



Faculty of Engineering

Department of Textile Engineering

Project Report On
Factors affecting workers performance

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Approval Sheet

This experiment is “Factor affecting worker performance” at Daffodil International University, April 2020, Made by to member, **Name: MD.OBAYDUR RAHMAN ID: (172-23-349)** **Name: LATA RANI ID: (172-23-353)** **Name: SARZIL HOSSAIN ID: (171-23-265)** the Thesis for the level of BACHELOR OF SCIENCE IN TEXTILE ENGINEERING has been analyzed and in this manner recommended for support and affirmation.

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Latter of Approval

April 2020

To

The Head

Department of Textile Engineering

Datta Para, Ashulia, Savar, Dhaka.

Subject: Approval of Thesis Report of B.Sc. in Textile Engineering Program.

Dear Sir,

I am just writing to let you know that this project report titled as “Factor affecting worker performance” has been prepared by the student bearing **ID 172-23-349, 172-23-353, 171-23-365** is are completed for final evaluation. The whole report is prepared based on the proper investigation and interruption through critical analysis of empirical data with required belongings. The student was directly involved in their project activities and the report become vital to spark of many valuable information for the readers.

Thusly it will profoundly be valued on the off chance that you mercifully acknowledge this task report and think about it for definite assessment.

Yours Sincerely

.....

Sharmin Akter

Lecturer

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Declaration

We attest that this report is totally our own work, except where we have given fully documented references to the work of others and that the materials contained in this report have not previously been submitted for assessment in any formal course of study. If we do anything, which is going to breach the first declaration, the examiner/supervisor has the right to cancel my report at any point of time.

Name	ID	Signature
Md.Obaydur Rahman	172-23-349	
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Sarzil Hossain	171-23-265	

Acknowledgement

Close to the beginning, we should thank the Almighty ALLAH for empowering us to complete this report. By then we should acknowledge the open way to offer us because of our good boss **Sharmin Akter**, Lecturer, Department of Textile, Daffodil International University for giving us rules and proposition to complete this Project. Her shrewd appeal helps rational course and tries have made it possible to execute the undertaking dependably. Our grateful thanks moreover go to Dr Eng. **Md. Saifur Rahman**, Head of the Department of Textile Engineering, for his assistance and reliable bearing all through our long experience in Daffodil International University and the mechanical getting ready. We are more grateful to honorable Prof. **Mohammad Hossain Reza** Associate head department of Textile engineering. We are also grateful to the inexperienced teachers of the Textile engineering department especially **Kazi Rezwan Hossain, Manik Parvez, Subrata Majumder** and others.

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Finally, however not the least, we are wanted to recognize my folks for their endorsement, support and love and every one of our companions for their assistance and backing to finish the report.

Dedication

From the beginning I have to give this cutting-edge report to all-ground-breaking Allah for enabling me this opportunity to substantiate myself. Without god-like's help nothing would be possible. By then I have to dedicate my report to my people. I venerate them beyond a shadow of a doubt, for completing my assessment they accept an irreplaceable activity to wrap up. It's an uncommon enjoyment for me. Without their help it is extremely abnormal for me to complete this association so I'm grateful to them. My people were helpful to set up this association. Besides, I similarly need to submit this report to my reasonable instructor and educational chairman, **Sharmin Akter**, Lecturer, Department of Textile, Daffodil International University, give us a very help and rule to arrange this association. I submit this report to my revered watchmen.

Committed to the pieces of attire worker, who works morning to night, contribute showing the wheel of country economy to persevering work. Much gratitude to you such a lot of, proceed, we are with you.

Abstract

The main objectives of this study to research about the different factor that influence the working performance of the workers of garments factories especially the sewing operators to determine the all factors that's are responsible for influencing the workers performance level, with the maximum responsible co-factors and minimum responsible co-factors to find out the and established comparison between different factors and examine these factors, to survey about different ages, different gender, different experienced workers and also know about their problem or their rights, to determine three factor that's are most responsible for influencing workers performance. In this study the effect of age, gender, education, marital Status, working experience, salary, working environment, machine condition, working hour, overtime salary, meal facilities, medical service, leave facilities, baby care service, training facilities, entertainment, sexual harassment, gender discrimination, and performance ratings are researched. To conduct this research paper, we surveyed about 30 random workers from a garment factory and found that their performance level was influenced by different influencers. We try to express in this project report what's the factors are really affect their performance, we try to show the different factors likes age, gender, working experience, education qualification etc by using table analysis graph bar charts pie charts and also some mathematical terms, of respondents workers. We try to enhance their working behaviour with their working environment, they have some of their advantage that's increase their working performance in garments industry, we also collect some disadvantage from them that's decrease their working performance. Finally, will be found that the age and the experience is the highest possible responsible for their working performance and the education has lowest weak positive relation with workers rating.

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CHAPTER - I

INTRODUCTION

1.1 Introduction:

Materials and dress will continually be tremendous things for people. Turning and weaving were the principle rehearses that drove the Industrial Revolution in the eighteenth century. Beginning now and into the not too expelled the material business has been a central industry in the essential time of industrialization in different nations in various time stretches out on the planet. Bangladesh is a colossal maker and exporter of weave RMG thing. There are around 4500-5000 bits of garments creation lines running in Bangladesh. Development of bits of pieces of clothing plants began in Bangladesh around 1980. Regardless, genuinely inside and out that truly matters 82% of our outside money is earned from RMG trade. At present Bangladesh is passing on and passing on in excess of 60 things of bits of pieces of clothing. Bits of articles of clothing are given to USA, Canada, Japan, Australia, Middle East and different nations on the planet. Most sensible work cost is the best phenomenal circumstance for Bangladeshi bits of attire makers and exporters. This sector has provided the largest employment opportunities for women where more than 85 percent of the workers are women, and 15 percent are men. They work hard and their contributions in this sector make our country more developed day by day. There have some factors that's are directly and indirectly influence their performance for these types of factors sometimes they can't show their efficiency properly and production maybe hampered for its. As a result, they lose their jobs otherwise they don't get proper salary and can't developed their position. These factors like age, experience, training facilities, entertainment, meal facilities, medical facilities, proper wages, leave facilities, baby care facilities, sexual harassment, working environment, machine facilities, etc.

If we find out this factors that will be very helpful for future otherwise this study will be helpful for next researchers who want to study about this There have some factors that's are directly and indirectly influence their performance for these types of factors sometimes they can't show their efficiency properly and production maybe hampered for its. As a result, they lose their jobs otherwise they don't get proper salary and can't developed their position. These factors like age, experience, training facilities, entertainment, meal facilities, medical facilities, proper wages, leave facilities, baby care facilities, sexual harassment, working environment, machine facilities, etc.

If we find out this factors that will be very helpful for future otherwise this study will be helpful for next researchers who want to study about this topic

Balanced Knowledge is particularly basic for the heading of material structure and improvement. Sensible Knowledge makes us fit and perfect to apply theoretical information in reasonable life.

1.2 History of Bangladesh Garments Industry

The RMG business started in Bangladesh during the 70s yet it was then just effort, the fundamental committal of knitwear exchange as made in 1973 and the focal dispatch of woven articles of clothing was made in 1977. In 1981-82 the obligation of woven garments in the full-scale segment was 1.10%. Sometime later it is a record of proceeded with achievement for the Bangladesh RMG locales. The knitwear area has become during the time in geometric progression and become the prime fundamental intensity of Bangladesh's confirmation pay. Inside 10 years the commitment of woven to the cost store got 42.83% (1990-1991) and the knitwear part's commitment 41.79% to national pass on pay toward the satisfaction of FY 2008-09(July-April).

The specialists of the weave zone wandered forward with their inclination in the late 80s. With their authentic undertakings they had the choice to pass on US\$14.84 million out of 1990-90. Out of this, US\$ 2.02 million was given to US. The model continued with un the weave division considering the market find a utilitarian pace to the LDCs under the condensed structures of tendency (GSP) advantage. Certification from Bangladesh Export from Bangladesh 1972-73 to 2009-2010 1972 Export from Bangladesh 1972-73 to 2009-2010 - 73 to 2009-2010

This is the restored beginning of the epic story of Bangladesh knitwear segment that in clear sense has been possible due to colossal industrialization in a sensible way with effect on all conceivable human development edges which is the associating some section of the story. The improvement of knitwear zone is loosening up at a creating rate. The cemented standard movement pace of the part is 20%, and it is continually grabbing more fragments in the section pie of Bangladesh. This is generally credited to the workplaces gave under the EC GSP and ROO. The knitwear division is truly compelled by the uncommon procedures and perceived the open strategy to develop a strong in switch linkage for the space.

Bangladesh RMG partition has adequately successfully finished some crucial tests and is beginning at now cruising with shafts: weave and woven. The sub-a region is right by and by in sound test among them to play the activity of development inside the country.

In FY 2003-04, knitwear since passed on with 91.6 million packs. Knitwear is so far driving concerning total passed on and is developing the opening a smidgen at once. Affirmation extent of knitwear things loosened up to 241.59 million groups which is 163.74% higher than the year 2003-04 to 2007-08. On the sweeping length of December of the FY s 2008-2009, all things considered knitwear affirmation was 146.5 million groups which is 30.58 million packs higher than an essentially indistinguishable time of a year back. Relationship of Export Quantity.

