Who Says Yes to Coupons? A Statistical Study of Drivers' Acceptance

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STAT3333: Statistical Inference

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Businesses increasingly push time-sensitive coupons (coffee, restaurants, bars, take-out) to drivers via in-vehicle/mobile systems. Whether those coupons are accepted depends on context (time of day, weather, who's in the car), the offer (coupon type, expiration), and user traits (age, income, habits). Mis-targeted offers waste money and attention; well-targeted offers can raise conversion without spamming users.

Purpose

The purpose is to use statistical methods to (i) describe acceptance patterns, (ii) test specific hypotheses about contexts, users, and offer attributes that relate to acceptance, and (iii) produce interpretable, data-driven recommendations for when/where to serve coupons to maximize acceptance while minimizing noise.

Research Questions

1. Does expiration length affect acceptance?

2. Does time of day relate to acceptance?

3. Do travel time/direction costs matter?

4. Is acceptance different by coupon type?

5. Do past visit frequencies predict accepting the matching coupon type?

6. Does who's in the car relate to acceptance (alone vs friends vs partner vs kids)?

7. Are there weather effects?

8. Do age or income bands relate to acceptance?

References

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