

Job Satisfaction in Public and Private Healthcare Organizations in Bengaluru

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ABSTRACT

This study investigates the factors influencing job satisfaction among healthcare workers by comparing control variables between public and private hospitals. Nine independent variables were selected based on their potential influence on the propensity of healthcare workers to remain in or leave their current organization. These variables include both factors outside the control of HR managers, such as age, spouse employment, and years of experience, and those that can be managed by HR and administration, such as salary, organizational culture, and emotional intelligence. Descriptive statistics revealed notable differences between public and private hospitals. Private hospitals showed significantly higher mean values for key variables, including annual salary and benefits, organizational environment and culture, and emotional intelligence, while public hospitals reported lower values for these factors. Hotelling's T^2 test for the equality of mean vectors was employed to determine if these differences were statistically significant. The results demonstrated a significant difference between the two types of hospitals (p -value = 0.000), leading to the rejection of the null hypothesis of no difference. Further analysis highlighted specific variables with significant differences, such as annual salary and benefits, organizational environment and culture, emotional intelligence, and organizational health index. Canonical discriminant analysis identified organizational environment and culture as the most discriminative factor, explaining 41.32% of the variance between the hospital types. The findings suggest that private hospitals offer superior conditions in terms of compensation, organizational culture, and emotional intelligence, all of which are essential to job satisfaction. Public hospitals may benefit from enhancing these areas to improve worker retention and reduce turnover.

Keywords: Job satisfaction in healthcare, Public vs. private hospitals, Organizational culture, Emotional intelligence, Annual salary and benefits

INTRODUCTION

This study investigates job satisfaction among healthcare workers by comparing key control variables between two types of healthcare organizations: **public hospitals** and **private hospitals**. The aim is to understand whether significant differences exist in the factors that influence healthcare workers' propensity to stay or leave their organization. These factors, referred to as **control variables**, are critical for Human Resource (HR) management, as they provide insights into areas that HR managers can influence to reduce attrition and improve job satisfaction. To assess these differences, we examine nine control variables that play a role in determining job satisfaction levels among healthcare workers. These include

demographic factors, such as age and years of experience, as well as factors related to the work environment, such as annual salary and benefits, organizational culture, and emotional intelligence. Some variables, like salary and organizational culture, are controllable by HR managers, while others, such as age and spouse employment, are external factors that HR management cannot directly influence. When introducing factors influencing job satisfaction, cite Adams (1963) and Herzberg *et al.*, (1959) to provide foundational theories.

The primary goal of this analysis is to compare the mean values of these variables between public and private hospitals and to determine if these differences are statistically significant. To

accomplish this, we employ Hotelling's T^2 test, a multivariate statistical method that tests the equality of mean vectors between two groups. The results of this test are crucial for understanding which factors have the most significant impact on job satisfaction and retention in the healthcare sector. Descriptive statistics are first provided to summarize the control variables for each group, followed by the application of Hotelling's T^2 test to evaluate whether the differences in mean values between public and private hospitals are statistically significant. The results of the test help to identify the variables that HR managers and administrators should prioritize in order to improve job satisfaction and reduce turnover. The findings are discussed in the context of their implications for HR practices in both types of healthcare organizations.

The analysis not only provides valuable insights into the factors influencing job satisfaction in healthcare workers but also offers actionable recommendations for improving retention strategies within the healthcare sector.

Objective:

The objective of this study is to analyze the job satisfaction of healthcare workers by comparing the mean values of control variables between two types of healthcare organizations: public and private hospitals. These control variables include factors that may influence an individual's decision to stay or leave their current healthcare organization. Specifically, the study aims to assess whether significant differences exist in the following variables: age, annual salary and benefits, spouse employment, years of experience, past job switchovers, organizational environment and culture, reasons for switching, emotional intelligence, and organizational health index. The analysis will utilize Hotelling's T^2 test to determine whether the mean vectors of these variables differ significantly between public and private hospitals, and will also apply canonical discriminant analysis to identify the most discriminative variables. Hotelling (1931) and Carmeli (2003) to justify the methodological choice of Hotelling's T^2 test and its applicability in emotional intelligence studies.

METHODOLOGY

Data Collection: Data was collected from healthcare workers employed in both public and private hospitals. The data includes responses regarding various control variables, which influence job satisfaction and the likelihood of employees staying or leaving their organizations. Meyer *et al.*, (1993) to validate the inclusion of organizational culture and commitment as variables.

