



COMM1190 Assessment final

Data, Insights and Decisions (University of New South Wales)

COMM1190 Assessment 1: Individual Report

1. Introduction

Employee's Job satisfaction is a decisive factor effecting their job performance. The purpose of this report is to investigate the relationship between various job attributes and employee's Job satisfaction in Globex Pharma workforce, therefore enable its management team to gain insight of its workforce and develop right strategies to improve the overall job satisfaction of its employees. In this study, the data collected from a survey of 460 respondents who are employed in Globex Pharma was analysed using RStudio 2022.02.0 "Prairie Trillium" . The result reveals that Pay disparities, Age of the employees, and total working years are three key factors that show a strong correlation with job satisfaction of employees at Globex.

2. Limitation

It's worth noting due to the limitation of statistical analysis, this report can only reveal which two variables are highly correlated but can't prove that one variable causes the other. And more importantly, the data analysed in this report is based on one survey, therefore sampling error might distort the result.

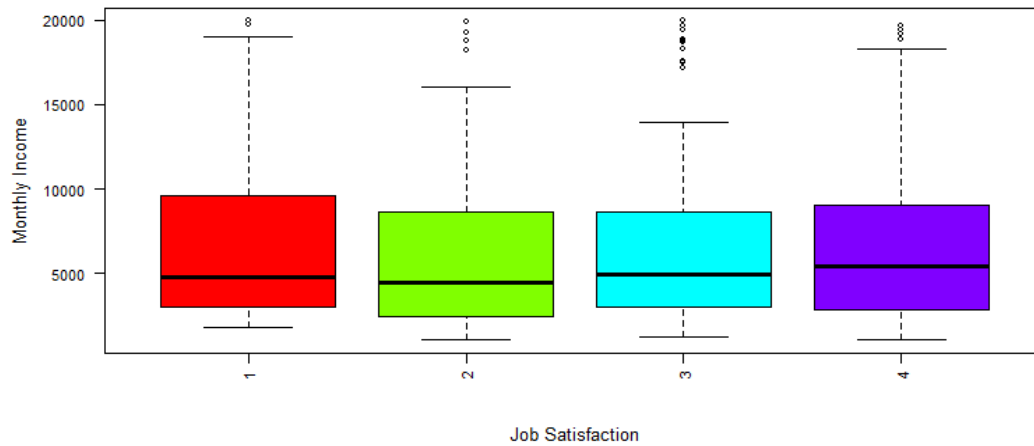
3. Statistical analysis:

The relationship between Pay disparities and job satisfaction

Pay has been considered an important reward to motivate the employees.

Satisfaction from pay is a must for job satisfaction. Figure 1 below shows the positive correlation between the monthly income and job satisfaction in Globex workforce.

Figure 1:Boxplot - Monthly Income v.s.Job Satisfaction

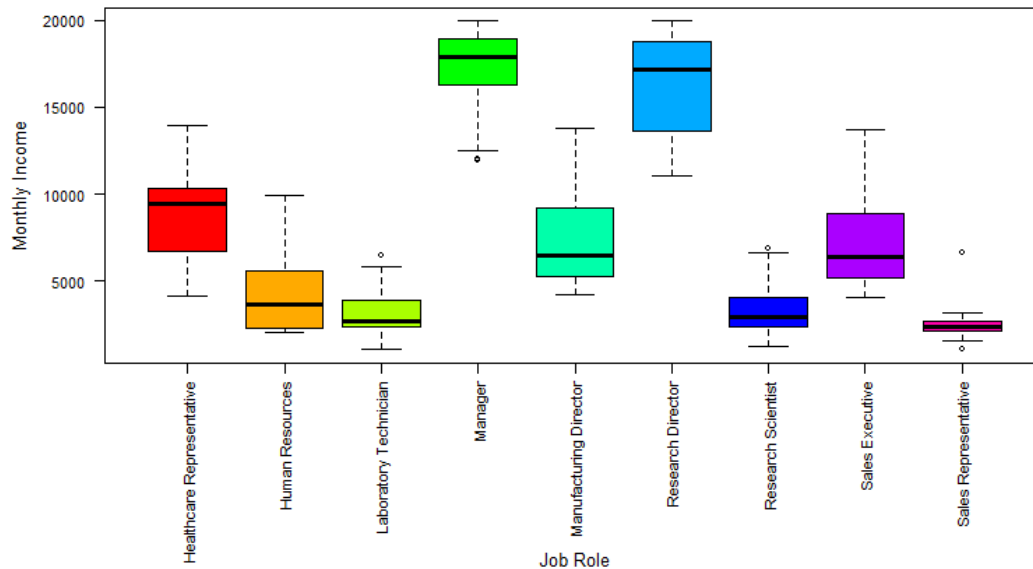


It has been observed in this study that there is a significant pay gap between management team and front-line workers at Globex. This pay gap can negatively affect front-line workers' morale and significantly decrease their job satisfaction level.

This pay gap is illustrated in figure 2. The most well-paid positions are Managers with median monthly Income at \$17,899.5, followed by Research Directors at \$17,169. Research Scientist, Lab Technicians and Sales Representatives are on the lowest end of the spectrum of the pay scale, with median monthly income at \$2968.5, \$2707.0, and \$2968.5 respectively. Since there are outliers presented in the Boxplot of the monthly Income (figure 1.), the median is a better measurement for data central tendency in this case as outliers will have bigger effect on mean value than median.

