Identifying the Factors for Reducing Employee Turnover Rate in Aviation Business: Bangladesh Context

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Abstract

Managing employee turnover for any organization is considered one of the demanding tasks for today’s competitive business world. This has been evident as an enduring problem in the aviation business of Bangladesh. In recent days, the impact of employee turnover has received considerable attention of human resources professionals and senior management working in the sector. In Bangladesh, skilled employees join the aviation companies with high expectations, but reality frustrates them and forces to switch. As a result, gradually this sector is facing shortage of talents and failing to achieve their goals. Thus, this research aims to find out the influencing factors that help to reduce employee turnover in aviation industry. A survey questionnaire was administered among the employees of aviation companies targeting the purpose using random sampling method. Data collected are analyzed through descriptive statistics. Subsequently, logistic regression models are used to portray the causal relationship among variables. The paper provides necessary recommendations that will help reduce employee turnover and aid in retaining the qualified employees. The outcome will provide a new initiative to the human resources professionals and senior management of the sector to deal with the shortage of talents more efficiently.

Keywords: Aviation Business; Employee Turnover; Job Facilities and Satisfaction

1. Introduction

Employee turnover is a serious issue for organizations given the competitive business arena these days. Employee turnover is defined as the degree of employee movement that occurs within and outside an organization (Reiß, 2008). Employees these days, look for diversity and challenge in their daily tasks and require an invigorating working atmosphere. Thus, it is essential that organizations reduce the negative and unacceptable effects of turnover, which usually places a heavy burden on the organization in terms of financial distribution and human resource management. The human resource management practice refers to the new replacement, recruitment, advertising, interviewing, training, supervising, assessment, socialization, coaching, and mentoring in an organization (Reiß, 2008; Armstrong, 2009; Bowes, 2010). Although all these tasks are time-consuming and difficult to deliver in a cost-effective manner; nevertheless, not having these fundamental provisions also could cause a barrier to retaining qualified and skilled workers. As a result, all organizations aim to achieve high productivity with low turnover and a strong foundation line. It is, therefore, critical for the organization to lowering turnover rates, if these aims are to be met.

Since turnover growth situation is no different in Bangladesh; it is essential for the government and nongovernment sectors to manage this situation diligently. Government sector employees enjoy convenient benefit package compare to private organization employees. Even though, employees in the government sector are regularly given special fringe benefits, but those still fall short to their
expectations. Although salaries and benefits are higher in the private sector, job security is lesser
and this causes a higher turnover compared to the public sector (Shamsuzzoha and Shumon, 2007).
Turnover rates also differ based on sectors ranging from manufacturing to services.

To date, there has not been research on turnover rates in the aviation sector in Bangladesh.
The business operators do not focus on this critical issue mainly due to the lack of awareness of
the significance of this matter. They do not realize the magnitude of the impact of turnover to the
productivity of the organizations involved. Therefore, this study aims to identify the critical factors
that assist in lowering the turnover rate in Bangladeshi airlines. In addition, the study will explain and
discuss the troubling situation with the human resource management of organizations as well as suggest
practices that would assist in lowering the negatives effects of turnover of employees.

This study initially states the problem and objectives of the study. A brief review of literature has
also been provided. This will be followed by the research methodology and analyses. After that, the
results of the descriptive analysis are demonstrated. Subsequently, the results of the logistic regression
analysis that emphasize the factors that assist in the reduction of turnover rates are presented. Finally,
the concluding section summarizes the major findings and provides recommendations for future
undertakings.

All the existing public and private airlines in the aviation sector of Bangladesh are relatively new,
with very limited resource and a limited number of aircrafts, inadequate infrastructure, limited access
to advanced technology, and the lack of qualified personnel. They have been successfully competing in
this market and have gained a respectable amount of market share. However, despite a steady average
growth of about 8% annually over the last decade, the airline industry of Bangladesh has miserably
failed to exploit the opportunities of this growth (The Airline Industry, 2004).

