Marketing Colloquia
Fall 2023 - Abstract

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Thursday, September 21, 2023
Where: 741 JMHH
When: 12:00 PM to 1:20 PM

TV Advertising Effectiveness with Racial Minority Representation: Evidence from the Mortgage Market

ABSTRACT:

This paper examines the impact of racial minority representation on advertising effectiveness. We do this by first assembling data on 10 million mortgage refinance loans, along with data on TV advertisements for mortgage refinance. We construct a measure of minority representation from video ads using computer vision techniques and extract additional video and transcript features from the advertisements using a variational autoencoder and a text embedding model. We then apply a Double Machine Learning model to estimate how the minority representation in ads affects which lender consumers choose for their refinancing, while controlling for high-dimensional image and text features, as well as a rich set of fixed effects. We find that ads with higher minority representation are more effective in driving consumer choices: as the minority share in ads increases from 15% to 25%, the advertising elasticity increases from 0.037 to 0.042 (a relative increase of 14%). This effect is more pronounced among minority borrowers but is also positive among White borrowers. Across the political spectrum, minority representation has a larger impact among liberal-leaning consumers. In addition to our observational study, we conduct a pre-registered lab experiment (N= 2,796) where we manipulate the race of the actors using generative AI technology. The results are consistent with those from our observational study, providing further causal evidence for our findings. We discuss potential mechanisms driving these results, as well as the implications of our findings.

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