# THE IMPACT OF INDIVIDUAL LEVEL VARIABLES ON JOB SATISFACTION AT THE DIFFERENT COMMERCIAL BANKS IN BANGLADESH

Omar Faroque, Md. Rafiqul Islam, Md. Abdur Rashid and Masum Murtaza

Employees are the key role player in every organization. Employees make the way of achieving the organizational major goals and objectives smoothly and effectually. So, the level of job satisfaction of the employees is very crucial and significant for the advancement and growth of the organization. Job satisfaction describes how content an individual is with his or her job. The objective of this study is to determine the effects of individual level variables on the job satisfaction among the employees of some commercial banks in Bangladesh. Frequency distribution has been used on the data obtained from 590 employees of mid level, and junior and entry level of the 29 private and 1 state owned commercial banks in Bangladesh. This has been utilized to explore the individual level variables and job satisfaction related characteristics of the respondents and finally, chi-square test and binary logistic regression analysis have been employed to estimate the existing relationships among the variables. In chi-square test, it is found that age, tenure, ability, emotions, values, attitudes and personality have strongly significant impacts on job satisfaction. In logistic model sex, age, tenure, emotions, attitudes and personality have significant effects on job satisfaction of different commercial banks in Bangladesh. Evidently, individual level variables have 88% impact on job satisfaction of the employees at these banks.

**Keywords:** Individual level variables, job satisfaction, commercial banks, Bangladesh, chi-square test and binary logistic regression.

### Introduction

Employee productivity, absenteeism, turnover or even continues performance and efficiency depend on the job satisfaction. Job satisfaction among the employees shapes the cordial and supportive working environment in the organizational level. Satisfied employees are able to contribute more to the productivity of the organization and become loyal to it. That is why the employee commitment is high and they tend to provide the best service to the customers. In a bank the work of the employees is very enormous and tiresome. The employee should be more motivated and satisfied to serve the customer. A satisfied employee can work more hours with better efficiency compared to the unsatisfied employee (Sohail, & Delin,

Address for communication: Omar Faroque, Lecturer, Department of Management, Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Gupalganj, Bangladesh, E-mail: omar\_ntcu@yahoo.com, Md. Rafiqul Islam, Professor, Department of Population Science and Human Resource Development, Rajshahi University, Rajshahi, Bangladesh, E-mail: rafique\_pops@yahoo.com, Abdur Rashid and Masum Murtaza, Senior Lecturer, Department of Business Administration, Northern University Bangladesh, Dhaka, Bangladesh, E-mail: rashidsarkar@gmail.com; masumiba06@gmail.com

2013) and unsatisfied employees always try to change their organization or profession (Smith, 2007). Job dissatisfaction plays an important role in contributing to negative behaviors at the workplace such as frequent absence, lack of discipline in performance and high turnover (Rego, & Cunha, 2008; Spector, 1997). So, there is a need to study the level of job satisfaction of the employees and the factors which have impact on job satisfaction at the commercial banks in Bangladesh. The individual level variables defined by Robbins (2005) -gender, age, tenure, ability, emotions, values, attitudes and personality- have impact on employees' job satisfaction.

Job satisfaction is an effective/emotional response by an employee concerning his or her particular job (Cranny *et al.*, 1992), individual's cognitive, affective, and evaluative reactions towards job (Greenberg, & Baron, 1997), a pleasurable or positive emotional state resulting from the evaluation of one's job experience (Locke, 1976); a collection of feelings that an individual holds toward his or her job (Robbins, 2005). Job satisfaction is the combination of 'positive or negative feelings of workers about their work' (Brikend, 2011) and 'cognitive and affective reactions to the differential perceptions of what an employee wants to receive compared to what he or she actually receives' (Weiss, 2002). Actually, it is 'the extent to which people like their jobs' (Spector, 2000; Ellickson, & Logsdon, 2002) and used to measure the intentions of employees towards their workplace (Sweeney *et al.*, 2002). Clearly, job satisfaction is a factor which would induce the employee to work in the term (Mudor, & Tooksoon, 2011), and how an employee pleased is with his or her job (Vietoria, 2010). It depends on the expectation what's the job supply to an employee (Hussami, 2008).

