Case Study

[Author Name(s), First M. Last, Omit Titles and Degrees]

[Institutional Affiliation(s)]

Case Study

The process of choosing the right course of action amid different alternatives to attain the managerial objectives is defined as the decision making process. It is a continuous process and the success of decision is determined by the outcomes of decisions. The precise decisions are based on sound logic and calculated assessment of all the alternatives available to reduce the probability of losses. However, a study reveals that managers generally rely on their gut feeling while making decisions (Riabacke, 2006). In the case under discussion, Kenneth Brown is also facing three alternative options of equipment purchase each with favorable and unfavorable market conditions and two outcomes for each. Being the principal owner of Brown Oil, Inc. he has to make the decision about the purchase of equipment due to increasing competition.

Every decision-making process goes through certain steps and phases. Generally, a good decision-making process consists of six steps, starting from problem identification to the application of the right method of decision making. The first step us to define the problem that has to be solved. The problem Brown faces, in this case, is to choose between three alternative equipment options to expand its business operations (Render, Stair, Hanna, & Hale, 2015). The second step is to list the available alternatives to choose from. In the scenario, Brown has three options from which he has to choose alongside their possible outcomes. Brown has to consider the outcomes of each of these three options that impact the decision later. Some alternatives that may look unfavorable sometimes turn out to be promising.

The third step is to identify the possible outcomes of each of the alternatives. In this case, there are two outcomes of all three options, either they will be favorable or unfavorable. In the next stage, the benefits derived from each alternative is observed, generally referred to as payoffs. The fourth step is to identify the payoffs, Brown has evaluated the potential profits that the favorable market condition will give in each case. The payoff in the first option in case of the favorable market is 300,000, 250,000 in case of the second option and 75,000 in case of the third option. The net loss in case of the unfavorable market in option one is 200000, 100000 and 18000 in seconds and third cases respectively. The last two steps involve the selection of the best decision-making model based on the decision-making environment alongside the uncertainty involved in each decision. So the next step, Brown has to take will be to evaluate his decision-making environment. After he is familiar with his decision-making environment, he will have to choose the right decision-making model to reduce the chances of uncertainties in decision outcome.

The decision largely depends on the environment in which the decision-maker has to make a decision. Decision making under certainty, uncertainty and under risk. In the first case, the decision-maker is certain about the results of each alternative, while in the second and third case, the probabilities are unknown. In this case, the decision making has to be done in uncertainty because Brown is not familiar with the probabilities of each of the two outcomes of each option is having. Decision making under uncertainty presumes that in the case of payoffs, higher values are desired and larger values are better. The best decision, in this case, is the one that offers maximum benefit to Brown. Though, in some cases, lower payoffs are also better. Different criteria exist in order to make choice under uncertainty such as pessimistic, optimistic, equally alike, minimax regret, and creation of realism (Render, Stair, Hanna, & Hale, 2015).

In the optimistic criterion, each alternative is assessed by evaluating the maximum payoff and this criterion is also referred to as maximax creation. In this creation, their decision-maker makes choices based on either the highest of all the possible payoffs or the lower payoffs to minimize the negative outcomes. The opposite of this criterion is the pessimistic approach, where minimum worst possible outcomes are evaluated and the one that is top of the list is selected, also called a maximin criterion. The one between these two criterions is the criterion of realism, and it relies on the degree of optimism. Equally likely criterion base decision on the average outcome while the last one minimax regrets base decisions on opportunity loss. Among all these criterions, the optimistic criterion will be preferred by Brown being an optimistic decision-maker.

|  |  |  |  |
| --- | --- | --- | --- |
| Equipment | Favorable Market | Unfavorable Market | Maximum or optimistic |
| Sub 100 | 300,000 | -200,000 | 300000 |
| Oiler J | 250,000 | -100000 | 250000 |
| Texan | 75000 | -18000 | 75000 |

Brown has always been very hopeful decision-maker and he is optimistic in this case as well. He will choose to obtain the maximum payoff since he is hopeful that the market will be favorable (Merigó & Gil-Lafuente, 2010). Following this creation, the other option Brown can chose is Texan, in which the payoffs are lower but the risk of loss is also lower respectively. The best alternative depends on the person making the decision, since Brown is an optimistic person, for him the most optimal option will be one with a higher payoff. The best alternative, in this case, is Sub 100, for the reason that it has the best possible outcome and highest profitability in case of favorable market. Using the criterion of optimistic, this option is determined to be the best in terms of the outcomes and profitability. If I would be at Brown’s place, I would have also taken the decision to go for the first option based on the highest payoff.

# References

Render, B., Stair, R. M., Jr., Hanna, M. E., & Hale, T. S. (2015). *Quantitative analysis for management* (12th ed.). Upper Saddle River, NJ: Pearson

Merigó, J. M., & Gil-Lafuente, A. M. (2010). New decision-making techniques and their application in the selection of financial products. *Information Sciences*, *180*(11), 2085–2094.

Riabacke, A. (2006). Managerial Decision Making Under Risk and Uncertainty. *IAENG International Journal of Computer Science*, *32*(4).