

Marketing Report: The Effectiveness of Online Advertising

15M

Sum of impressions

15K

Sum of converted

500K

Potential consumers reached

174K

Total profits of the campaign

131K

Total cost of the campaign

32%

ROI of the campaign

Analysis of the Profitability

Profit per converted user = 40\$

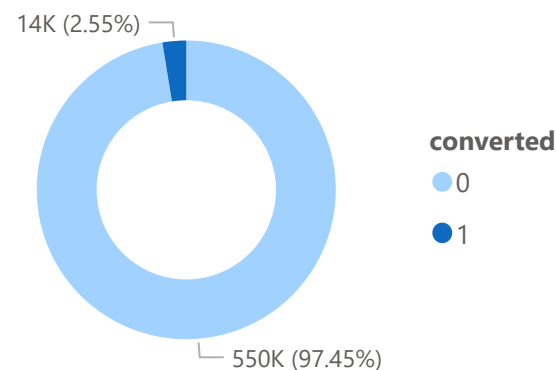
Average CPM per 1000 = 9\$

Total profit and total cost:

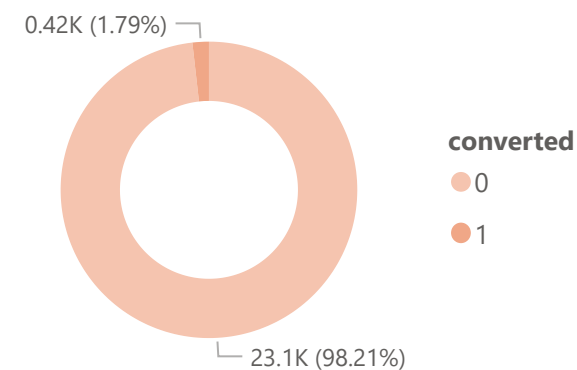
Profits x total number of users x incremental lift
 $40 \times 564,577 \times (2.55\% - 1.79\%) = 173,719 \$$

Tot impr / 1000 x Avg CPM
 $14,597,182 / 1000 \times 9 = 131,374.64 \$$

Conversion rate test group



Conversion rate control group



Return on Investment

(Total profit - Total cost) / Total cost
 $(173,719 - 131,274.64) / 131,374.64 =$
32.23%

Analysis of the Profitability

Opportunity cost

(control group users x conversion difference between test and control group) x profit per converted user
 $(23,524 \times (2.55\% - 1.79\%)) \times 40 = 7151.20 \$$



The **opportunity cost** represents the **potential benefits** that an individual, investor, or business misses out on when choosing one alternative over another. In this case the 7151.20 dollars could be invested in the real marketing campaign and define a **lost profit** for the firm.

Conclusions

Given the 15K new users gained and the 32% of Return on Investment, it is safe to affirm that, from an economic point of view, the marketing campaign was effective and profitable.

