Case 3 - Illustrative example with simulated data

A truck driver walks into a bank to ask for a loan, he wants to buy an additional truck:







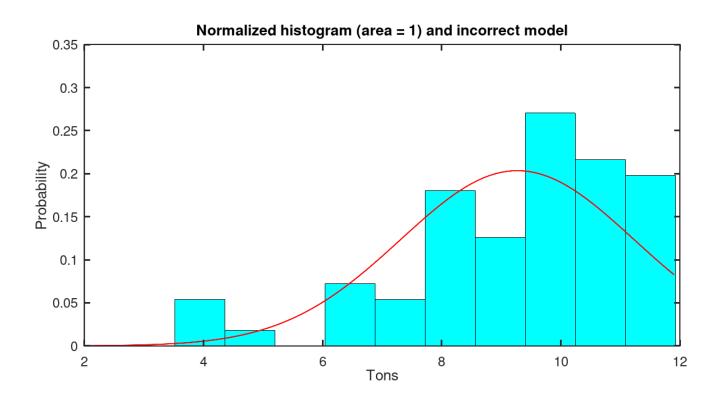


The truck driver seeks help from the company LiberoTecno:





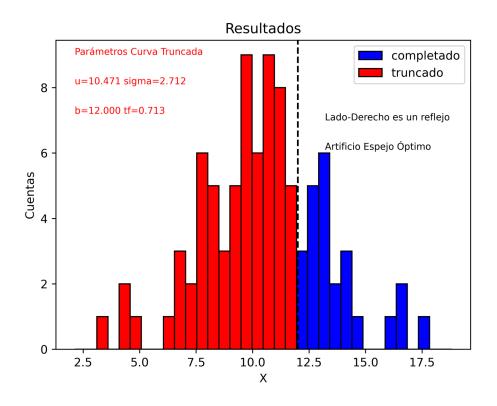
Report Details



By calculating the average of the data, the bank is indirectly choosing the wrong model, since the center would be at 9.27 tons and it can be seen that the curve (bars) of the original data does not follow it so closely; that model does not represent the data.

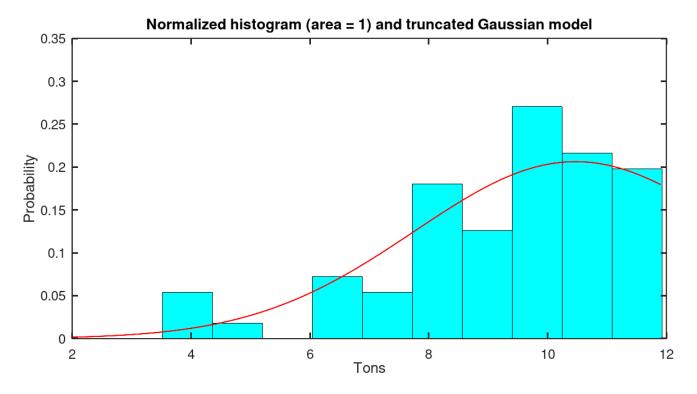
It can be seen that the data is truncated at 12 tons, which is the maximum capacity of the truck.

The Solution



The solution consists on applying "The Artifice Optimal Mirror" [1] to the data.

The average of the completed data is 10.47 tons.



The new model does represent the original data curve (bars), as it follows it more closely, so it is recommended that the bank accept 10.47 tons as the representative value for the data.

The error, that the bank was making, is:

$$(9.27-10.47)/10.47 = -11.5\%$$

which corresponds to 1200 kg

The bank was unfairly denying the loan to the truck driver.



The truck driver returns to the bank, this time better prepared.

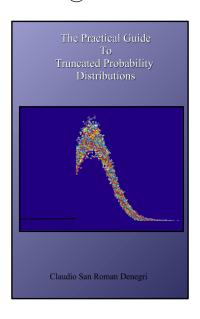






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[1] C. San Roman. The Practical Guide To Truncated Probability Distributions . 2020. https://liberotecno.com/PracGuideTrunc.php