Job satisfaction of bank employees is vital to provide service due to the levels of collaboration developed from content employees. The factors related to job satisfaction of the bank employees is keys in formulating and implementing future policies and strategies in the organizations (Bader *et al.*, 2013), and job satisfaction of the employees will determine the success of the business, either in public or private banks (Jegan, & Gnanadhas, 2011). High satisfaction of bank employees in the jobs will lead to higher productivity, higher participation, and less likelihood of turnover compared to employees who are less satisfied (Sowmya, & Panchanatham, 2011), and understanding that factors which contribute to an individual's job satisfaction essential when related to bank employees (Kamal, & Sengupta, 2008).

Ability is an individual's capacity to perform the various tasks in a job. Emotion is intense feelings that are directed at someone or something. Value is basic convictions that a specific mode of conduct or end—state of existence is personally or socially preferable to an opposite or converse mode of conduct or end—state of existence. Attitude is the evaluative statement or judgment concerning object, people, or events. Personality is the total sum of ways in which an individual

reacts and interacts with others (Robbins, 2005). These variables have the significant impact on job satisfaction (Robbins, 2005). In Bangladesh, very few researchers conducted such kind of research. Therefore, the objective of this study is to measure the impact of these variables on job satisfaction at the different commercial banks in Bangladesh.

### **Data and Methods**

This is a cross sectional study involving 590 employees of the different commercial private banks in Bangladesh. Data on selected individual level variables and job satisfaction related factors have been collected through questionnaire method during August- November, 2013 from the employees of mid level, and junior and entry level of the 29 private commercial banks and 1 state-owned bank which nature is like private, by purposive sampling technique. To fulfill the objective frequency distribution, chi-square test, binary logistic regression analysis, correct classification rate (CCR) and cross validity prediction power (CVPP) have been used in this study. Initially, frequency distribution has been used to explore individual level variables and the job satisfaction related characteristics of the respondents and finally, chi-square test and binary logistic regression analysis have been employed to estimate the existing relationships among the variables. In this study gender, age, tenure, ability, emotions, values, attitudes and personality are considered as independent variables and job satisfaction as dependent variable mentioned by Robbins (2005). In logistic model, impact on job satisfaction is considered as dependent variable (Y) and it is classified into following classes:

$$Y = \begin{cases} 1, & \text{have impact on job satisfaction} \\ 0, & \text{otherwise} \end{cases}$$

The analyses of the data have been made using the statistical software SPSS-16.0 version.

To check how much the model is stable over the population, the cross validity prediction power (CVPP),  $p_{cv}^2$  is applied. Here

$$\rho_{cv}^2 = 1 - \frac{(n-1)(n-2)(n+1)}{n(n-k-1)(n-k-2)} (1 - R^2)$$

Where, **n** is the number of cases, **k** is the number of predictors in the model and the cross validated **R** is the correlation between observed and predicted values of the dependent variable (Stevens, 1996). The shrinkage coefficient of the model is the positive value of  $(p_{cv}^2 - R^2)$ ; where  $p_{cv}^2$  is CVPP and  $R^2$  is the coefficient of determination of the model. 1- Shrinkage is the stability of  $R^2$  of the model. The information on model fitting and estimated CVPP has been demonstrated in the results and discussion and CVPP was also employed as model validation (Islam,

2005a; 2005b; 2011; 2012a; 2012b; 2013; Islam, & Hossain, 2013a; 2013b; Hossain, & Islam, 2013; Islam *et al.*, 2013; Faroque *et al.*, 2014).

