

Project Jonatan Bolfson – R/GA Exam

Key Insights

- According to figure 1, seniority does not have an increasing pattern in all of its buckets according to average salary: This may be due to the presence of outliers in the different buckets of seniorities. This could be a cause of not motivation of passing through seniority 6 to seniority 7 or from seniority 9 to seniority 10 as they would have a lower salary with a higher seniority. For most of the other buckets of seniority, average salary does have an increasing pattern.

Figure 1: Average Salary by Seniority

Seniority	Promedio de salary
1,00	34.268,94
2,00	43.404,35
3,00	57.666,94
4,00	49.623,14
5,00	69.064,45
6,00	98.273,79
7,00	90.324,75
8,00	118.296,44
9,00	134.630,71
10,00	135.464,87
12,00	185.139,78
13,00	76.374,61
14,00	180.362,92
15,00	259.525,19
16,00	298.155,48
17,00	204.947,00
18,00	281.503,32
19,00	291.974,99
20,00	388.560,01

- If we understand utilization as the billing efficiency or the overall productive use of an individual or a firm, then we can conclude that utilization and average salary are not correlated by department. Taking support as an example, it has the highest utilization rate and the lowest salary. This is an insight from a monetary point of view, although each department has different characteristics. Support may not be a human capital intensive area, although research and development is. We can also see that there is no relationship between average survey score and average utilization rate and average salary by department.

Figure 2: Average Utilization rate by department



Utilization=% difference between the client hours and the total working hours minus admin hours=

$$\frac{((\text{ClientHrs1} - \text{total_working_hours_by_employee} - \text{dminHrs1}))}{\text{total_working_hours_by_employee}} * 100$$

Figure 3: Average Salary by department

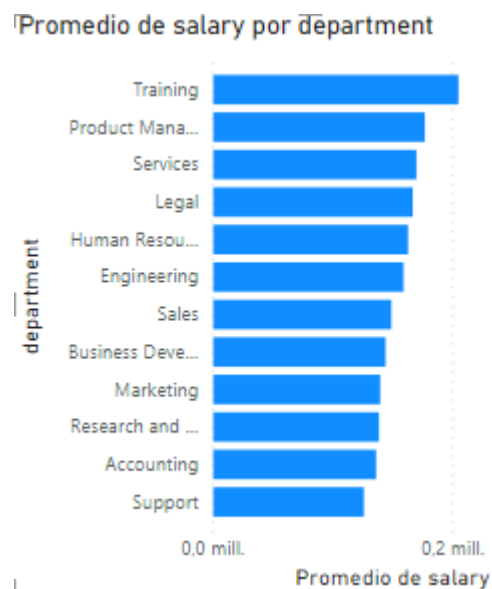
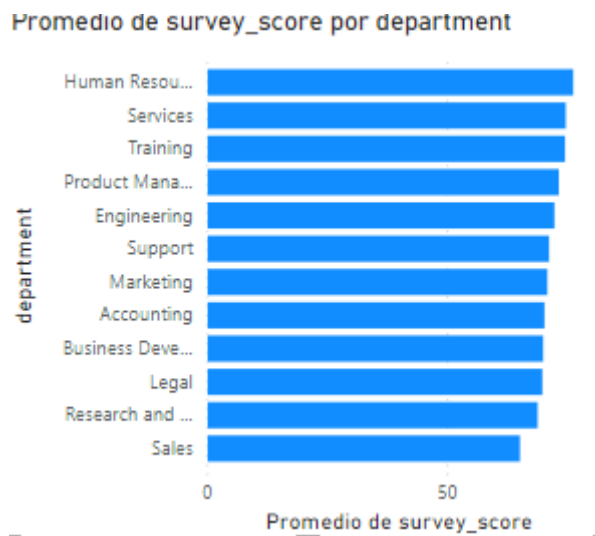


