Exploring Effective Factors in the Demographic and Motivation Issues of the Banking Sector of Bangladesh

By Mohammad Azizur Rahman
Begum Rokeya University

Abstract- The paper attempted to explore the most effective factors of demographic outlined affecting employees' motivation. With a view to empirical analysis data were collected from 400 bank employees. In the demographic issues gender, age, experience, pay, type and name of the bank, present and prior designations etc. were considered. For inferential statistics there were five regression models with ANOVA and coefficients models developed in the study. The dependent variables were namely work experience, present basic and gross salary, and initial basic and gross salary and 94%, 77%, 68%, 48% and 35% respectively explained by other independent predictors. The study found that work experience was strongly affected by age. On the other hand, present pay (basic and gross) was highly subjective by present designation and initial basic and gross salaries were prejudiced by initial or first joining designation of the employees. The study was also observed on findings that age, present and first joining designations modify employees' motivation in the banking sector of Bangladesh (showed in Table 18).

Keywords: age, gender, work experience, initial salary, gross salary, motivation.

GJMBR-A Classification: JEL Code: M12

Strictly as per the compliance and regulations of:
Exploring Effective Factors in the Demographic and Motivation Issues of the Banking Sector of Bangladesh

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I. Introduction and Review Context

Human Resource Management (HRM) is regarded as the significant department for talent management. The talented employees compulsorily considered as assets in the organization which can be effective through acquisition, development, motivation and maintenance integrated from all units of the bank. HRD selects the right kind of personnel for the committed posts. In addition to this, HRD maintains talent human resources for the bank by applying various motivational techniques and HRs considered as soft assets (www.ventureline.com). Since bank is a service industry, this is why, its sustainability and competitive opportunities depends on how HR Department utilize their potentialities and competencies. The need of talent employees is well recognized in all events of global financial crisis (2007-2008) that was mostly connected with ambitious and ineffectual investment decision by the banks (Islam et al, 2017). Bangladesh Bank (BB) and Ministry of Finance (MoF) emphasized to ensure better HRM in the banking sector of Bangladesh through circulars (BB & MoF, 2015). The circulars are associated with rules and regulations, maintaining banking hours, salaries and incentives, leave and performance appraisal of female employees.

Motivation means inspiring people to work continuation. Motivated employees do have best quality of performance. Employees' motivation is affected by various factors. The total environment of the banking industry has become changed due to face the competitive sustainability. Basic pay, gross pay, designation, promotion, scoring of banking diploma for promotion, experiences, location or posting, types of bank etc. are the issues of demographic factors. Designation and gross pay are highly correlated for motivation.

Different emerging theories of motivation support that age, experience, pay, designation etc. affect the motivation. Work experience relates the holding position through up gradation in the organization. Maslow’s need hierarchy theory proves the said issues of demographic (Maslow, 1954). On the other supportive part of the Two-Factor Model namely Hygiene and Motivating factors. Employees can enjoy these factors related to opportunities over a long-term service the organization (Herzberg, 1959, 1987). The Two Factor Theory states that human needs are ordered in a series of levels of the hierarchy according to importance which creates motivation. Alderfer’s (1969) ERG theory chains Need-Hierarchy and Two-Factor Theory of motivation. Existence (E) chains the basic need and job security, relatedness (R) actually related to social needs and growth (G) is supportive with status and highest level achievement. If a higher order need constants or unfulfilled, an individual can degenerate to lower order needs which cause satisfy easily. McClelland’s Three Needs Model (1981) is also supportive to Needs Theory of Maslow whereas it can be seen that need for affiliation (social need), need for power related to ego/status and remaining one that is need for achievement connected to challenging achievement. An employer does have the ability to understand the needs so as to meet these needs having a better chance of involving and retaining talent employees. A survey conducted by Watson Wyatt Worldwide showed that 71% people deliberate money as the main reason to stay as followed by promotion prospect (33%) (Endress, 2007). Abraham Harold Maslow suggested a theory that
delineated five hierarchical needs which could also be functional to an organization and its employees’ performance (Gordon, 1965). Without one of the lower ones the second need could be achieved or satisfied. Maslow’s needs theory is static imperative and applicable in today’s business organizations, for every organization that seek to obtain success and excellence reflects positively the organizational culture, HRM and the employee’s productivity, to attain organizational excellence and create good environment, better and enjoyable work environment and achieve goal at the right time then a effort and application of the theory is supreme (Jerome, 2013). When an organization tries to know what drives personnel to work more, it is in a better position to influence them to perform well (Kovach, 1987). Again it clarifies that employees performance can be examined by three indicators namely ability, workplace environment, and motivation (Griffin, 1990). It is critical job for the managers in terms of motivating subordinates since it is noticed that there globally changes in demographic factors, as well as highly advanced technology (Wiley, 1997). This only emphasized the need to explore what motivates employees in order to get better performance. The author highlighted the most and less important factors of motivation in workplace from the earlier management. The most important factors in 1946 (appreciation), 1980 (interesting work), 1986 (interesting work) and 1992 (good wages) and less important factors were in 1946 (discipline), 1980 (discipline), 1986 (personal problems), and 1992 (personal problems). The study received the most striking findings that money and job security are the clear indicators of motivation. The effective pay program, a primary motivating factor is critical due to individuals and psychological possessions. It is does have immaterial value of the reward, but the increase in self-regard that public recognition accompanying with monetary compensation affords (Dawson and Dawson, 1990). In the past, huge numbers of research studies on employee motivation in the different perspectives already conducted. Very few of them were conducted relating to demographic composition with motivation. The present paper stressed to observe the influential factors of motivation with the sources variables of demographic issues among the employees in the sampled banks. The study also designed to explore the most effective factors in motivation.