Over the last decade, the Bangladesh aviation industry has been facing a number of problems.
Information on mismanagement and corruption in the organizations has trickled out in recent years.
Among such incidents, the increasing state of employee turnover rate is significant. This research would
like to focus on employee turnover in the aviation industry of Bangladesh, especially the airlines so that
the companies can improve to gain a competitive advantage to sustain in the market. Thus, this research
tries to investigate. (i) the current status of airlines in Bangladesh in terms of employee turnover rate
and (ii) the ways to reduce employee turnover rates effectively to be sustainable in the market.

2. Literature Review

There are many reasons why turnovers occur. Employee turnover usually happens because of factors
related to jobs and the organization (Ongori, 2007). The term “turn over” is defined by Price (1977) as:
the ratio of the number of organizational members who have left during the period being considered
divided by the average number of people in that organization during the period. The sources of job-
related turnover include job-related stress, job dissatisfaction, lack of commitment on the part of the
organization, feelings of being powerless, and loss of control (Firth et al., 2004). Meanwhile, the
sources of turnover due to organizational reasons include organizational instability (Zuber, 2001), high
levels of inefficiency (Alexander et al., 1994), poor communication (Labov, 1997), poor recruitment
practices, managerial styles, lack of recognition, and the lack of competitive compensation (Abassi and
Hollman, 2000). The acceptable rate for turnover per annum is at 25% and it would be disastrous if
there was a turnover rate of 100% (Cole, 2002); high employee turnover is a clear indication of internal
issues within the organization (Armstrong, 2001).

The management can consider various preventive measures to minimize the turnover rates. It
could include training the line managers to be better supervisors before appointment or promotion
and by offering job security within proper work premises (Shamsuzzoha and Shumon, 2007). Other
methods of reducing turnover could include maximizing opportunities for individuals with special
preferences such as having flexible working hours, routine performance appraisals, and along with
a higher level of job security (Hutchinson and Purcell, 2003). Turnovers are reduced when there is
a better opportunity for promotion and career growth. If a particular position is a dead-end position,
the situation should be pointed out before recruiting so that the employee is aware of this fact. The
job function should be clearly explained so that the employee is not disheartened when there is no opportunity for promotion and growth.

An unsuitable salary structure relates to inequality in the salary scheme or a low salary and this could cause job dissatisfaction among the employees that can drive them to resigning from the organization. A new recruit might question the reason why another worker who is doing a similar job is getting a higher salary (Shamsuzzoha and Shumon, 2007).

Most workers intend to carry out their jobs well, thus when they are not appreciated or their work is not recognized, feelings of being unappreciated will start to emerge. Even employees who have been at a job for a very long time need to be told now and then if their work is being done correctly (Shamsuzzoha and Shumon, 2007). If this type of communication does not take place in the organization, the employee might consider changing jobs.

An effective approach to reducing employee turnover includes providing proper supervision and training opportunities. Shamsuzzoha and Shumon (2007) pointed out that workers should be given proper direction and guidance. New recruits would require additional assistance in becoming familiar with the job. Likewise, not having a proper training program could result in the employees lagging in their performance level and feeling incapacitate. The study by Firth et al. (2004) suggested that supervisors who provide proper supervision and support could motivate workers to work and thus lower the turnover rates. In addition, providing beneficial training programs could also assist in the reduction of turnovers (Fitz-Enz, 1990).

One of the pioneering studies that focused on the net effect of promotions was carried out by Trevor et al. (1997). The researchers pointed out the negative link between turnover and promotion. In fact, Trevor et al. (1997) discovered that promotions could positively predict turnover, suggesting a strong influence especially with the turnover of a poor performer. A study was carried out by Saporta and Farjoun (2003) which examined whether promotions, which are a critical component of the rewards allocated by an organization, could impact the resigning behavior of the employees. The findings of the study revealed that employees who were promoted more frequently in the past had a lesser tendency to resign voluntarily.

