Presentation on Game Theory Applications

Student’s Name

Institution

**Presentation on Game Theory Applications**

Part 1:

QA: Calculate the probability of getting a satisfied client based off of your prior work history at G& B Consulting. Show all work.

In the previous work the satisfaction rate was

25 clients = 100

22 satisfied =?

22\*100/25

**88%**

In the previous work I scored a satisfaction rate of 88% among the customers.

With 25 clients I obtained satisfaction rate of 88%. And therefore, 60 clients would give a satisfaction rate of =211.2%. It is therefore, means that the possibility of getting a higher satisfaction rate among the customers when hired is high and therefore, I can do better when given a job.

Part 2



**QA**. **Using the payoff matrix shown above, determine if the manufacturer has a dominant strategy. Show and explain all steps.**

The matrix indicates that the manufacturer has a dominant strategy t. This is because the matrix of manufacturer use = -5 >15. In this case it means that if the manufacturer decides to sue its competitor in the market, the possibility of winning the case is high. It is also noted that don’t’ sue is not an option because the matrix indicates -20>10. In this case, the competitor does not have a strategy, which can apply to win a legal case. It is therefore, means that manufacturer has the best strategy and legal background to win the case against the competitor in the market, it decide to sue it.

**QB**. **Using the payoff matrix shown above, determine if the competitor has a dominant strategy. Show and explain all steps.**

The competitor does not have a dominant strategy over the manufacturer. It is because the matrix indicates 10>-15. It is a negative matrix result, which means that even if the competitor sues the manufacturer, the possibility of winning the case is nil. And therefore, the strategy of the manufacturer is stronger and it would win the case against the competitor.

**QC. Find all Nash equilibrium points. Show and explain all steps.**

In Nash equilibrium every player involve can decides to choose the best response against the other play strategies. And therefore, for manufacturer and competitors, the manufacturer has the best strategy against the competitor. The manufacturer chooses to sue because the chance of winning is high. The competitor chooses Do not sue because of the limited chances of winning (Nie & Matsuhisa, 2014). And therefore, it is indicated in the matrix that the best response for manufacture is to sue because of the best strategy and the high chances of winning the case against the competitor for using its patent.

**QD. Identify the optimum strategy of the game.**

The optimum strategy of the game is to Sue Do not sued. It is the manufacturer to sue competitor and competitor do not use. The strategy of manufacturer is dominant and it can sue and stop the competitor from using its patent.

QE: Do your results match those of your coworkers? Explain why you agree or disagree

 The results of the coworker indicate that manufacturer should sue the competitors, the similar to my result. It is because the matrix indicates that the manufacturer has the best strategy to win any litigation against the competitor in the market from using its patents in the production.

# References

Nie, P.-y., & Matsuhisa, T. (2014). Game Theory and Applications in Economics. *https://www.researchgate.net/publication/274920948\_Game\_Theory\_and\_Applications\_in\_Economics* , 2-15.