### **Results and Discussions**

## Results of the Effects of Individual Level Variables on Job Satisfaction of the Employees of Different Commercial Banks in Bangladesh

The results of descriptive statistics have been demonstrated in table 1 where the frequency with percentage distribution of the selected individual level variables and association on job satisfaction among employees of different commercial banks in Bangladesh is revealed. In table 1, it is observed that male have 85% impact on job satisfaction, whereas female has only 15%. Gender has no statistically significant impact on job satisfaction (Bader et al., 2013; Campbell, 2011; Sohail, & Delin, 2013; Okpara, 2004; Eyupoglu, & Saner, 2009; Jegan, & Gnanadhas, 2011; Sousa-Poza, & Sousa-Poza, 2007) but significant impact on job satisfaction (Sageer et al., 2012). The male employees have high job satisfaction than female (Khan et al., 2013; Mondal et al., 2012; Hunjra et al., 2010; Mora, & Ferrer -i- Carbonell, 2009; Phill, 2009; Rose, 2005); but female employees are more satisfied than male (Sageer et al., 2012; Clark, 1997; Clark et al., 1996; Warr, 1992). Age is the important variable which has highly significant impact on job satisfaction (Khan et al., 2013; Sageer et al., 2012). There is 45% impact on job satisfaction age below 30 years and 55% impact aged 30 years and above. But there is an inverse relationship between age and job satisfaction (Mondal et al., 2012; Kamal, & Sengupta, 2008; Sousa-Poza, & Sousa-Poza, 2007; Clark et al., 1996; Warr, 1992), and there were no significant impact on job satisfaction (Eyupoglu, & Saner, 2009; Phil, 2009). Tenure also have highly significant impact on job satisfaction (Kamal, & Sengupta, 2008; Jegan, & Gnanadhas, 2011). There are 70% and 30% impact on job satisfaction of employees whose tenure is below 5 years, and 5 years and above respectively. So, low tenure employee is more satisfied than senior one and job satisfaction is decreasing with increasing the tenure (Mondal et al., 2012; Klassen, & Chiub, 2010; Phil, 2009; Clark et al., 1996) and it was insignificant to different studies (Eyupoglu, & Saner, 2009; Phil, 2009).

Lastly, ability, emotions, values, attitudes and personality have the impact on job satisfaction among the employees are as 87%, 56%, 80%, 84% and 87% respectively; and emotions (Fisher, 2000), attitudes (Sageer *et al.*, 2012; Sarri, & Judge, 2004; Schleicher *et al.*, 2004) and personality (Judge, Heller, & Mount, 2002; Sageer *et al.*, 2012) were significant with job satisfaction. These variables have strong significant impact on job satisfaction. Finally, the individual level variables - age, tenure, ability, emotions, values, attitudes and personality -have the strong association with job satisfaction of the employees of commercial banks in Bangladesh.

TABLE 1: RESULTS OF ASSOCIATION BETWEEN INDIVIDUAL LEVEL VARIABLES AND JOB SATISFACTION RELATED CHARACTERISTICS AMONG EMPLOYEES AT COMMERCIAL BANKS IN BANGLADESH

