



Socioeconomic analysis of tobacco factory workers of Rangpur District in Bangladesh

Md. Ripul Kabir^{1*}, Ayesha Seddika², Mamunor Rashid³

¹Sociology Discipline, Khulna University, Khulna 9208, Bangladesh

²Department of Sociology, Begum Rokeya University, Rangpur 5400, Bangladesh

³Mass Communication and Journalism Discipline, Khulna University, Khulna 9208, Bangladesh

ARTICLE INFO

Article history

Accepted 12 June 2019
Online release 02 July 2019

Keyword

Socioeconomic, status, tobacco, discrimination, harassment

*Corresponding Author

MR Kabir
✉ mrkabirku03@gmail.com

ABSTRACT

The objective of this study was to evaluate the socioeconomic status of the tobacco factory workers of Rangpur district. Survey research design was carried out to investigate the study. Random sampling technique was used to collect data from 80 tobacco factory workers. A semi-structured interview schedule was developed and data were collected from October to December, 2017. The study reveals that more than 57 percent respondents were in the age between 34 to 53 years and most of them were illiterate and Muslim. It's also evident that they were involved with others works beyond their main occupation. There also remained a positive association of socio-demographic factors of the workers with their daily income (F=27.058 where-P<.000). They were discriminated in earnings and by gender and sometimes they were to face embarrassing situation. Their entertainment also went with higher income level (p<.001). All kinds of discrimination and embarrassing situation they visage should be eliminated from the working atmosphere.

INTRODUCTION

Bangladesh is an over populated country in the world. A large proportion of the people are living below the poverty line, with an enviable living condition and health status. Rangpur is one of the most important tobaccos growing and processing zone in Bangladesh and we know it is one of the poverty stricken zones of Bangladesh also. So, there remains a lot of space to be engaged for the low income people with tobacco factory. Very few studies on quality of life of the workers in tobacco industries have so far been conducted in Bangladesh (Rahman, 2008). All the workers were very poor and also socially and economically impoverished. Majority of workers were working for contractors which showed that they were subject to exploitation (Parashar and Tiwari, 2014). Most of the workers houses of tobacco factory are Kaccha huts and made of bamboo, wooden boards or plastic and they were to be generally women and economically weak without having any education (Mukherjee et.al, 2014) even a large number of tobacco workers live in

overcrowded and unhealthy environment where basic services and utilities are either absent or grossly inadequate (Rath and Chaudhary, 2000). Profits from the sale of tobacco products are not evenly distributed among those involved in the work. Much of the economic gain from tobacco remains in the hands of a powerful few, while a vast number of workers remain desperately poor (Rahman,2008). Tobacco workers come from the marginalized sections of the society and therefore they are socially and economically backward. Financial problem is the main reasons that induce the respondents to take up this work as an occupation (Rahman, 2008).

Women are having inherent advantage in this job of tobacco rolling due to deft fingers; yet significant gender bias exists. Moreover, they are too paid fewer wages than males and it is evident that such job is mainly done by weaker economic class in the country who don't have adequate education and skill to look for an alternate job. Thus, they supplement family income along with managing the household jobs (Ansari and Raj,

2015). Most common morbidity was fatigue. None were aware of the benefits provided for them. Awareness regarding health hazard and safety measures was poor (Chowdhary et.al, 2012).

Occupational health depends on physical, mental and social well-being of workers even that extends to their working conditions. The duration of engaging in hazardous work increases respondents' risk of contracting with various types of lung diseases and it is seen that those respondents who are engaged in such types of work from 10 years and above develop the diseases two times more than those who are involved in such type of work from less than 5 years (Rahman, 2008). The protection of workers in their employment from risks resulting from factors adverse to occupational goals and the placing and maintenance of the worker in an occupational environment modified to his physiological and psychological capabilities. This study explores in workers' housing, education, income, environmental aspects and social security, etc. The main objectives of this study were to explore the various socioeconomic complexities as well as socio-cultural aspects of the workers related to factory system.

MATERIALS AND METHODS

This study was carried out through survey research. Three villages (Purbo kishamat khaleya, Debipur and Gangahari) of Haridebpur union under Rangpur Sadar upazilla were selected as the area of the study. Random sampling techniques have adopted for this study and total sample size was 80. A semi-structured interview schedule was developed to collect data from the respondents. A pilot survey on 10 respondents was done and it helped to modify in restructuring the final interview schedule. Then face to face interview was administered to collect on socio-economic characteristics of the workers of the tobacco factory. The entire process of data collection was conducted from October to December, 2017. Necessary coding was done after collecting the data and transferred these into computer for analysis. Different analysis like frequency count, means, ranges with percentages were maneuvered utilizing Statistical Package for Social Science (SPSS) software. Different tests like chi-square

and regression were done through SPSS for getting the relationship between or among various studied variables.