Research questions: Does demographic composition affect employee motivation in the banking sector?

Objective of the study: The main objective of the study was to scan effective factors in demographic and motivating focuses among the employees of the banking sector in Bangladesh.

II. Research Framework

Hypotheses

Alternative hypotheses (H_a)

H_{a1} Employee motivation is related to work experience in the sampled banks.

H_{a2} There is a positive relationship between employee motivation and present basic salary

H_{a3} Present gross salary affects employee motivation in the banking sector.

H_{a4} Initial basic salary motivates employees positively.

H_{a5} Initial gross salary motivates employee positively.

III. Methodology

The study has been designed based on empirical and quantitative materials. The employees who were in the service full time in the banks considered as participants. The primary data were collected during March-June 2019 from 400 employees (320 employees of four public and remaining 80 employees of six private banks operated in the Northern three districts of Rangpur Division Bangladesh through sample random sampling (SRS). Data have been analyzed by SPSS IBM Version 22.0. Secondary data were collected from different research articles, published and unpublished books, dailies and websites.
### IV. Results and Discussion

*Table 1:* Demographic outline of the respondents (source: Field survey, up to June 2019)

| Demographic issues       | Percent | Mean   | SD    | CV  |
|--------------------------|---------|--------|-------|-----|
| Sex                      | Male    | 83.5   | 1.165 | 0.372 | 31.93% |
|                          | Female  | 16.5   |       |      |        |
| Age group                | <30-40 years | 59.5 |        |      |        |
|                          | 41-50 years | 13.8 | 2.633 | 0.922 | 35%    |
|                          | >50 years | 26.8   |       |      |        |
| Marital status           | Married | 99.0   | 1.010 | 0.100 | 9.86%  |
|                          | Single  | 1.0    |       |      |        |
| Religion                 | Islam   | 89.3   | 1.110 | 0.321 | 18.94% |
|                          | Hindu   | 10.75  |       |      |        |
| Type of bank             | Public  | 80.0   | 1.200 | 0.401 | 33.38% |
|                          | Private | 20.0   |       |      |        |
| Location (District)      | Rangpur | 41.5   | 1.743 | 0.712 | 40.88% |
|                          | Dinajpur| 42.8   |       |      |        |
|                          | Nilphamari | 15.8 |       |      |        |
| Educational Qualification| Bachelor | 17    | 2.660 | 0.749 | 28.15% |
|                          | Master  | 83     |       |      |        |
| Discipline/ Group        | Science | 31.8   | 1.865 | 0.695 | 37.26% |
|                          | Humanities | 50   |       |      |        |
|                          | Business | 18.3  |       |      |        |
| Bank Diploma             | Nil     | 62.3   | 0.543 | 0.761 | 140.34% |
|                          | Part-1  | 21.3   |       |      |        |
|                          | Part-2  | 16.5   |       |      |        |
| Job Experience (Year)    | 1-5     | 11.3   | 2.985 | 1.483 | 49.70% |
|                          | 6-10 Years | 45.5 |       |      |        |
|                          | 11-15 Years | 8.0 |       |      |        |
|                          | 16-20 Years | 4.0 |       |      |        |
|                          | 20 Years (more) | 31.3 |       |      |        |
| Present Designation/ Post| Entry Level Officer | 77.4 | 5.505 | 1.319 | 23.96% |
|                          | Executive Level Officer | 22.9 |       |      |        |
| Present Basic Pay (Tk.)  | <10000-30000/- | 49.0 | 35512 | 14246 | 40.12% |
|                          | 30000/- (more) | 511.0 |       |      |        |
| Present Gross Pay (Tk.)  | <20000-40000/- | 19.0 | 60945 | 26809 | 44%    |
|                          | >40000-60000/- | 38.0 |       |      |        |
|                          | 60000/- (more) | 43.0 |       |      |        |
| First Joining Designation| Entry Level Officer | 99.5 | 4.110 | 1.925 | 46.85% |
|                          | Executive Level Officer | 0.5 |       |      |        |
| Initial Basic Pay (Tk.)  | <10000-20000/- | 96.6 | 35512 | 14246 | 40.12% |
|                          | >20000-30000/- | 3.5 |       |      |        |
| Initial Gross Pay (Tk.)  | <20000-40000/- | 98.8 | 13401 | 16433 | 122.63% |
|                          | 40000-60000/- (more) | 1.2 |       |      |        |