| Variables          | Impact on job<br>Satisfaction |    | Total | % of<br>Impact | x²cal and<br>p Value |
|--------------------|-------------------------------|----|-------|----------------|----------------------|
|                    | Yes                           | No |       | <u>.</u>       | •                    |
| Gender             |                               |    |       |                |                      |
| Male               | 441                           | 58 | 499   | 85             | $x^2 = 1.016$        |
| Female             | 77                            | 14 | 91    | 15             | P = 0.199            |
| Total              | 518                           | 72 | 590   | 100            |                      |
| Age                |                               |    |       |                |                      |
| Below 30 years     | 235                           | 47 | 282   | 45             | $x^2 = 10.044$       |
| 30 years and above | 283                           | 25 | 308   | 55             | P = 0.001            |
| Total              | 518                           | 72 | 590   | 100            |                      |
| Length/ Tenure     |                               |    |       |                |                      |
| Below 5 years      | 361                           | 61 | 422   | 70             | $x^2 = 7.013$        |
| 5 years and above  | 157                           | 11 | 168   | 30             | P = 0.004            |
| Total              | 518                           | 72 | 590   | 100            |                      |
| Ability            |                               |    |       |                |                      |
| Agree              | 459                           | 52 | 511   | 87             | $x^2 = 14.639$       |
| Disagree           | 59                            | 20 | 79    | 13             | P = 0.000            |
| Total              | 518                           | 72 | 590   | 100            |                      |
| Emotions           |                               |    |       |                |                      |
| Agree              | 288                           | 29 | 317   | 56             | $x^2 = 5.968$        |
| Disagree           | 230                           | 43 | 273   | 44             | P = 0.010            |
| Total              | 518                           | 72 | 590   | 100            |                      |
| Values             |                               |    |       |                |                      |
| Agree              | 415                           | 38 | 453   | 80             | $x^2 = 26.499$       |
| Disagree           | 103                           | 34 | 137   | 20             | P = 0.000            |
| Total              | 518                           | 72 | 590   | 100            |                      |
| Attitudes          |                               |    |       |                |                      |
| Agree              | 434                           | 32 | 466   | 84             | $x^2 = 58.933$       |
| Disagree           | 84                            | 40 | 124   | 16             | P = 0.000            |
| Total              | 518                           | 72 | 590   | 100            |                      |
| Personality        |                               |    |       |                |                      |
| Agree              | 452                           | 36 | 488   | 87             | $x^2 = 61.369$       |
| Disagree           | 66                            | 36 | 102   | 13             | P = 0.000            |
| Total              | 518                           | 72 | 590   | 100            |                      |

# Determining the Factors Affecting on Job Satisfaction at the Different Commercial Banks

The results of binary logistic regression analysis have been depicted in table 2 which contains the estimate of binary logistic regression coefficient ( $\beta$ ), standard error of estimates {S.E.( $\beta$ )}, p-value and odds ratio with 95% confidence interval (C.I.) that are calculated for each of the categorical variable. According to the fitted model gender, age, tenure, emotions, attitudes and personality have played statistically significant role on job satisfaction at different commercial banks in

Bangladesh. Again, it is found from table 2 that -2Log likelihood is 490.618, Cox and Snell R square is 0.426, Nagelkerke R square is 0.568 in this model. It implies that there are 42.6% (according to the value of Cox and Snell R square) and 56.8% (according to the value of Nagelkerke R square) variation of the effect on job satisfaction by the selected variables.

Sex has been appeared as an important strongly significant factor affecting on job satisfaction. The regression coefficient for the female is -1.137 and the corresponding odd ratio is 0.321 with (95% C.I. [0.168, 0.163]). The result implies that the likelihood of affecting job satisfaction is 0.321 times less for the female employees compared to the male employees and this is similar to some previous studies (Khan et al., 2013; Mondal et al., 2012), but dissimilar to others (Sageer et al., 2012; Clark, 1997; Clark et al., 1996; Warr, 1992). Respondent's age is another important strongly significant factor affecting on job satisfaction. The regression coefficient for the respondent's age 30 years and above is -2.029 and the corresponding odd ratio is 0.131 with (95% C.I. [0.074, 0.232]). The result depicts that the likelihood of affecting job satisfaction is 0.131 times less for the respondent's age 30 years and above compared to the respondent's age below 30 years and this is similar with earlier studies (Mondal et al., 2012; Sageer et al., 2012) but dissimilar to the others (Mora, & Ferrer -i- Carbonell, 2009). Respondent's tenure has also significant role on job satisfaction. The regression coefficient for the respondents tenure 5 years and above is -0.619 and the corresponding odd ratio is 0.539 with (95% C.I. [0.241, 1.204]) which implies that the likelihood of affecting job satisfaction is 0.539 times less for the respondent's tenure 5 years and above compared to the respondent's tenure below 5 years and this is alike with prior studies (Mondal et al., 2012) and unlike with the others (Bader et al., 2013; Jegan, & Gnanadhas, 2011; Bilgic, 1998).

