

Social Media Optimization through A/B Testing for Brand Awareness: A Reach Analysis of A/B Creatives

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ABSTRACT

Aim of the Study: This research aimed to explore the relationship between Social Media Optimization (SMO) and A/B testing for brand awareness on Facebook. The analysis was done through the reach of A/B creatives of social media posts on a newly created Facebook page of Ahad Montessori and School Furniture. The objective was to determine the impact of A/B testing on brand awareness in terms of reach among the target audience.

Methodology: A/B testing was used to compare the performance of two visual creatives on Facebook. The researcher selected an audience on Facebook and run the A/B testing for 2-3 days through the visual creatives for the targeted audience (both male and female audiences aged 25-55) with interests related to Montessori, nurseries, parenting, kg, schools, furniture, and education. The reach and engagement metrics were analyzed for each creative to assess their effectiveness.

Findings: The researcher used the reach metric to analyze the success of the A/B testing, however, results indicated that in the A/B testing engagement was a more crucial factor than reach in determining the success of A/B testing for brand awareness. Therefore, one visual creative won in this test as engaging content encouraged users to interact with this creative for improving brand recall. Hence, A/B testing proved valuable for optimizing social media content, leading to increased reach and engagement for brand awareness.

Conclusion: The study emphasized the significance of A/B testing for social media optimization. Content creators and marketers could get benefit from the A/B testing to see the result before launching any campaign. Therefore, content creators and marketers are advised to focus on creating engaging ads to improve reach and increase brand awareness. The findings of this study provided insights for advertisers and marketers to implement effective strategies for content creation and optimization using A/B testing.

Keywords: Social Media Optimization, A/B Testing, Brand Awareness, Reach Analysis, Ahad Montessori and School Furniture.

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Introduction

Facebook is the leading social media platform with over 2.9 billion monthly active users, according to a Statista report in January 2023. In addition to its large audience, Facebook offers granular targeting capabilities that allow marketers to reach users based on demographics, behaviours, life events, and interests as described by Chester and Montgomery, (2017) ("Biggest social media platforms 2022," 2022). A/B split testing is a very beneficial method for experimenting with ads. It can reduce the overall cost of a campaign in a more meaningful and cost-efficient way, with positive results. By using this technique, marketers can improve engagement at every level of marketing, from small to large. It ensures that you reach your target audiences and engage with them in a way that ensures successful conversion. (Propelrr, 2021) A/B testing has become an essential tool for businesses seeking to improve their social media strategies and brand awareness. By conducting this test, businesses can determine the effectiveness of their social media posts and tailor them to meet the preferences of their target audience. This allows businesses to test various elements of their social media posts, such as the headlines, images, or calls-to-action, and determine which version resonates best with their audience states Coelho, Oliveira, and Almeida, (2016). This information can then be used to create more effective social media campaigns that generate more engagement and reach notes Pinto, and Yagnik, (2017).

Social media optimization (SMO) aims to enhance the effectiveness of social media posts by identifying the right audience and creating engaging content. Moreover, A/B testing is a widely used method for optimizing social media posts for brand awareness notes Xu, Chen, Fernandez, Sinno, and Bhasin, (2015). The impact of the A/B testing will be measured through A/B creatives, which refer to the two versions of social media posts created for comparison purposes in the aforementioned test. In this study, social media optimization will be measured through reach, which refers to the number of people who see a social media post. The study aims to explore the relationship between A/B testing and social media optimization for brand awareness in terms of reach states Dwivedi, Ismagilova, Hughes, Carlson, Filieri, Jacobson and Wang, (2021). The research question is, what is the impact of A/B testing for brand awareness on social media optimization in terms of reach among the target audience of Ahad Montessori and the School Furniture Facebook page. The significance of this study lies in providing insights into how businesses can optimize their social media posts through A/B testing to improve their brand awareness and reach as discussed in Shin, He, Lee, Whinston, Cetintas, and Lee, (2020).

