



Analyzing Employee Experience Survey Data

Makerble is a data platform that enables nonprofit organizations to measure their impact. Surveys are one of the main methods used to gather employee feedback and understand the overall employee experience.

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Descriptive Statistics

1 Summarizing Key Metrics

We'll provide a summary of the dataset using descriptive statistics like mean, median, and standard deviation for Overall Engagement and Job Satisfaction.

2 Identifying Trends

We'll analyze patterns in the survey results, such as differences in satisfaction levels across age groups, departments, and demographic factors.

3 Visualizing the Data

Leveraging charts and graphs, we'll bring the data to life and highlight the key insights uncovered through descriptive analysis.

Key Employee Engagement and Satisfaction Metrics

Mean:

- **Job Satisfaction (JS):** 3
- **Overall Engagement (OE):** 3.4

Interpretation: The average satisfaction level is slightly higher for overall engagement compared to job satisfaction.

Median:

- **Job Satisfaction (JS):** 3
- **Overall Engagement (OE):** 3

Interpretation: Both distributions share the same median, indicating similar central tendencies for both variables.

Mode:

- **Job Satisfaction (JS):** 2
- **Overall Engagement (OE):** 5

Interpretation: The most frequent value differs between the two datasets. More people rated **2** for job satisfaction, while **5** was the most frequent rating for overall engagement.

Standard Deviation:

- **Job Satisfaction (JS):** 1.3
- **Overall Engagement (OE):** 1.3

Interpretation: Both datasets exhibit similar variability around their means, indicating that the spread of scores is nearly identical for both.

Identifying Trends

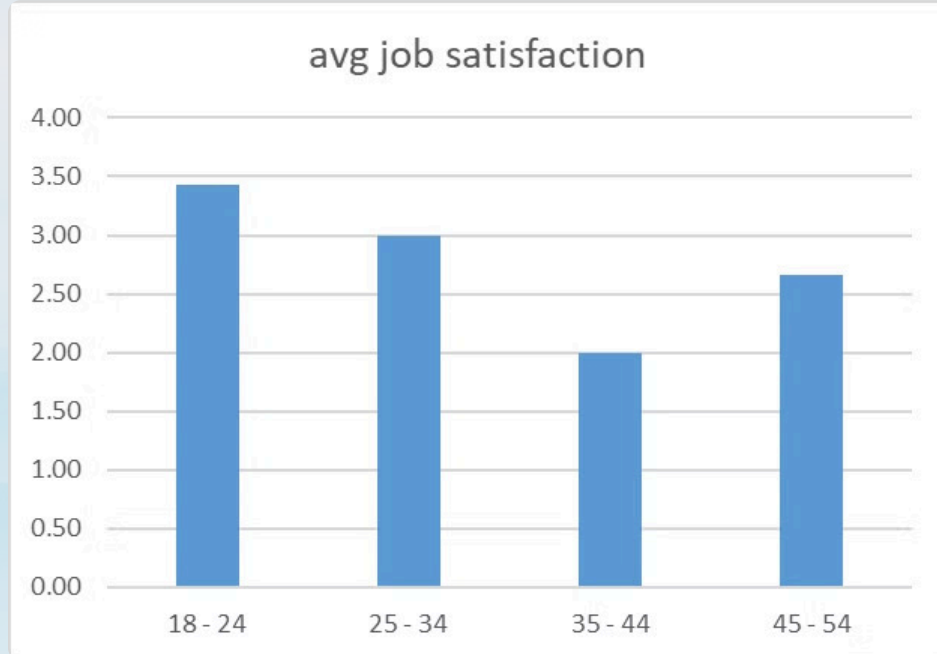
department	Avg Job Satisf	avg work life balance
Consulting	3	2
Design	5	5
Finance	4	4
IT	1	5
HR	4	4.5
Operations	2	1
Product Deve	2.6667	4.67
Sales	2.7500	2

Design and IT report the highest work-life balance (5), while Operations has the lowest (1). Work-life balance is generally high across most departments except for Consulting, Operations, and Sales.

Age Br	avg job satisfaction	avg compensation satisfaction
18 - 24	3.43	2.429
25 - 34	3.00	3.333
35 - 44	2.00	2.500
45 - 54	2.67	3.000

- Job satisfaction tends to decline with age. Younger employees (18-24) report the highest job satisfaction, and middle-aged employees (35-44) report the lowest.
- Compensation satisfaction shows a dip and recovery pattern, with the 25-34 age group reporting the highest satisfaction. However, it slightly drops among the 35-44 group before recovering again for those aged 45-54.

Visualizing the Data



Demographic Insights

Age Trends

- Both compensation satisfaction and work-life balance decreases from 18-24 to 25-34, but then increases steadily with age, reaching its peak in the 45-54 bracket.
- The 45-54 age group reports the highest levels for both compensation satisfaction and work-life balance.