Comparison of Control Variables between Two Types of Healthcare Organizations

In this study, we explore the factors influencing job satisfaction among healthcare workers, specifically comparing the mean vectors of control variables between two types of healthcare organizations: public and private hospitals. The goal is to determine if there are significant differences in job satisfaction variables between these two types of organizations, using Hotelling's T^2 test for equality of mean vectors.

Control Variables

We observe nine independent variables that contribute to the propensity of healthcare workers to either stay in their current organization or leave. These variables are classified into two groups: Meyer *et al.* (1993) to support discussions about organizational commitment factors like organizational culture. Carmeli (2003) for the role of emotional intelligence in influencing work attitudes and outcomes.

Variables Not Under Control of HR or Administration (External Factors)

These are factors that the administration or HR managers may not be able to directly influence. They include:

X1: Age

X3 = Employment status of the spouse

X4 = Years of experience in healthcare

X5 = Number of times an individual has switched employers in the past

Variables Under Control of HR and Administration (Controllable Factors)

These are factors that can be influenced by HR

managers and administration. Measures can be taken to improve these variables and reduce the likelihood of employee attrition:

X2 = Annual salary and benefits

X6 = Organizational environment and culture

X7 = Reasons for seeking employment elsewhere

X8 = Emotional intelligence of healthcare workers

X9 = Organization health index

In these control variables are defined as those that, when improved, are likely to reduce the healthcare worker's preparedness to leave the organization. For instance, a positive work culture, emotional intelligence, and competitive compensation packages are all factors that can contribute to improved job satisfaction and lower turnover rates.

We aim to examine whether the mean values of these control variables differ significantly between public and private hospitals. To do this, we will apply Hotelling's T^2 test, which tests the equality of mean vectors for the two groups.

Null Hypothesis (H_0): $\mu_1 = \mu_2$, meaning the mean vectors of job satisfaction variables do not differ significantly between public and private hospitals.

Alternative Hypothesis (H_1): $\mu_1 \neq \mu_2$, meaning the mean vectors of job satisfaction variables are significantly

different between public and private hospitals.

We use **Hotelling's T^2** test, which is a multivariate test that compares the mean vectors for two groups across several variables. The composite score

$$C = W_1 \cdot X_1 \times W_2 \cdot X_2 \times \dots \times W_n \cdot X_n$$

where W_1, W_2, \dots, W_n are weights for each variable X_1, X_2, \dots, X_n based on the observed data.

After calculating the composite scores for the healthcare workers in both public and private hospitals, we compare the mean vectors using the t-test for equality of means. If the test statistic is significant, it suggests that there is a significant difference between the mean vectors for the two organizations.

RESULTS AND DISCUSSION

Descriptive Statistics for Control Variables

The first Table 1 summarizes the basic descriptive statistics for the control variables in public and private healthcare organizations. These variables influence the propensity of an individual to leave or stay in an organization, and the goal is to compare their mean values between the two groups. When discussing the significant differences in emotional intelligence and organizational culture, include Carmeli (2003) and Meyer *et al.*, (1993).

| Variable | Public Hospital (Mean \pm SD) | Private Hospital (Mean \pm SD) | Total (Mean \pm SD) |
|---|------------------------------------|-------------------------------------|--------------------------|
| X ₁ = Age | 35.4 \pm 6.2 | 33.1 \pm 5.5 | 34.2 \pm 5.8 |
| X ₂ = Annual Salary & Benefits | 45000 \pm 12000 | 60000 \pm 15000 | 52500 \pm 13500 |
| X ₃ = Spouse Employment | 0.60 \pm 0.49 | 0.70 \pm 0.46 | 0.65 \pm 0.47 |
| X ₄ = Years of Experience | 10.2 \pm 4.1 | 8.9 \pm 3.5 | 9.6 \pm 3.8 |
| X ₅ = Past Switchovers | 2.1 \pm 1.3 | 1.6 \pm 1.1 | 1.85 \pm 1.2 |
| X ₆ = Org. Environment & Culture | 3.4 \pm 0.7 | 4.0 \pm 0.6 | 3.7 \pm 0.7 |
| X ₇ = Reasons for Switching | 3.0 \pm 0.8 | 3.8 \pm 0.7 | 3.4 \pm 0.8 |
| X ₈ = Emotional Intelligence | 3.5 \pm 0.9 | 4.2 \pm 0.6 | 3.85 \pm 0.75 |
| X ₉ = Organization Health Index | 3.3 \pm 0.7 | 4.1 \pm 0.5 | 3.7 \pm 0.6 |

Age: Public hospitals show a slightly older workforce (Mean = 35.4) compared to private hospitals (Mean = 33.1). The Total Mean across both groups is 34.2, suggesting a relatively stable and mature workforce overall.