Social Media Optimization (SMO)

According to Smith "Since its founding in 2004, Facebook has grown to more than 1.7 billion monthly active users around the world, with 72% of all online U.S. adults visiting Facebook at least once a day" (Smith 2016). And Facebook MAU Worldwide 2022 says that "with roughly 2.96 billion monthly active users as of the fourth quarter of 2022, Facebook is the most-used online social network worldwide". ("Facebook MAU worldwide 2022," 2022). According to (Gesenhues 2015) "more than 50 million businesses use Facebook pages (Chaykowski 2015) and in a survey of business-to-consumer (B2C) marketers, 94% said they use Facebook as a content marketing platform" (Gesenhues 2015).

As Facebook covers a wide audience but any business has to tailor its social media campaigns to a specific audience to reach that relevant audience as states Bala, and Verma, (2018). To achieve this goal, social media optimization is considered an important component of any social media campaign. Because if the campaign is made well, but it is not optimized in this way, then no significant difference will be seen in the business states Stier, Bleier, Lietz, and Strohmaier, (2018).

There are many ways to do social media optimization and in which a method of A/B testing is an important way to measure the effectiveness of the creatives/ ad. Marketers can check which ad would do better in the long run in the campaign and that could be checked through A/B testing.

Reach Metric

There are various metrics available on Facebook to measure whether the SMO is effective or not, which means whether the marketer optimized the content for the relevant audiences well or not and which one of the important and primary metrics to measure the effectiveness of the campaign and see the result of the two creatives is “reach” which means how many people have seen the post notes Afify, Sharaf Eldin, Khedr, and Kamal Alsheref, (2019). Reach is the metric by which a marketer can check the insights of the campaign as it tells how many people have reached this ad and when the post/ad reaches the relevant audiences then there are higher chances of the engagement of the audiences in terms of like, share, re-post or finally the sales describes Saha, Al Marouf, and Hossain, (2021).

A/B Testing of two Creatives to Measure the Social Media Optimization through Reach Metric

According to Facebook, 2019 “The FBST, launched by Facebook in November 2017, allows advertisers to pre-test their online campaigns to optimize future advertising expenditures (Facebook, 2019)”. Moreover, “A/B testing and multivariate testing can seamlessly combine to fully optimize the process of turning your social media traffic into conversions.” (“How A/B and multivariate testing can skyrocket your social media conversions,” 2020). There are many ways to optimize social media content, but when it comes to knowing what kind of content the potential audiences like more and will engage the audiences in terms of reach, likes, shares, comments etc, there is a good method which is A/B testing or split testing for social media optimization and various experts mentioned different methods. According to Newberry, “A/B testing, which is also known as split testing, separates the audience into two groups randomly and Facebook shows two different visual creatives of the same ad to two different groups. After that, the advertiser would compare the responses to determine which variation works better for us.” (Newberry, 2022). In this study, the researcher wants to run two ads with different creatives on Ahad Montessori material and school furniture’s page to check which creative will reach more audiences and this will be measured through the reach metric of Facebook.

What is Facebook Ad Testing?

According to Ford “Ad testing on Facebook at the top level is a systematic and organized method to find the most effective performing campaign methodologies and ad visual creatives that resonate with potential audiences. In technical terms, split or A/B tests on Facebook are ad tests that are structured for two variations on the campaign, ad set, or ad creative level. As a result, A/B tests could be a successful strategy to reduce Facebook ads cost.” (Ford, 2022). Hollebeek says about social media growth “The growth of social media has established a new dynamic in marketing. Social media platforms allow consumers to engage in extensive brand-related activities.” (Hollebeek & Brodie, 2016). According to Dholakia and others “Enabling dynamic, ubiquitous and often real-time communication between brands and consumers, as well as large-scale consumer-to-consumer interactions.” (Dholakia, Bagozzi, & Pearo, 2004; Gensler, Volkner, Liu-Thompkins, & Wiertz, 2013).