Regression Models (Table 2, 5, 8, 11, & 14)

*Table 2:* Regression: Model Summary

| Model | R | R Square | Adjusted R Square | Std. Err. of Estimates | Change Statistics |
|-------|---|----------|-------------------|------------------------|------------------|
|       |   |          |                   |                        |                  |
| 1     | 0.971a | 0.942 | 0.940 | 2.741 | 0.94 | 483.94 | 13 | 386 | 0.000 |

a. Predictors: (Constant), Banking Diploma, Group/ Subject, Gender, Religion, Educational Qualification, Marital Status, Location (District), Type of Bank, Present Designation, First joining designation/post, Name of the Bank, Age, Location (Upazilla).

b. Dependent Variable: Working experience (year).
Remarks: The fitted linear regression model for working experience (year) and other independent variables listed. The model is good fit for this dataset and the coefficient of multiple determinations $R^2$ is 0.942 (Table 2). Since the $R^2 \sim 0.94$ then the dependent variable work experience 94% explained by the independent variables/predictors.

### Table 3: ANOVA

| Model | Sum of Squares | df  | Mean Square | F      | Sig. |
|-------|----------------|-----|-------------|--------|------|
| Regression | 47261.760 | 13  | 3635.520 | 483.944 | 0.000b |
| Residual   | 2899.737  | 386 | 7.512      |        |      |
| Total      | 50161.498 | 399 |            |        |      |

a. Predictors: (Constant), Banking Diploma, Group/Subject, Gender, Religion, Educational Qualification, Marital Status, Location (District), Type of Bank, Present Designation, First joining designation/post, Name of the Bank, Age, Location (Upazilla).

Hypothesis: The null hypothesis, $H_0$: $B_0 = B_1 = B_2 = \ldots = B_{13} = 0$

The alternative hypothesis, $H_1$: $B_0 = B_1 = B_2 = \ldots = B_{13} \neq 0$

Remarks: From the Table 3 ANOVA table the fitted regression model F-test statistic value is 483.944 and the significance value ($p$ value) 0.000 which is less than 0.05 ($p$ value $< \alpha$). Then all the regression coefficients were statistically highly significant at 5% level of significance. That is the null hypothesis is rejected and alternative hypothesis is accepted. Therefore, all the regression coefficients were not zero (0).

### Table 4: Coefficients

| Model | Unstandardized Coefficients | Standardized Coefficients | t     | Sig. |
|-------|-----------------------------|---------------------------|-------|------|
|       |                             | Beta                      |       |      |
| (Constant: Experience) | -16.110 ($B_0$) | 2.519 | $-6.395$ | 0.000 |
| Gender | 0.664 ($B_1$) | 0.402 | 0.22 | 1.652 | 0.099 |
| Age | 0.800 ($B_2$) | 0.034 | 0.663 | 23.649 | 0.000 |
| Marital status | 0.697 ($B_3$) | 1.417 | 0.006 | 0.492 | 0.623 |
| Religion | -0.535 ($B_4$) | 0.439 | -0.015 | -1.220 | 0.223 |
| Present designation | 1.294 ($B_5$) | 0.181 | 0.152 | 7.150 | 0.000 |
| First joining post | -1.663 ($B_6$) | 0.147 | -0.286 | -11.334 | 0.000 |
| Type of Bank | -0.657 ($B_7$) | 0.636 | -0.020 | -0.891 | 0.374 |
| Name of the Bank | -0.192 ($B_8$) | 0.113 | -0.039 | -1.697 | 0.091 |
| Location (District) | 0.341 ($B_9$) | 0.665 | 0.020 | 0.512 | 0.609 |
| Location (Upazilla) | -0.055 ($B_{10}$) | 0.098 | -0.023 | -0.555 | 0.579 |
| Educational qualifi.: | -0.860 ($B_{11}$) | 0.257 | -0.057 | -3.343 | 0.001 |
| Group/Subject | 0.001 ($B_{12}$) | 0.206 | 0.000 | 0.005 | 0.996 |
| Banking Diploma | 0.013 ($B_{13}$) | 0.223 | 0.001 | 0.059 | 0.953 |

a. Dependent Variable: Working experience (year).

