 years	3	5%	2	3%

4.1.2 Disability Type

In the figure – 1 the bar chart shows, Among the participants most of the woman worker had disability due to physical impairment (about 62% of the participants), then second most type of disability was found due to speech impairment (about 20% of the participants) and then about 5% of the participants had visual disability, about 3% of the participants had hearing disability, about 3% of the participants had both speech and hearing disability, about 2% of the participants had intellectual disability and about 5% of the participants had others type of disability.

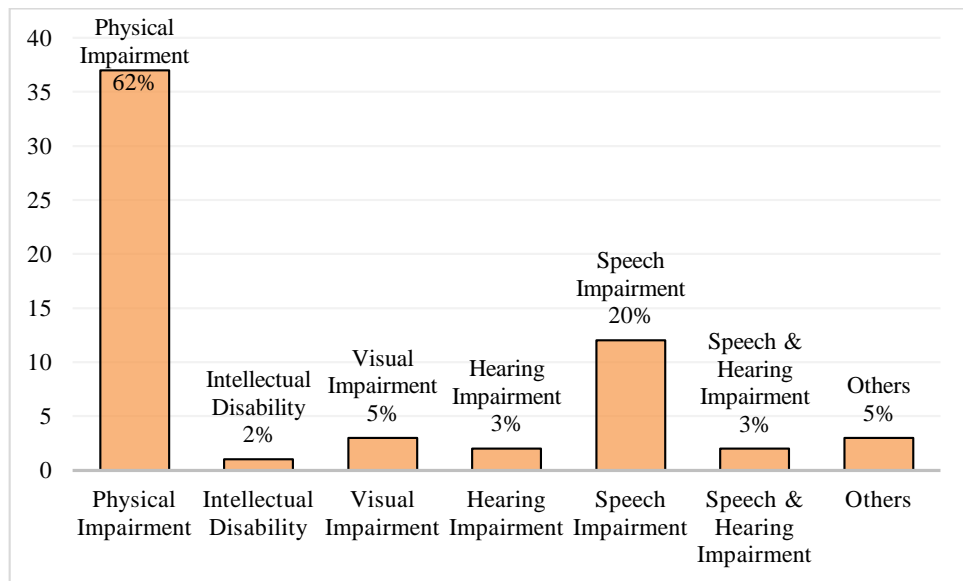


Figure 1: Type of Disability of Women worker

4.1.3 Type of Impairment

In the figure – 2 the bar chart shows, about 62% of the participants had physical disability. Most of the physical impairments of women workers with disability had hand function impairment, leg function impairment, both limb function impairment, spinal function related impairment as well as polio and dwarfism. In this study we found 13 women having leg function impairment, 7 women having hand function impairment, 6 women having both limb impairment and 6 women having dwarfism. Besides that, there were other type of impairments and among them 10 women were identified as dumb.