Bangladesh knitwear is playing out a well broadening to the degree whole which is a sensible indication of extension of breaking point right now. In the year 2007-08, the commitment of woven wear to the expense getting was 36.17% and in knitwear was 38.97% .In the present

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year, the presentation of both the division are as shown by the going with: • Knitwear exchange US\$ 5231.01 million FY 2008-09(July-April) • Woven assertion US\$4902.48 million FY 2808-09 (July-April) Therefore the dedication of knitwear in national section development is 57.82%.

RMGs are the completed material thing from pieces of clothing creation lines and the Bangladeshi RMG Sector is one of the snappiest making zones in the Bangladeshi economy, with a headway pace of 55% from 2002 to 2012. Tolls of materials, clothing, and minute articles of clothing (RMG) addressed 77% of Bangladesh's incomparable thing trades 2002. By 2005 the (RMG) business was the rule multibillion-dollar storing up and charge industry in Bangladesh, addressing 75 percent of the nation's pay in that year. Bangladesh's confirmation exchange is correct currently told by the minute pieces of clothing (RMG) industry. In 2012 Bangladesh's article of clothing passes on – overwhelmingly to the US and Europe – made up for all intents and purposes 80% of the nation's affirmation pay. By 2014 the RMG business tended to 81.13 percent of Bangladesh's done export. Much of the titanic improvement of the segment and its action as a budgetary powerhouse for the nation is credited to the accessibility of "humble" work. Of the 4,000,000 specialists utilized by the RMG business, 85% are uneducated ladies from country towns. The workplaces and states of the amassing plants that produce minute pieces of clothing has experienced assessment beginning late concerning expert success and reasonable wages.

Subcontracting is a basic bit of the RMG business in Bangladesh. Different Western affiliations contract distinctive present-day workplaces, basically referencing that specific portions be met at express occasions. Affiliations incline toward subcontracting considering the way that the level of bundle clearly removes them of peril of pay and work violations. It besides makes it increasingly direct to dissipate creation over a mix of sources.

1.3 Objectives of the Study:

This project paper defines frequently occurs the Factor affecting performance of sewing operators

- To get some answers concerning proper quality organization system.
- To determine the all factors that's are responsible for influencing the workers performance level.
- To determine the all co-factors and their highest positive and negative as well as lowest negative responsible to influence the workers performance.

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- To find out the factors and established comparison between different factors and examine these factors
- To get some answers concerning the disfigurements of articles of administrator.
- To determine three factor that's are most responsible for influencing workers performance.
- Relation to one another factor and their co-factors.

1.4 Important and Scope of the study:

- To break down the sorts of deficiencies in sewing area workers.
- To assume a perfect job in increment or decline generation ability.
- To compute every hour blames in a worker effectively.
- To limit working issue during generation.
- To keep away from imperfections on articles of working hour.

1.5 Limitations of the study:

- Limitation of time to investigate this subject.
- Limitations for pandemic COVID-19 period.
- The primary data collected from 2 different factories only 30, for the restrictions of factories authorities can't collect more data.
- Limitation of essential information hotspots for operator.
- Limitation of precise information.
- Input and yield issue by operator.
- Respondent reluctance.

CHAPTER - II

LITERATURE REVIEW

2.1 Age:

The average age of people in the workforce is getting higher, with increasing numbers of middle-aged and older workers employed in many different jobs (Fullerton, Johnston and Packer). Then it is important to know working performance is higher or lower for older workers in different with lower aged workers. Most The average age of people in the workforce is getting higher, with increasing numbers older workers employed in many different works (Fullerton, Johnston and Packer). Then it is important to know job performance is higher or lower for older workers in different with lower aged workers. Most reconsideration of experimental research on this issue have terminated that although individual studies different, averaging across available studies reveals virtually no relationship between age and job performance (McEvoy and Cascio, Rhodes, Salthouse and Maurer). If capability that are important for performing work do collapse with age, but job performance is higher for older workers, this maybe paradoxical.

According to Rajapaksa, U. G. (2015) age has positive relation with organizational commitment (OC) and job satisfaction. As mature person has more self-assurance and patience on the work place than a younger one (Rajapaksa, U.G.2015)

By these types of comment and analysis their experiment we find out that the older aged persons working performance is higher than the younger. So lower age is a factor for showing performance of workers.

2.2 Gender:

2.2.1 Difference of male and female workers:

Differences between profession and gender, women are less productive than men. In some authoritative writings and in some general thought women are generally considered to be less productive than men. (E.g. Phelps Brown 1977, p.1, Rhoads 1993, pp. 12–14, 141–42)

Besseleer & Sandstrom also found that the gender differences have impact on working performance of workers, they also find out researching after 10 years they found that the working performance of male workers increase faster than the female workers. (Besseleer & Sandstrom 2015)

But in garments manufacturing industry practically there is a different thought here most of the workers are women and garments industries hire 80% women workers and 20% male workers so in this case garments female workers show more performance than male.

2.2.2 Women in the garment industry:

The structure of gender participation in the economy underwent a major shift with the rise of the ready-made garment industry in Bangladesh. Estimates from the World Bank put the number of female workers in the industry in the 1980s at 50,000; that number was brought up to 2.85 million by 2008 and now probably lies over the 3 million mark. Traditionally the participation of women in Bangladesh's formal economy was minimal. Bangladesh's flagship export-oriented ready-made garment industry, however, with female labour accounting for 90 percent of the work force, was "built to a large extent, on the supply of cheap and flexible female labour in the country." By 2001 the textile industry employed about 3 million workers of whom 90% were women. In 2004 garment sector remained the largest employer of women in Bangladesh. By 2013, there were approximately 5,000 garment factories, employing about 4 million people, mostly women.

The garment sector has provided employment opportunities to women from the rural areas that previously did not have any opportunity to be part of the formal workforce. This has given women the chance to be financially independent and have a voice in the family because now they contribute financially.

However, women workers face problems. Most women come from low income families. Low wage of women workers and their compliance have enabled the industry to compete with the world market. Women are paid far less than men mainly due to their lack of education. Women are reluctant to unionize because factory owners threaten to fire them. Even though trade unionization is banned inside the Export processing Zones (EPZ), the working environment is better than that of the majority of garment factories that operate outside the EPZs. But, pressure from buyers to abide by labour codes has enabled factories to maintain satisfactory working conditions.

2.3 Education:

In Bangladeshi RMG sector most of the garments workers are illiterate and most of the workers can't write their name properly maximum workers can't finish their primary education some of them complete their secondary education but they have higher productivity and they can show their efficiency. Most of the garments workers guardians prefer job than education because their financial situation is not good, they are poor. They don't support the female education and their main demand is money it's a common thought in our country. Garments factories recruit workers without any educational background it's another fact that don't need education to get a job in RMG sector.

In RMG sector workers education is less effective to show their performance because in this sector their main task is sewing and sewing efficiency mainly depends on their experience and training facilities. Finally, I want to say that education don't influence their working performance as well as their efficiency.

2.4 Marital Status:

In Bangladeshi RMG sector most of the workers are women (More than 80%) there some are married also unmarried so marital status is a factor that can influence their working performance. Basically, married women suffer a lot of mental stress in Bangladeshi culture that can affect in their working fields.

Table 1: A statistical analysis of married and unmarried workers.

Items	Married		Unmarried		t	P value
	Mean	SD	Mean	SD		
Repeated disturbing memories, thoughts, or image of stressful experience.	2.10	0.81	2.22	0.42	0.76	0.44
Repeated disturbing dreams of a stressful experience.	1.67	0.64	1.56	0.50	0.79	0.43
Suddenly act or feel as if stress experiences were happening again.	2.14	1.82	1.56	0.50	1.64	0.10
Feel very upset when something reminded you of a stressful experience from the past.	2.67	1.53	1.22	0.42	4.79**	0.00
Physical reactions.	2.33	1.50	1.00	0.00	4.59**	0.00
Avoid talking about stressful experiences	3.67	1.29	3.78	1.15	0.38	0.70
Avoid stressful situations.	3.10	1.31	3.78	1.15	2.33*	0.02
Memory Loss	2.24	0.87	1.33	0.48	5.04**	0.00
Loss of interest in things that you used to enjoy.	2.29	0.63	2.00	0.67	1.91*	0.05
Feel distant or cut off from others.	2.24	1.02	1.67	0.83	2.55*	0.01
Feel emotionally numb.	2.33	1.09	1.89	0.75	1.92*	0.05
Feel as if your future will be cut short.	2.29	0.77	2.00	0.67	1.66	0.09
Trouble falling or staying asleep.	1.57	0.49	1.56	0.50	0.13	0.89
Feel irritable or having angry outburst.	2.67	0.71	2.78	0.80	0.65	0.51
Difficulty in concentration.	2.38	0.79	2.33	0.48	0.29	0.77
Being super alert or watchful on guard.	2.29	0.88	2.44	0.69	0.82	0.41
Feel jumpy or easily startled.	2.24	1.42	1.22	0.42	3.63**	0.00
Difficulty on your work.	1.76	0.42	1.56	0.50	1.97*	0.05
Difficult to take care of things at home.	1.90	0.68	1.89	0.75	0.09	0.92
Difficult to get along with other people.	1.38	0.65	1.44	0.69	0.41	0.68
Total	42.95	8.12	37.22	2.48	3.58**	0.00

(Mishra Garima, Dr. Kiran U. V. JMSCR Volume 2, Issue 10, Page 2594-2605 Oct 2014)

It was obtained from Table 1 the married women workers face more inconvenience than unmarried women workers in the workplace. It's also found that married women workers have affliction work experience and they had to make manage their family and job.