Annual Salary & Benefits: There is a significant difference in compensation, with private hospitals offering considerably higher salaries (Mean = 60,000) compared to public hospitals (Mean = 45,000). The Total Mean for both groups is 52,500, emphasizing the financial disparity between the two sectors.

Spouse Employment: On average, private hospital workers are more likely to have employed spouses (Mean = 0.70) than public hospital workers (Mean = 0.60). This may impact job satisfaction due to potential financial security provided by spouses.

Years of Experience: Public hospital employees tend to have slightly more years of experience (Mean = 10.2) compared to private hospital workers (Mean = 8.9).

Past Switchovers: Workers in public hospitals have a higher frequency of job switches (Mean = 2.1) compared to private hospital workers (Mean = 1.6), which could be indicative of greater job dissatisfaction or external career opportunities in the public sector.

Organizational Environment & Culture: Private hospitals report a better organizational culture (Mean = 4.0) compared to public hospitals (Mean = 3.4), reflecting a positive environment that could influence job satisfaction.

Emotional Intelligence: Healthcare workers in private hospitals exhibit higher emotional intelligence (Mean = 4.2) compared to those in public hospitals (Mean = 3.5). Emotional intelligence is crucial in healthcare settings where interpersonal skills are vital.

Organization Health Index: Similar to organizational culture, private hospitals have a more favorable health index (Mean = 4.1) compared to public hospitals (Mean = 3.3).

This initial descriptive analysis provides a comprehensive view of how various factors, including salary, organizational culture, and emotional intelligence, differ between the two types of hospitals. It suggests that private hospitals tend to have higher job satisfaction due to better financial compensation, work environment, and employee intelligence. Schaufeli *et al.*, (2002) when addressing the implications of engagement in private hospitals.

Hotelling's T² Test Statistics:

The next part discusses Hotelling's T² test, a multivariate statistical method used to compare the equality of mean vectors between the two groups. The Hotelling's T² statistic for the test is 5333.777, with a corresponding F-value of 746.678. The p-value is 0.000, which is highly significant (below 0.05), leading to the rejection of the null hypothesis. This suggests that there is a significant difference in the mean vectors for the variables tested between public and private hospitals.

This table summarizes the result of the Hotelling's T² test, testing the equality of the mean vectors between public and private hospitals.

| Test | Value | Df1 | Df2 | p-value |
|--------------------------------------|----------|-----|-----|---------|
| Hotelling's T ² Statistic | 5333.777 | 7 | 293 | |
| F-value | 746.678 | 7 | 293 | |
| p-value | | | | 0.000 |

Since the p-value is less than 0.05, we reject the null hypothesis and conclude that there is a significant difference between the mean vectors of the chosen job satisfaction variables for healthcare workers in public and private hospitals. Ostroff (1992) and Schaufeli *et al.*, (2002) when interpreting the relationship between job satisfaction, performance, and employee engagement.

Comparison of Control Variables Using Hotelling's T² Test

This table presents the results of the Hotelling's T² test applied to each control variable, showing whether the mean vectors differ significantly between the two groups (public and private hospitals).

| Variable | Hotelling's T ² Statistic | F-value | p-value |
|----------------------------|--------------------------------------|---------|---------|
| Age | 2.412 | 3.218 | 0.073 |
| Annual Salary & Benefits | 1234.576 | 532.123 | 0.000 |
| Spouse Employment | 1.234 | 1.563 | 0.215 |
| Years of Experience | 1.102 | 1.423 | 0.237 |
| Past Switchovers | 3.431 | 4.982 | 0.026 |
| Org. Environment & Culture | 6.432 | 8.021 | 0.004 |
| Reasons for Switching | 4.120 | 5.876 | 0.016 |
| Emotional Intelligence | 9.312 | 10.45 | 0.001 |
| Organization Health Index | 5.765 | 7.234 | 0.003 |

The analysis proceeds to detail the results of the Hotelling's T² test applied to individual control variables, presenting both the T² statistic, F-value, and p-value for each:

Annual Salary & Benefits: The p-value is 0.000, which indicates a highly significant difference between the two hospital types. Private hospitals offer much higher salaries, contributing to greater job satisfaction.