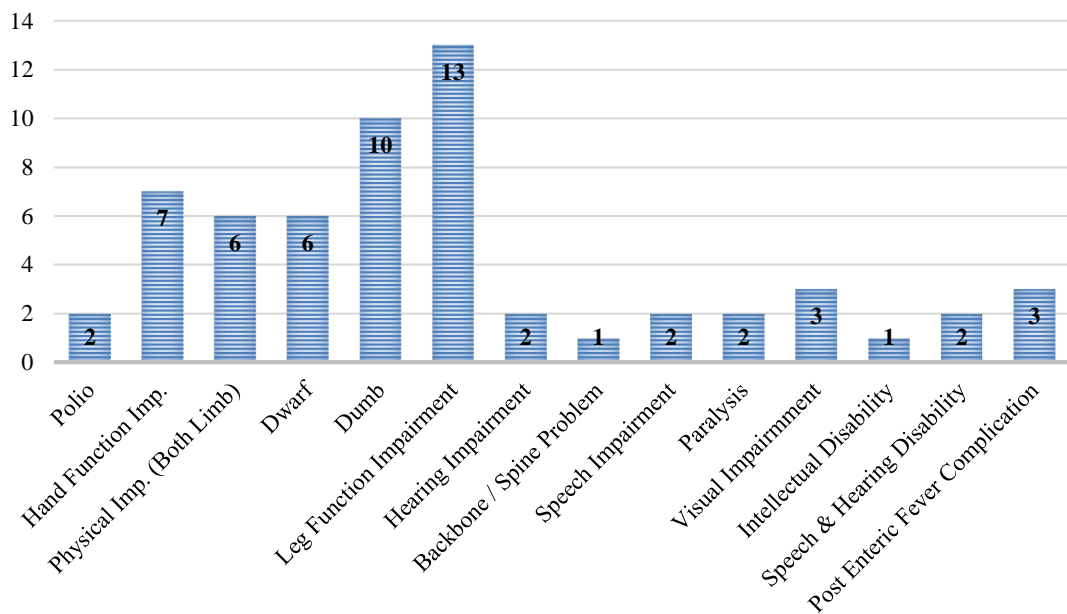


Figure 2: Type of Impairment of women worker

4.2 Type of Work

In the figure – 3 the bar chart shows, Different types of work in the five ready-made garment factories where women with disabilities are working. The study found, 72 women worker with disabilities (49% of the participants) are working in Sewing sector including Collar swing, Button swing, Pocket swing, Sleeve swing, Side swing etc. 16 women worker with disabilities (11% of the participants) are working as Swing Operator, 14 women worker with disabilities are working as Quality Inspector, 12 women worker with disabilities (8% of the participants) are working as Assistant Cutter and another 12 women worker with disability (8% of the participants) are working as Assistant Operator. 8 women worker with disability (5% of the participants) are working as Line Iron Man, 6 women worker with disability (4% of the participants) are working as Ordinary Operator. 5 women worker with disability (3% of the participants) are working as Finishing Assistant and 1 women worker with disability is working in Calf Make section and another 1 women worker with disability is working as a Needle Controller.

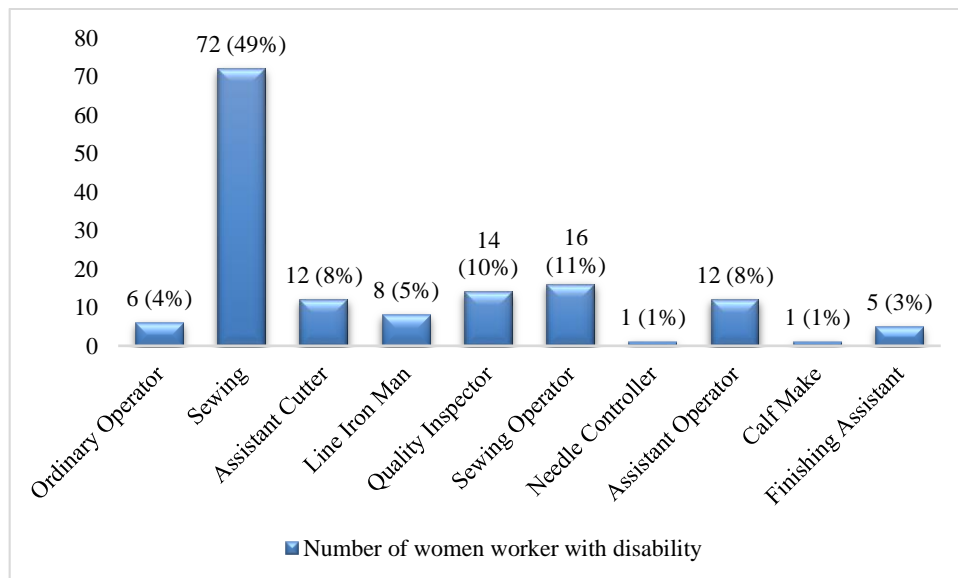


Figure 3: Type of work that is being contributed by women worker with disability

4.3 Absenteeism

The Table – 2 shows, Total day of absence for women worker with disability and without any disability is fairly equal. From this study, we found women worker with disability were absent from their work for total 79 days in last 6 months. 23 women worker with disability out of 60 women worker with disability were never absent from work in the last 6 months. In contrast, we found women worker without any kind disability were absent from work for total 79 days exactly in the last 6 months. 24 women without any kind disability out of 60 women worker without any disability were never absent from work in the last 6 months. So we can comment from the above table that, there is no difference between disable and non-disabled group of woman worker in terms of relationship with absenteeism with disability.

Table 2: Absenteeism Record

Days absent from work (in the last 6 months)	Women with Disability (in number)	Percentage %	Women without any disability (in number)	Percentage %
0 day	23	38.3%	24	40%
1 day	19	31.7%	14	23.3%
2 days	13	21.7%	13	21.7%
3 days	2	3.3%	5	8.3%
4 days	1	1.7%	1	1.7%
6 days	0	0%	1	1.7%
7 days	1	1.7%	2	3.3%
17 days	1	1.7%	0	0%
Total (in duty days)	79 duty days	100%	79 duty days	100%

4.4 Achievement Status

The Table – 3 shows 93.3% woman worker without having any kind of disability can achieve overall target easily or with some sorts of difficulty, whereas 88.3% woman worker having disability can achieve overall target easily or with some sorts of difficulty. There is only around 10% comparative change was found in between disable and non-disable woman worker. It means, only 11.7% woman with disability sometimes fails to achieve their target. The reason behind their failure to achieve target could be because of their disability. If we carry out a Pearson Chi-square test we can generate the table below.

Table 3: Achievement status of worker

Achievement Status	Women with disability (in number)	Percentage %	Women without any disability (in number)	Percentage %	Total	Total %
Can Achieve target easily	35	58.3	56	93.3	91	75.8
Can achieve target with difficulties	18	30	3	5	21	17.5
Sometimes fails to achieve target	7	11.7	1	1.7	8	6.7

4.5 Skillful ability to operate machine or to do number of tasks

Table – 4 shows, there is huge difference regarding skillful ability to operate number of machine or tasks in between disabled and non-disabled woman worker. About 45.8% non-disabled woman worker can operate more than two machines or can do more than two types of work, whereas only 8.3% woman worker having disability can do or operate more than two task or machine respectively. About 73.3% woman worker having disability can operate only one machine or can do one task skillfully.