Figure 4: Average Survey Score by department



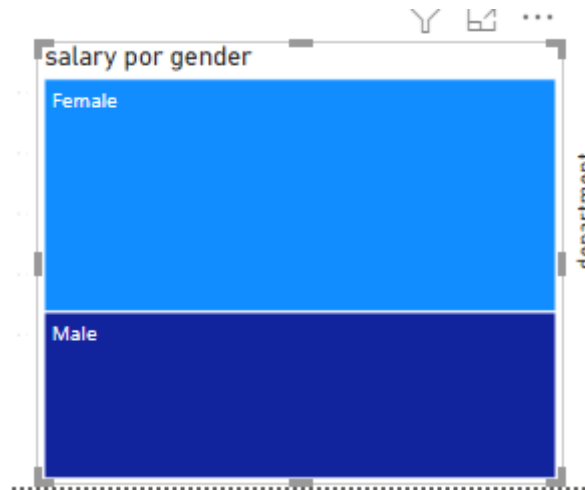
- According to the average salary by department we cannot know for certain the criteria for salary, although we can conclude that a highly qualified individual, such as a scientist, who belongs to the research department, may not be economically recognized as it is one of with the lowest department's salary.
- According to figure 5. skill level is negatively correlated with average salary. The experts are the less paid, and the least experts have the higher average salary. This is a key finding, as employees are not motivated to be experts as they will not have a higher salary.

Figure 5: Skill Level



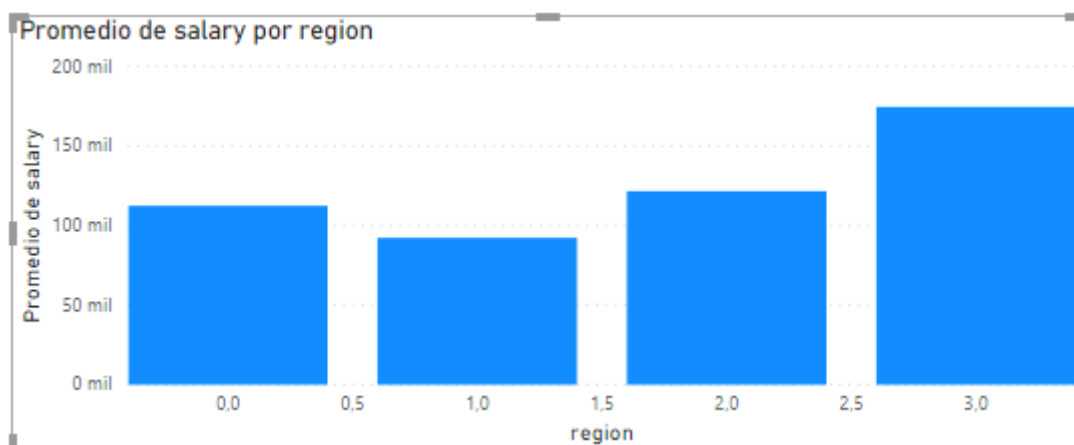
- According to figure 6, On average, women's salaries tend to be higher than men's, which would also not motivate men to increase productivity.

Figure 6: Average Salary by Gender



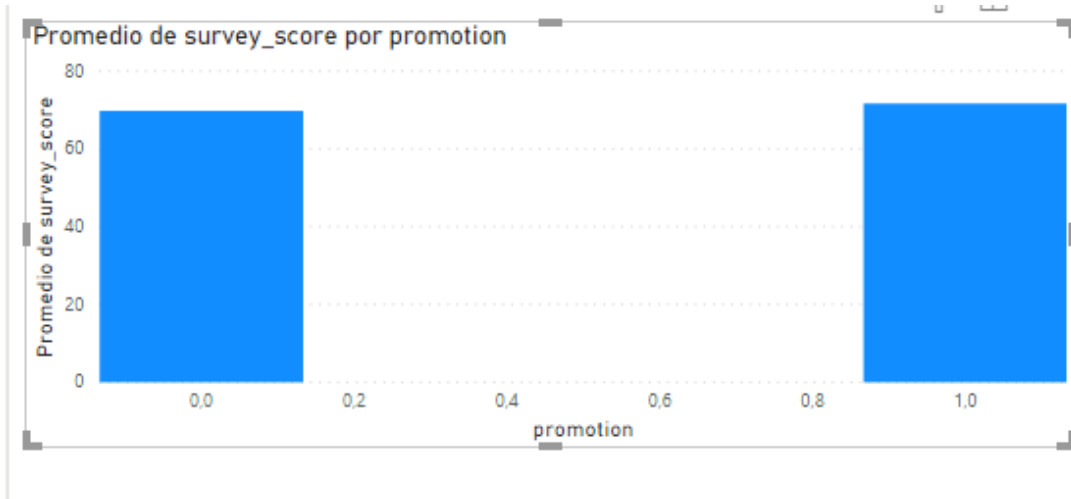
- According to figure 7, average salary across regions are not equal. This fact may be an incentive for a worker to move from one region to another one where the salary is higher.

