

| | (1) | (2) | (3) | (4) |
|---------------------------------|----------------------|----------------------|---------------------|----------------------|
| VARIABLES | sold | sold | sold | sold |
| rank | -0.043*** [0.002] | -0.043*** [0.002] | -0.003** [0.002] | -0.002 [0.002] |
| insured | | -0.026*** [0.004] | | -0.024*** [0.004] |
| vehicles | | -0.014** [0.006] | | -0.013*** [0.005] |
| drivers | | -0.029*** [0.006] | | -0.024*** [0.005] |
| married | | -0.013** [0.006] | | -0.013*** [0.005] |
| click | | | 0.392*** [0.006] | 0.391*** [0.006] |
| Constant | 0.201*** [0.006] | 0.286*** [0.015] | 0.012** [0.006] | 0.085*** [0.013] |
| Observations | 10,000 | 10,000 | 10,000 | 10,000 |
| R-squared | 0.063 | 0.069 | 0.362 | 0.367 |
| Standard errors in brackets | | | | |
| *** p<0.01, ** p<0.05, * p<0.10 | | | | |

Q1: Does higher rank increase the probability of sales?

$$policies_sold_i = \beta_0 + \beta_1 rank_i + \epsilon_i$$

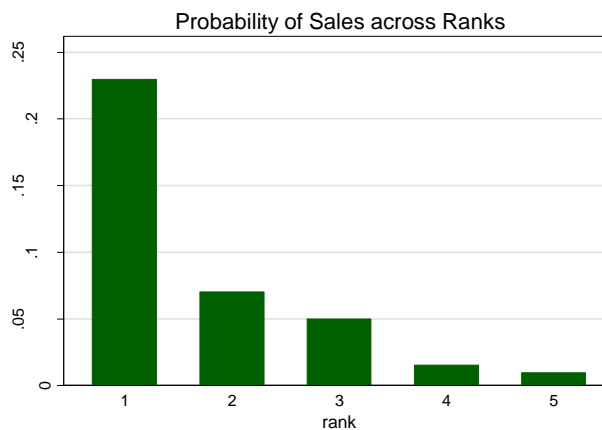
A1: Yes, 1 unit increase in rank corresponds to a 4 pp increase in the probability of sales (1). This correlation is not explained by other characteristics (2), so it makes sense to believe that higher rank brings higher probability of sales.

Q2: Does the effect of rank on sales is through clicking the impression?

$$policies_sold_i = \beta_0 + \beta_1 rank_i + \beta_2 clicked_ad_i + \epsilon_i$$

A2: Yes, the correlation between P(sale) and rank is almost fully explained by click (3). That holds also when other characteristics are controlled for (4). Therefore, we can believe that an impression in a higher rank attracts consumers to click and buy the insurance.

Q3. Does rank increases sales linearly?



A3. Maybe not. There is not significant difference between rank 2 and 3, and between rank 4 and 5. More than 20 percent of the impressions in rank1 were sold, so we may want to target rank1 rather than the other lower ranks.

Q4. Does the effect of rank on sales vary across different groups?

$$policies_sold_i = \beta_0 + \beta_1 rank_i + \beta_2 rank_i * insured_i + \beta_3 rank_i * \#vehicles_i + \beta_4 rank_i * \#drivers_i + \beta_5 rank_i * married_i + \epsilon_i$$

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---------------------------------|----------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| VARIABLES | sold | sold | sold | sold | sold | sold |
| rank | -0.043*** [0.002] | -0.055*** [0.003] | -0.118*** [0.007] | -0.032*** [0.006] | -0.051*** [0.004] | -0.154*** [0.013] |
| insured | -0.026*** [0.004] | -0.115*** [0.012] | -0.021*** [0.004] | -0.025*** [0.004] | -0.026*** [0.004] | -0.103*** [0.012] |
| vehicles | -0.014** [0.006] | -0.014** [0.006] | -0.165*** [0.015] | -0.015** [0.006] | -0.015** [0.006] | -0.163*** [0.016] |
| drivers | -0.029*** [0.006] | -0.032*** [0.006] | -0.023*** [0.006] | -0.006 [0.013] | -0.028*** [0.006] | -0.062*** [0.015] |
| married | -0.013** [0.006] | -0.014** [0.006] | -0.013** [0.006] | -0.013** [0.006] | -0.047*** [0.014] | -0.046*** [0.015] |
| rank * insured | | 0.026*** [0.003] | | | | 0.024*** [0.003] |
| rank * vehicles | | | 0.049*** [0.005] | | | 0.049*** [0.005] |
| rank * drivers | | | | -0.007** [0.004] | | 0.012*** [0.004] |
| rank * married | | | | | 0.011*** [0.004] | 0.011** [0.005] |
| Constant | 0.286*** [0.015] | 0.328*** [0.016] | 0.486*** [0.024] | 0.250*** [0.024] | 0.309*** [0.017] | 0.602*** [0.040] |
| Observations | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 |
| R-squared | 0.069 | 0.074 | 0.080 | 0.069 | 0.070 | 0.085 |
| Standard errors in brackets | | | | | | |
| *** p<0.01, ** p<0.05, * p<0.10 | | | | | | |

Yes, the effect of rank on sales decreases with the insured, more vehicles, and the married. The groups of people who are not insured or married and have less vehicles should be preferred.