Table 4: Skillful ability of workers

Skillful ability	Women with disability (in number)	Percentage %	Women without any disability (in number)	Percentage %	Total
<i>One</i>	44	73.3	8	13.6	52
<i>Two</i>	11	18.3	24	40.7	35
<i>Two or more</i>	5	8.3	27	45.8	32

4.6 Supervisor's rating

From the results of Table – 5, we can tell there is no relation between disable worker and non-disable worker regarding supervisor's rating. According to the rating of supervisor, 25.4% of woman worker got excellent in both group having disability and not having any kind disability. This is a noteworthy outcome for the woman with disability working in ready-made garments sector. About 50.8% woman worker got good remarks, whereas 44.1% woman with disability worker got good remarks. The percentage is more or less similar.

Table 5: Supervisor's rating

Supervisor's Rating	Women with disability (in number)	Percentage %	Women without any disability (in number)	Percentage %
<i>Excellent</i>	15	25.4	15	25.4
<i>Good</i>	26	44.1	30	50.8
<i>Satisfactory</i>	18	30.5	14	23.7

4.7 Association between worker's disability and the performance indicators

4.7.1 Association between worker's disability and absenteeism

The Table 6 shows, in case of absenteeism as one of the indicators of performance measure, the value of p denotes, there is no significant difference between the means of women with disability and women without any disability group. The study data reveals there is no effect on any group including women worker with disability and without any disability, because they are independent. So, there is no relation or association between worker's disability status and their rate of absenteeism from work in the industries.

Table 6: Absenteeism of workers from work and its relation with disability

Disability Status	Number of Participants	Duty Days	Mean	Std. Deviation	<i>t</i> value	<i>p</i> value
Women without any disability	60	79 days	1.3167	1.63118	.000	1.000
Women with disability	60	79 days	1.3167	2.39697	.000	1.000

4.7.2 Association between worker's disability and target achievement status

The report in Table 7 shows, there are 120 cases and the table has two degrees of freedom. Since the probability, p – value is .000 in the Table 7 which shows Pearson Chi-square tests result is significant. So the null hypothesis is rejected at any level. That means, there is significant difference in between woman with disability and woman without any kind of disability in target achievement related performance. The study data reveals that there is significant difference in target achievement status in between women with disability and the women without any disability. So it expresses that the target achievement status is associated with work's disability status.

Table 7: Achievement Status of worker and their association with disabilities

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.060 ^a	2	.000
Likelihood Ratio	21.839	2	.000
Linear-by-Linear Association	17.381	1	.000
N of Valid Cases	120		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 4.00.

4.7.3 Association between worker's disability and skillful ability

The output in Table 8 shows, there are 119 valid cases and the table has two degrees of freedom. Since the probability, p - value is .000 in the Table 8 which indicates the Pearson Chi-Square tests result is significant. So null hypothesis is rejected at any level. That means, there is significant difference in skillful ability to perform tasks and to operate machines in between disabled and non-disabled woman worker. So it represents that the skillful ability is associated with worker's disability and may differ in relation with it.

Table 8: Skillful ability of workers and their association with disability

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	44.871 ^a	2	.000
Likelihood Ratio	48.999	2	.000
Linear-by-Linear Association	41.130	1	.000
N of Valid Cases	119		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.87.

4.7.4 Association between worker's disability and supervisor's rating

The Table 9 shows, there are 118 valid cases and the table has two degrees of freedom. Since probability, p - value is .675 in the Table 9 which indicates Pearson Chi-Square tests result is not significant. So the value denotes, there is no significant difference between the means of women with disability and women without any disability group in case supervisor's rating as one of the performance indicators. So, there is no association in between worker's disability status and their performance related rating from the supervisors.

Table 9: Supervisor's rating and their association with worker's disability

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.786 ^a	2	.675
Likelihood Ratio	.787	2	.675
Linear-by-Linear Association	.256	1	.613
N of Valid Cases	118		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.00.

The study clearly shows that, women with disability can access employment opportunity and work as like other women workers who are working in the ready-made garment factories in Bangladesh. The age distribution pattern was found almost similar for women with disability and women without any disability.

In this study, we have included working age ranging from 18 – 45 years for all type of women workers in ready-made garment factories. According to the US Disability Status Report 2017, the working age for persons with disability were shown ranging from 21 – 64 years for both male and female persons with disability or without any kind of disability from different type of work place and industries (Erickson, 2019).

Some of the indicators of performance measurement are significantly different in between disabled and non-disabled woman worker. The study assumes that reason behind this discrepancy is due to having disability and not having an accessible workplace. Although the study found only 11% difference in target achievement related efficiency.

Workers with disabilities had greater devotion to their work, focus on the job and overall loyalty towards their organization. Moreover, they showed equivalent productivity and quality of work, compared to workers without any kind of disabilities (Banks & Polack, 2014).

Burke, et al. (2013) mentioned about a study where the employees with disabilities were found as skilful and productive in the matter of punctuality, well management of time, consistency of work and speediness as the employees without having disabilities.