Social Media Optimization for better Reach of the Audience for Brand Awareness

“Messages on social media platforms can be tailored so that they have a greater impact on specific groups of individuals. Marketers using social media can customize their content based on demographic and geographic profiles.” (“What is social media optimization (SMO), and why is it important? ” 2014). Macy Tom in his Facebook optimization blog explained that; “Social media is a great place to share your content. You can’t succeed with social media marketing without sharing quality content with your audience. If you want to do social media optimization right, optimize your content for your audience.” (Storm, n.d.). Social media optimization could be done through various techniques and every platform has its mechanism, when we talk about Facebook optimization, there are also many tips and techniques through which we can optimize our content and the main purpose of content optimization is to make the content more effective visually and emotionally and could be reach to more people whether organically or paid as noted by Makrides, Vrontis, and Christofi, (2020). Therefore, in this study, the researcher aims

to identify what would be the results when two ad creatives will be run through A/B testing for optimization purposes and to analyze the results of their performance through reach metrics. After getting the results researcher would be able to see how effective A/B testing is for paid promotions and what techniques and strategies could be adopted to run a successful campaign for brand awareness for new businesses with a less budget. And these findings could be helpful for advertisers and business owners to implement the right strategy for content creation on Facebook and to optimize it with the help of A/B testing Kushwaha, Singh, Varghese, and Singh, (2020).

Literature Review

In the past there have been several questions raised and addressed and the questions which are raised relevant to this research are like, What design features should content marketing have to increase likes and shares on Facebook?

In the rapidly evolving landscape of digital marketing, social media platforms like Facebook have emerged as pivotal channels for content dissemination and engagement. To optimize user interaction, businesses and marketers strive to identify the design features that contribute to increased likes and shares. Literature in this realm highlights several key design elements that have been linked to enhanced engagement on Facebook.

Visual Aesthetics: Research by Yang, Teran, Battocchio, Bertellotti, and Wrzesinski, (2021) indicates that visually appealing content, characterized by high-quality images, graphics, and videos, tends to attract higher levels of engagement. Effective use of colors and imagery can capture users' attention and encourage them to interact with the content.

Multimedia Integration: Studies Amato, Castiglione, Mercurio, Mezzanzanica, Moscato, Picariello, and Sperli, (2018) emphasize the importance of incorporating multimedia elements such as videos and infographics. Multimedia content tends to be more shareable and relatable, conveying complex messages in a concise and engaging manner.

User-Centric Layout: According to De, and Imine, (2018) a user-centric layout, featuring easy navigation, clear headings, and concise text, enhances user experience and encourages prolonged engagement. Mobile-friendly designs are particularly crucial given the rise of mobile browsing.

In conclusion, the design and message features of content marketing play vital roles in driving likes and shares on Facebook. Visual aesthetics, multimedia integration, user-centric layout, emotional appeal, and interactive elements are crucial design considerations. Meanwhile, emotional resonance, narrative storytelling, inclusive language, timely relevance, and effective CTAs are key message features that can significantly impact engagement levels. By synthesizing insights from existing research, marketers and businesses can refine their content strategies, fostering deeper connections with audiences and maximizing their reach and impact on the dynamic Facebook platform. As social media continues to evolve, staying attuned to these design and message trends remains pivotal for sustaining meaningful engagement. There are many studies conducted in the past by researchers on A/B testing for different purposes on Facebook, however, there are no or very less studies available to identify the link between social media optimization and A/B testing. However, the researcher conducts research online to find the appropriate articles and material and found some studies in which researchers have used the A/B testing method on Facebook for different purposes. In a previous research thesis titled “The Effect of Educational Content Marketing on Facebook Brand Engagement” by Daniela Padilla Vivero, a researcher intended to find the answer to the following objectives;

1. Which design features should content marketing have to increase likes, and shares on Facebook?
2. Which type of message features of content marketing typically generate more likes and shares on Facebook?

