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Project proposal

Introduction:

Our data is data that was and still collected from online Casino, the online casino is operating in more than 15 countries while the main countries are Scandinavian countries, there is around 4500 players a day.

we going to ask two main question regarding activities on site.

1. How is the conversion rate in the website distributed, when conversion rate define as the rate from sign up to first time deposits. When asking this question we will also like to see if there is any change between the different countries and if higher welcome offer increasing the conversion rate.

2. How the turn over of a player is distributed (turn over is define as how much money a player play on during time, for example if a player played in a roulete 10 times each time on 5 euro so the turn over is 50 euro, with out any connection either he lost or won, so we dealing with positive values only), we would also like to see if there is any different between the varieities of marketing source where players coming to the site.

Models and Methods:

When trying to answer our questions we going to use Bayesian inference to find the different distrebutions parameters for both conversion rate and a player turn over values.

we would like to see posterior distrebution without any prior assumption and then check posterior distribution when prior knowledge will be implement to the model from banch marks of similar companies in size.

we will use markov chain monte carlo for trying to sample with high acceptness rate from the posterior distribution.

Excpected results:

We expecting to find that conversion rate is distributed normally with mean value of 60% and unknow s.d. , we also excpecting to see that there is signifecnet change in different countries.

another thing that we expect to see is that different welcome offers can generate different conversion rates.

regarding turn overs we ecxpecting to see that its disterbuting poaison with miu = 600 euro

when there is drastic diffrents in miu between regulated markets and unregulated markets.

We going to work together on the project and the tasks, rather then split things between us