Figure 7: Salary by region



- According to figure 8, there does not seem to be a distinction between promotion (1) and no promotion (o) for the results of the survey score. It seems that there is no relationship between promotion and survey score

Figure 8: Survey score and Promotion



- According to figure 9, on average years of experience are correlated with promotion. It seems more likely to be promoted the more time you have in the company.

Figure 9: Average years of experience and promotion



- According to figure 10, administrative time is negatively correlated with skill level. The more qualified the employee the less administrative time it has.

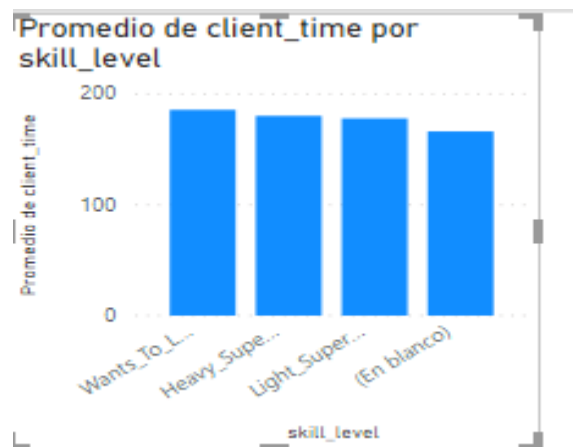
Figure 10: Administrative time per skill level.



Admin Time: % difference between admin hours and the total working hours= $\text{adm_time} = ((\text{AdminHrs1} - \text{total_working_hours_by_employee}) / \text{total_working_hours_by_employee}) * 100$

- According to figure 11 the higher the skill level the least time the employee dedicates to the client. This may be due to the fact that employees with more experience require less time to complete a task

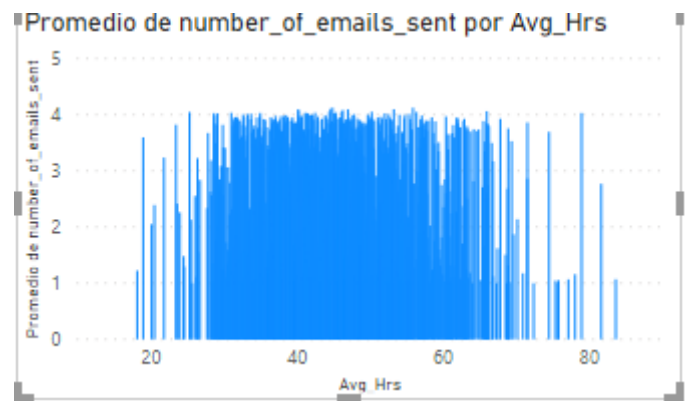
Figure 11: Client time per skill level



Client time: % difference between client hours and the total working hours= $\text{client_time} = ((\text{ClientHrs1} - \text{total_working_hours_by_employee}) / \text{total_working_hours_by_employee}) * 100$

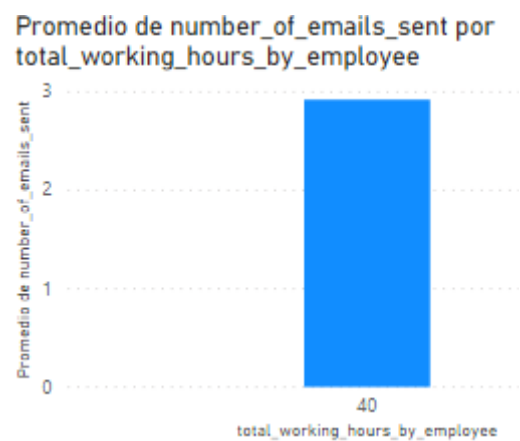
According to figure 12 there is not a clear pattern between emails sent and average hours worked. The finding is that few emails are sent during short and long average hours worked, but not in an intermediate level.

Figure 12: Number of emails sent per average hours.



According to figure 13 the mean value of emails sent within 40 hours of work is 3.

Figure 13: Number of emails sent per total average hours worked.



Recommendations and Conclusions

Based on the previously supported documentation it is recommended to follow the next steps:

- Create a system in which promotion is based on a meritocracy focus
- Be able to pay employees according to their seniority. (The presence of outliers in a seniority's bucket may distortion the bucket's average salary)
- Pay equally amongst men and women
- Pay more to more qualified employees in order to retain them
- There is no clear correlation between collaboration (the proxy variable is emails sent) and average hours worked.
- I would recommend to add more years to the dataset, so that a time-series analysis and a panel data analysis could be made in order to run regressions or create a model.