An observed or measured performance report might be different for several other reasons, which may include the factors outside of the worker's control and working environment (Sauermann, 2016).

In a survey, data from 120 Indian industries showed that, two-thirds of the industries has ranked performance of workers with disabilities as completely satisfactory and not a single industry has rated their performance as 'dissatisfactory' (Banks & Polack, 2014).

Absenteeism is an important indicator for performance measurement. In Absenteeism variable, the study found there is no difference between disabled and non-disabled group of woman worker and there is no effect on any group, because they are independent. A Virginia based research monograph stated that, Workers with disabilities have very similar absenteeism rates and similar trend of taking sick leaves as the workers without any kind of disabilities (Wehman, 2008).

A study showed that within a 15 month of period workers with disability were only 11.8 days absent from their work, in comparison to them workers without any kind of disability were 19.4 days absent from their work (Tilly, 2013).

On the other hand, the study result shows, there is vast difference in skilful ability to operate number of machines or to perform number of task in between disabled and non-disabled woman worker. We found the woman workers with disability are getting orientation in their work, and they are very much focused on the task or the operating of machines they learned. They are less skilful in multi-tasking or more than two types of tasks.

The statistics from Australian Network on Disability indicates that, 90% of workers with disability have productivity rates equal or comparatively better than other workers, whereas 86% have average or comparatively superior attendance records than other workers (Australian Network on Disability, 2017).

Lack of skill development, education and training related opportunities lead to negative influence on overall productivity in ready-made garment sector in Bangladesh (Banks & Polack, 2014).

Worker's performance measure and their results could be unreliable in interpretation if they are mostly determined by the influences that are out of worker's control (Sauermann, 2016).

In supervisor's rating, both disabled and non-disabled woman worker got excellent remarks from their respective supervisors and around 25% workers got highest ratings. Burke, et al. (2013) mentioned about a study where the study had found same type of results when the investigators carried out a major study concerning the attitudes of total number of 255 supervisors toward the persons having different disabilities, from 43 large industrial factories. Although the participating industrial factories were diverse in

terms of types of industry. The supervisors were requested to rate their employee with a disability on a scale from 1 that denotes 'extremely dissatisfied' to 5 which denotes 'extremely satisfied' on the points such as, timely arrival at work and leaving from work, punctuality, regular presence at work, consistency of work, and work speed. Almost all the supervisors expressed that they were satisfied with the work related performance of the worker having a disability. The supervisors then prepared a ranking of the employee having disability and their work performance in relation to their non-disabled co-workers and the supervisors rated the work performance of employees with disabilities the same or sometimes better than the co-workers (Burke, et al., 2013).

Studies point out that the productivity and the engagement of the people with disabilities in the labor force is almost same, and in several cases, their performance is far better than their co-workers without disability (Tilly, 2013).

The employer's view, understanding, awareness and realization is very much important for a person to get involved or employed in an organization. There are some forms of misconceptions among many of us that people having different disabilities are not usually as much productive and contribute in the work as the non-disabled employees or the co-workers of same kind of work. As a result, they are frequently being discriminated compare to the other workers. Lots of employers consider that the individuals having disability completely losses the capability to work and subsequently losses their work productivity which pushes them away from the mainstream production related activities. Therefore, most of the employers in Bangladesh are unwilling to offer job opportunities for the persons with disabilities into their mainstream labour force. This happens commonly because of unawareness about the potentialities of the people having disabilities.

Limitation

This study has some limitations. One of the limitations of this study is that the data were collected from only 5 ready-made garment factories around the Savar Export Processing Zone (EPZ), Dhaka and Gazipur district because they are providing opportunity for the women with disability to be involved in wage employment. Therefore, the results cannot be generalised throughout the country.

Moreover, the statistical tests that were carried out in this study is only limited to the samples presented in the study. The validity of the significance tests and the results of this study doesn't represent the whole population.

This study doesn't capture the details and specifics regarding broad range of socio-demographic information. Because the investigator wanted not to hamper the working hours of both women workers and also factory management people asking detailed of their socio-demographic information rather than performance related questions only. Moreover, the data collection tool was a self-developed questionnaire which was developed according to the objective of the study and garments work based common performance measurement indicators. So validation of the questionnaire and reliability measures were not carried out.

The study doesn't capture the details and specifics on the barriers that cause poor performance among women worker with disabilities.

It is quite clear that there is no universal method for measuring the workers' performance. But logically there are a number of measurement methods that evaluates the performance of workers in their particular job related settings. Although this study has the drawback of allowing detailed analysis of productivity of the worker and various types of its determinants.

Observing just few measures of performance might have some unknown important aspects of workers' behaviour, because of the multi-dimensional nature of productivity. This study didn't add any behavioural component of performance measurement.

In Bangladesh, the contribution of ready-made garments sector is undeniable in providing the employment opportunity for a larger number of women. Today the women in this country can earn decent income through decent work and contribute to the betterment of their own future and their family's financial security.