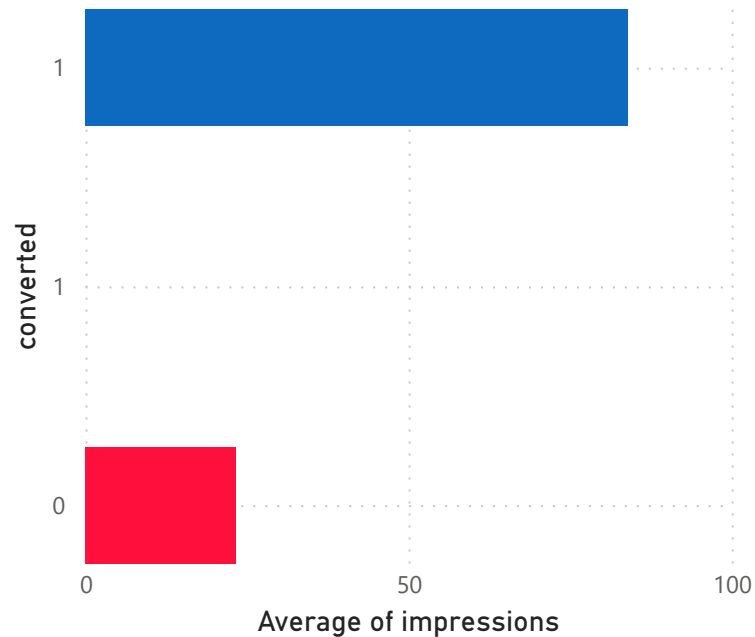
Effectiveness of Advertising

In the first graph it is represented the average of impressions by converted. This graph gives a clear evidence that the more impressions a certain user receive, the more likely is to convert. In the second graph we have a visualisation of the distribution of the impressions by converted. Interesting details:

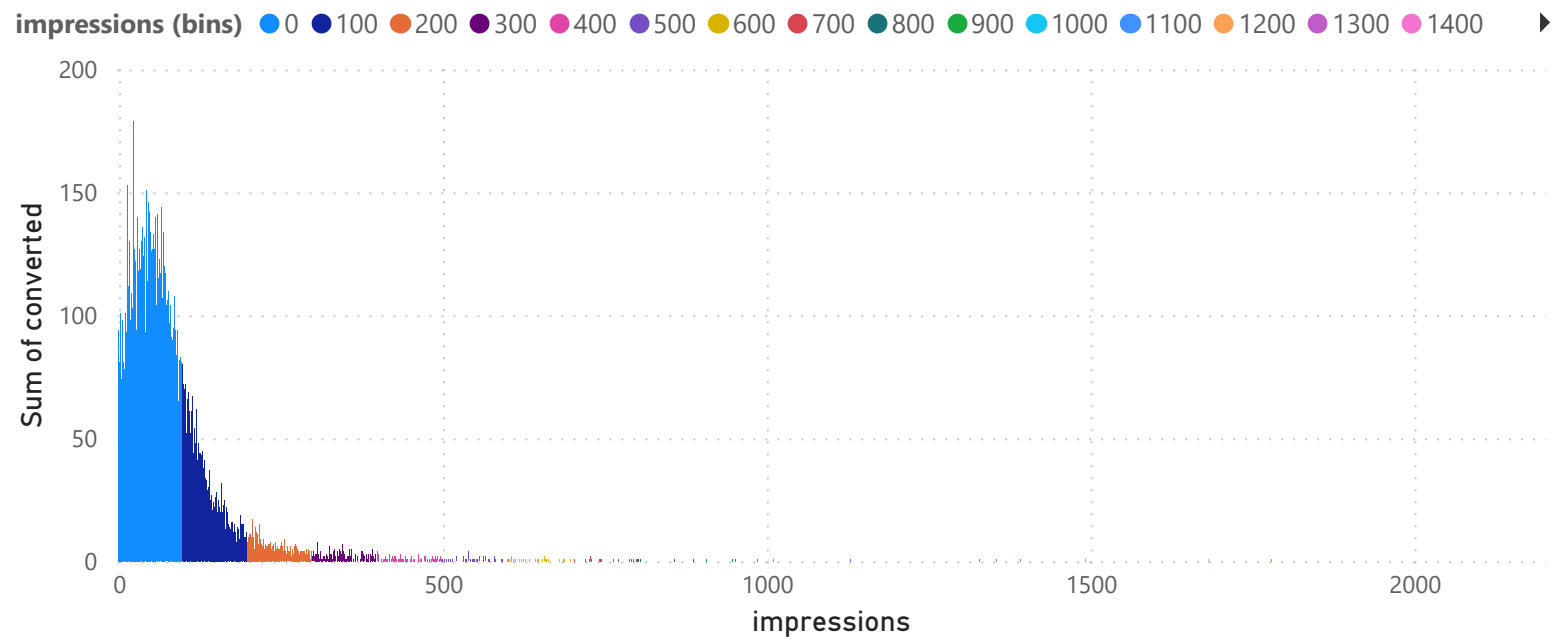
- The 99% of the impressions and 94% of conversions occur in the 1-200 range.
- The 96% of impressions and 71% of conversions occur in the 1-100 range.