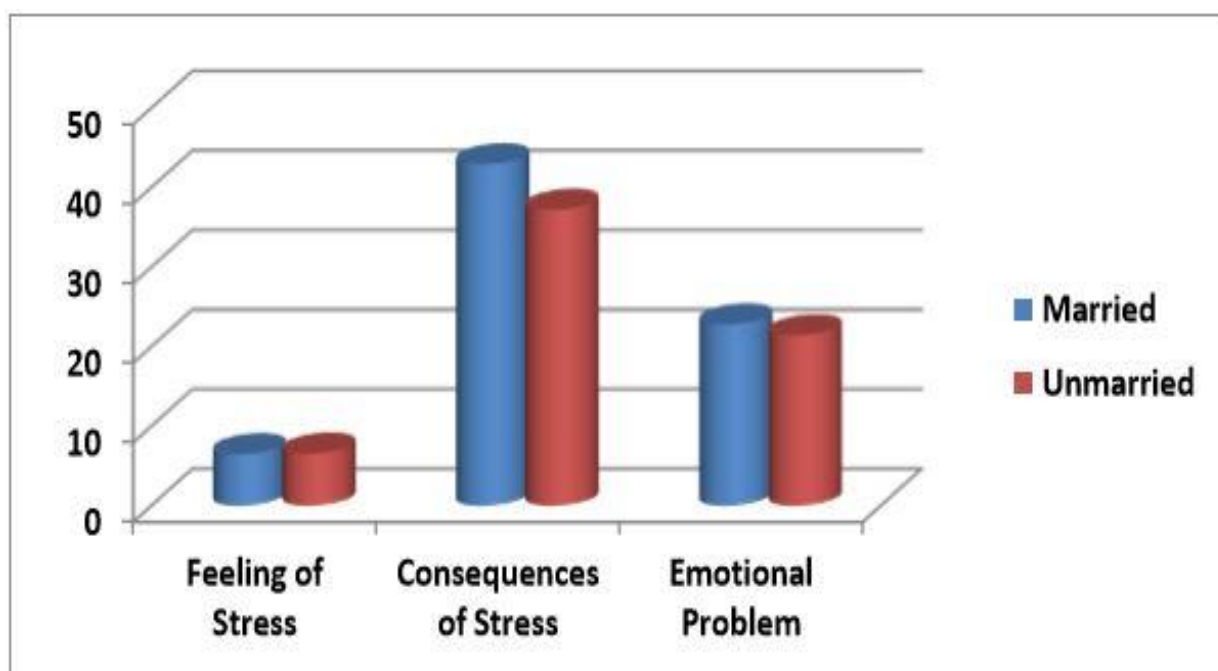
In other hand, unmarried women workers have less stressful experience in their job sector because they have full concentration on their work. This obtained result make a significant difference of stress in workplace among married and unmarried women. Married working women's have to face lots of problems like they need to care of his family, sometimes they felling numb, sometimes they get different harassment from theirs husband and others family members. In the other case unmarried women workers, their consequence of stress was very optimum.

Table 1.2: Impact of marital status on mental health

Items	Married		Unmarried		T	P value
	Mean	SD	Mean	SD		
Feeling of Stress	6.48	1.51	6.56	1.67	0.22	0.82
Consequences of Stress	42.95	8.12	37.22	2.48	3.58**	0.00
Emotional Problem	22.8	2.34	21.44	3.78	2.08*	0.04

In this table consequence of stress and emotional problem of married women worker are to much higher than the unmarried women workers.

Figure 1: Impact of marital status on mental health



For this mental stress the married women workers face also the physical problem in workplace and physical problems can decrease the working performance and its it can be a very big influencer to impact the workers performance. (Mishra Garima, Dr. Kiran U. V. JMSCR Volume 2, Issue 10, Page 2594-2605 Oct 2014)

2.5 Working Experience:

In Bangladeshi Readymade garments sector lot of experienced and inexperienced workers in here maximum are experienced also some inexperienced. In today's the readymade garments sector, authority pay more importance to work experience when they hire workers for their factories.

It's a common thought experienced workers are more productive and more effective than inexperienced workers in manufacturing industries. But it's a different thing some of section don't need expert workers in garments industries where experienced and inexperienced workers both can show their performance.

2.5.1 Experience:

Experience is defined as the special skills that gained in a specific period in any organization by an employee. So, work experience can be seen as the sum of all the knowledge that an employee has gained as a result of working for a different organization or same organization for a considerable period of time. (Carr et al. 2006)

2.5.2 Job Performance:

Job or employee performance is defined as the ability of an employee or workers relative to what their job or work in other word, working performance reflects whether workers like what they do or not measured by the output of what they do. (Schwartz, 2015)

2.5.3 Advantage from Experienced worker:

- a. Experienced workers know what to do.
- b. Experienced workers have more efficiency
- c. They have to manage different problems from their experience.
- d. They have more productivity than the inexperienced workers.
- e. Experienced workers can handle crisis.
- f. They know about new and trending things.
- g. They have ability to motivated to others work differently and smartly.
- h. They can make good networking with others workers

2.6 Working Hour & Salary:

Bangladeshi readymade garments worker can't get more wages than their works and their work quality, they work for 12 to 14 hours but they can't take their right salary. Basically, a sewing operator maximum earn 18 thousand taka per month but who haven't more experience they have earn less more.

Garment workers have protested against their low wages. The first protests broke out in 2006, and since then, there have been periodic protests by the workers. This has forced the government to increase minimum wages of workers.

Many textile factories in Bangladesh often compromise worker health and safety because of the tough pressure from the ordering companies to make tight deadlines. Management will often push workers in order to ensure that an order is fulfilled. This poses a problem as workers have almost no avenues with which to file a complaint. Almost none of the factories have any sort of human resources department and local officials often turn a blind eye to violations. Moreover, most of these workers are poor women. Without any structure like a formalized union, many lack the ability to speak of injustices either from lack of knowledge or fear of losing economic security. Garment workers have protested against their low wages. The first protests broke out in 2006, and since then, there have been periodic protests by the workers. This has forced the government to increase minimum wages of workers.

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The lackluster enforcement of any safety mechanisms creates hazardous working conditions and negligible workers' rights even though Bangladesh has been a member of the International Labor Organization (ILO) since 1972 and the ILO been operating a Bangladeshi office since 1973. In that time Bangladesh has ratified 33 ILO agreements and eight "fundamental conventions," but there are still glaring gaps in protecting worker safety. Many experts then call on corporate organizations to take responsibility and place pressure on the government and factory owners to treat workers fairly.

2.7 Working Environment & Compliance Issue

2.7.1 Working Environment

The working environmental issues for readymade garments industries for workers are very important. Their living environment at home, the situation come over on the way to work place from living home and also the environment that occurs in the work place is very important. This atmosphere can be divided in two different part one is the work place and others is the living room and way to workplace.

For the breakdown of Tazreen Fashions fire and Rana Plaza, ILO has given substantial importance on ornamental safety and working conditions in the readymade garment sector. Major enterprise steps are being taken to examine RMG factories for structural and fire safety. The measurement of the Employment Inspectorate, the Fire Service and Civil Defense Department is being meaningfully amended. Employers and workers are taking an energetic role in training mid-level managers, supervisors and trade union leaders on professional health issues. Through training of female labor assessors and the establishment of a comprehensive review checklist that protects the rights of together women and men in the workplace, ILO has maintained the formation of a gender inclusive labor inspectorate in Bangladesh The work is accepted by ILO's Enlightening Working Conditions in the Ready-Made garment Sector programmed maintained by Canada, the Netherlands and the United Kingdom.

2.7.2 Compliance:

Compliance means conformity of certain standard. Factory maintain a moderate working condition for their employees. Though it is well established project, there are some lacking of proper compliance issue.

2.7.2.1 List of compliance issue:

Here is the list of some compliance in which some points are maintained fully and some are partially.

- Compensation for holiday

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- Live with wages
- Health
- Baby care
- Accident resister
- Workman resister
- Equal remuneration
- Festival holiday
- Over time salary
- Labor welfare
- Weekly holiday found
- Sexual harassment policy
- Child labor abolition policy
- Zero amusement policy
- Working hour policy
- Environment policy
- Security policy
- Buyers code of contact
- health and safety comity

2.7.2.1 Workers' health:

After more than a century of industrial experience and development of national regulation and international conventions, workers in Bangladesh continue to lose their health and lives while contributing in the national enrichment. The scenario becomes worse when it comes to women workers. The female workers are exposed to different occupational health hazards such as work environment hazards, physical hazards and mental hazards. The work environment hazards include long working hours, absence of leave facilities, congested and overcrowded working conditions, absence of health facilities and safety measures, absence of staff amenities, lack of safe drinking water. On the other hand, the physical hazards include exposures to toxic agents, awkward postures and repetitive motion. Exposure to sexual, verbal and psychological harassment and violence at their work places are the some of the common mental health hazards. These hazards not only affect the female workers' mental and physical being but also the quality of work and productivity of workforce nationwide.

2.7.2.2 Toilet:

- Separate toilet for men and women
- A seat with proper privacy and lock facility
- Urinal accommodation
- Effective water sewage system
- Soap toilet
- Water tap
- Dust bin
- Toilet white washed once in every four months
- Daily cleaning log sheet
- No smoking signs
- Ladies/ gents sign on the door of the toilet
- Deposal of wastes and effluent

2.7.2.3 Safety guard:

- Metal gloves on good conditions
- Rubber mats & ironer
- First aid box
- Irons wearing slippers
- Motor/ needle guard
- Eye guard
- Nurse
- Doctor

- Medicine
- Medicine issue resister
- Welfare officer

- Sufficient fire extinguished and active
- Access area without hindrance
- Fire sign in both language
- Fire certificate personal photo
- Activated fire alarm system
- Emergency exit

2.8 Canteen and Meal facilities

It's a very important thing that is relative to the workers workplace satisfied it can influence the workers performance level

In Grameen fabrics and fashion ltd, factory has large canteen, which is situated in 3th floor of the garments building.

Features of the canteen:

- A store which sold light food and beverage.
- Two washing zone, where employees clean their necessities things.
- There 160 tables are in the canteen where every table contain seats, that's why 1280 peoples can take meat at a time.

2.9 Training Facilities

The most popular and effective training center for garments worker is Centre of excellence for Bangladesh apparel industry (CEBAI) arcaded by Bangladesh technical education bord they train the workers for free with the help of Bangladesh Government and BGMEA sometime some NGO like USEP and private training center also provide training for free.

The (CEBAI) has known applause as an authorize training institute from the Bangladesh Technical Education Board, the figure excellence offers authorization for technical and occupational education. For the development of the quality of worker and efficiency in garment factories and enhance quality of workers to have their skills CEBAI is play a vital role. It will also good things training and certification for instructors, evaluators and managers. The majority of the trainee

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will be women and five percent trainee with disabilities.

A training center is need in every trade; I think. Because in here workers can reach training. In Grameen fabrics and Fashion ltd has a training center which is situated in 4th floor of the garments building.

Features of Training center:

- Total machine: 25
- Over lock machine: 04
- Feed of the arm machine: 02
- Barrack machine: 03
- Kansai machine: 02
- Plain machine: 14
- Total trainer: 1 person
- Maximum capacity of trainee: 25

A trainer provides training 12 hour/day in month. While worker thinks they need training they go to the training center. After training the trainer provide a certificate when the trainee is capable for 65-70% efficient for accurate work.

The most popular and effective training center for garments worker is **Centre of excellence for Bangladesh apparel industry (CEBAI)** arcaded by Bangladesh technical education bord they train the workers for free with the help of Bangladesh Government and BGMEA sometime some NGO also provide training for free.

2. Medical Facilities

When any employee has been injured during working, they need first aid treatment emergency. For this reason, Grameen fabrics and Fashion ltd established a medical center. Which is situated besides day care section and main entrance of the factory.

From this medical center worker can get free first aid treatment and the can discuss

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with doctor for their problem very easily.

Features of medical center:

- First aid treatment is the main service of the section
- If necessary, they will hospitalize the patient by their own vehicle service.
- 6 assistant and 2 doctors provide service in day shift
- In night shift 2 assistant remain here for service for the washing section.
- Medicine which are need for first aid treatment that's are provided by the company without any fee for employees of the industry.

Maximum service capacity 6, two male patient and four female patients can be treated at a time in this medical center.

CHAPTER-II

MATERIALS AND METHODS

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3.1 Data collection:

We collect data for this research from two different source, Primary data and Secondary data
We collect the primary and secondary data from 2 individual readymade garments factories and use the random sampling method their workers are directly involved and some from the factory's employees and different department.

3.1.2 Primary data:

Primary data is more significant to the study and this was collected through a question's basis to test and the data which was developed based upon the variable.

3.1.3 Secondary data:

Secondary data was collected from sources available in the production department and other departments such as Industrial Engineering (IE) Department, HR department, from some senior IE engineers. Related articles, internet, different journal, books etc. were also recommended in the find for secondary data.

3.2 Data analysis:

We used MS Word and MS Excel for data analysis also included table, figure, bar charts, pie charts, diagrams. We also use a statistical mathematical term; we determine the mean performance variables for different factors.

We divide the workers in different groups according a range for different variable of factors.

For the research, a number of samples on classified origin was selected and this sample characterized the maximum group of the target workers which was vital to have an understanding of the sample selected. For understanding the backgrounds of the workers or the respondents, the following analyses were done.

For age study we segmented the all workers in to 5 different group 15-20, 21-25, 26-30, 31-35, 36-40. For the gender analysis we divide the workers into two groups male and female. For the education analysis we segmented the workers in 3 different group's Primary level, Secondary level, and higher secondary level. For marital status we divide the all workers in to two part married and unmarried and determine their percentage. For experience study we segmented the all workers in 4 different groups up to 1 year, above 1 year to 3 year, above 3 year to 5 year and above 5 year. For salary analysis we make 3 different group and for the working environmental satisfaction we segmented the workers in to two and also the training facilities analysis we segmented the workers in to two parts and determine percentage and every factor mean performance.

Table 3.1 Workers Data table

Sl No	Name	Age	Gender	Education	Marital Status	Working Experience	Salary (TK)	Working Environment	Working Hour
1	Ayesha Begum	30	Female	Secondary	Married	5.3 Years	12200	Satisfied	9-10
2	Lipi Akhter	26	Female	Primary	Married	3.2 Years	9900	Dissatisfied	9-10
3	Faruk Ahmed	31	Male	Primary	Unmarried	5 Years	11800	Dissatisfied	9-10
4	Rozina Begum	36	Female	Secondary	Unmarried	4 Years	12300	Dissatisfied	9-10
5	Salma Akhter	19	Female	Higher Secondary	Unmarried	1 Year	9000	Satisfied	9-10
6	Priti das	25	Female	Secondary	Married	11 Month	10500	Satisfied	9-10
7	Aslam Seikh	35	Male	Primary	Married	5.6 Years	12500	Satisfied	9-10
8	Saleha Begum	37	Female	Primary	Married	5 Years	14400	Dissatisfied	9-10
9	Rohim Uddin	26	Male	Higher Secondary	Unmarried	4 Years	12900	Satisfied	9-10
10	Jamil Sarker	39	Male	Primary	Married	5 Years	12500	Satisfied	9-10
11	Suborna Islam	19	Female	Secondary	Married	7 Months	9000	Satisfied	9-10
12	Moyna Khatun	34	Female	Primary	Married	5.3 Years	13800	Satisfied	9-10
13	Rahila Begum	27	Female	Higher Secondary	Unmarried	3 Years	12300	Dissatisfied	9-10
14	Md. Hasan	24	Male	Secondary	Unmarried	2 Years	9200	Satisfied	9-10
15	Aklima Begum	40	Female	Primary	Married	5.3 Years	13700	Dissatisfied	9-10
16	Sakwat Hosain	35	Male	Primary	Married	2.5 Years	11400	Satisfied	9-10
17	Naeem Mollah	21	Male	Secondary	Unmarried	1.7 Years	9600	Satisfied	9-10
18	Salina Khatun	26	Female	Higher Secondary	Married	3.2 Years	12400	Dissatisfied	9-10
19	Supti Das	31	Female	Primary	Married	5.1 Years	13500	Dissatisfied	9-10
20	Sujon Madbor	38	Male	Secondary	Married	4 Years	13400	Dissatisfied	9-10
21	Md.Mojibor	20	Male	Higher Secondary	Unmarried	1.3 Years	10300	Satisfied	9-10
22	Tumpa	25	Female	Secondary	Married	1 Year	8900	Satisfied	9-10
23	Tuli Begum	34	Female	Primary	Married	6.1 Years	14400	Satisfied	9-10
24	Faruk Ahmed	30	Male	Primary	Unmarried	1.6 Years	8900	Dissatisfied	9-10
25	Rubiya Akter	25	Female	Secondary	Married	4.2 Years	13400	Satisfied	9-10
26	Ema Banu	39	Female	Primary	Married	5.7 Years	14600	Satisfied	9-10
27	Khusi Begum	18	Female	Secondary	Married	6 Months	8400	Satisfied	9-10
28	Salauddin Seikh	32	Male	Primary	Unmarried	5.3 Years	13800	Satisfied	9-10
29	Saiful Bari	27	Male	Higher Secondary	Unmarried	3 Years	10800	Dissatisfied	9-10
30	Johora Banu	37	Female	Primary	Married	2 Years	11500	Satisfied	9-10

No	Meal Facilities	Medical Service	Leave Facilities	Baby Care	Training Facilities	Entertainment Facilities	Performance Rating (%)
1	No	Yes	Average	No	Yes	Yes	71%
2	No	Yes	Average	No	No	Yes	66%
3	No	Yes	Average	No	Yes	Yes	65%
4	No	Yes	Average	No	Yes	Yes	76%
5	No	Yes	Average	No	No	Yes	67%
6	No	Yes	Average	No	Yes	Yes	81%
7	No	Yes	Average	No	No	Yes	68%
8	No	Yes	Average	No	No	Yes	85%
9	No	Yes	Average	No	Yes	Yes	70%
10	No	Yes	Average	No	No	Yes	68%
11	No	Yes	Average	No	No	Yes	69%
12	No	Yes	Average	No	Yes	Yes	84%
13	No	Yes	Average	No	Yes	Yes	81%
14	No	Yes	Average	No	Yes	Yes	70%
15	No	Yes	Average	No	Yes	Yes	83%
16	No	Yes	Average	No	No	Yes	72%
17	No	Yes	Average	No	No	Yes	70%
18	No	Yes	Average	No	Yes	Yes	72%
19	No	Yes	Average	No	Yes	Yes	82%
20	No	Yes	Average	No	Yes	Yes	78%
21	No	Yes	Average	No	Yes	Yes	71%
22	No	Yes	Average	No	No	Yes	72%
23	No	Yes	Average	No	No	Yes	84%
24	No	Yes	Average	No	No	Yes	66%
25	No	Yes	Average	No	Yes	Yes	82%
26	No	Yes	Average	No	Yes	Yes	85%
27	No	Yes	Average	No	No	Yes	65%
28	No	Yes	Average	No	Yes	Yes	80%
29	No	Yes	Average	No	Yes	Yes	68%
30	No	Yes	Average	No	Yes	Yes	84%

3.2.1 Relation between dependent variable and independent variable.

Table 3.2 Independent variable and dependent variable

Independent Variables	Dependent variable
X1-Age	Y- Performance
X2- Gender	
X3-Education	
X4-Marital Status	
X5-Experience	
X6- Salary	
X7-Working Environment	
X8-Training facilities	
X9-Sexual Harassment	
X10-Working Hour	

This can be further explained by a formula as follow $Y=f(X1, X2, X3, X4, X5, X6, X7, X8, X9, X10)$

3.3 Age Analysis

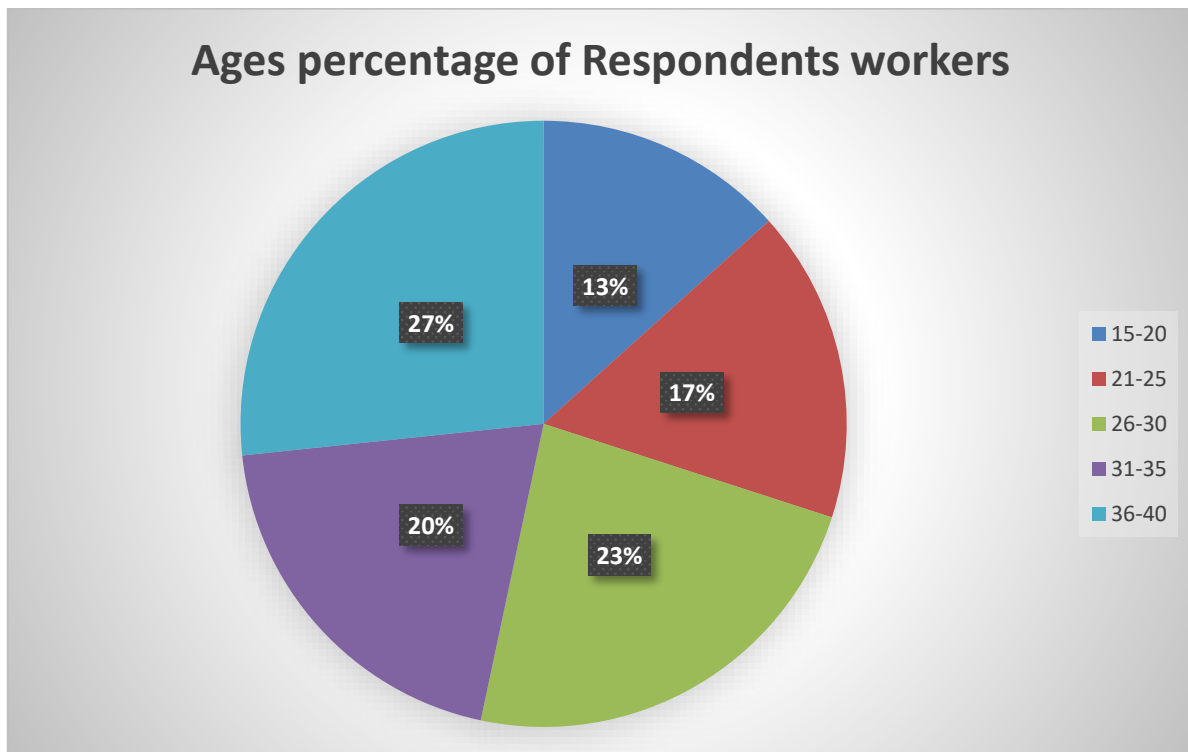
In the research, 30 sewing workers were taken based on random sampling. The sample according of five age groups categories: 15-20, 21-25, 26-30, 31-35 and 36-40.

Table3.3 Age Analysis

Age Group	No Of workers	Percentage of age	Mean Performance%
15-20	4	13.33%	68%
21-25	5	16.66%	75%
26-30	8	26.66%	71.87%
31-35	6	20%	75.83
36-40	7	23.33%	79.85%
Total	30	100%	

By this age analysis we determined that the minimum level of the worker performance for lower aged group 15-20 and their mean performance is 68% the maximum performance of the workers group is 36-40 and their mean performance is 79.85%. Which

Figure 3.1 Pie chart of Age analysis of Workers



3.4 Gender Analysis

For this study we identify the different gender and show by its percentage and mean performance by table and pie chart.

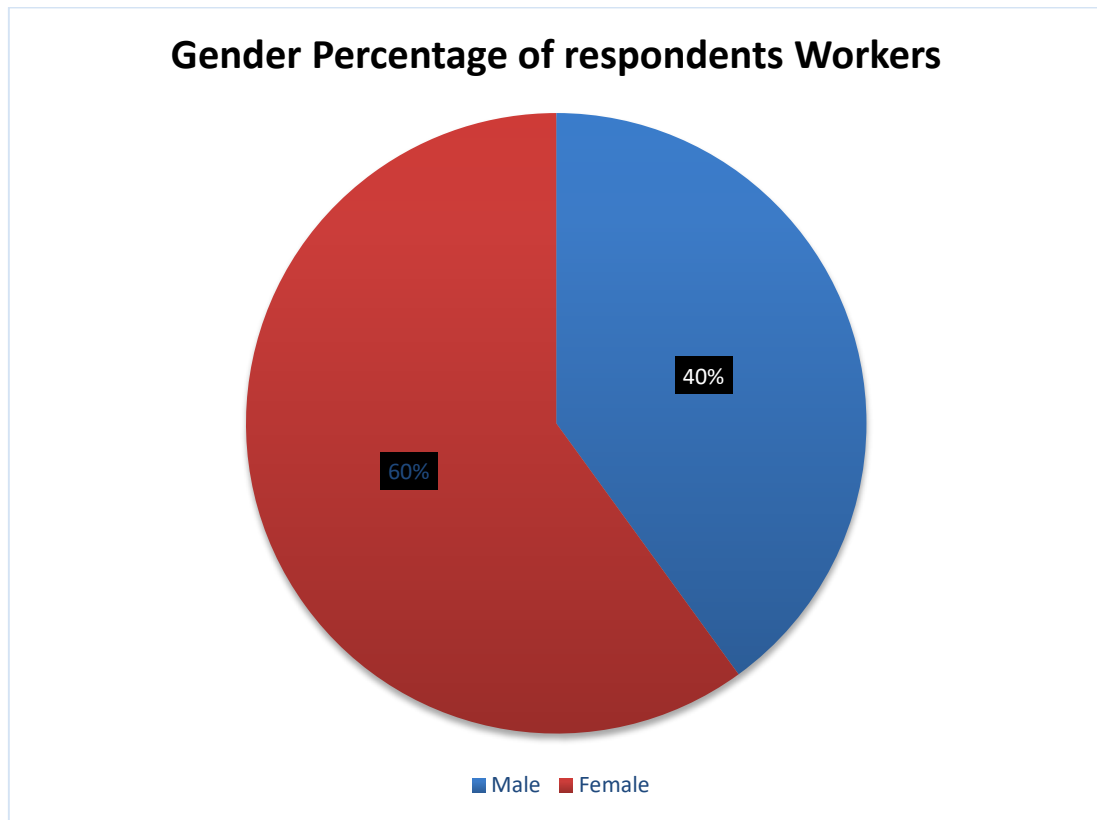
Table 3.4 Gender analysis

Gender	No of workers	Percentage of Gender	Mean performance%
Male	12	40%	70.5%
Female	18	60%	77.16%
Total	30	100%	

By this gender analysis we determine that the female workers mean performance is greater than the male workers performance. Point to be noted that in the garments sector there is more than 85% workers are female.

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Figure 3.2 Pie chart of Gender percentage



3.5 Education Analysis

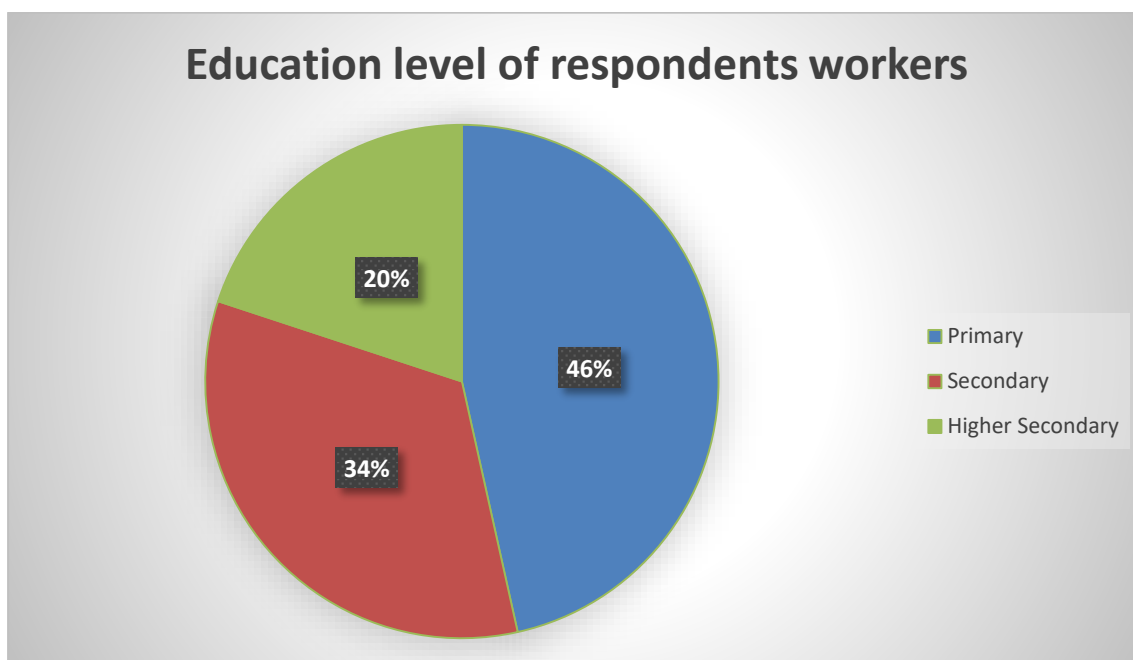
In this research we analysis of data that from directly obtained from workers in three individual group like Primary level of education secondary level of education and higher secondary level of education according their educational background level, then we measure the different group education percentage and their different group mean performance rating.

Table 3.5 Education Level analysis of respondent’s workers

Education Level	No of Workers	Percentage	Mean performance
Primary	14	46.66%	76.57%
Secondary	10	33.33%	73.4%
Higher Secondary	6	20%	71.55%
Total	30	100%	

By this education analysis study, we determine the significant different among the primary education level, secondary education level and the higher secondary level, where the greater mean performance is observed by the primary education level then secondary education level and the lowest is the higher secondary education level.

Figure 3.3 Pie chart of education level of respondent’s workers



3.6 Marital Status

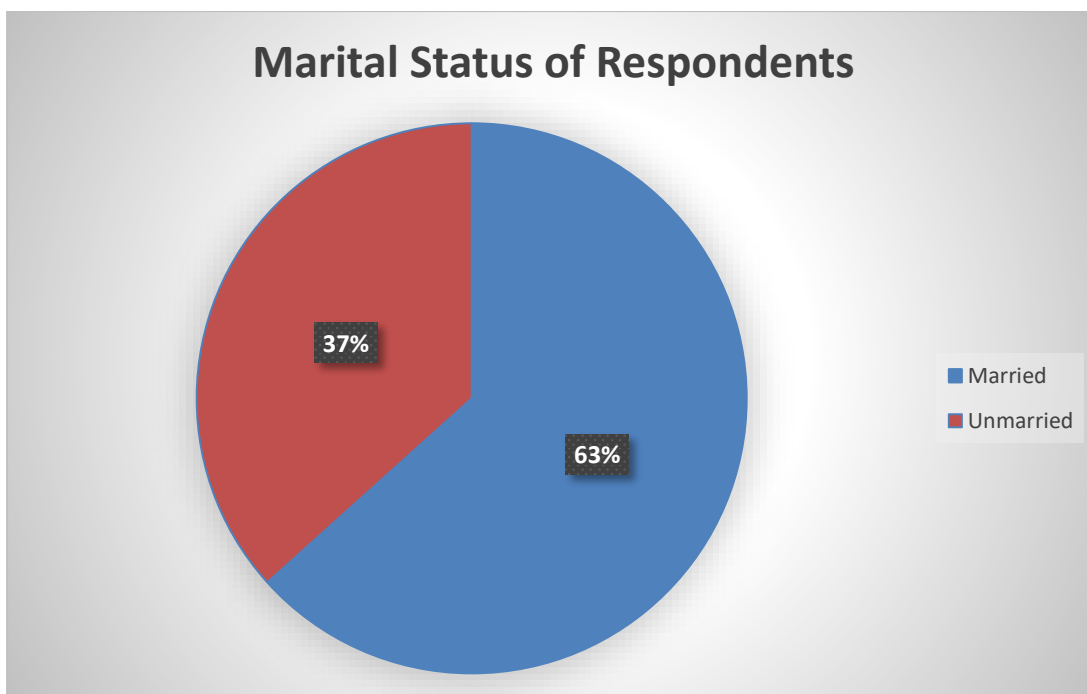
Marital status is an important factor that can influence the workers performance level. For this study we divide respondents’ workers in two different groups married and unmarried and identify the different number for different marital status and measure percentage and then we calculate the mean performance for married and unmarried respondents’ workers.

Table 3.6 Marital status analysis of respondents sewing operators

Marital Status	No of workers	Percentage	Mean performance%
Married	19	63.33%	76.31%
Unmarried	11	36.66%	71.27%
Total	30	100%	

In this research we determine the small deferent between the married and unmarried workers performance where the married workers are showing their highest performance is 76% and unmarried workers is 71%.

Figure 3.4 Pie chart of marital status of respondent’s workers



3.7 Working Experience Analysis

For this working experience analysis of workers, we divide the experience level of workers into 4 different groups ex Bellow one years, above one years to 3 years above 3 years to 5 years and above 5 years.

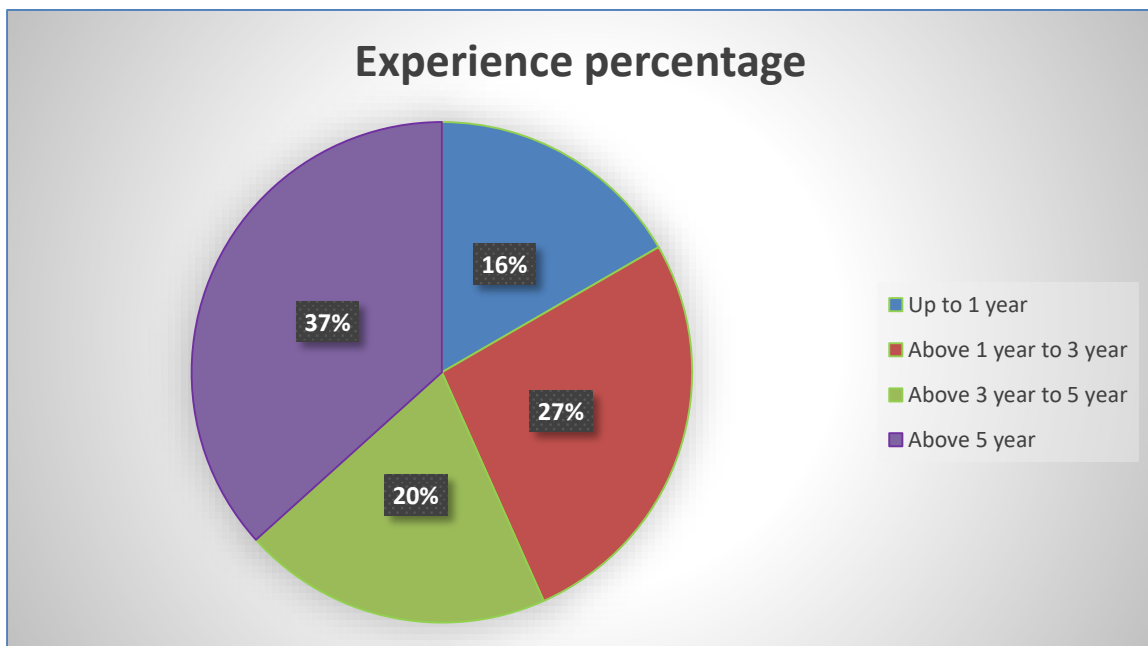
Then we find the experience workers numbers and percentage also determine the mean of the performance rating for different experienced groups.

Table 3.7 Workers Experience data analysis

Working Experience	Numbers of Workers	Percentage	Mean performance %
Up to 1 Year	5	16.66%	70%
Above 1-year up to 3 year	8	26.66%	72.75%
Above 3-year up to 5 year	6	20%	74%
Above 5 year	11	36.66%	77.72%
Total	30	100%	

In this analysis of the working experience then we determine the highest mean performance percentage for the maximum number of experience group where their experience was above 5 years and lowest for the less experience group up to the 1 year’s workers group.

Figure 3.5 Pie chart of experience percentage



3.8 Salary Analysis

Salary and financial initiatives are a more important thing that are related to the increasing or decreasing the workers performance. Worker efficiency dimension using the net value-added shows wages and worker concert has a positive connection, but the rate of development of net value-added per worker is earlier than the rate of progress of wages per worker. Income that there are factors other than salaries in refining operative performance that is non-monetary issues. For analysis this factor we segmented the worker’s salary into two different part one is 8000-11000 and above 11000 -15000.