The study tried to find the difference of performance among women worker with disability and women worker without having any kind of disability working in ready – made garments factories in Bangladesh. The study found in some cases there is significant difference in performance of women with disability in contrast with women worker without any kind of disability.

Performance reviews should be a regular part of supervising the staff and the entire work force. Managers and Human Resource professionals want the best performance from their employees and understand the value of regular constructive assessments and reviews.

Measuring work performance and productivity is an important approach to public policy making as well as private sector decision making (Sauermann, 2016).

Most of the supervisor's revealed that they provide flexibility for work for the women with disability and their rating towards them is more or less same like women without having any disability. The study assumes that more friendly work environment and policy level changes may help to improve the overall performance of the women with disabilities

Persons with disabilities may find it hard to get involved in employment situation as well as get social acceptance in almost all level of societies and communities in Bangladesh. However, if they get the chance, after very short period of time they prove their value in the workplace and worth in the society.

Business and rehabilitation partnerships have emerged with the growth of such programs as supported employment and disability management. Many of the partnerships were initiated by the rehabilitation community. Increasingly, we have evidence that employers are leading the charge to partner with community rehabilitation programs and disability providers (Wehman, 2008).

The study assumes that more friendly work environment and policy level changes may help to improve the overall performance of the women with disabilities. To improve the situation for change in employers perception regarding persons with disabilities, radical changes in policy and different sector based program are needed.

Recommendation

It is also important to explore what kind of the barriers to work they are facing and what the facilities to work they are getting are or they should get. As well as, it may help the Employer, Stakeholders and Policy makers to rethink about the barriers, and also renovate the ways to mitigate the discrepancy.

Future studies could be conducted by implementing random sampling technique which may present different result rather than this study.

Sufficient inclusive skill training focused on women worker with disability may ensure high productivity and performance according to the demand of the industry.

There is a view among many investigators, employers and policy makers that quota systems are doubtful to be effective to improve the involvement of persons with disability in employment related activities, although it is recommended that the quota system could be effective for initial participation of them in decent work.

Evaluate and create supportive accommodations for the workers through enabling environment for the worker's productivity against provision of performance allowances. Some interventions can be included such as etiquette and awareness related disability for the practical training of the persons with disabilities, along with comprehensive inclusion, reasonable accommodation, accessible interventions and leadership skills.

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Annexure

- A. Consent Form (Bangla Version)
- B. Consent Form (English Version)
- C. Questionnaire
- D. Chi-square Distribution Table
- E. Application for IRB Approval
- F. IRB Approval Letter

Annexure – A: Consent Form (Bangla Version)

সম্মতিপত্র

আসসালামু আলাইকুম, আমি রাফিউল করিম, ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা অনুষদের অধীনে বাংলাদেশ হেল্থ প্রফেশনস ইনস্টিটিউট (বিএইচপিআই) এর এম. এসসি. ইন রিহ্যাবিলিটেশন সায়েন্স বিভাগ এর একজন শিক্ষার্থী। অধ্যয়নের অংশ হিসেবে আমাকে একটি গবেষণা সম্পাদন করতে হবে এবং এটা আমার প্রাতিষ্ঠানিক কাজের একটা অংশ। নিম্নোক্ত তথ্যাদি পাঠ করার পর অংশগ্রহণকারীদের অধ্যয়নে অংশগ্রহণের জন্য অনুরোধ করা হলো।

আমার গবেষণা শিরোনাম "বাংলাদেশের তৈরী পোশাক শিল্পকারখানায় কর্মরত প্রতিবন্ধী নারী শ্রমিকদের কর্মদক্ষতার মূল্যায়ন"। এই গবেষণায় আমি প্রতিবন্ধী নারী শ্রমিকদের কর্মদক্ষতার সাথে সম্পর্কিত বিষয়সমূহের ব্যাপারে জানার চেষ্টা করবো।

আমার গবেষণা প্রকল্প বাস্তবায়ন করার জন্য, আমি আপনার কাছ থেকে কিছু তথ্য সংগ্রহ করব। এজন্য আমি আপনার সাথে কয়েকবার দেখা করব। আমার গবেষণায় অংশগ্রহণে আপনার / আপনাদের কোন ক্ষতি বা বিপদ হবে না। আপনি যে কোনো সময় নিজে থেকে এ গবেষণা থেকে প্রত্যাহার করতে পারেন। এই গবেষণার প্রাপ্ত তথ্য সম্পূর্ণভাবে গোপনীয় থাকবে এবং অংশগ্রহণকারীদের ব্যক্তিগত তথ্য আপনার অনুমতি ব্যতিরেকে অন্য কোথাও প্রকাশ করা হবে না।

আপনার গবেষণা সম্পর্কে যদি কোনো জিজ্ঞাসা থাকে তবে আপনি অনুগ্রহপূর্বক যোগাযোগ করতে পারেন গবেষক রাফিউল করিম অথবা অধ্যাপক মোঃ ওবায়দুল হক, ভাইস প্রিন্সিপাল, বাংলাদেশ হেল্থ প্রফেশন ইনস্টিটিউট (বিএইচপিআই), পক্ষাঘাতগ্রস্থদের পুনর্বাসন কেন্দ্র (সিআরপি), সাভার এ যোগাযোগ করতে পারেন।

শুরু করার আগে আপনার কি কোন প্রশ্ন আছে ?