RESULTS AND DISCUSSION

Socio-demographic and economic condition

Many socioeconomic forces make the workers to work in unsafe environmental conditions and improper working postures (Ghosh et.al, 2005). From table 1 it is observed that more than 57 percent respondents were in the age between 34 to 53 years and 66 percent respondents were male and 34 percent were female in the study. More than 77 percent respondents were from Muslim community and less than 23 percent from Hindu one. From the perspectives of educational qualification, we see that more than 71 percent respondents were illiterate and 16.2 percent respondents from primary, 1.2 from secondary, 3.8 from higher secondary and more than 7 percent from tertiary level constitute literate portion. Sometimes literacy matters a fact for the workers because illiterate workers are subject to numerous types of exploitation (Rahman, 2008). 20 percent respondents of this study were from joint family and 80 percent were from nuclear family. About 84 percent respondents' family earning members were 1 to 2 whereas 16.2 percent had 3 to 4 earning member of the family. The sanitation facilities and the ventilation facilities provided by the industries are not so well. Moreover a large number of tobacco workers are seen in overcrowded (Chowdhary et.al , 2012). Most of the workers' houses are kancha huts made up of bamboo, wooden boards or plastic. They always use kancha or open or hanging latrine and kancha drains for their toileting (Rahman, 2008). Most of the respondents the average hours of work were 10 hours and above and its percentage is 58.5 and 41.5 percent respondent's worked for 8 hours.

Involvement with other works

As workers are from the marginalized sections of the society (Parashar and Tiwari, 2012); they are to involve with other works for maintaining their family. It is evident from table 2 that about 62 percent respondents whose daily income moves from 290 to 489 tk involved themselves in

sublease cultivation and in the case of family income earners, about 39 percent workers made them engaged in the same sector. About 41 percent respondents getting bonus that were also played a part in sublease cultivating whereas more than 33 percent workers worked as a day labor receiving relief from government besides their main occupation. About 40 percent workers from nuclear family and more than 58 percent male workers were involved in sublease cultivation. But 50 percent unmarried workers worked as a day labor beyond their occupation. Beside their main occupation, the workers involve themselves in numerous types of working. It is evident that less income earner, male workers in comparing with females, workers from married portion are more likely to be involved in other works even the workers who get bonus from authority and assistance from government, do the same works.

Univariate analysis of variance: daily income

When family income is low; children are considered as their extra source of income of the worker, whose income tends to be less, is more prone to make his family member involve in earning activities. In a study, it was found that major portion of the respondents' monthly income laid below 2000 taka and a few portion of them earned 4000 taka (Rahman, 2008). R-square explains more than 85 percent of variations of the model (Table 3). The corrected model reveals a significant association with the listed variables in explaining the effect on daily income of the workers. The intercept point is also significant in testing the overall effect of the variables on the daily income of the workers ($F(8,2) = 96.919, p < .001$). In explaining the effect of the listed variables, gender and education of the workers have a significant effect on their daily income ($p < .001$). In the rest of the variables, religion, working hour, marital status and age of the workers have positive effect on the daily income but that are not statistically significant. It is also found from the study that less income earner family are more likely to live jointly. With the passages of day, this traditional character of our villages remains the same. No statistical significant association is depicted from the analysis of the types of the workers family. Among those factors, gender and educational

attainment sows the perfectly positive impact in their daily income.

Involvement with labor organization and socioeconomic factors

Table 4 indicates males are more labor organization oriented than female ($p < .001$). There is no association between involvement with labor organization of the workers and their religion as well as types of families ($p > .05$). Less income earners are more prone to be involved with labor organization ($p < .001$) and there is a statistically significant relationship between marital status of the workers and their involvement with organization. In the analysis of gender discrimination and voting behavior of the workers, we conclude a strong relationship in assessing the fact. Though workers establish Trade Unions for themselves but none are aware of the facilities provided for them; even not aware of the safety measures (Chowdhary et.al, 2012). Male workers are more labor organization oriented than their counter part and there is a significant association of marital status of the workers and their involvement with labor organization. Even in the analysis of gender discrimination and voting behavior, we see that involvement with labor organization play an important part in assessing the mentioned factor.