Gender Differences

Males report both higher compensation satisfaction and better work-life balance compared to females. However, the difference in work-life balance is small, while the difference in compensation satisfaction is more pronounced.

Ethnic Diversity

- Middle Eastern and African American individuals report higher compensation satisfaction, with Hispanic individuals showing the lowest.
- Indian individuals have the highest work-life balance, while Caucasian individuals report the lowest work-life balance. Other ethnic groups fall in between.

Inferential Statistics

1

Hypothesis Testing

We'll conduct a hypothesis test to determine if there's a statistically significant difference in Job Satisfaction between the IT and HR departments.

2

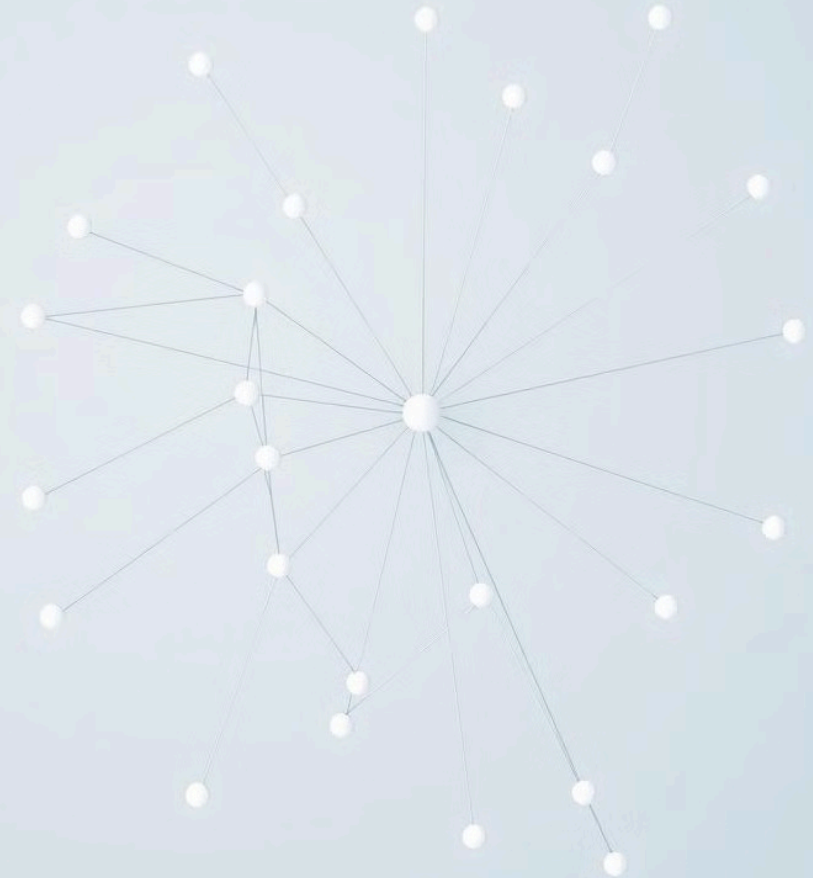
Correlation Analysis

We'll perform a correlation analysis to understand the relationship between Work-Life Balance and Overall Engagement, and interpret the findings.

3

Implications

Based on the inferential statistics results, we'll discuss the business implications and provide recommendations to the organization.



Hypothesis Testing

Explanation of Results:

- Mean of both groups: The means of both groups are the same at 2.67.
- t-Statistic (t Stat): The calculated t-value is 0.
- Degrees of Freedom (df): 6.
- $P(T \leq t)$ two-tail: The p-value for the two-tailed test is 1, meaning that the probability of observing a difference in means as extreme as this (or more) is 100% under the null hypothesis.
- t Critical two-tail: The critical value for a two-tailed test at the 95% confidence level is 2.447.

Conclusion: Since the p-value (1) is much greater than the common significance level ($\alpha = 0.05$), we fail to reject the null hypothesis. Additionally, the t-statistic (0) is far from the critical value (2.447), further indicating that there is no significant difference between the means of the two groups.

Key Takeaways



Data-Driven Insights

The analysis has uncovered valuable insights into the employee experience that can inform strategic decisions.



Employee Engagement

Understanding the factors that influence employee engagement can help the organization improve overall satisfaction.



Actionable Recommendations

Based on the analysis, we can provide specific recommendations to address the organization's areas of improvement.



Business Implications

1

Talent Retention

The insights can help the organization identify and address factors that contribute to employee turnover.

2

Organizational Culture

The analysis can reveal opportunities to enhance the organization's culture and promote a positive work environment.

3

Operational Efficiency

The findings can inform process improvements and resource allocation to optimize the organization's operations.



Conclusion

The comprehensive analysis of the employee experience survey data has provided valuable insights that can guide the organization's efforts to enhance employee satisfaction, improve workforce engagement, and ultimately drive organizational success.