The fitted regression model can be defined as,

$$WorkingExperience(\text{year}) = -16.110 \times (\text{Constant}) + 0.664 \times \text{Gender} + 0.800 \times \text{Age} + 0.697 \times \text{MaritalStatus} - 0.535$$
$$\times \text{Religion} + 1.294 \times \text{Presentdesignation} - 1.663 \times \text{Firstjoiningdesignation} - 0.567$$
$$\times \text{TypeofBank} - 0.192 \times \text{NameoftheBank} + 0.341 \times \text{Location(District)} - 0.055$$
$$\times \text{Location(Upazilla)} - 0.860 \times \text{Educationalqualification} + 0.001 \times \text{GrouporSubject} + 0.013$$
$$\times \text{BankingDiploma}$$

Remarks: From the fitted (Table 4) the age, present designation, first joining designation, educational qualification were statistically significance at 5% level of significance. Therefore, employees’ motivation is exaggerated by the control variable namely age, designation, and educational qualification. The subject or major discipline does not directly affect motivation ($B_{10} = 0.001$ and $p$ value is 0.996. Among the significant independent predictors age (0.800) and present designation (1.294) were positive contribution on the dependent variable working experience (year).
The Figure 1 & 2 depict that the fitted histogram showed the bell shape curve and Q-Q (quantile-quantile) plot the fitted residual line passing through the origin. Therefore, the dependent variable working experience (year) is normally distributed and the linear regression model best fit for this dataset.

### Table 5: Regression-Model Summary

| Model | R   | R²  | Adjusted R² | Std. Err. of the Estimates | Change Statistics |
|-------|-----|-----|-------------|---------------------------|-------------------|
|       |     |     |             |                           | R² | F  | df1 | df2 | Sig. F |
| 1     | 0.877a | 0.769 | 0.762 | 6987.86 | 0.769 | 99.1 | 13 | 386 | 0.000 |

a. Predictors: (Constant), Banking Diploma, Group/ Subject, Gender, Religion, Educational Qualification, Marital Status, Location (District), Type of Bank, Present Designation, First joining designation/post, Name of the Bank, Age, Location (Upazilla).

**Remarks:** The above fitted linear regression model (Table 5) for present basic salary and other independent variables listed. The model is good fit for this dataset and the coefficient of multiple determinations $R^2$ is 0.769. Since the $R^2 \sim 0.769$ then the dependent variable present basic salary 76.9% or about 77% explained by the independent variables/predictors mentioned above.

### Table 6: ANOVA

| Model | Sum of Squares | df | Mean Square | F    | Sig. F |
|-------|----------------|----|-------------|------|--------|
| 1     | Regression     | 13 | 483680622.48 | 99.045 | 0.000b |
|       | Residual       | 386 | 48830238.42 |       |        |
|       | Total          | 399 |             |       |        |

b. Predictors: (Constant), Banking Diploma, Group/ Subject, Gender, Religion, Educational Qualification, Marital Status, Location (District), Type of Bank, Present Designation, First joining designation/post, Name of the Bank, Age, Location (Upazilla).

**Hypothesis:** The null hypothesis, $H_0: B_0= B_1= B_2= \ldots \ldots = B_{13}=0$

The alternative hypothesis, $H_1: B_0= B_1= B_2= \ldots \ldots = B_{13} \neq 0$

**Remarks:** From the (Table 6) ANOVA (Analysis of Variance) table the fitted regression model F-test statistic value is 99.045 and the significance value (p value) 0.000. Then all the regression coefficients were statistically strongly significant at 5% level of significance. That is alternative hypothesis is accepted. Therefore, all the regression coefficients were not zero (0).

