EXECUTIVE REPORT

Data analysis for a company’s dataset

**DESCRIPTION AND ORGANIZATION OF ANALYSIS**

This analysis has been carried out starting from the dataset made available by the Company.

Data obtained concerns a total of 474 workers. The following relevant data were used for each worker: gender, initial salary, level of education, employee category, working seniority (in months), previous work experience (in months), current salary, minority. Raw data were inputed into SPSS.

**KEY FINDINGS**

**Descriptive analysis** was performed for each variables. However, only major findings are reported.

* Out the 474 workers, 54% are male, and 46% are female (216). There is a good gender balance
* Workers have been classified by ‘Level’ as follows: Level 1 (76%) Level 2 (6%) and Level 3 (18%). The lowest category of workers prevails.
* The Company seniority is 6 years and 9 months (81 months). This demonstrates that workers tend to stay in the company for a medium/long period.
* The average entry salary is $17,016 while the average current salary is $34,419. This data is also in line with the previous finding. The Company provides salary rewards to employees who stay longer in the company.
* The current wage distribution has a positive asymmetry. This is not abnormal. It is consistent with the workers distribution over 3 Levels. The company pays higher salaries for employees with a higher position. This is consistent with the labor market.
* It is possible to guess that the Company belong to the educational industry.

**Pearson's correlation**. The main findings of this analysis are the following:

• The Pearson analysis show a clear positive and strong correlation between current Salary and first Salary within the company [0.88].

• A strong positive correlation is present in the relationship between years of education and Salary [0.66].

• In addition, a significant negative correlation exists between current salary and months of work experience outside the company.

**Linear Regression** has been used to estimate the impact of independent variables (X1, X2, X3…) on the dependent variable Y (‘Current Salary’)

* **Education.** The variation of only one year of education implies a salary higher than 502$.
* **First Salary**. Each dollar ($) earned from the first salary corresponds to an increase of 1,33$ on the current salary.
* **Months of work in this company.** Each month of work within the company corresponds to an average gain of 150$ on every month.
* **Months of work before hiring.** Employees with second-level employment status within the company earn on average 6.853$ more than those with first-level employment status.
* **Job level**. Employees with third-level employment status within the company earn on average 11.107$ more than those with first-level employment status.
* **Gender**. In this company, women earn on average 1.988$ less than men.

The index turns out to be equal to 0.844, therefore the model is able to explain 84,4% of the overall variance of the dependent variable.

**CONCLUSIONS AND RECOMMENDATION**

The Company has a satisfactory workers retention policy, in fact the average working seniority is almost 7 years on average. Company tends to reward employees who stay longer in the company.

Is has a good remuneration policy to pay the workers. In fact, even the salary tends to increase as employees accumulate seniority.

However, the Company has an opportunity of improvement. It emerges the fact that women earn about $2K less than their male counterparts under equal circumstances.

The Company may be advised to set up a Committee to monitor the salary policy.