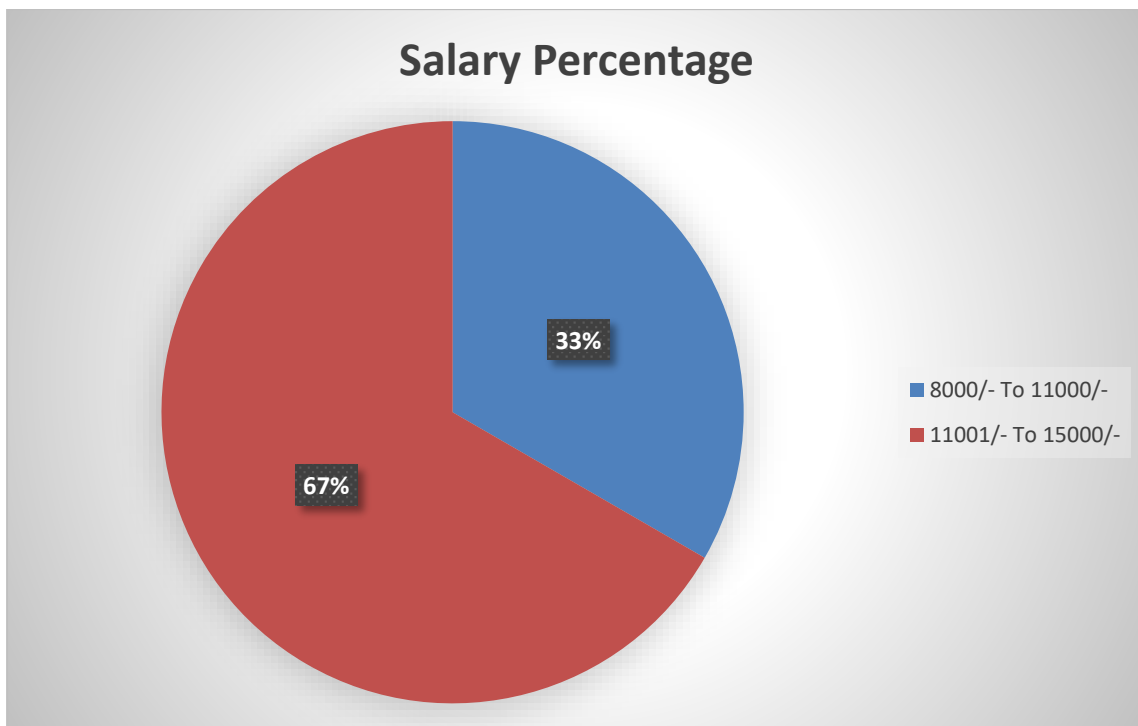
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Table 3.8 Salary Analysis

Salary	No of workers	Percentage	Mean Performance %
8000-11000	10	33.33%	69.4%
Above 11000-15000	20	66.66%	77.05%
Total	30	100%	

In this table we determine the highest mean performance for the 11000-15000 group and lowest for the 8000-11000 group, that's means which workers get higher salary range their performance growth is also high.

Figure 3.6 Pie chart of salary analysis



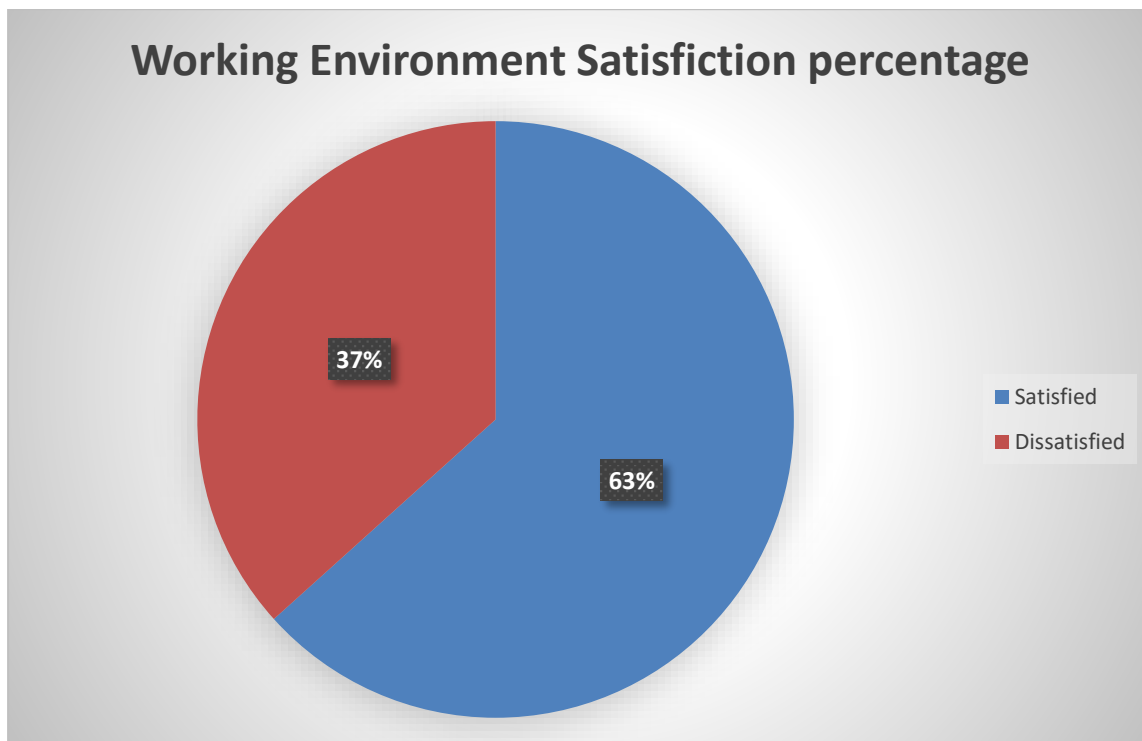
3.9 Working environment

Workers working environment means the workplace environment and the way of living place and living place, for this analysis we take data from workers according their satisfactory result by questions and we divide into 2 different factor one is satisfied and others dissatisfied and measure the different number for different factors and measure percentage of these and also find out the mean performance of different groups.

Table 3.9 Working environment analysis

Satisfaction	No of workers	Percentage	Mean Performance
Satisfied	19	63.33%	75.67%
Dissatisfied	11	36.66%	68.72%
Total	30	100%	

Figure 3.7 Pie chart of working environment factor



3.11 Training facilities

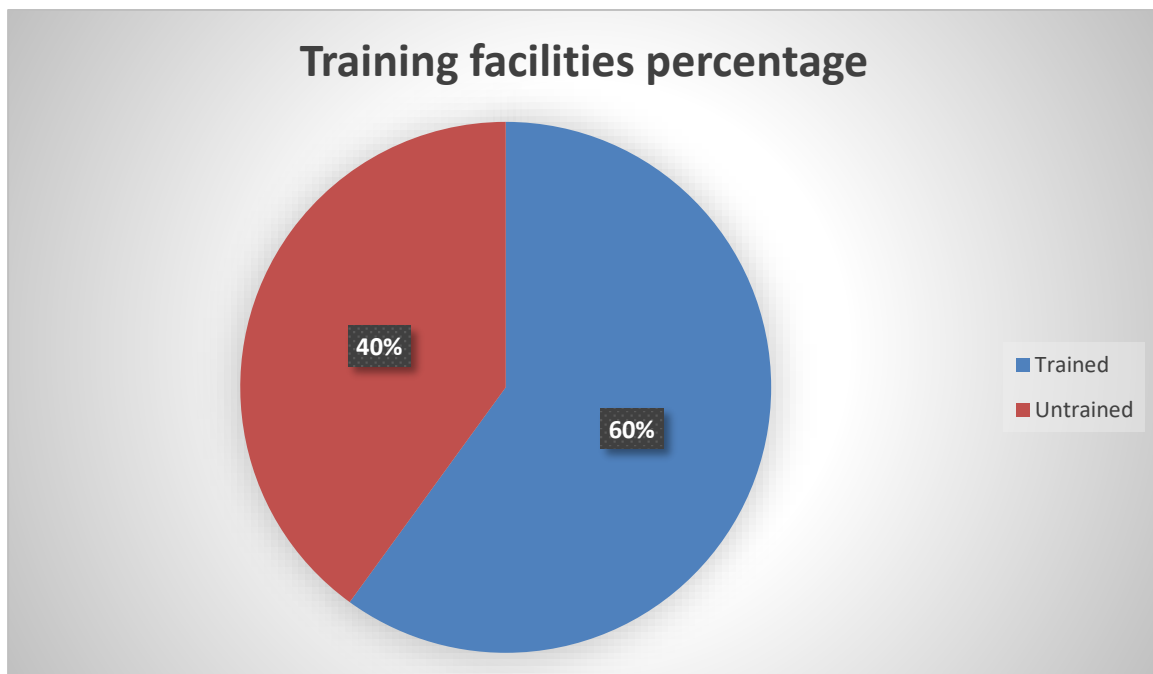
Training is the first factor that can enhance or influence workers Excellency, for this study we segmented the respondent’s workers and know their training farcicalities and measure their percentage also the mean performance.

Table 3.10 Training Facilities

Training facilities	No of workers	Percentage	Mean Performance
Trained	18	60%	76.47%
Untrained	12	40%	71%
Total	30	100%	

In this table the mean performance of trained workers is greater than the untrained workers.