Cohen and Levesque (1991) defined teamwork as the combined action of a team, which is more than just the combination of individual actions occurring simultaneously. This study prefers the operational definition of teamwork as a group of workers who carry out tasks together and develop a high sense of cooperation among the members while carrying out the functions. Having good teamwork could lead to having a higher level of job satisfaction (Thomas et al., 2003), which in turn could reduce the rate of employee turnover.

Service rules that are not applied properly could also lead to employee turnover. Inadequate service rules are linked to the organization’s environment leading to employee turnover. Moreover, performance rewards could also have an effect on employee turnover. Inadequate reward systems could cause disappointment among the employees thus causing them to not work wholeheartedly. The study by Abassi and Hollman (2000) also find out that lack of proper recognition of employees and being in a toxic work environment can lead to employee turnover. Moreover, Griffeth et al. (2000) pointed out that when high performers are not rewarded accordingly, they often leave voluntarily.

Besides the factors mentioned above, a high turnover rate could be the result of poor professional maintenance, extensive corruption among the employees, intensified government interference, and overruling by the workers. These factors have an effect on the attitude of the employees resulting in frustration, causing them to change jobs for a better environment, and increasing turnover rates particularly in the aviation sector. Employee turnover issues could be reduced if these factors are paid due attention and managed properly.

3. Research Method

3.1. Sample design

Three airlines companies from Bangladesh were chosen and used in the pilot study. The purpose of the pilot study was to determine the reliability of the scale used in this study. According to Cavana et al.
(2001), the questionnaire should be pilot-tested among a few respondents from the targeted population. This will help to ensure the reliability of the whole scale as well as the items in addition to ensuring the consistency of the measurement instruments. Moreover, it will also assist in knowing whether the respondents clearly understand the questions.

The revised questionnaire was communicated to 100 respondents from the three airlines companies. 81 completed questionnaires were collected in total for data analysis. Due to the nature of the survey, the target population for this survey was the executives, supervisors, and managers. All respondents were a combination of male and female.

3.2. Data collection technique and validation

The current study used primary data gathered through a structured questionnaire that was developed from past literatures. The questionnaires were distributed to the respondents within a preset timeframe. The questionnaire included two sections: Sections A and B. Section A asked for the demographic information of the respondents such as the organization’s name, the respondent’s position, age, experience, and gender. Section B included questions associated with both the independent and dependent variables. A number of statements in this section were related to employee turnover, and the participants were asked to record their answers using a 5-point Likert scale. The scale ranged from 1 (strongly agree) to 5 (strongly disagree). This particular scale was chosen due to its suitability in measuring attitudes as designed by Rensis Likert in 1932.

About 51 (63%) completed questionnaires were collected from Bangladesh Biman which is a state-owned company, and the remaining 30 (37%) were from two private airlines companies. From these private companies, 13 (16%) were from United Airways and 17 (21%) were from Regent Airways. The sample consisted of 52 male and 29 female employees selected randomly. Among them, 48 are supervisors, 21 managers, and 12 were executives.

All the respondents in the study ranged between the ages of 21 years to more than 50 years. Among them, 2.5% of the respondents were between the ranges of 21 and 30 years, 19.8% of the respondents were between the ranges of 31-40 years, 58% of the respondents were between the ranges of 41 and 50 years and 19.8% of the respondents’ age was more than 50 years. On the other hand, 18.5% of the respondents in the study had 0 to 5 years job experience in the aviation sector compared to 22.2% of the respondents who had 6 to 10 years of experience. Moreover, the highest at 35.8% were respondents with 11-15 years of experience and in the second rank, 23.5% of the respondents had 16-20 years job experience. Significantly, none of the respondents in this study Hadan experience of more than 20 years in this sector.

The reliability test was performed to affirm the stability and consistency of the data using the Cronbach’s Alpha. The alpha value for measuring the items’ reliability in the questionnaires was found to be 0.780, which is above the acceptable level of 0.7 as proposed by Nunnally (1978). Data entry and analysis were carried out using SPSS version 17.0. Descriptive statistics were used to analyze the demographic characteristics of the participants. Independent samples t-test was carried out to see the differences in the turnover rates between public and private organizations and finally, multiple regression was conducted to identify any possible relationships between the independent and dependent variables (defined later).