Univariate analysis of variance: Post Hoc Tests between entertainment and daily income of the workers

To be entertained is a very part of life. Workers work for a day long and they need to be entertained for a certain period of time. But these entertainments depend on the economic solvency of the workers and our effort is to find out the effect of various income layers on the capabilities to be involved in various types of entertainment in the studied population. Table 5 shows that there is a statistically significant effect on the entertainment. So, the probability of a worker to be entertained goes with the higher income level ($p < .001$). In post hoc test, it is drawn that there is an impact of income variations of the workers on the types of entertainment and the higher segment of the daily income are statistically vital in the entertainment. As the workers are from the

marginalized sections of the society; therefore they are socially and economically backward (Iilonga and Shrinivasan, 2014). Consequently, entertainment matters for a lot for them.

Multilayer perception and radial basis function of workers' children's schooling

When the per capita daily incomes of the families are low, they consider their children as extra helping hands. Therefore, the families are suffered from the incident of higher cases of school drop-outs (Kanta, 2013). From table 6 it is evident that in the trained sample, the highest predicted percent (87.5) is enumerated for economic problem and the immediate next (33.3) is apathy or negligence about child's schooling but overall predicted percent correct reaches to 58.3. In the sample testing, economic problem is solely vivid which is in overall percent is 66.7. So, due to economic problems, the children of the tobacco factory workers are irregular in schools.

Multinomial regression of facing embarrassing situation

Factory workers are to face many problems in their working atmosphere. For example, due to poverty many people are forced to go with the tobacco factory and majority of them were working under contractors which again resulted in exploitation to wages (Iilonga and Shrinivasan, 2014). Results of multinomial regression analysis (table7) shows that the model fit was significant ($\chi^2= 77.613$, $p < .001$), with both high Pearson (.998) and deviance (.987) values. Results of the Likelihood Ratio Tests indicated that only level of education of the workers had a significant main effect on facing embarrassing situation ($\chi^2= 51.325$, $p < .001$). From Pseudo R-Square it is evident that more than 62% of variance of the listed variables is explained by Cox and Snell and about 68% for Nagelkerke and only 39.4% for McFadden of variance have an association with the variables. So, Nagelkerke is better in explaining the embarrassing situation of the workers they face frequently. Workers from marital status find themselves to be discriminated by gender and only educated workers feel themselves to be faced embarrassing situation in the society.

Table1
Socio-demographic and economic characteristics.

| Categories | N (%) | Categories | N (%) |
|---------------------------------|----------|---------------------------|----------|
| Age of the Respondents(in Year) | | Educational Qualification | |
| ≤23 | 9(11.2) | Illiterate | 57(71.3) |
| 24-33 | 13(16.2) | Primary | 13(11.2) |
| 34-43 | 24(30.0) | Secondary | 1(1.2) |
| 44-53 | 22(27.5) | H. Secondary | 3(3.8) |
| 54≥ | 12(15.0) | Tertiary | 6(7.5) |
| Sex | | Daily Income(tk) | |
| Male | 46(57.5) | 90-289 | 36(45.0) |
| Female | 34(42.5) | 290-489 | 34(42.5) |
| Religion | | 490-689 | |
| Islam | 62(77.5) | Condition of house | |
| Sanatan | 18(22.5) | Pakka | 10(12.5) |
| Types of Family | | Kancha | 27(33.8) |
| Joint | 16(20.0) | Tin Shade | 35(43.8) |
| Nuclear | 64(80.0) | Hut | 8(10.0) |
| Working hour | | Earning member | |
| 8 | 59(73.8) | ≤2 | 67(83.8) |
| 12 | 21(26.2) | 3≥ | 13(16.2) |

Table 2
Demographic characteristics and involvement with other works.

| Characteristics | Involvement with Other Works (%) | | | | |
|-----------------|----------------------------------|-----------|-----------------|---------------------|--------|
| | No of income earner | Day labor | Rickshaw puller | Sublease cultivator | None |
| ≤2 | | 84.2% | 50.0% | 96.3% | 76.7% |
| 3≥ | | 15.8% | 50.0% | 3.7% | 23.3% |
| Getting bonus | | | | | |
| Yes | | 26.3% | 50.0% | 37.0% | 30.0% |
| No | | 73.7% | 50.0% | 63.0% | 70.0% |
| Working hour | | | | | |
| 8 | | 63.2% | 85.2% | 70.0% | 75.0% |
| 12 | | 36.8% | 14.8% | 30.0% | 25.0% |
| Sex | | | | | |
| Male | | 89.5% | 50.0% | 100.0% | .0% |
| Female | | 10.5% | 50.0% | .0% | 100.0% |