Emotions is the another important factor which have strongly significant impact on job satisfaction (Fisher, 2000). The regression coefficient for the respondent's emotions disagree is -1.379 and the corresponding odd ratio is 0.252 with (95% C.I. [0.158, 0.401]). The result indicates that the likelihood of affecting job satisfaction is 0.252 times less for respondent's emotions disagree compared to the respondent's emotions agree. Attitudes play also important role affecting on job satisfaction. The regression coefficient for the respondent's attitudes disagree is 0.565 and the corresponding odd ratio is 1.759 with (95% C.I. [1.001, 3.090]). The result depicts that the likelihood of affecting job satisfaction is 1.759 times more for respondent's attitudes disagree compared to the respondent's attitudes agree. Lastly, Personality has significant impact on job satisfaction (Judge, Heller, & Mount, 2002; Sageer *et al.*, 2012). The regression coefficient for the respondent's personalities disagree is 0.676 and the corresponding odd ratio is 1.967 with (95% C.I. [1.094, 3.535]). The result clears that the likelihood of affecting job satisfaction is 1.967 times more for respondent's personality disagree compared to the

respondent's personality agree. These are the findings of this study at the different commercial bank's employees in Bangladesh.

TABLE 2: RESULTS OF BINARY LOGISTIC REGRESSION ANALYSIS OF JOB SATISFACTION BY SOME SELECTED FACTORS (1= IMPACT ON JOB SATISFACTION)

| Explanatory<br>Variables | Coefficients $(\beta)$ | S.E. of<br>Estimates | ρ<br>Value | Relative<br>Risk | 95% C.I. for<br>EXP(β) |       |
|--------------------------|------------------------|----------------------|------------|------------------|------------------------|-------|
|                          |                        | $\{S.E.(\beta)\}$    |            | $\{EXP(\beta)\}$ | Lower                  | Upper |
| Gender                   |                        |                      |            |                  |                        |       |
| Male [ref.]              |                        |                      |            | 1.000            |                        |       |
| Female                   | -1.137                 | 0.330                | 0.001      | 0.321            | 0.168                  | 0.613 |
| Age                      |                        |                      |            |                  |                        |       |
| Below 30 years[ref.]     |                        |                      |            | 1.000            |                        |       |
| 30 years and above       | -2.029                 | 0.291                | 0.000      | 0.131            | 0.074                  | 0.232 |
| Length/ Tenure           |                        |                      |            |                  |                        |       |
| Below 5 years [ref.]     |                        |                      |            | 1.000            |                        |       |
| 5 years and above        | -0.619                 | 0.411                | 0.132      | 0.539            | 0.241                  | 1.204 |
| Ability                  |                        |                      |            |                  |                        |       |
| Agree[ref.]              |                        |                      |            | 1.000            |                        |       |
| Disagree                 | 0.193                  | 0.318                | 0.544      | 1.213            | 0.650                  | 2.262 |
| Emotions                 |                        |                      |            |                  |                        |       |
| Agree [ref.]             |                        |                      |            | 1.000            |                        |       |
| Disagree                 | -1.379                 | 0.237                | 0.000      | 0.252            | 0.158                  | 0.401 |
| Values                   |                        |                      |            |                  |                        |       |
| Agree[ref.]              |                        |                      |            | 1.000            |                        |       |
| Disagree                 | 0.328                  | 0.305                | 0.283      | 1.388            | 0.763                  | 2.523 |
| Attitudes                |                        |                      |            |                  |                        |       |
| Agree [ref.]             |                        |                      |            | 1.000            |                        |       |
| Disagree                 | 0.565                  | 0.288                | 0.050      | 1.759            | 1.001                  | 3.090 |
| Personality              |                        |                      |            |                  |                        |       |
| Agree [ref.]             |                        |                      |            | 1.000            |                        |       |
| Disagree                 | 0.676                  | 0.299                | 0.024      | 1.967            | 1.094                  | 3.535 |