In this study, the dependent variable “Reducing Turnover Rate” had two categories such as “changes will be effective for reducing employee turnover rate in your organization” coded as one and otherwise coded as zero. In this study, the independent variables are (i) job opportunity for advancement or growth (ii) promotion (iii) developing team work (iv) application of service rules and organization policy (v) maintaining professionalism (vi) reducing corruption (vii) over ruling (viii) government interference (ix) feelings of not being appreciated (x) proper supervision and training (xi) reward for performance, and were incorporated in the model. All the above-mentioned variables were somewhat related to the reducing factors of turnover activities. Thus, specifically model can be written as:

\[
\log(p/1-p) = b_0 + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 x_4 + b_5 x_5 + b_6 x_6 + b_7 x_7 + b_8 x_8 + b_9 x_9 + b_{10} x_{10}
\]
Where, \( p \) is the probability of reducing turnover after taking corrective action.

\[
0 = \text{Constant} \\
\text{Job-Opp} = \text{Job opportunity for advancement or growth} \\
\text{Pro} = \text{Promotion} \\
\text{Dev-TW} = \text{Developing team work} \\
\text{Pro-RnO} = \text{Application of service rules and organization policy} \\
\text{Pro-Main} = \text{Maintaining professionalism} \\
\text{Red-Cor} = \text{Reducing corruption} \\
\text{Ovr-Rul} = \text{Over ruling} \\
\text{Govt-Int} = \text{Government interference} \\
\text{Fee-App} = \text{Feelings of being appreciated} \\
\text{Pro-SnT} = \text{Proper supervision and training} \\
\text{Red-Per} = \text{Reward for performance} \\
b_1 \text{ to } b_{10} = \text{Coefficient to be estimated}
\]

4. Findings

To relate with the results and discussion, few demographic information need to be reproduced here. The respondents’ demographic profiling reveals that respondents between the ages of 41 and 50 years old were the majority, 58% of all the respondents. This rate of response is closely followed by the outcome of job experience, which has the highest number of respondents with 11-15 years of experience at 35.8%. These responses are validated based on the evidence that these relationships are supported through the analysis of designation which showed that 59.3% of the respondents work as supervisors. This reveals that most of the responses to the questionnaire came from mid-level supervisors who willingly participated while the top-level executives did not show sufficient eagerness to participate. In addition, the descriptive statistics shows that the rate of employee turnover in the aviation sector in Bangladesh is not lessening with results showing 71% had either disagreement or strong disagreement. This synchronized consistency in the responses is an interesting observation for researchers that the employee turnover usually occurs in the mid-level jobs. The anticipated employee turnover occurs following a certain number of years working in the airlines companies while employees get frustrated due to the operational environment of the organization and other associated factors.

4.1. t-test analysis

An independent sample t-test was conducted to determine that employee turnover rate has difference between of public and private companies and results show that the positive t value indicates the difference exists between public and private aviation companies. From this independent sample t-test table (Table 1), it shows that the test was significant, \( t(79)=4.509, P = 0.000 \) which is \( <0.05 \). Public company (\( M = 4.10, SD = 0.575 \)) has high turnover rate than private company (\( M = 3.00, SD = 1.58 \)).

4.2. Logistic regression

The omnibus tests of model coefficients are used to check the relationship between the independent variables and the dependent variables were statistically significant or not through the cross-validation

| Table 1: t-test results for types of company on employee turnover rate |
|---|---|---|---|---|---|
| Subscale | Types of organization | n | Mean±SD | df | t | Significance |
| Employee Turnover | Public | 51 | 4.10±0.575 | 79 | 4.509 | 0.000 |
| | Private | 30 | 3.00±1.576 | | | |
| Total | | 81 | | | | |

\( *p<0.05, SD: \text{Standard deviation} \)
analysis. The probability for the model Chi-square (54.425) testing overall relationship was <0.01. Hence, the significance of the overall relationship between the individual independent variables and the dependent variables supports the interpretation of the model using the full data set (Table 2).