আমি কি শুরু করতে পারি ?

হ্যাঁ

না

তথ্য প্রদানকারীর স্বাক্ষর ও তারিখ

গবেষকের স্বাক্ষর ও তারিখ

সাক্ষীর স্বাক্ষর ও তারিখ

ডান	বাম
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নিরীক্ষার অংশগ্রহণকারীদের আঙ্গুল ছাপ
(প্রয়োজ্য হলে)

Annexure – B: Consent Form (English Version)

Consent Form

Assalamualaikum, I am Rafiul Karim, M.Sc. in Rehabilitation Science student of Bangladesh Health Professions Institute (BHPI) under Medicine faculty of University of Dhaka. To obtain my Master degree, I shall have to conduct a research and it is a part of my study. The participants are requested to participate in the study after reading the following.

My research title is “**Performance of Women with Disability Working at Ready-Made Garment Factories in Bangladesh**”. Through this study I will find thr issues related with performance and efficiency of women workers with disabilities working in ready-made garment factories in Bangladesh.

To fulfil my research project, I need to collect data from you. Considering the area of my research, I want to meet you a few couple of session. I would like to inform you that this is a purely academic study and will not be used for any other purpose. I assure that all data will be kept confidential. You may have the right to withdraw consent and discontinue participation at any time of the experiment. You also have the right to answer a particular question that you don’t like.

If you have any query about the study or right as a participant, you may contact with the Researcher Rafiul Karim or Professor Md. Obaidul Haque, Bangladesh Health Professions Institute (BHPI), Centre for the Rehabilitation of the Paralyzed (CRP), Savar, Dhaka.

Do you have any questions before I start?

So, may I have your consent to proceed with the interview?

Yes

No

Right	Left
-------	------

Participant’s Signature and

Date.....

Researcher’s and Date.....

Witness Signature and Date.....

Participant’s Finger Print
(If needed)

Annexure – C: Questionnaire

Performance Related Questionnaire (কর্মদক্ষতা বিষয়ক প্রশ্নাবলী)

Code No. (কোড নং):

Factory Name and Location (ফ্যাক্টরীর নাম ও স্থান):

Woman Participant with Disability (প্রতিবন্ধীতা আছে এমন নারী অংশগ্রহণকারী)	Random woman participant without any disability (কোন প্রতিবন্ধীতা নেই এমন নারী অংশগ্রহণকারী)
Name (নাম):	Name (নাম):
1. Age (বয়স):	1. Age (বয়স):
2. Type of Impairment(s) (প্রতিবন্ধীতার ধরণ):	2. Type of Impairment(s) (প্রতিবন্ধীতার ধরণ): <i>No Impairment or Any kind of Disability</i>
3. Type of Work in factory (ফ্যাক্টরীতে যে ধরণের কাজ করে):	3. Type of Work in factory (ফ্যাক্টরীতে যে ধরণের কাজ করে):
4. Performance (কর্মদক্ষতা):	4. Performance (কর্মদক্ষতা):
a) Absenteeism (অনুপস্থিতিতা): <ul style="list-style-type: none">● In the last month: days (গত মাসে দিন)● <i>Fill-up any of the below</i> (নিম্নের যেকোনটি পূরণ করুন): In the last 3 months: day (গত তিন মাসে দিন)	a) Absenteeism (অনুপস্থিতিতা): <ul style="list-style-type: none">● In the last month: days (গত মাসে দিন)● <i>Fill-up any of the below</i> (নিম্নের যেকোনটি পূরণ করুন): In the last 3 months: day (গত তিন মাসে দিন)