Nagelkerke R square = 0.568

TABLE 3: CLASSIFICATION TABLE OR CORRECT CLASSIFICATION RATE (CCR)

| Observed      |              | Percentage |         |
|---------------|--------------|------------|---------|
| Impact on Job | Impact on Jo |            |         |
| Satisfaction  | Yes          | No         | Correct |
| Yes           | 411          | 107        | 79.3    |
| No            | 51           | 21         | 29.2    |

a. The cut value is 0.500

### Results of CCR

Table 3 represents the correct classification rate (CCR) which has been used to measure the fitness of the model. If it is used 0.500 as the threshold or cut value, 73.2 has been found as the value of CCR. Since a model that affords better classification should be judged superior by the goodness of fit test that indirectly assesses the classification performance of the model. It has been concluded through classification performance that the fitted model may be used for prediction.

### Results of CVPP

The estimated CVPP and  $\mathbb{R}^2$  of the given logistic model are 0.555 and 0.426 respectively. The shrinkage coefficient of the model is 0.129 and the stability of  $\mathbb{R}^2$  of the model is more than 87%. Hence the fitted model is well due to the shrinkage coefficient. Therefore, from these statistics it is also concluded that the fit of the model is well.

#### **Conclusions**

In this study, it is found that age, tenure, ability, emotions, values, attitudes and personality have strong significant impacts on job satisfaction of the employees of different commercial banks in Bangladesh. The result implies that the likelihood of affecting job satisfaction is 0.321 times less for the female employees compared to the male employees, 0.131 times less for the respondent's age 30 years and above compared to the respondent's age below 30 years, and 0.539 times less for the respondent's tenure 5 years and above compared to the respondent's tenure below 5 years. On the other hand, evidently, it is clear that the likelihood of affecting job satisfaction is 0.252 times less for respondent's emotions disagree compared to the respondent's emotions agree, 1.759 times more for respondent's attitudes disagree compared to the respondent's personality disagree compared to the respondent's personality agree. Thus, these individual level variables have significant impact on job satisfaction of the employees at the studied commercial banks in Bangladesh.

### References

- Bader, H., A. M., Hashim, I. H. M., & Zaharim, N. M. (2013). Job Satisfaction among Bank Employees in Eastern Libya. *American International Journal of Social Science* 2(1), 30-44.
- Bilgic, R. (1998). The Relationship between Job Satisfaction and Personal Characteristics of Turkish Workers. *Journal of Psychology*, 132(1), 549-557.
- Brikend, A. (2011). Job Satisfaction. Management Research and Practice, 3(4), 77-86.
- Campbell, D. G. (2011). Diversity and Job Satisfaction: Reconciling Conflicting Theories and Findings. *International Journal of Applied Management and Technology*, 10(1), 1-15.
- Clark, A. E. (1997). Job Satisfaction and Gender: Why are Women So Happy at Work? *Labor Economics*, 4(4), 341-472.