Since the frontline workers are essential workers in the core business of Globex, their job satisfaction is vital for the company's success. Therefore, a pay audit is recommended to verify the fairness of pay structure and investigate the pay disparities.

Figure 2: Monthly Income based on Job Role



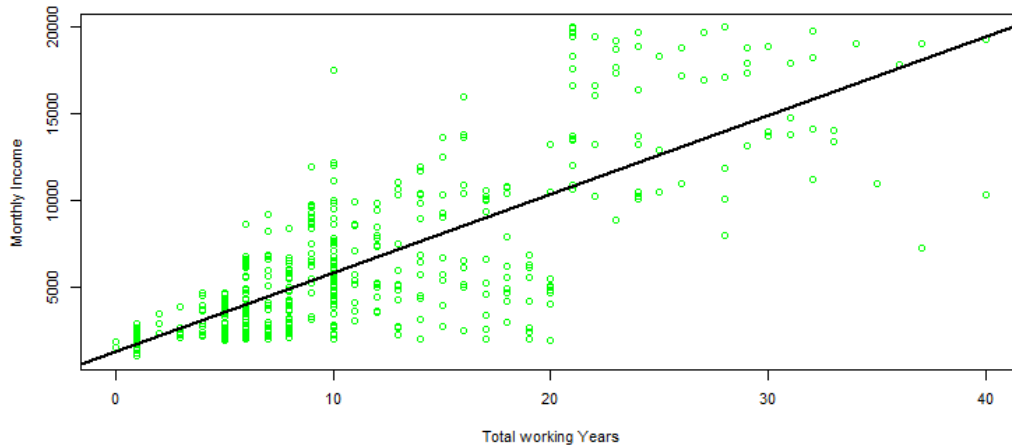
The relationship between total working years of employee and job satisfaction

Other than pay disparities, this study also reveals the pay scales in Globex is rigid with emphasis given on total years employee worked. As shown in the scatter plot below (figure 3), there is a strong positive linear correlation between Monthly Income and Total Working Years with R value of 0.77. From this high correlation we can conclude that Employees with longer Total Working Years tend to receive higher pay.

This type of pay structure reveals that Globex values employees' working experiences greatly. This could demotivate junior employees who are doing the similar job to their senior counterparts while has been paid significantly less. Pay scales skewed heavily on working years of employees often fails to serve as a motivating tool for younger employees who seek upward mobility within the company and role. Lacking upward mobility within the company will lead to low job satisfaction and poor performance from younger employees.

To address this issue, HR should take action to ensure that hiring and promotions are fair, junior staff have more opportunities for advancement in the company.

Figure 3: Total working years V.S. Monthly Income

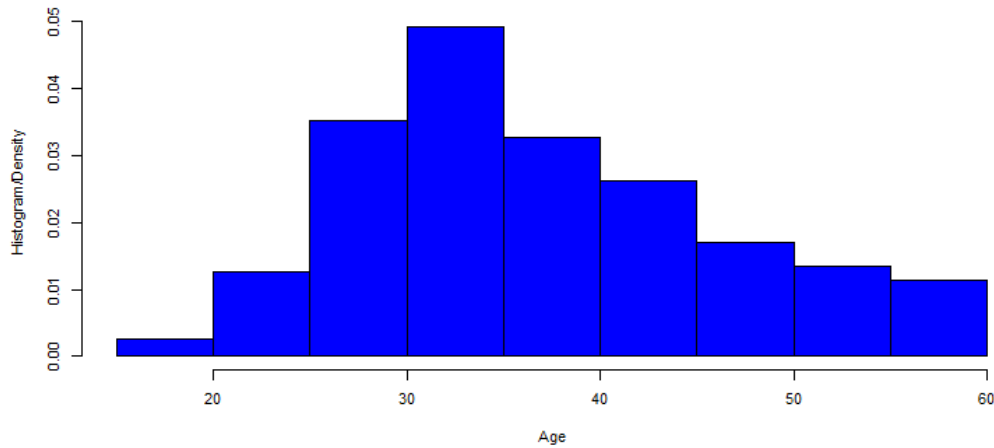


The relationship between employee age and job satisfaction

This study also reveals that age of employee is also correlated with his job satisfaction. The histogram in Figure 3 shows that the Age Structure of the workforce in Globex is skewed towards a younger cohort with median age of 36. Median Value of age is a better measurement of the central tendency of the Age as skewed data has a smaller effect on median than on mean.

The skewness of age structure indicates the low retention rate of mature workers, which is a strong indication of low job satisfaction experienced among mature workers. Mature workers are valuable assets to the company as they are more experienced. High retention rate of mature employee will lead to decrease the cost of recruitment and training. Globex should conduct more investigations to address this issue as high retention rate of mature workers will enhance company's performance.

Figure 4: Employee Age



4. Conclusion:

This study shows that Pay disparities, Age of the employees, and total working years are three factors showing strong correlation with job satisfaction of staff member at Globex. To increase employee job satisfaction, enhance their performance and increase employee retention rate, HR and management team at Globex should work closely with employees to develop strategit solutions. Pay audit, pay sale review and development policies to increase senior staff retention rate are highly recommended.

Reference

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Appendix:

