

Experiments on Social Media

A guide on designing and targeting interventions using LinkedIn Ads

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How can social media be used for experiments? We provide lessons from piloting our study that is aimed at reducing workplace harassment in India.



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Topic at a Glance

This policy brief shares practical lessons on how researchers and policymakers can use LinkedIn's advertising and targeting tools to run large-scale behavioral experiments and collect survey data.

Our proposed project estimates the impact of social media campaigns that target men with behavioural messages on reducing workplace sexual harassment faced by women. Social media provides a tool to target audiences with a low cost at a large-scale, making it a promising way to generate social change (for example, UN's 16 Days of Activism and Covid-19 Guideline campaigns). At the same time there is an overwhelming amount of information and disinformation, as well as limited attention spans on these platforms. Thus, its ability as a tool for behavioural change remains to be tested.

In our study we use the targeted ads feature of LinkedIn to randomize at the firm level specific content that 800,000 individuals are exposed to. We use the similar feature to survey 4,000 individuals within the same firms at baseline and endline. Based on learnings from extensive piloting, we outline how we use targeting vectors like firm name, gender, and location to improve precision and avoid spillovers; how we embedded surveys in LinkedIn ads and messages; and how we tracked engagement metrics to complement our outcome data. This guide distills our methods into actionable insights for future projects.

<p>Creating Content</p> <ul style="list-style-type: none"> • Short Surveys 10 mins • Short videos 20 sec • Use A/B testing to choose best best-performing text and image 	<p>Randomization and Design</p>  <p>Use Matched Audiences</p> <ul style="list-style-type: none"> • Add granularity by combining with demographic variables • Pre-randomized to T & C • Potential to stratify • Uncheck LinkedIn offered optimisation • Track the penetration rate and clicks against your uploaded audience list.
<p>Objectives and Bidding</p> <ul style="list-style-type: none"> • Choose an objective Website Visits vs Impressions • Choose a bidding strategy Manual vs Cost Cap 	

New Insights

Our project aims to investigate whether low-intensity, low-cost, and scalable interventions can effectively reduce workplace harassment against women and improve wellbeing and labour market experiences. Focusing on India, the study seeks to understand the breadth of the problem and evaluate the impact of targeted interventions using LinkedIn as a platform. This policy brief shares practical insights from our piloting experience—what worked, what we tested, and how researchers and policymakers can use LinkedIn to run rigorous experiments.

Our research contributes to a growing literature on experiments using social media – Donati, Orozco-Olvera and Rao (2022) and Carney (2024) use targeted ads on Facebook to recruit participants for a gender attitude and voter behaviour study, respectively. Athey et al. (2022) conduct a meta-analysis of small A/B tests using the targeted ads on Facebook run by organizations during the COVID-19 pandemic on mask wearing, social distancing and vaccination uptake.

Creating a short online survey or intervention

We designed a survey suitable for an online modality -- short and interactive. We deliberately use vignettes and a discrete choice experiment with the aim to enhance truthful reporting and engagement. For the video intervention we will be designing an animated 20 second video inspired by trending "reels" and "shorts" style videos.

Selecting targeting parameters

LinkedIn offers several targeting features—demographics, job title, industry—we found one especially useful: matched audiences. This allowed us to upload a list of firms and directly control which ones received which version of our content. We are further able to select demographics to make targeting even more granular, such as, location or gender. The ability to use matched audiences allows researchers and policymakers conducting experiments several benefits. First, you can pre-randomize firms to treatment or control conditions allowing for more control on the randomization rather than allowing LinkedIn to choose the randomization in a black box. This also means that you can use common techniques to improve precision – stratification, blocking or pair-wise randomization. Additionally, this also allows for tracking of metrics like penetration rate at the firm level, that could be useful for estimating treatment-on-the-treated or exposure rates.

For the purpose of our study, we were able to leverage a database of Indian firms' LinkedIn company pages, detailing firm names, industries, locations, website URLs, and LinkedIn page URLs. We also use this information to construct a sampling frame selecting on firm size and industry to match the objectives of our study.

Piloting and mini A/B tests of content

The next step was to understand what content optimizes engagement and click through rate. We have been running simple A/B tests to make data-driven choices. First, we paired three text versions with the same image. After a week, we picked the top-performing text and tested it across four different images. The metrics we focused on for our decisions were impressions. The following were our key takeaways:

- 1) Text content matters more than visuals – we suggest to keep images simple to draw attention to the text.
- 2) Appeals to purpose -- content that mentioned the importance for science and policy despite being longer performed almost three times better than directing individuals to take the 10 minute survey.

The ability to pilot at low costs before launching the study, allows for policymakers and researchers to make informed choices on content that optimizes engagement with their audience.

Choosing an objective, bidding and launch

LinkedIn allows you to set campaign objectives—ours are: 1) website visits (for the survey): we set the destination as the survey URL and 2) impressions (for the intervention): to ensure broad exposure.

In our final step of piloting, we aim to test two bidding strategies: 1) manual bidding, where we set a fixed bid per click or impression. 2) cost cap bidding, where LinkedIn keeps the average cost within a certain time period under the provided cost cap. Finally, it is very important to uncheck all boxes related to dynamic or AI optimization of your sample and exposure as it will compromise the sanctity of your experiment sample. Because different target audiences face varying levels of competition for ad space on LinkedIn, we strongly recommend tailoring bidding strategy to the specific context of your study.

Policy Recommendations

Use matched audience targeting to preserve experimental integrity

Uploading a firm list and pre-randomizing into treatment and control arms allows researchers to maintain control over randomization, apply techniques like stratification, and track exposure metrics at the firm level.

Pilot content using A/B testing to optimize engagement

Short pilots comparing different ad texts and visuals can dramatically improve click-through rates. Messaging that emphasizes contribution to research or policy outperformed directive language by nearly 3x. Simple, purpose-driven content works best.

Design surveys for digital formats and sensitive topics

Keep surveys short, mobile-friendly, and use tools like vignettes or discrete choice experiments to reduce social desirability bias.

Limitations

A few limitations when running experiments on social media are:

Sample Representativeness

The study's reliance on those who actively engage with the social media platform, such as LinkedIn's, implies that they may not be fully representative of the broader population or suitable for certain types of audiences.

Intervention Exposure

The effectiveness of the video intervention depends on the assumption that the targeted individuals viewed and internalized the message. Variations in exposure and engagement with the intervention may affect the study's findings. In addition, although we receive aggregate engagement data (e.g., views, click-through rates), we cannot know how deeply users engaged with the content—whether they watched passively, skimmed, or skipped the video.

No Individual-Level Link Between Exposure and Outcomes

For ethical and technical reasons, it is challenging to directly link the individual who viewed the intervention to survey data. We can thus analyse certain metrics at a higher level of aggregation – i.e., firm level.

Short-Term Follow-Up

Such experimentation is useful for short-run effects on reported experiences and attitudes. Long-term tracking may be harder to achieve on such platforms.

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