GAMBLER FALLACY

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INTRODUCTION

- Gambler’s fallacy is a state of mind in wherein people think that any event which happens is more likely or less likely than the other event although the probability of happening of both the events is the same.
- This scenario can occur in various settings in our routine life, but it is most commonly seen with people involved in gambling.
- Gambler fallacy is based on “law of small number” which believes that the small samples must be representative of the larger population. The concept was given by Amos Tversky and Daniel Kahneman suggesting that behavioural biases resembling gambler fallacy arises due to a psychological heuristic known as representative heuristic. People exhibiting the trait of representative heuristics tend to relate the probability of any event with their prior experience of similar nature.

Difference between Gambler Fallacy and Hot Hand Fallacy

- Gambler’s fallacy assumes that there is inverse relationship in a non-auto correlated random sequence of events.
- In contrast, the hot hand fallacy is an assumption or belief that there is positive autocorrelation existing in a non-auto correlated random sequence.
- Hot hand and gambler fallacy are not inverse of each other. The underlying belief of people about the outcomes like heads or tails and their hot hand on beliefs of outcomes like wins or loses explains their behavioural bend towards gambler’s fallacy.
- One can believe in both gambler fallacy and hot hand fallacy. Like gambler fallacy will guide him that after three tosses of heads, next will be tail and hot hand bias will make him believe that since he is predicting the right outcomes three times, his next guess will also be true. Both these biases have originated from the representative heuristic.

TYPES OF GAMBLER FALLACY

- Gambler fallacy can be classified as Type I and Type II as per Gideon Keren and Chales Lewis.
  - ***Type I or Classical Gambler fallacy***

    When people see that an outcome is being repeated number of times, then they assume that next time the other available outcome will come.
  - ***Type II Gambler fallacy***

    In this a person assumes that roulette wheel is biased. Based on that, they make a prediction of outcome they will get.

GAMBLER FALLACY IN REAL LIFE EXAMPLES

- In real life judges, umpires, teachers, bankers they take negatively uncorrelated decisions. The people with the trait of gamblers fallacy tend to avoid same outcome for repetitive queries, thus often compromise accuracy in their judgement for pattern of decisions they take.
- Some examples which shows that there is unsound reasoning which is based on gambler fallacy,
  - A team who has won the toss for previous two times can assume that tonight they will lose the toss of coin.
  - A family has had three girl babies in a row. They believe that the next one is bound to be a boy.
  - The last time a gambler spun the wheel, it landed on 12. So, it won't land on 12 this time.
  - A sports team has participated for the National Championship every year for the past five years, and they always lose in the final round. But this year they will win.

GAMBLER FALLACY AND STOCK MARKET

- In Stock market human emotions of greed, fear, excitement, irrational decision making, happiness and sorrow are so easily seen that one can have a case study of psychology or make a movie out of it.
- It sometimes gives instant outcome on your decision by losing and gaining money. Many times it needs quick and instant decisions, so not all decisions can be planned and well thought of, so very often past experience, attitude of person, irrationality, intuition based decisions are taken which can be termed as biases.
- There are authors who believe that gambler fallacy does not exist in stock market, because the stocks, the market, the investors have memory and there are numerous other factors that can work in deciding the prices of stocks and investors decision.

STRATEGIES TO OVERCOME GAMBLER FALLACY

- Few strategies which can work to reduce losses or avoid gambler's fallacy to affect a person's decisions are as follows,
  - The most appropriate way to overcome the gambler's fallacy is to have an understanding of independent and dependent event.
  - Research has found that people with a lot of experience will make bad decisions because they overly rely on baseline probabilities and their experiences of life.
  - Investment decisions should be based on fundamental analysis, rather than assuming to what happened previously to your investments.
  - Roney and Trick, Gestalt psychologists suggest that if people start considering every event as independent and then take a decision then this fallacy can be reduced.

Thank You

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  Investor Behaviour

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