Classification table shows the accuracy rate of the sample. The accuracy rate for the sample was 92.6% which satisfied the minimum requirement. Hence, the classification accuracy for this analysis of the full data was supported (Table 3).

As it is mentioned earlier that logistic model was used for this study to observe the impact of socioeconomic variables taking place on the dichotomous dependent variable. Whether the data fits the model adequately or not is the important aspect to look for. For this purpose, Hosmer and Lemeshow (1980) test of goodness of fit was conducted.

The recommended test for overall fit of a binary logistic regression model is the Hosmer and Lemeshow test, also called the chi-square test. This test is considered more robust than the traditional chi-square test. A finding of nonsignificance corresponds to the researcher concluding the model adequately fits the data. This test is preferred over classification tables when assessing model fit. Hosmer and Lemeshow’s goodness of fit test divides a subject into deciles based on predicted probabilities then computes a chi-square from observed and expected frequencies. Then a probability (P) value is computed from the chi-square distribution with 8 degrees of freedom to test the fit of the logistic model. The H-L goodness-of-fit test statistic is (0.126) which is <0.05, therefore; we fail to reject the null hypothesis that there is no difference between observed and model-predicted values, implying that the model’s estimates fit the data at an acceptable level (Table 4). To be brief, the goodness of fit suggests the model is good fit to the data set. Table 5 shows the estimated results of the logistic model. As can be seen, from the table that out of eleven independent variables, two variables were significantly related to the dichotomous dependent variable.

### Table 2: Omnibus tests of model coefficients

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Chi-square</th>
<th>df</th>
<th>Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step</td>
<td>54.425</td>
<td>11</td>
<td>0.000</td>
</tr>
<tr>
<td>Block</td>
<td>54.425</td>
<td>11</td>
<td>0.000</td>
</tr>
<tr>
<td>Model</td>
<td>54.425</td>
<td>11</td>
<td>0.000</td>
</tr>
</tbody>
</table>

### Table 3: Classification table*

<table>
<thead>
<tr>
<th>Observed Employee turnover rate of your organization is reducing?</th>
<th>Predicted Percentage correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>56</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>19</td>
</tr>
<tr>
<td>Overall percentage</td>
<td>92.6</td>
</tr>
</tbody>
</table>

*The cut value is 0.500

### Table 4: Hosmer and Lemeshow Test

<table>
<thead>
<tr>
<th>Chi-square</th>
<th>df</th>
<th>Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.605</td>
<td>8</td>
<td>0.126</td>
</tr>
</tbody>
</table>
Therefore, the logistic regression model is:
\[
\log(p/1-p) = -10.352 + 1.225 \times \text{Fee-App} + 1.021 \times \text{Pro-SnT}
\]

For every unit increase in Fee-App (Feelings of being appreciated), we expect a 1.225 increase in the log-odds of reducing turnover, holding all other independent variables constant. As well as for every one unit increase in Pro-SnT (Proper supervision and training), we expect a 1.021 increase in the log-odds of reducing turnover, holding all other independent variables constant.

The results of the multiple logistic models helped to discover the root cause of the ET problem. The results showed that feelings of being appreciated even after working for a long duration at the current job and improper training and supervision by supervisors are the main factors that help to reduce the rising turnover rates in the aviation industry in Bangladesh. The findings also reveal that the problem of employee turnover is higher in the public airlines sector compared to the private sector. The public airlines company shows that it has a higher rate of turnover and it can be assumed this is due to the lack of the above-mentioned factors, which occur more in public airlines rather than the private airlines.

Therefore, the researchers conclude that proper management of the above-mentioned factors could result in an overall reduction in the turnover rates of employees in the entire industry.

### 4.3. Practitioner implications

The analysis of the findings of the study allows us to make a few necessary recommendations, which could be assessed and implemented by the airlines companies in Bangladesh to reduce the rate of employee turnover.