### Table 7: Coefficients

| Model               | Unstandardized Coefficients | Standardized Coefficients | t     | Sig. |
|---------------------|-----------------------------|---------------------------|-------|------|
|                     | B   | Std. Error | Beta |       |      |
| 1                   |     |             |      |       |      |
| (Cons. Present basic pay) | -38670.051 (B₀) | 6422.814 | -6.021 | 0.000 |
| Gender              | 554.461 (B₁) | 1024.262 | 0.014 | 0.541 | 0.589 |
| Age                 | 709.891 (B₂) | 86.209 | 0.461 | 8.235 | 0.000 |
Marital Status -1360.314(B3) 3613.823 -0.036 -1.418 0.157
Religion 1360.314(B3) 1118.681 0.031 1.216 0.225
First joining post 1902.867(B4) 461.322 0.571 13.443 0.000
Type of Bank 1360.314(B3) 1118.681 0.031 1.216 0.225
Name of the Bank 1360.314(B3) 1118.681 0.031 1.216 0.225
Location (District) -1672.287(B9) 1695.606 -0.078 -0.986 0.325
Location (Upazilla) 74.986(B10) 250.856 0.024 0.299 0.765
Educational qualifi. 1623.504(B11) 656.077 0.085 2.475 0.014
Group/ Subject -323.377(B12) 525.967 -0.016 -0.615 0.539
Banking Diploma 878.569(B13) 569.666 0.047 1.542 0.124

a. Dependent Variable: Present Basic Salary (B0)

The fitted regression model can be defined as:

\[
\text{Present Basic Salary} = -38670.051 \ast (\text{Constant}) + 554.461 \ast \text{Gender} + 709.891 \ast \text{Age} - 5124.611 \ast \text{Marital Status} + 1360.314 \ast \text{Religion} + 6201.641 \ast \text{Present designation} + 1902.867 \ast \text{First joining designation} + 1834.212 \ast \text{Type of Bank} + 282.551 \ast \text{Name of the Bank} -1672.287 \ast \text{Location (District)} + 1902.867 \ast \text{Location (Upazilla)} + 1834.212 \ast \text{Type of Bank} + 282.551 \ast \text{Name of the Bank} -1672.287 \ast \text{Location (District)} + 1902.867 \ast \text{Location (Upazilla)} + 1834.212 \ast \text{Type of Bank} + 282.551 \ast \text{Name of the Bank} -1672.287 \ast \text{Location (District)} + 1902.867 \ast \text{Location (Upazilla)} + 1834.212 \ast \text{Type of Bank} + 282.551 \ast \text{Name of the Bank}
\]

Remarks: From the fitted (Table 7) the age, present designation, first joins designation, educational qualification were statistically significance at 5% level of significance. Among the significant independent predictors age (709.891), present designation (6201.641) and first joining designation/post (1902.867) were positive contribution to the dependent variable present basic salary.

Figure 3 & 4: Histogram and P-P Plot of Regression Standardized Residual (Present basic salary)

Remarks: From the fitted histogram (Figure 3 & 4) showed the bell shape curve and Q-Q (quantile-quantile) plot the fitted residual line passing through the origin. Therefore, the dependent variable Present Basic Salary is normally distributed and the linear regression model best fit for this dataset.

Table 8: Regression-Model Summary

| Model | R | R² | Adjusted R² | Std. Err. of the Estimates | Change Statistics |
|-------|---|----|-------------|---------------------------|------------------|
|       |   |    |             |                           |                  |
| 1     | 0.826a | 0.682 | 0.672 | 15365.25 | 0.682 | 63.742 | 13 | 386 | 0.000 |
|       | a. Predictors: (Constant), Banking Diploma, Group/ Subject, Gender, Religion, Educational Qualification, Marital Status, Location (District), Type of Bank, Present Designation, First joining designation/post, Name of the Bank, Age, Location (Upazilla) |
|       | b. Dependent Variable: Present gross salary |

Remarks: The fitted linear regression model (Table 8) for Present Gross Salary and other independent variables listed above. The model is good fit for this dataset and the coefficient of multiple determinations R² is 0.682. Since the R² ~ 0.682 then the dependent variable present gross salary 68.2% explained by the independent variables/predictors.
Table 9: ANOVA

| Model                  | Sum of Squares | df  | Mean Square | F          | Sig.  |
|------------------------|----------------|-----|-------------|------------|-------|
| Regression             | 195635872639.298 | 13  | 15048913279.950 | 63.742     | 0.000b|
| Residual               | 91131097360.703  | 386 | 236090925.805  |            |       |
| Total                  | 286766970000.000 | 399 |              |            |       |

a. Dependent Variable: Present gross salary
b. Predictors: (Constant), Banking Diploma, Group/Subject, Gender, Religion, Educational Qualification, Marital Status, Location (District), Type of Bank, Present Designation, First joining designation/post, Name of the Bank, Age, Location (Upazilla)

Hypothesis: The null hypothesis, H0: B0 = B1 = B2 = ………… = B13 = 0
The alternative hypothesis, H1: B0 = B1 = B2 = ………… = B13 ≠ 0

Remarks: From the (Table 9) ANOVA (Analysis of Variance) table the fitted regression model F-test statistic value is 63.742 and the significance value (p-value) 0.000. Then all the regression coefficients were statistically highly significant at 5% level of significance. That is, alternative hypothesis is accepted. Therefore, all the regression coefficients were not zero (0).