- Clark, A., Oswald, A., & Warr, P. (1996). Is Job Satisfaction U-shaped in Age? *Journal of Occupational and Organizational Psychology*, 69(1), 57-81.
- Cranny, C. J., Smith, P. C., & Stone, E. F. (1992). Job Satisfaction: How People Feel about their Jobs and How it Affects their Performance. Lexington, New York.
- Ellickson. M. C., & Logsdon, K. (2002). Determinants of Job Satisfaction of Municipal Government Employees. *Public Personnel Management*, 31(3), 343-358.
- Eyupoglu, S. Z., & Saner, T. (2009). Job Satisfaction: Does Rank Make a Difference? *African Journal of Business Management*, 3(10) 609-615.
- Faroque, O., Islam, M. R., Rahman, M. O., & Rouf, M. A. (2014). Cash Benefits Payment for Maternity Leave: An Analysis on Some NGOs in Bangladesh. *Human Resource Management Research*, 4(1), 5-12.
- Fisher, D. (2000). Mood and Emotions While Working: Missing Pieces of Job Satisfaction? *Journal of Organizational Behavior*, 21, 185-202.
- Greenberg, J., & Baron, R. A. (1997). (eds) *Behavior in Organizations*. Prentice Hall, Upper Saddle River, NJ.
- Hossain, M. S., & Islam M. R. (2013). Age Specific Participation Rates of Curacao in 2011: Modeling Approach. American Open Computational and Applied Mathematics Journal, 1(2), 08 - 21.
- Hunjra, A. I., Chani, M. I., Aslam, A., Azam, M., & Rehman, K. (2010). Factors Affecting Job Satisfaction of Employees in Pakistani Banking Sector. *African Journal of Business Management*, 4(10), 2157-2163.
- Hussami, M. A. (2008). A Study of Nurses' Job Satisfaction: The Relationship to Organizational Commitment, Perceived Organizational Support, Transactional Leadership, Transformational Leadership, and Level of Education. *European Journal of Scientific Research*, 22(2), 286-295.
- Islam, M. R. (2005a). Construction of Abridged Life Tables and Indirect Estimation of Some Mortality Measures of Bangladesh in 2005. *Journal of Population*, 11(2), 117-130.
- Islam, M. R. (2011). Modeling of Diabetic Patients Associated with Age: Polynomial Model Approach. *International Journal of Statistics and Applications*, 1(1), 1-5.
- Islam, M. R. (2012a). Mathematical Modeling of Age and of Income Distribution Associated with Female Marriage Migration in Rajshahi, Bangladesh. *Research Journal of Applied Sciences, Engineering and Technology*, 4(17), 3125-3129.
- Islam, M. R. (2012b). Modeling and Projecting Population for Muslim of Urban Area in Bangladesh. *International Journal of Probability and Statistics*, 1(1), 4-10.
- Islam, M. R. (2013). Modeling Age Structure and ASDRs for Human Population of Both Sexes in Bangladesh. *International Journal of Anthropology*, 28 (1), 47-53.
- Islam, M. R., & Hossain, M. S. (2013a). Mathematical Modeling of Age Specific Adult Literacy Rates of Rural Area in Bangladesh. *American Open Demography Journal*, 1(1), 01 12.
- Islam, M. R., & Hossain, M. S. (2013b). Mathematical Modeling of Age Specific Participation Rates in Bangladesh. *International Journal of Scientific and Innovative Mathematical Research*, 1(2), 150-159.
- Islam, M. R., Ali, M. K., & Islam, M. N. (2013). Construction of Life Table and Some Mathematical Models for Male Population of Bangladesh. *American Journal of Computational and Applied Mathematics*, 3(6), 269-276.