The public and private airlines should both consider restructuring their salary scales. Given the fact that salary is an intrinsic motivational factor, this could significantly enhance the employee turnover situation. Public airlines should be given particular attention as the restructuring process takes a longer duration in this sector given the high level of bureaucracy.

Apart from the financial motivation, being appreciated for a job well done at times creates a change in job satisfaction. Therefore, an appreciation system should be undertaken to maintain the level of satisfaction among the employees.

The correct amount of supervision and training is related to performance rewards. The lack of both of these factors can result in a negative job behavior and hinder the smooth operations of an organization.

### Table 5: Output of logistic regression analysis

<table>
<thead>
<tr>
<th>Criteria</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Significant</th>
<th>Exp (B)</th>
<th>95.0% C.I. for Exp (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lower</td>
<td>Upper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job-Opp</td>
<td>0.216</td>
<td>0.852</td>
<td>0.065</td>
<td>1</td>
<td>0.799</td>
<td>1.242</td>
<td>0.234 – 6.591</td>
</tr>
<tr>
<td>Pro</td>
<td>0.146</td>
<td>0.393</td>
<td>0.138</td>
<td>1</td>
<td>0.710</td>
<td>1.157</td>
<td>0.535 – 2.502</td>
</tr>
<tr>
<td>Dev-TW</td>
<td>0.568</td>
<td>0.462</td>
<td>1.512</td>
<td>1</td>
<td>0.219</td>
<td>1.765</td>
<td>0.714 – 4.366</td>
</tr>
<tr>
<td>Pro-RnO</td>
<td>2.466</td>
<td>2.201</td>
<td>1.256</td>
<td>1</td>
<td>0.262</td>
<td>11.774</td>
<td>0.158 – 879.229</td>
</tr>
<tr>
<td>Pro-Main</td>
<td>−0.604</td>
<td>0.551</td>
<td>1.200</td>
<td>1</td>
<td>0.273</td>
<td>0.547</td>
<td>0.186 – 1.611</td>
</tr>
<tr>
<td>Red-Cor</td>
<td>0.356</td>
<td>0.564</td>
<td>0.400</td>
<td>1</td>
<td>0.527</td>
<td>1.428</td>
<td>0.473 – 4.310</td>
</tr>
<tr>
<td>Ovr-Rul</td>
<td>−0.378</td>
<td>0.465</td>
<td>0.663</td>
<td>1</td>
<td>0.415</td>
<td>0.685</td>
<td>0.275 – 1.703</td>
</tr>
<tr>
<td>Govt-Int</td>
<td>0.061</td>
<td>0.323</td>
<td>0.035</td>
<td>1</td>
<td>0.851</td>
<td>1.063</td>
<td>0.565 – 1.999</td>
</tr>
<tr>
<td>Fee-App</td>
<td>1.225</td>
<td>0.374</td>
<td>10.749</td>
<td>1</td>
<td>0.001</td>
<td>3.405</td>
<td>1.637 – 7.083</td>
</tr>
<tr>
<td>Pro-SnT</td>
<td>1.021</td>
<td>0.404</td>
<td>6.393</td>
<td>1</td>
<td>0.011</td>
<td>2.775</td>
<td>1.258 – 6.122</td>
</tr>
<tr>
<td>Red-Per</td>
<td>−1.912</td>
<td>2.053</td>
<td>0.867</td>
<td>1</td>
<td>0.352</td>
<td>0.148</td>
<td>0.003 – 8.258</td>
</tr>
<tr>
<td>Constant</td>
<td>−10.352</td>
<td>3.509</td>
<td>8.706</td>
<td>1</td>
<td>0.003</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

*p < 0.10; **p < 0.05; ***p < 0.01, Dependent variable: Employee turnover
Both the public and private airlines should develop proper supervision and provide sufficient training to the employees. They must also make sure that there is a proper reward system for performance at the same time. This would ensure that there are sufficient opportunities for the employees, which in turn would reduce employee turnover.

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