Table 10: Coefficients

| Model                  | Unstandardized Coefficients | Standardized Coefficients | t      | Sig.  |
|------------------------|----------------------------|---------------------------|--------|-------|
|                        | B                          | Std. Error                | Beta   |       |
| (Constant: Present gross) | -76402.124                | 14122.791                 | -5.410 | 0.000 |
| Gender                 | 1172.807                   | 2252.196                  | 0.016  | 0.521 |
| Age                    | 1244.412                   | 189.561                   | 0.432  | 6.565 |
| Marital Status         | -9286.091                  | 7946.247                  | -0.035 | -1.169|
| Religion               | 1028.259                   | 2459.809                  | 0.012  | 0.418 |
| Present designation    | 10226.033                  | 1014.378                  | 0.503  | 10.081|
| First joining design.  | 3129.422                   | 822.645                   | 0.225  | 3.804 |
| Type of Bank           | 15523.420                  | 3566.423                  | 0.232  | 4.353 |
| Name of the Bank       | 420.502                    | 635.505                   | 0.036  | 0.662 |
| Location (District)    | -4565.112                  | 3728.379                  | -0.113 | -1.224|
| Location (Upazilla)    | 326.900                    | 551.594                   | 0.057  | 0.593 |
| Educational qualification | 2791.159                 | 1442.615                  | 0.078  | 1.935 |
| Group/ Subject         | -282.423                   | 1156.521                  | -0.007 | -0.244|
| Banking Diploma        | 1700.733                   | 1252.610                  | 0.048  | 1.358 |

a. Dependent Variable: Present gross salary

The fitted regression model can be defined as,

Present Gross Salary

= -76402.124 * (Constant) + 1172.807 * Gender + 1244.412 * Age - 9286.091 * MaritalStatus + 10226.033 * PresentDesignation + 3129.422 * Firstjoiningdesignationalocation + 15523.420 * TypeofBank + 420.502 * NameoftheBank - 4565.112 * Location(District) + 326.900 * Location(Upazilla) + 2791.159 * EducationalQualification - 282.423 * GrouporSubject + 1700.733 * BankingDiploma

Remarks: From the (Table 10) fitted the age, present designation, first joins designation, educational qualification were statistically significance at 5% level of significance. Among the significant independent predictors age (1244.412), present designation (10226.033), first joining designation/post (3129.422) and type of bank (15523.420) were positive contribution to the dependent variable Present Gross Salary. Therefore, there is a strong association among age, present designation, joining post and type of bank that affect employee satisfaction.
Remarks: From the fitted histogram (Figure 5 & 6) showed the bell shape curve and Q-Q (quantile-quantile) plot the fitted residual line passing through the origin. Therefore, the dependent variable Present Gross Salary is normally distributed and the linear regression model best fit for this dataset.

Table 11: Regression-Model Summary

| Model | R | R² | Adjusted R² | Std. Err. of the Estimates |
|-------|---|----|-------------|---------------------------|
| 1     | 0.689a | 0.475 | 0.457 | 5713.00316 |

Change Statistics

|                    | R² change | df1 | df2 | Sig. F |
|--------------------|-----------|-----|-----|--------|
| Regression         | 0.475     | 13  | 386 | 0.000b |
| Residual           | 0.525     | 386 | 386 |        |
| Total              | 1.000     | 399 | 399 |        |

a. Predictors: (Constant), Banking Diploma, Group/Subject, Gender, Religion, Educational Qualification, Marital Status, Location (District), Type of Bank, Present Designation, First joining designation/post, Name of the Bank, Age, Location (Upazilla).

b. Dependent Variable: Initial basic salary

Remarks: The fitted linear regression model (Table 11) for Initial Basic Salary and other independent variables listed above. The model is fit for this dataset and the coefficient of multiple determinations R² is 0.475. Since the R² ~ 0.475 then the dependent variable initial basic salary 47.5% explained by the independent estimators.