- Islam, Md. R. (2005b). Mathematical Modeling of Age Specific Marital Fertility Rates in Urban Area of Bangladesh. *Pakistan Journal of Statistics*, 21(3), 289-295.
- Jegan, P., & Gnanadhas, M. D. (2011). Job Satisfaction of Bank Employees Working with e-channels. *Asian Journal of Business and Economics*, 1(11), 1-8.
- Judge, T. A., Heller, D., & Mount, M. K. (2002). Five-factor Model of Personality and Job Satisfaction: A Meta-analysis. *Journal of Applied Psychology*, 87(3), 530-541.
- Kamal, R., & Sengupta, D. (2008). A Study of Job Satisfaction of Bank Officers. *Prajnan*, 37(3), 229-245.
- Khan, A., Ramzan, M., & Butt, M. S. (2013). Is Job Satisfaction of Islamic Banks Operational Staff Determined through Organizational Climate Occupational Stress, Age and Gender. *Journal of Business Studies Quarterly*, 4(3), 13-26.
- Klassen, R. M., & Chiub, M. M. (2010). Effects on Teachers' Self-efficacy and Job Satisfaction: Teacher Gender, Years of Experience and Job Stress. *Journal of Educational Psychology*, 102(3), 741-756.
- Locke, E. A. (1976). The Nature and Causes of Job Satisfaction. In Dunnette, M. (eds) Handbook of Industrial and Organizational Behavior. Rand McNally, Chicago. pp. 1297-1349.
- Mondal, N. I., Faroque, O., Rahman, O., & Hossain, S. (2012). Job Satisfaction among the Nurses in Rajshahi City, Bangladesh. *Man In India*, 92 (3-4), 583-591.
- Mora, T., & Ferrer-i-Carbonell, A. (2009). The Job Satisfaction Gender Gap among Young Recent University Graduates: Evidence from Catalonia. *Journal of Socio-Economics*, 38(4), 581-589.
- Mudor, H., & Tooksoon, P. (2011). Conceptual Framework on the Relationship between Human Resource Management Practices, Job Satisfaction and Turnover. *Journal of Economics and Behavioral Studies*, 2(2), 41-49.
- Okpara, J. O. (2004). The Impact of Salary Differential on Managerial Job Satisfaction: A Study of the Gender Gap and its Implications for Management Education and Practice in a Developing Economy. *Journal of Business in Developing Nations*, 8, 65-92.
- Phill, S. (2009). A Study on Job Satisfaction among the Employees of State Bank of India in Coimbatore City. http://www.scribd.com
- Rego, A., & Cunha, M. P. (2008). Authentic Climates and Employee Happiness: Pathways to Individual Performance? *Journal of Business Research*, 61(7), 739-752.
- Robbins, S. P. (2005). *Organizational Behavior*. (eds) Prentice Hall of India, New Delhi. *pp*.10-155.
- Rose, M. (2005). Job Satisfaction in Britain: Coping with Complexity. *British Journal of Industrial Relations*, 43(3), 455-467.
- Saari, L. M., & Judge, T. A. (2004). Employee Attitudes and Job Satisfaction. Human Resource Management, 43, 395-407.
- Sageer, A., Rafat, S. & Agawal, P. (2012). Identification of Variables Affecting Employee Satisfaction and their Impact on the Organization. IOSR *Journal of Business and Management*, 5(1), 32-39.
- Schleicher, D. J., Watt, J. D., & Greguras, G. J. (2004). Reexamining the Job Satisfaction-Performance Relationship: The Complexity of Attitudes. *Journal of Applied Psychology*, 89(1), 165-177.

- Smith, W. T. (2007). Job Satisfaction in the United States. University of Chicago. http://www.news.uchicago.edu/releases/07/pdf/070417.jobs.pdf
- Sohail, M. T., & Delin, H. (2013). Job Satisfaction Surrounded by Academies Staff: A Case Study of Job Satisfaction of Academies Staff of the GCUL, Pakistan. *Interdisciplinary Journal of Contemporary Research in Business*, 4(11), 126-137.
- Souse-Poza, A., & Sousa-Poza, A. A. (2007). The Effect of Job Satisfaction on Labor Turnover by Gender: An Analysis for Switzerland. *Journal of Socio-Economics*, 36(6), 895-913.
- Sowmya, K. R., & Panchanatham, N. (2011). Factors Influencing Job Satisfaction of Banking Sector Employees in Chennai, India. *Journal of Law and Conflict Resolution*, 3(5), 76-79.
- Spector, P. E. (1997). (eds) *Job Satisfaction: Application, Assessment, Causes and Consequences*. London: Thousand Oaks, CA: Sage.
- Spector, P. E. (2000). eds) *Industrial & Organizational Psychology*. (New York: John Wiley & Sons.
- Stevens, J. (1996). (eds) *Applied Multivariate Statistics for the Social Sciences*. Lawrence Erlbaum Associates, Inc., Publishers; New Jersey.
- Sweeney, A., Hohenshil, T., & Fortune, J. (2002). Job Satisfaction among Employee Assistance Professionals. *Journal of Employment Counseling*, 39, 52-60.
- Vietoria, B. (2010). Organizational Culture as a Predictor of Job Satisfaction: The Role of Gender and Age. *Career Development International*, 15(1), 4-19.
- Warr, P. B. (1992). Age and Occupational Well-being. Psychology and Aging, 7(1), 37-45.
- Weiss, H. (2002). Deconstructing Job Satisfaction: Separating Evaluations, Beliefs and Affective Experiences. *Human Resource Management Review*, 12, 173-194.