Once is reached a certain level of impressions there will be no more increments in the total of converted. In order to do not waste money, avoiding the levels of impressions above 200 could be a good compromise.

Average of impressions by converted

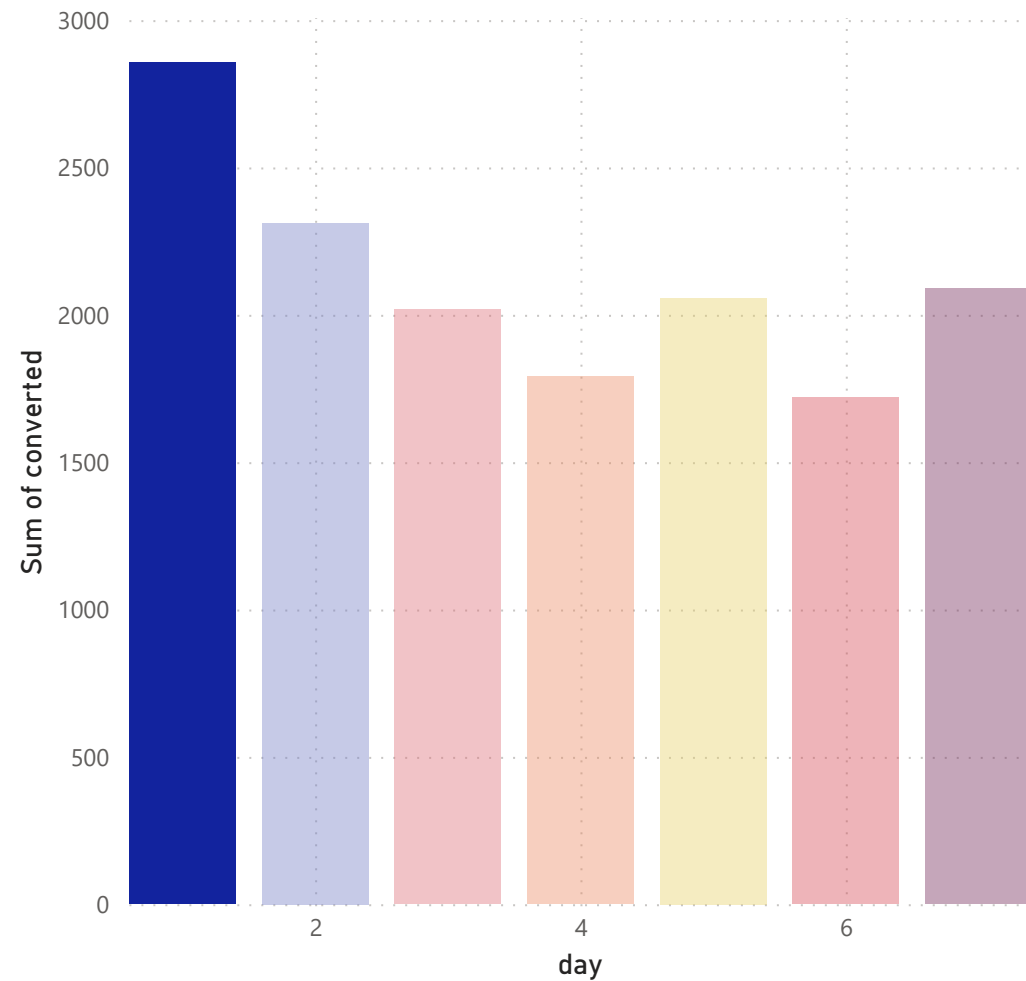