Table 12: ANOVA

| Model | Sum of Squares | df | Mean Square | F       | Sig. |
|-------|----------------|----|-------------|---------|------|
| 1     | Regression     | 13 | 876585793.783 | 26.857 | 0.000b |
|       | Residual       | 386| 32638405.131 |         |      |
|       | Total          | 399| 2399403969.750 |        |      |

a. Dependent Variable: Initial basic salary

b. Predictors: (Constant), Banking Diploma, Group/Subject, Gender, Religion, Educational Qualification, Marital Status, Location (District), Type of Bank, Present Designation, First joining designation/post, Name of the Bank, Age, Location (Upazilla)

Hypothesis: The null hypothesis, H0: B₀= B₁= B₂= ……..= B₁₃=0

The alternative hypothesis, H1: B₀≠ B₁≠ B₂= ……..≠ B₁₃≠0

Remarks: From the ANOVA Table 12 the fitted regression model F-test statistic value is 26.857 and the significance value (p value) 0.000. Then all the regression coefficients were statistically significant at 5% level of significance. That is the null hypothesis is rejected and alternative hypothesis is accepted. Therefore, all the regression coefficients were not zero (0).

Table 13: Coefficients

| Model | Unstandardized Coefficients | Standardized Coefficients | t       | Sig. |
|-------|-----------------------------|---------------------------|---------|------|
| (Constant: Initial Basic Pay) | | | | |
| Gender | -350.697 | 838.100 | -0.017 | -0.418 | 0.676 |
| Age    | -121.912 | 71.022 | -1.717 | 0.087 |
| Marital Status | 1247.972 | 2977.753 | 0.016 | 0.419 | 0.675 |
| Religion | -21.884 | 918.839 | -0.001 | -0.024 | 0.981 |
The fitted regression model can be defined as,

\[
\text{Initial basic salary} = 6234.435 \times (C \times W \times C) - 350.679 \times G \times W \times G - 121.912 \times A \times W \times W - 1285.682 \times T \times Y \times W \times T \times Y + 1064.391 \times N \times Y \\
+ 1761.002 \times L \times W \times W \times (D \times W \times C) - 280.441 \times L \times W \times W \times (U \times W \times M \times M \times Y) - 879.276 \times E \times G \times M \times W \times W \times W \times Y \times M \times E \times M \times Y \times M \times W \times T \times W \times W - 306.230 \times G \times W \times M \times W \times W - 199.290 \times B \times W \times W \times C
\]

*Group or Subject* – 199.290 *Banking Diploma*

Comment: From the fitted coefficients (Table 13) the, *first name of the bank* were statistically significance at 5% level of significance. Among the significant independent predictors first joining designation/post (2220.853) and name of bank (1064.391) were positive contribution to the dependent variable Initial Basic Salary.

**Remarks:** From the Figure 7 & 8 depict that the fitted histogram showed the bell shape curve and Q-Q (quantile-quantile) plot the fitted residual line passing through the origin. Therefore, the dependent variable initial basic salary is normally distributed and the linear regression model best fit for this dataset.

**Figure 7 & 8:** Histogram and P-P Plot of Regression Standardized Residual (Initial basic salary)

**Table 14:** Regression-Model Summary^b

| Model | R      | R^2  | Adjusted R^2 | Std. Err. of the Estimates | Change Statistics |
|-------|--------|------|---------------|----------------------------|-------------------|
|       |        |      |               |                            |                   |
| 1     | 0.592^a | 0.351 | 0.329         | 13459.34450               | R^2 F change df1 df2 Sig. F |
|       |        |      |               |                            | 0.351 16.058 13 386 0.000 |

^a Predictors: (Constant), Banking Diploma, Group/ Subject, Gender, Religion, Educational Qualification, Marital Status, Location (District), Type of Bank, Present Designation, First joining designation/post, Name of the Bank, Age, Location (Upazilla)

^b Dependent Variable: Initial gross salary

**Table 15:** ANOVA^a

| Model    | Sum of Squares | df | Mean Square | F       | Sig. |
|----------|----------------|----|-------------|---------|------|
| 1        | Regression     | 37815785084.065 | 13 | 2908906544.928 | 16.058 | 0.000^a |
|          | Residual       | 69925426394.726  | 386 | 181153954.390  |       |      |
| Total    | 107741211478.791 | 399 |             |         |      |

^a Predictors: (Constant), Banking Diploma, Group/ Subject, Gender, Religion, Educational Qualification, Marital Status, Location (District), Type of Bank, Present Designation, First joining designation/post, Name of the Bank, Age, Location (Upazilla)

^b Dependent Variable: Initial gross salary

Hypothesis: The null hypothesis, H0: B_0 = B_1 = B_2 = ... = B_13 = 0

The alternative hypothesis, H1: B_0 = B_1 = B_2 = ... = B_13 ≠ 0
Remarks: From the Table 15 (ANOVA) the fitted regression model F-test statistic value is 16.058 and the significance value (p value) 0.000. Then all the regression coefficients were statistically significant at 5% level of significance. That is the null hypothesis is rejected. Therefore, all the regression coefficients were not zero (0).