Or, In last 6 months: days (অথবা, গত ছয় মাসে দিন)	Or, In last 6 months: days (অথবা, গত ছয় মাসে দিন)
b) Target achievement in time (সময় অনুযায়ী লক্ষ্য পূরণ করা বিষয়ক): <i>Make a circle</i> (গোল করুন) <ol style="list-style-type: none"> 1. Can achieve target easily (সহজেই লক্ষ্য পূরণ করতে পারে) 2. Can achieve target with difficulty (লক্ষ্য পূরণ করতে কষ্ট হয়) 3. Sometime fails to achieve target (মাঝে মাঝে সময় অনুযায়ী লক্ষ্য পূরণ করতে ব্যর্থ হয়) 4. Cannot achieve target timely (সময় অনুযায়ী লক্ষ্য পূরণ করতে পারেন না) 	b) Target achievement in time (সময় অনুযায়ী লক্ষ্য পূরণ করা বিষয়ক): <i>Make a circle</i> (গোল করুন) <ol style="list-style-type: none"> 1. Can achieve target easily (সহজেই লক্ষ্য পূরণ করতে পারে) 2. Can achieve target with difficulty (লক্ষ্য পূরণ করতে কষ্ট হয়) 3. Sometime fails to achieve target (মাঝে মাঝে সময় অনুযায়ী লক্ষ্য পূরণ করতে ব্যর্থ হয়) 4. Cannot achieve target timely (সময় অনুযায়ী লক্ষ্য পূরণ করতে পারেন না)
c) Skilful ability to operate number of machines or perform tasks (দক্ষভাবে কতটি মেশিন চালনা করতে পারে বা কাজ করতে পারে): <i>Make a circle</i> (গোল করুন) <ol style="list-style-type: none"> 1. One (একটি) 2. Two (দুইটি) 3. More than two (দুই এর অধিক) 	c) Skilful ability to operate number of machines or perform tasks (দক্ষভাবে কতটি মেশিন চালনা করতে পারে বা কাজ করতে পারে): <i>Make a circle</i> (গোল করুন) <ol style="list-style-type: none"> 1. One (একটি) 2. Two (দুইটি) 3. More than two (দুই এর অধিক)
d) Supervisor's Rating (সুপারভাইজার এর মূল্যায়ন): <i>Make a circle</i> (গোল করুন) <ol style="list-style-type: none"> 1. Excellent (সবচেয়ে ভালো) 2. Good (ভালো) 3. Satisfactory (সন্তোষজনক) 4. Not Satisfactory (সন্তোষজনক নয়) 	d) Supervisor's Rating (সুপারভাইজার এর মূল্যায়ন): <i>Make a circle</i> (গোল করুন) <ol style="list-style-type: none"> 1. Excellent (সবচেয়ে ভালো) 2. Good (ভালো) 3. Satisfactory (সন্তোষজনক) 4. Not Satisfactory (সন্তোষজনক নয়)

5. How many of the participants have disability in this type of work? (এ ধরনের কাজে কতজন প্রতিবন্ধী মানুষ কাজ করেন?):

Annexure – D: Chi-square Distribution Table

d.f.	.995	.99	.975	.95	.9	.1	.05	.025	.01
1	0.00	0.00	0.00	0.00	0.02	2.71	3.84	5.02	6.63
2	0.01	0.02	0.05	0.10	0.21	4.61	5.99	7.38	9.21
3	0.07	0.11	0.22	0.35	0.58	6.25	7.81	9.35	11.34
4	0.21	0.30	0.48	0.71	1.06	7.78	9.49	11.14	13.28
5	0.41	0.55	0.83	1.15	1.61	9.24	11.07	12.83	15.09
6	0.68	0.87	1.24	1.64	2.20	10.64	12.59	14.45	16.81
7	0.99	1.24	1.69	2.17	2.83	12.02	14.07	16.01	18.48
8	1.34	1.65	2.18	2.73	3.49	13.36	15.51	17.53	20.09
9	1.73	2.09	2.70	3.33	4.17	14.68	16.92	19.02	21.67
10	2.16	2.56	3.25	3.94	4.87	15.99	18.31	20.48	23.21
11	2.60	3.05	3.82	4.57	5.58	17.28	19.68	21.92	24.72
12	3.07	3.57	4.40	5.23	6.30	18.55	21.03	23.34	26.22
13	3.57	4.11	5.01	5.89	7.04	19.81	22.36	24.74	27.69
14	4.07	4.66	5.63	6.57	7.79	21.06	23.68	26.12	29.14
15	4.60	5.23	6.26	7.26	8.55	22.31	25.00	27.49	30.58
16	5.14	5.81	6.91	7.96	9.31	23.54	26.30	28.85	32.00
17	5.70	6.41	7.56	8.67	10.09	24.77	27.59	30.19	33.41
18	6.26	7.01	8.23	9.39	10.86	25.99	28.87	31.53	34.81
19	6.84	7.63	8.91	10.12	11.65	27.20	30.14	32.85	36.19
20	7.43	8.26	9.59	10.85	12.44	28.41	31.41	34.17	37.57
22	8.64	9.54	10.98	12.34	14.04	30.81	33.92	36.78	40.29
24	9.89	10.86	12.40	13.85	15.66	33.20	36.42	39.36	42.98
26	11.16	12.20	13.84	15.38	17.29	35.56	38.89	41.92	45.64
28	12.46	13.56	15.31	16.93	18.94	37.92	41.34	44.46	48.28
30	13.79	14.95	16.79	18.49	20.60	40.26	43.77	46.98	50.89
32	15.13	16.36	18.29	20.07	22.27	42.58	46.19	49.48	53.49
34	16.50	17.79	19.81	21.66	23.95	44.90	48.60	51.97	56.06
38	19.29	20.69	22.88	24.88	27.34	49.51	53.38	56.90	61.16
42	22.14	23.65	26.00	28.14	30.77	54.09	58.12	61.78	66.21
46	25.04	26.66	29.16	31.44	34.22	58.64	62.83	66.62	71.20
50	27.99	29.71	32.36	34.76	37.69	63.17	67.50	71.42	76.15
55	31.73	33.57	36.40	38.96	42.06	68.80	73.31	77.38	82.29
60	35.53	37.48	40.48	43.19	46.46	74.40	79.08	83.30	88.38
65	39.38	41.44	44.60	47.45	50.88	79.97	84.82	89.18	94.42
70	43.28	45.44	48.76	51.74	55.33	85.53	90.53	95.02	100.43
75	47.21	49.48	52.94	56.05	59.79	91.06	96.22	100.84	106.39
80	51.17	53.54	57.15	60.39	64.28	96.58	101.88	106.63	112.33
85	55.17	57.63	61.39	64.75	68.78	102.08	107.52	112.39	118.24
90	59.20	61.75	65.65	69.13	73.29	107.57	113.15	118.14	124.12
95	63.25	65.90	69.92	73.52	77.82	113.04	118.75	123.86	129.97
100	67.33	70.06	74.22	77.93	82.36	118.50	124.34	129.56	135.81