Sum of converted by impressions

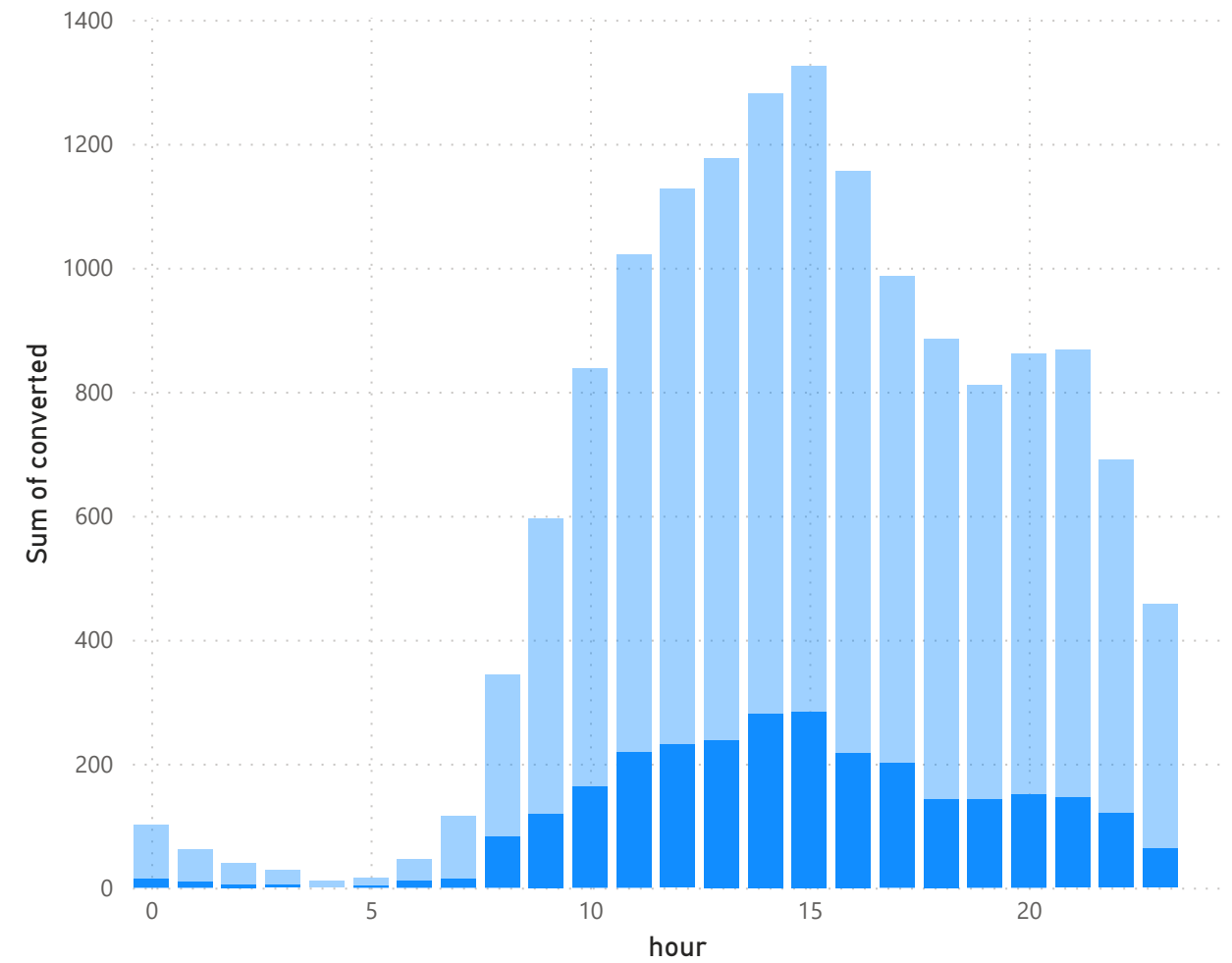


Consumer Responses to Advertising

Sum of converted by day



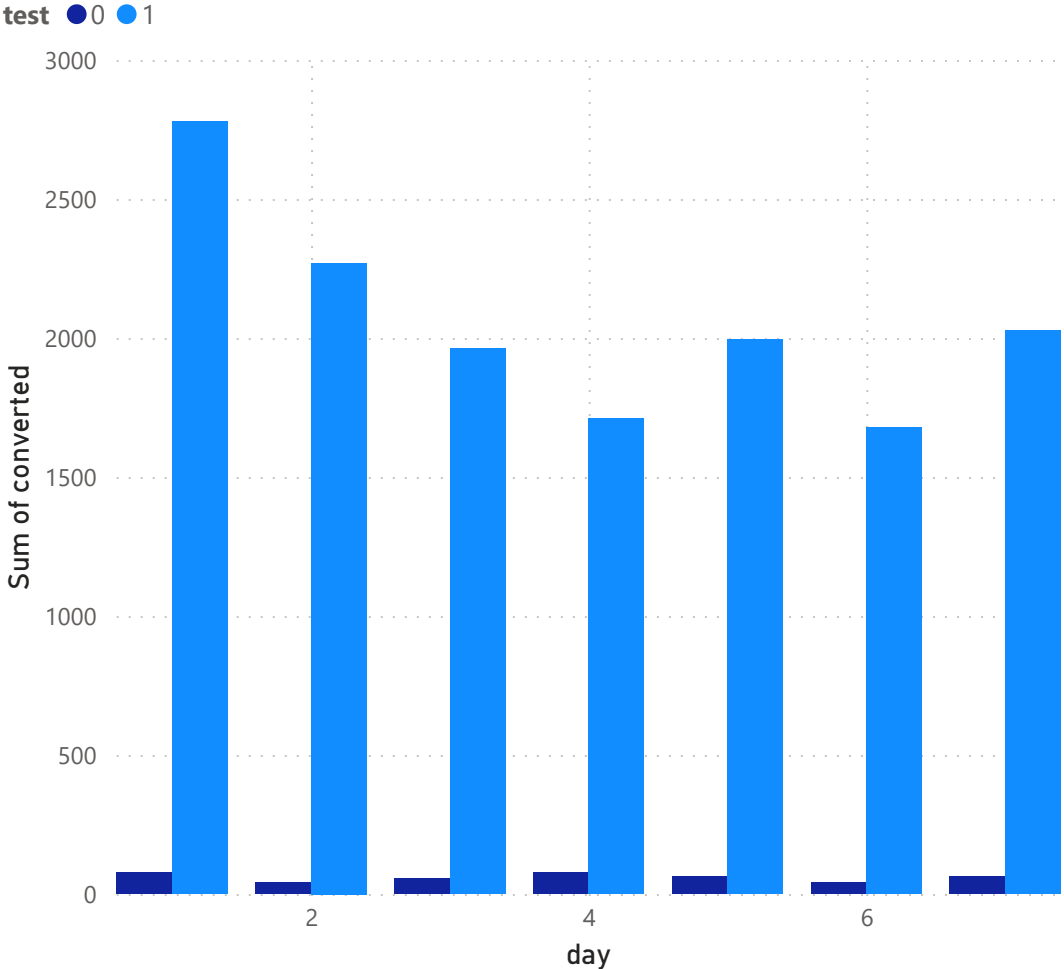
Sum of converted by hour



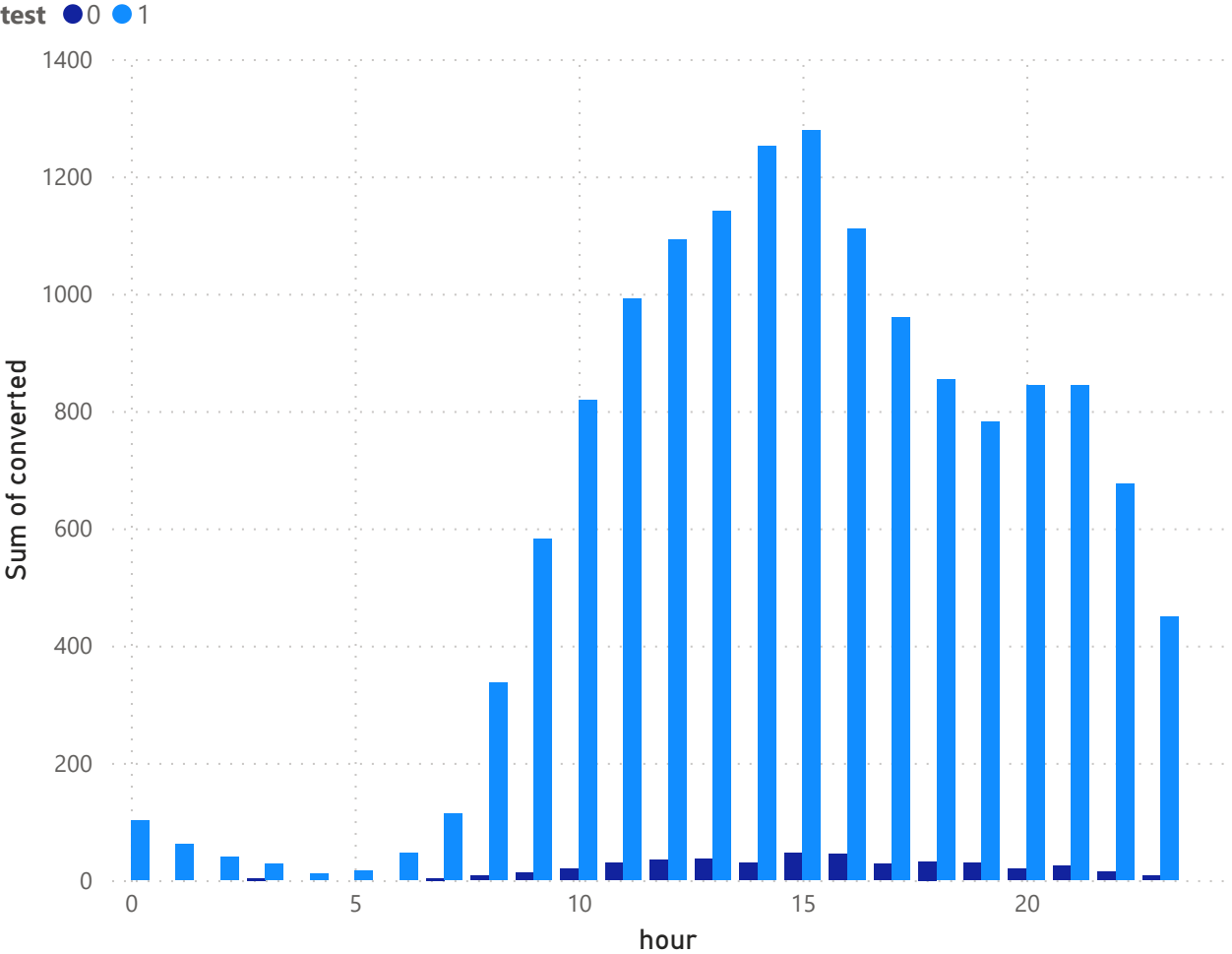
Consumer Responses to Advertising

With regard to the days of the week, the advertising seems more effective on Monday and Tuesday. Regarding the optimal time the advertising reach very good results between the 8:00 am and the 12:00 pm, with a peak at the 15:00 pm. Perhaps could be interesting to focus the advertising on this time slot for the next campaign.

Sum of converted by day and test



Sum of converted by hour and test



Alessio Ena
Business Analyst
Cagliari, Italy

Mobile: +393278552752

Website:

[https://alessioena.github.io/Alessio
Ena_Portfolio.github.io/#](https://alessioena.github.io/AlessioEna_Portfolio.github.io/#)