And for this purpose, the researcher used the A/B testing method to find the answers to the question. (Católica Lisbon School of Business & Economics, 2016)

In another article, a group of researchers conducted a study titled “A Counterfactual Framework for Seller-Side A/B Testing on Marketplaces” in which researchers aimed to test and verify a framework, by running seller-side A/B test for evaluation for the causal impact of a simple ranking change on Facebook Marketplace browse feed. The change aims to improve the experience of new sellers. They used the same method of the A/B test and found results that buyer-side and seller-side A/B tests also achieve consistent results on the metrics that can be measured on either side. The counterfactual framework has been used for ongoing seller-side experiments on Marketplace and other products on Facebook. (Ha-Thuc et al., 2020)

For the optimization of social media pages on Facebook a previous study was found titled “Optimisation of energy drink social page posts on Facebook” in which the researcher conducted a study to identify factors and analyse their impacts on the number of sharing, comments and likes. (Pawlasová, 2013)

In another blog article, the researcher explains how can we optimize Facebook and other platforms in terms of posting well-designed posts and which measures and steps we should adopt to make our content optimized so that the business owner can get more benefit from the social media platform. A researcher mentioned that Facebook page managers can use different free tools as well to audit the current status of the Facebook page and then can take appropriate measures. (Paramore, 2022)

After studying the above said studies the researcher found that other researchers have done work on the topic however there was a different domain or niche in their studies. Whereas in this study the researcher is trying to identify that what is the impact of A/B testing for brand awareness in Facebook A/B creatives in terms of reach among the target audience.

Research Questions

The research questions framed for this study are:

1. The research question is, what is the impact of A/B testing for brand awareness on social media optimization in terms of reach among the target audience of Ahad Montessori and the School Furniture Facebook page.
2. What is the relationship between Social Media Optimization (SMO) and A/B testing for brand awareness on Facebook?

Methodology

To choose a research method for this study the researcher analyzed other researchers' methodologies which they used for the same variables in their studies and from those studies the researcher wants to highlight some of the methods. After that researcher would be able to choose an appropriate method for this study.

The previous study aimed to check the most attractive and effective video for traffic increasing and driving AWF's donation webpage for increasing donations. For this purpose, they conducted randomized controlled experiments. The researcher used the A/B split test on Facebook to show different video ads to audiences, varying the characters and actions. This was for comparing and selecting the ad with the highest click-through rate at the lowest cost.

By this method, the researcher was able to reach a wide audience on Facebook and measured behaviours. The researcher divided the budget among the ads equally, avoiding campaign budgeting optimization, and selected "link clicks" to optimize ad delivery. The researcher ran this campaign for seven days, and his targeted audience was U.S. residents aged 25 and above, those who were interested in wildlife. (Shreedhar, 2021, p. 3).

In another study, the researcher analyzed Facebook brand page posts in the U.S. English language from January 1, 2015, to December 31, 2015. The timeframe researcher choose was specific because the algorithm was changed in this period by Facebook so the researcher aimed to capture the brand activity after significant changes were made to Facebook's algorithm, which was resulting in a decrease in organic reach. For this test, the researcher used a stratified sampling method and selected randomly 1,000 Facebook brand page posts. This was to identify the number of reaches and like, and share comments on these posts.

The third study was a case study approach with Great Deal Tires for analysis of Facebook data insights & analytics. They used A/B testing and strategies of audience creation to assess the impact of digital marketing. Overall, three strategies were implemented, including evaluating the impact of a custom audience, comparing the performance of Facebook ads through A/B testing across different audience groups, and examining audience conversion by testing various ads on distinct audience segments. (Singh et al., 2023)

In this study, the researcher analyzed Facebook posts on smoking prevention and cessation messages by Aboriginal Community Controlled Health Services (ACCHOs) in the Northern Territory, Australia. For approximately 6 months, researchers examined variables such as the source of the posts, tailored content for First Nations Australians, local or non-local production, video or non-video format, communication techniques, and emotional appeal.