Table 3
Determination of the effect of socio-demographic factors of the workers on their daily income.

| Tests Between-Subjects Effects | | | | | |
|---------------------------------------|-------------------------|----|-------------|---------|------|
| Dependent Variable: Daily income (tk) | | | | | |
| Source | Type III sum of squares | df | Mean square | F | Sig. |
| Corrected model | 32.050 | 14 | 2.289 | 27.058* | .000 |
| Intercept | 8.200 | 1 | 8.200 | 96.919* | .000 |
| Age | .144 | 4 | .036 | .424 | .791 |
| Gender | 7.515 | 1 | 7.515 | 88.821* | .000 |
| Marital status | .102 | 3 | .034 | .404 | .751 |
| Religion | .109 | 1 | .109 | 1.293 | .260 |
| Education | 17.066 | 4 | 4.267 | 50.427* | .000 |
| Working hour | .015 | 1 | .015 | .172 | .680 |
| Error | 5.500 | 65 | .085 | | |
| Total | 262.000 | 80 | | | |
| Corrected Total | 37.550 | 79 | | | |

a. R Squared = .854 (Adjusted R Squared = .822)

*significant at 1% level of confidence

Table 4
Association of the socio-demographic factors of the workers with involvement with labor organization by symmetric measures (Phi / Cramer's V).

| Characteristics | Involvement with labor organization (%) | | Symmetric measures | |
|-----------------|---|------|--------------------|---------|
| | Yes | No | Phi / Cramer's V | P-value |
| N=80 | | | | |
| Gender | | | | |
| Male | 88.2 | 11.8 | .978/.692 | .000* |
| Female | 13 | 87 | | |
| Religion | | | | |
| Islam | 35.5 | 64.5 | .292/.207 | .140 |
| Sanatan | 44.4 | 55.6 | | |
| Types of family | | | | |
| Joint | 31.2 | 69.8 | .290/.205 | .146 |
| Nuclear | 39.1 | 60.9 | | |

| Gender discrimination | | | | |
|-----------------------|------|------|-----------|--------|
| Yes | 47.9 | 52.1 | .392/.277 | .014** |
| No | 21.9 | 78.1 | | |

*significant at 1% level of confidence**significant at 5% level of confidence

Table 5

Multiple comparisons of different income layers with their types of entertainment by Tukey HSD.

| Multiple comparisons | | | | | | |
|----------------------|------------------|-----------------------|------------|-------|-------------------------|----------|
| Entertainment | | Tukey | | HSD | | |
| (I) Daily income | (J) Daily income | Mean difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
| | | | | | Lower. B | Upper. B |
| 90-289 | 290-489 | -.13 | .218 | .813 | .66 | .39 |
| | 490-689 | 1.58* | .326 | .000* | .80 | 2.36 |
| 290-489 | 90-289 | .13 | .218 | .813 | -.39 | .66 |
| | 490-689 | 1.71* | .328 | .000* | .92 | 2.50 |
| 490-689 | 90-289 | -1.58* | .326 | .000* | -2.36 | -.80 |
| | 290-489 | -1.71* | .328 | .000* | -2.50 | -.92 |

Based on observed means.

The error term is Mean Square (Error) = .832.

*. The mean difference is significant at the .05 level.

Table 6

Determining barriers of workers' children's schooling by multilayer perception and radial basis function.

| Sample | Observed | Classification | | | P.P.C. | Area under the curve | | |
|------------------|----------------------|----------------|-----|------|--------|----------------------|------|------|
| | | (1) | (2) | (3) | | (1) | (2) | (3) |
| Training(N = 64) | Economic problem (1) | 6 | 0 | 1 | 85.7 | | | |
| | Unconsciousness (2) | 2 | 0 | 0 | | | | |
| | Apathy (3) | 2 | 0 | 1 | 33.3 | | | |
| | Overall percent | 83.3 | | 16.7 | 58.3 | | | |
| Testing (N=16) | Economic problem(1) | 2 | 0 | 0 | 100 | .934 | .842 | .909 |
| | Unconsciousness(2) | 1 | 0 | 0 | | | | |
| | Apathy(3) | 0 | 0 | 0 | | | | |
| | Overall percent | 100 | | . | 66.7 | | | |

Dependent variable: workers' children's schooling

Table 7

Determination of the effect of socio-demographic factors of the workers on their facing embarrassing situation by multinomial regression.