Annexure – E: Application for IRB Approval

Date: 10 March, 2019

The Chairman
Institutional Review Board (IRB)
Bangladesh Health Professions Institute (BHPI)
CRP-Savar, Dhaka-1343, Bangladesh

Subject: Application for review and ethical approval.

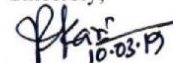
Sir,

With due respect I would like to draw your kind attention that I am a student of M.Sc. in Rehabilitation Science program at Bangladesh Health Professions Institute (BHPI) under Faculty of Medicine of University of Dhaka (DU). This is a 2-year full-time course under the project of "Regional Inter-professional Master's program in Rehabilitation Science" funded by SAARC Development Fund (SDF). I have to conduct a thesis entitled, "**Performance of Women with Disability Working at Ready-Made Garments Factories in Bangladesh**" under honorable supervisor, Professor Md. Obaidul Haque, Vice-Principal, Bangladesh Health Professions Institute (BHPI). The purpose of the study is to determine the comparative differences in work performance related issues associated with disabilities for the women who are working in various readymade garment factories in Bangladesh.

The study involves use of a semi - structured questionnaire to identify the Work Performance related issues that may take 05 to 10 minutes to fill in the questionnaire or for collection of data. There is no likelihood of any harm to the participants and / or participation in the study may benefit the participants or other stakeholders. Related information will be collected from the human resources data books. Data collectors will receive informed consents from all the information providers. Any data collected will be kept confidential.

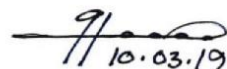
Therefore I look forward to having your kind approval for the thesis proposal and to start data collection. I can also assure you that I will maintain all the requirements for study.

Sincerely,



Rafiul Karim
Student of M.Sc. in Rehabilitation Science (MRS)
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Recommendation from the thesis supervisor:



Professor Md. Obaidul Haque
Vice - Principal,
Bangladesh Health Professions Institute (BHPI),
CRP – Chapain, Savar, Dhaka – 1343, Bangladesh.

Attachment: Thesis Proposal including measurement tools and process and procedure for maintaining confidentiality, Questionnaire (English and Bengali version), Information sheet & consent.

Annexure – F: IRB Approval Letter



বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)
Bangladesh Health Professions Institute (BHPI)
(The Academic Institute of CRP)

Ref.

CRP-BHPI/IRB/03/19/1296

Date: 10/03/2019

To,
Rafiqul Karim
M.Sc. in Rehabilitation Science (MRS)
Session: 2017-2018
BHPI, CRP-Savar, Dhaka-1343, Bangladesh

Subject: Approval of thesis proposal “Performance of Women with Disability Working at Ready-Made Garments Factories in Bangladesh” by ethics committee.

Dear Rafiqul Karim,

Congratulations,

The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application to conduct the above mentioned thesis, with yourself, as the Principal Investigator". The Following documents have been reviewed and approved:

S.N.	Name of Documents
1.	Thesis Proposal
2.	Questionnaire (English and Bangla version)
3.	Information sheet & consent form.

Since the study involves use of a semi - structured questionnaire to identify the work performance related issues that may take 05 to 10 minutes to answer the questionnaire for collection of data. Since, there is no likelihood of any harm to the participants; the members of the Ethics committee have approved the study to be conducted in the presented form at the meeting held at 10 AM on 22/04/2018 at BHPI.

The institutional Ethics committee expects to be informed about the progress of the study, any changes occurring in the course of the study, any revision in the protocol and patient information or informed consent and ask to be provided a copy of the final report. This Ethics committee is working accordance to Nuremberg Code 1947, World Medical Association Declaration of Helsinki, 1964 - 2013 and other applicable regulation.

Best regards,

Muhammad Millat Hossain
Assistant Professor, Dept. of Rehabilitation Science
Member Secretary, Institutional Review Board (IRB)
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

সিআরপি-চাপাইন, সাভার, ঢাকা-১৩৪৩, বাংলাদেশ, ফোন : ৭৭৪৫৪৬৪-৫, ৭৭৪১৪০৪ ফ্যাক্স : ৭৭৪৫০৬৯

CRP-Chapain, Savar, Dhaka-1343, Tel : 7745464-5, 7741404, Fax : 7745069, E-mail : contact@crp-bangladesh.org, www.crp-bangladesh.org