Table 16: Coefficients

| Model                                                                 | Unstandardized Coefficients | Standardized Coefficients | t     | Sig.  |
|----------------------------------------------------------------------|-----------------------------|---------------------------|-------|-------|
| (Constant: Initial Gross Pay)                                       | 181.712                     | 12371.000                 | 0.015 | 0.988 |
| Gender                                                              | 25.992                      | 1972.834                  | 0.001 | 0.989 |
| Age                                                                 | -90.130                     | 166.047                   | -0.51 | 0.588 |
| Marital Status                                                      | 5525.183                    | 6960.595                  | 0.033 | 0.794 |
| Religion                                                            | -251.863                    | 2154.695                  | -0.05 | 0.428 |
| Present designation                                                 | -1829.536                   | 888.554                   | -2.05 | 0.040 |
| First joining designation                                           | 4425.217                    | 720.604                   | 6.14  | 0.000 |
| Type of Bank                                                        | -1458.181                   | 3124.043                  | -0.45 | 0.641 |
| Name of the Bank                                                     | 2449.083                    | 556.677                   | 4.39  | 0.000 |
| Location (District)                                                  | 2369.895                    | 3265.911                  | 0.056 | 0.726 |
| Location (Upazilla)                                                 | -360.575                    | 483.174                   | -0.74 | 0.468 |
| Educational qualification                                            | -1895.923                   | 1263.673                  | -1.50 | 0.134 |
| Group/ Subject                                                      | 164.586                     | 1013.066                  | 0.07  | 0.871 |
| Banking Diploma                                                      | 321.652                     | 1097.236                  | 0.293 | 0.770 |

Table 17: Results of alternative hypotheses (Hₐ) from ANOVA Table 3,6,9,12, &16

| Hₐ  | Results | Remarks | Relationship/ effect on employee motivation |
|-----|---------|---------|---------------------------------------------|
| H₁ₐ | p<0.05  | Sustained| Employee motivation is related to work experience. |
| H₁₂ | p<0.05  | Sustained| There is a relationship between motivation present basic pay. |
| H₁₃ | p<0.05  | Sustained| Present gross salary affects employee motivation. |
| H₁₄ | p<0.05  | Sustained| Initial gross salary motivates employee positively. |
| H₁₅ | p<0.05  | Sustained| Initial basic salary motivates employees positively. |

Therefore, employee motivations affected by all the factors of demographic issues in the banks were accordingly observed.
Overall it can be explained that employees are in the service of the banking sector influenced by the age, experience, present designation, joining post, type of bank, present and initial gross. There were strong relationships among these control or sources variables in the study. Gender did not affect the satisfaction of the bank employees. Among these factors the most effective factors were age and present designation (standardized Beta coefficient value 0.663 and 0.571). On the other hand, banking diploma mostly affects the promotion in case of public bank.

| Dependent variable      | R²     | Standardized coefficient | Effective factors                                      | Motivation |
|-------------------------|--------|--------------------------|--------------------------------------------------------|------------|
| Work experience         | 94%    | Age (β=0.663), present designation (β = 0.152) | Present designation                                     | Age        |
| Present basic pay       | 77%    | Present designation (β=0.571), age (β=0.461), and first joining designation (β=0.256) | Present designation                                     |            |
| Present gross pay       | 68.2%  | Present designation (β=0.503), age (β=0.432), type of bank (β=0.232) and first joining designation (β=0.225) | Present designation                                     |            |
| Initial basic pay       | 47.5%  | First joining designation (β=0.551), and Name of the bank (β=0.326) | First joining designation                               |            |
| Initial gross pay       | 35.1%  | First joining designation (β=0.519), and Name of the bank (β=0.337) | First joining designation                               |            |

It is evident from the Table 18 work experience is 94% explained by variance whereas age is strongly associated with job experience. Present basic salary 77% is explained by total predictors and it is highly affected by present designation of the existing employees. Present gross salary 68.2% is varied by the estimators and it is mostly influenced by present position of an employee. Initial basic salary is 47.5% ~48% explained by variance and is prejudiced by first joining designation. Initial gross salary 35.1% is explained by total variance and it is strongly affected by employees’ first joining designation. Therefore, employees’ motivation of the banking sector of Bangladesh is highly associated with work experience, present and initial salaries which are mostly modified by age, present and initial designation. Finally, equation may be Employee Motivation = f (Age + Present designation + Initial designation).

ACKNOWLEDGEMENT

The author of this article is grateful to the honorable Professor Dr. Md. Omar Faruk Sarker (PhD Supervisor of the author), Marketing Department, & Dr. Md. Karmuzzaman (PhD Co-Supervisor of the author), Associate Professor (Statistics), IBS, University of Rajshahi, Bangladesh.

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