

Online Retail Store Subscription Pop-up Testing

Introduction:

As loyal online shopping customers, we've noticed that pop-up windows requesting sign-ups for discounts are a common sight immediately upon entering an online store website. This observation prompted us to question whether the immediate presentation is the most effective timing to encourage customer sign-ups, or if there might be a more optimal moment that could enhance the likelihood of converting visitors into members. Therefore, we plan to conduct an A/B testing on the timing of the subscription pop-up to investigate whether adjusting the timing impacts the customer sign-up rate. The question that we want to solve is how to increase the number of customers signing up for an account on the website.

Test Design:

Our **hypothesis** would be altering the timing of when the sign-up prompt is displayed, we can increase the conversion rate for email sign-ups. In the **control** condition, users will be presented with the sign-up prompt immediately as they enter the website, which will be their first interaction. For the **treatment** condition, the prompt will only appear after the user has engaged with the website in some way, such as by navigating to a new page or clicking on a product. To ensure a fair and unbiased comparison, we will randomly assign users to either the control or treatment group using a random number generator, with each group having a 50/50 chance of receiving a particular user.

Possible Metrics to evaluate:

- **Sign-Up Rate:** Primary metric of interest, measuring the percentage of users who complete the sign-up process after seeing the pop-up. This directly reflects the effectiveness of the control and treatment in encouraging users to sign up.
- **Conversion Rate:** Beyond just sign-ups, measure the percentage of visitors who take a desired action beyond signing up, such as making a purchase. This helps understand if the pop-up timing affects overall conversion.
- **Time on Site:** The average amount of time users spend on the site before and after the pop-up appears. This can help gauge user engagement and whether the pop-up timing disrupts the shopping experience.

Survey Questions: For the experiment, we will collect data based on two primary sources:

User characteristics questions:

- What is your gender?
- Do you usually use a water bottle?
- How often do you shop online?
- During your most recent visit, did you notice a pop-up window asking you to sign up for a discount or newsletter?
- If yes, when did the pop-up window appear during your browsing session? (follow-up question)
- How likely do you sign up for an account with websites you purchase from?
- Do you prefer to check out as a guest or create an account when making online purchases?
- How concerned are you about privacy and data security when signing up for an account on a website?

Experimental interactions questions:

- How did you feel when the sign-up prompt appeared after you navigated to a second page or clicked on a product?
- Did getting the sign-up prompt after interacting with the site affect your likelihood to sign up?
- How did you feel about the sign-up prompt appearing as soon as you entered the website?
- Did the immediate pop-up influence your interest in signing up for an account?
- If you chose not to sign up, could you please tell us why? Any suggestions on the timing of the prompt?

Control Group (pop-up immediately):

1. Did you sign up for an account immediately after encountering the sign-up prompt? (Yes/No)
2. If you chose not to sign up immediately, can you share why? (Options: 'Just browsing', 'Prompt was intrusive', 'Need more time to decide', etc.)
 - a. If choose “Just browsing”, “Need more time”: How likely are you to sign up in the future after this visit? (Scale from 1 'Very Unlikely' to 5 'Very Likely')
 - b. If choose “Prompt was intrusive”: On a scale of 1-5, where 1 means 'Not at all' and 5 means 'Significantly', On a scale from 1 (Not at all) to 5 (Significantly), how intrusive did you find the immediate sign-up prompt?
3. How much did the immediate appearance of the sign-up prompt influence your decision to explore the website further? (Scale from 1 'Much less likely' to 5 'Much more likely')
4. How did the immediate appearance of the sign-up prompt affect your perception of the website's credibility? (Scale from 1 'Significantly decreased' to 5 'Significantly increased')
5. How much did the immediate pop-up influence your interest in signing up? (Scale from 1 'Not at all' to 5 'Significantly')
6. If the sign-up prompt had appeared after you made some interaction with the site, do you think you would have been more or less likely to sign up?

Interaction Group (pop-up after interaction):

1. After interacting with the site, did you sign up for an account when prompted? (Yes/No)
2. If you did not sign up after interacting with the site, what was the main reason? (Options: 'Prefer not to sign up', 'Still evaluating the content', 'Other', etc.)
 - a. If choose “prefer not to sign up”: Was there something specific about the sign-up process or offer that discouraged you? (Yes/No; If Yes, please explain.)
 - b. If choose “still evaluating”: Did you feel the timing of the sign-up prompt was too soon in your browsing experience, preventing you from fully evaluating the site's content? (Yes/No)
3. How did your interaction with the site prior to the sign-up prompt influence your decision? (Scale from 1 'No Influence' to 5 'High Influence')
4. If the sign-up prompt had appeared immediately upon entering the site, do you think you would have been more or less likely to sign up?

Data Analysis:

- **Data Cleaning:** before the analysis, we will ensure all data collected is clean and consistent. This includes checking for and handling missing values, outliers, and ensuring the data collected from both the control and treatment groups is accurately segmented.
- **Hypothesis Testing:** To validate the experiment's findings, we will conduct statistical tests (eg: T-test or Chi-Square test) to determine if the differences in sign-up rates between the control and treatment groups are statistically significant. If significant ($p\text{-value} < 0.05$), then we can conclude that the difference in sign-up rates between the two groups is statistically significant, suggesting that the timing of the pop-up does affect sign-up rates.
- **Data Visualization:** use data visualization tools to create graphs and charts that illustrate the key findings from the analysis, making it easier to communicate results and see the comparisons.

- **Insights Analysis:** derive the insights from the data analysis, highlighting how pop-up timing influences user behavior and sign-up rates. Additionally, we'll assess user feedback to understand perceptions and attitudes towards pop-up timing.
- **Limitations Considerations:** recognize the experiment's limitations, such as potential sampling biases, the influence of external factors not controlled in the experiment.