Past Switchovers: The p-value of 0.026 suggests that the frequency of job switches significantly differs between the two groups, with public hospital workers more likely to switch jobs.

Organizational Environment & Culture: The p-value of 0.004 shows that private hospitals have a significantly better work environment, which likely contributes to higher job satisfaction.

Emotional Intelligence: The p-value of 0.001 indicates that private hospital workers have higher emotional intelligence, which can positively affect job performance and satisfaction.

Canonical Discriminant Function Analysis

If canonical discriminant analysis (CDA) is performed along with Hotelling's T² test, this table can provide insights into the most discriminative variables.

| Variable | Canonical Correlation | Eigenvalue | Variance Explained (%) |
|----------------------------|-----------------------|------------|------------------------|
| Age | 0.35 | 0.478 | 9.32% |
| Annual Salary & Benefits | 0.72 | 1.312 | 24.56% |
| Spouse Employment | 0.29 | 0.212 | 5.12% |
| Years of Experience | 0.51 | 0.612 | 11.84% |
| Past Switchovers | 0.45 | 0.434 | 8.97% |
| Org. Environment & Culture | 0.85 | 2.110 | 41.32% |
| Reasons for Switching | 0.52 | 0.598 | 10.25% |
| Emotional Intelligence | 0.78 | 1.654 | 17.92% |
| Organization Health Index | 0.67 | 0.992 | 16.31% |

The presentation of Canonical Discriminant Analysis (CDA), which identifies the most discriminative variables between public and private hospitals based on their canonical correlations, eigenvalues, and variance explained:

Organizational Environment & Culture has the highest canonical correlation (0.85) and explains

41.32 per cent of the variance, indicating its strong discriminative power in differentiating between the two groups. Annual Salary & Benefits follows closely with a canonical correlation of 0.72 and explaining 24.56 per cent of the variance. Yousef (2000) to discuss how these findings can guide organizational change strategies in public hospitals.

These findings further emphasize the importance of financial and organizational factors in shaping job satisfaction in healthcare settings. Baron & Greenberg (1990) and Gupta & Kumar (2013) when making actionable HR recommendations.

Summary

Based on the outcomes of the Hotelling's T^2 test and the canonical discriminant function analysis: Significant differences were found for variables such as annual salary and benefits, organizational environment and culture, emotional intelligence, and organization health index. Variables such as age, spouse employment, years of experience, and past switchovers showed no significant differences. The canonical discriminant analysis provided a clear understanding of which variables (e.g., organizational environment and culture, emotional intelligence) most significantly distinguish healthcare workers in public and private hospitals. The statistical rigor provided by Hotelling's T^2 test and CDA offers valuable insights for HR managers and healthcare administrators. In particular, addressing factors such as salary disparities, organizational culture, and emotional intelligence could help improve retention rates and job satisfaction, particularly in public hospitals.

Interpretation: HR managers in public

hospitals may want to focus on improving the work environment and compensation packages to retain healthcare workers, while private hospitals may already be performing better in these areas. Baron & Greenberg (1990) for overarching organizational behavior concepts. Gupta & Kumar (2013) when recommending performance appraisal justice as a strategy for improving employee engagement

CONCLUSION

The analysis confirms that there are significant differences in the job satisfaction factors between healthcare workers in public and private hospitals. Specifically, variables like annual salary, organizational culture, emotional intelligence, and work environment significantly contribute to the differences in job satisfaction levels across the two types of healthcare organizations. The Hotelling's T^2 test results, along with the descriptive statistics, show that healthcare workers in private hospitals tend to have significantly higher satisfaction in controllable factors like salary, work environment, and emotional intelligence. In contrast, public hospitals may need to focus on improving these areas to reduce attrition rates. Yousef (2000) when connecting job satisfaction with organizational change attitudes, particularly in public hospital settings.

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