| Model Fitting Information | | | | | |
|---------------------------|------------------------------------|--|----------|----|----------|
| Model Fitting Criteria | -2 Log Likelihood(final) | | χ^2 | df | p- value |
| | 66.128 | | 77.613 | 39 | .000* |
| Likelihood Ratio Tests | | | | | |
| Effect | -2 Log Likelihood of Reduced Model | | χ^2 | df | p-value |
| Level of education | 117.452 | | 51.325 | 12 | .000* |
| Marital status | 71.149 | | 5.021 | 9 | .832 |
| Gender | 67.189 | | 1.061 | 3 | .786 |

| | | | | |
|-----------------|--------------------|-----------------|---------------|------|
| Age | 75.846 | 9.719 | 12 | .641 |
| Religion | 66.984 | .856 | 3 | .836 |
| Pseudo R-Square | Cox and Snell=.621 | Nagelkerke=.679 | McFadden=.394 | |

*significant at 1% level of confidence

CONCLUSION

Tobacco factory workers are to work in vulnerable condition and they are paid much less wage than they deserve; ultimately they are to get involved with other works beyond their main occupations. As most of them are illiterate, they don't know how to mitigate the problems they face frequently from their side. Though some of them feel interest in performing labor organizations, most of the workers don't get facilities provided by the organizations. However, if the tobacco workers could know the causes of how they are being affected physically and mentally, they could be able to overcome the problems. As the majority of the workers were illiterate, investment in education for their children would make them out of deplorable conditions as well as bringing significant economic benefits for the country as a whole. However, female workers are more deplorable in assessing their position in the factory because they are to more embarrassing situation in the working environment. So it is necessary to take steps for the betterment of life of the workers of tobacco industries and appropriate remedial measures can be taken for gradual improvement regarding the issues discussed as well.

ACKNOWLEDGEMENT

We are really grateful to the respondents of this study who provided us their valuable time for data collection. We are also indebted to my research assistant who collected data from field from very carefully and helped into data entry in various ways.

REFERENCES

Ansari MS and Raj A (2015). Socio-economic status of women Beedi workers in Bundelkhand region of Uttar Pradesh: An empirical analysis. *UTMS Journal of Economics*, Vol. 6 Iss. 1, pp. 53-66.

- Ghosh PC et.al (2005). Occupational Health Profile of The Beedi Workers And Ergonomic Intervention. Vol.10 No 2 April-June 2005.
- Hossain MM and Rahman MM (2013). A socioeconomic analysis on tobacco cultivation in Kushtia District of Bangladesh. *Social Sciences*, 2(3):128-134.
- Iilonga P and Shrinivasan S, (2014). A Study on the Socio-Economic Conditions of Female Beedi Workers at Khajamalai, in Trichirapalli, Tamil Nadu International Journal of Innovative Research & Development, Vol. 1, Issue 11, December.
- Kanta DC (2013). A Study On Occupational Health Hazards Among Women Beedi-Workers Of Murshidabad District In West Bengal, International Journal Of Research In Commerce Management Volume No. 4 (2013), Issue No. 01 (January) ISSN 0976-2183.
- Mukherjee M, Goswami A, Mazumdar D and Pal B (2014). A Study on Health Profile of Beedi Workers in West Bengal, India. *International Journal of Advanced Research in Management and Social Sciences*; 3(8), 17-25.
- Parashar N and Tiwari P, (2014). Socio-economic Conditions of Female Beedi Workers in Allahabad District: A Case Study, New Man International Journal Of Multidisciplinary Studies (ISSN: 2348-1390) Vol. 1 Issue 12 Dec. 2014
- Rahman M (2008). Health Hazards and Quality of Life of the Workers in Tobacco Industries: Study from Three Selected Tobacco Industries at Gangachara Thana in Rangpur District of Bangladesh. *The Internet Journal of Epidemiology*, Volume 6, Number 2.
- Rath GK and Chaudhary K (2000). Cost of Tobacco Related Diseases. Paper presented at the WHO International Conference on Global Tobacco Control Law: Towards a WHO Framework Convention on Tobacco Control, January 2000. New Delhi, India.
- Rupali V. Sabale, Shobha S. Kowli, and Padmaja H. Chowdhary(2012). Working condition and health hazards in beedi rollers residing in the urban slums of Mumbai. *Indian Journal of Occupation and Environmental Medicine*. May-Aug; 16(2): 72-74.doi: 10.4103/0019-5278.107075