Figure 3.8 Pie chart of training facilities



CHAPTER – IV
RESULT AND DISCUSSION

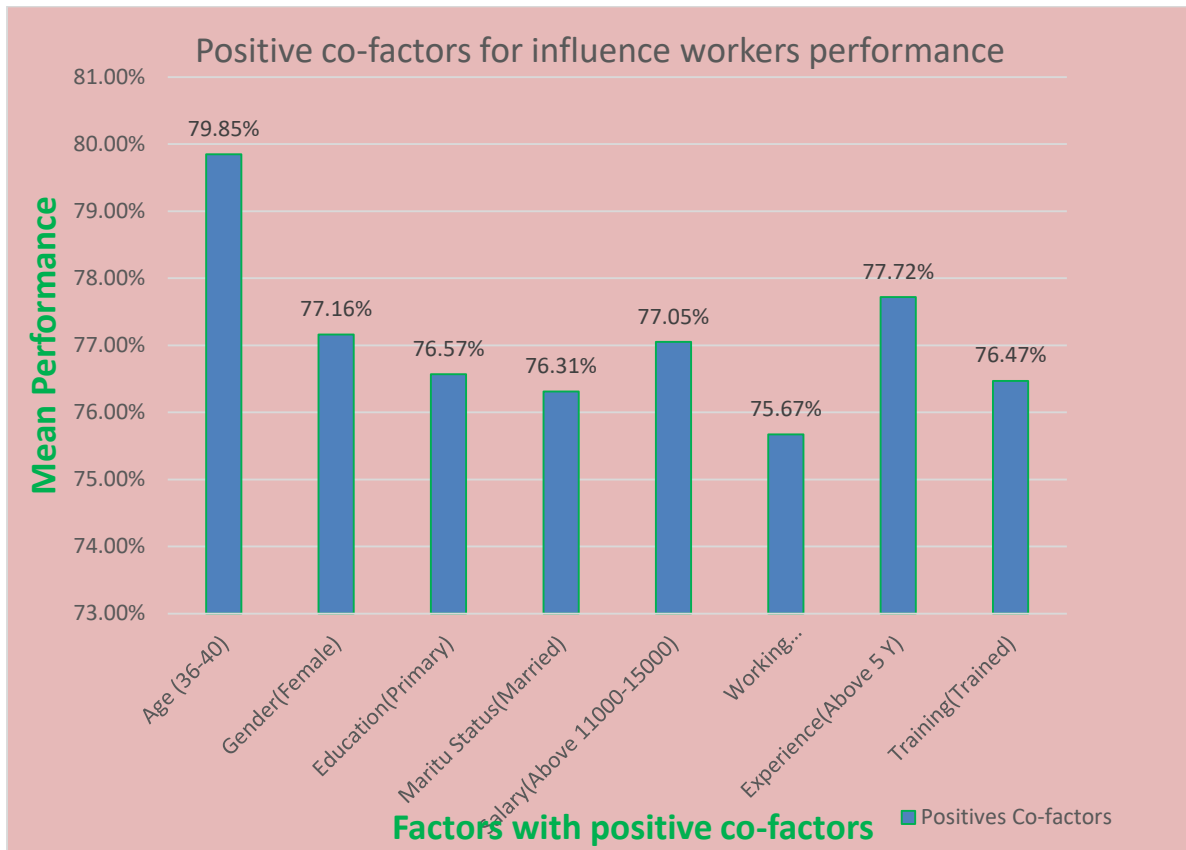
4.1 Result analysis

For this study we try to analysis the different factor maximum co factor and minimum co factor value and which factor and co factor is more responsible for the influencing the workers performance level by 2 different charts, positive co-factors that influence the workers performance level and negative co-factors with the highest positive relation also the lowest positive relation and highest negative relation and lowest negative relation with performance.

4.1.1 Highest and lowest positive co-factors to influence the performance

By this analysis we determined that the Age and its co-factor age group (36-40) have the highest positive relation with increasing the workers performance level then the experience factor with its co-factor(Above 5 years) then education factor with its co-factor (primary education) have positive relation to increase the performance gender and its co-factor female also the trained co factors have good positive relation with the good working performance., marital status, and working environment have lowest positive relation to increase the working performance.

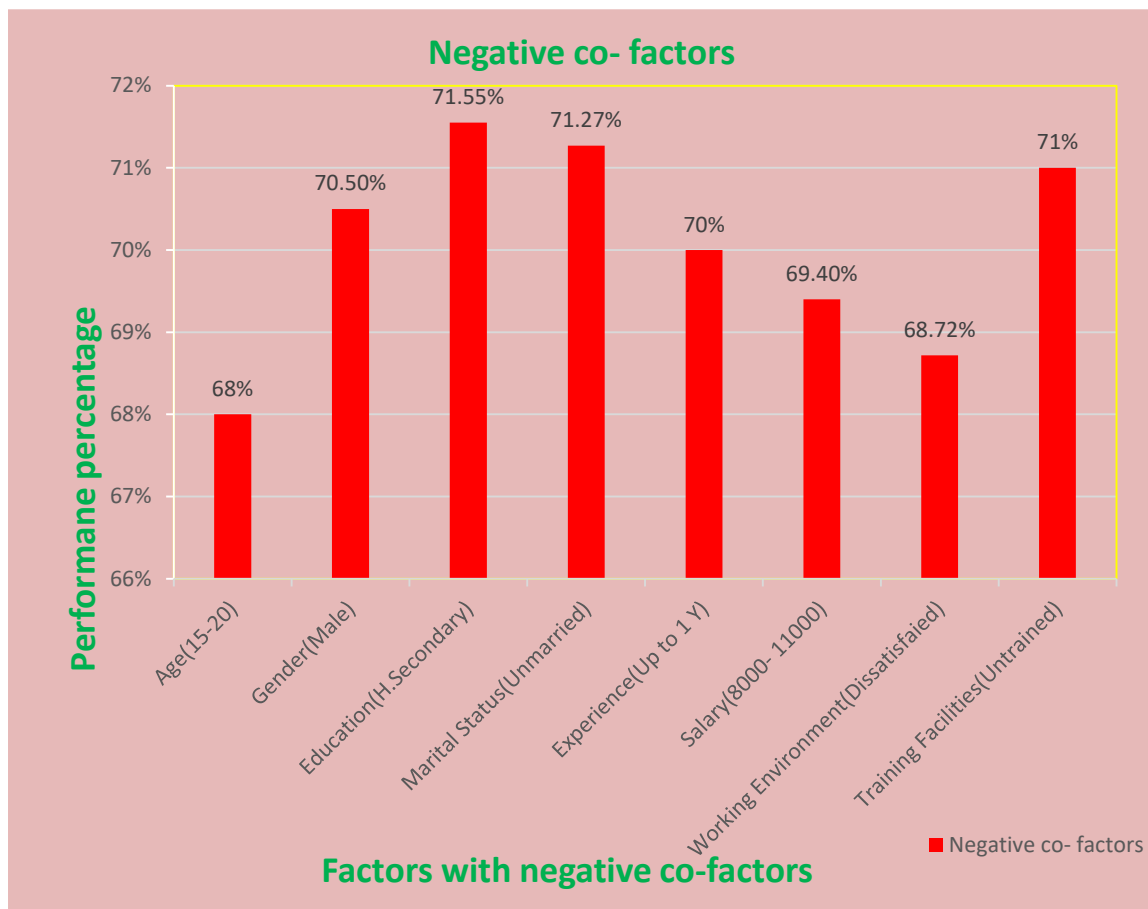
Figure 4.1 Positives co factors that influence the performance



4.1.2 Highest and lowest co-actors to influence the performance

By this analysis we determined that the highest negative co factor is the age group 15-20 their mean performance is only 68% then then working environment co-factor dissatisfied then salary have a big effect to decrease the performance then experience is the negative factor with co factor up to 1 y experience have highest negative relation with performance. We also determine the lowest negative factor is education with higher secondary co-factor then marital status with co-factor Unmarried then gender with its co-factor male have lowest negative relation with performance.

Figure 4.2 Negative co-factors to influence the performance



CHAPTER – V

CONCLUSION

5.1 Conclusion:

To meet the deadline is a very important things in readymade garments industry. In garments industry sewing operators are the key workers and their performance is influence by the different influencer in this research we try to find out some result that can be different for the different factories, there was main 8 factors that's are responsible to the influence workers performance level. By analysis the all the primary data that's are collected from the different workers a in different ways we find 8 factors and also some co-factors and their responsibility to the influence the workers performance. The eight factors are age, gender, education, marital status, experience, working environment, training facilities, and salary. Age and its co-factor age group (36-40) have the highest positive relation with increasing the workers performance level then the experience factor with its co-factor(Above 5 years) then education factor with its co-factor (primary education) have positive relation to increase the performance gender and its co-factor female also the trained co factors have good positive relation with the good working performance., marital status, and working environment have lowest positive relation to increase the working performance. Age group 15-20 their mean performance is only 68% then then working environment co-factor dissatisfied then salary have a big effect to decrease the performance then experience is the negative factor with co factor up to 1 y experience have highest negative relation with performance. We also determine the lowest negative factor is education with higher secondary co-factor then marital status with co-factor Unmarried then gender with its co-factor male have lowest negative relation with performance. We hope this study result will be helpful for next research about this topic.

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