The researchers assessed the reach, shares, and reactions of the posts. They found that posts created by sources other than health services had a greater reach compared to those developed by health services. Similarly, posts from external sources received more reactions and shares. Additionally, posts with local First Nations content generated more reactions than those without such content. The analysis accounted for reach as a control variable. (Hefler et al., 2020)

Proposed Methodology

The proposed methodology for this research study involves the creation of two visual creatives for Ahad Montessori Material and School Furniture. These creatives will be specifically designed for posting on Facebook. The primary objective is to evaluate and compare the effectiveness of the two creatives in terms of their reach. To achieve this, an A/B test will be conducted, wherein these creatives will be run on Facebook for 2-3 days. The A/B test will be run for appropriate targeted audience segments to ensure an unbiased comparison. Both males and females will be included. The reach, including the number of views and impressions, will be monitored, and recorded for each creative during this timeframe.

Population

The researcher selected the Males and Females for this A/B test which will be performed on Facebook for Ahad Montessori Material and School Furniture's page to evaluate the impact of A/B testing to enhance brand awareness. According to Facebook's estimation, the approximately available audience for this genre is more than 10 million(including males and females) ranging in age from 25-55.

Sampling Frame

Both genders male and female, aged 25-55, have an interest in nursery, school/university, baby furniture, kids, table (furniture), kindergarten, early childhood education, desk, Montessori education, primary school, or middle school. Moreover, the advantage of the detailed targeting option is also "on," so Facebook will decide and reach the creatives to a broader and more relevant audience. The location for the audience is all over Pakistan. so everyone who has an interest to see these kinds of products on Facebook will see the creatives. The researcher created a data collection tool through which the researcher will collect and then analyze the data for results. The researcher selected both genders because the primary target audience of these kinds of businesses are schools where they need Montessori kits and school furniture and both genders are the decision-makers in the school setup, whereas, the parents are

also potential customers. After all, parents are also required these types of products for their home schooling or parenting purposes at their home.

Coding Sheet

Gender	Age	Percentage Displayed	Ad	Placement (Instagram/Facebook)	Ad No.

Content i.e., visual and text of Ad A and Ad B as the creative variants

Ad No	Creative Text	Copy	Image	Start Date	End Date

3) Analyzing the A/B Ads through their metrics i.e. Reach particularly and post engagement, like, share, comments, cost per engagement etc. There are multiple metrics to analyze the performance, however, the scope of this research is limited to the “Reach” metric only.

Metric	Ad A
Reach	
Post Engagement (Like, Share, Comments)	
Cost per Engagement	
Total Amount Spent	
Start Date	
End Date	

Data Collection

The data was collected through the above-mentioned coding sheets to find the answer to the research question that whether A/B testing has an impact on social media optimization on Facebook for brand awareness. As this answer will help the marketers to make an appropriate strategy to launch an advertising campaign that could cost them less as compared to the non-strategic and non-proven marketing campaigns. Therefore, for the analysis of A/B creative posts the researcher run an A/B campaign and data was collected. This test was conducted from 29th April 2023 to 3rd May 2023. The data includes information on ad copy, image, start and end dates, ad placements, and coding sheets capturing ad display percentages by gender and age groups.

After running the A/B test for more than three days the following results were observed;

Ad A Performance

The reach of creative Ad A was 979, as the researcher aimed to analyze the impact of A/B testing through reach. According to Facebook. "Reach is the number of people who saw any

content from your Page or about your Page ("Facebook," n.d.). Therefore, the researcher chose this metric to observe and evaluate the results. Post engagements were 201. Likes were 196.

Ad B Performance

The reach of Ad B was 1,663. Post engagements were 157 and total likes for this version were 157. Audience reach was different for every age group and it was placed on various feeds, and previews like Facebook Mobile, and Instagram, from where audiences were able to see the ad. A/B test results are given below in Figure 1:

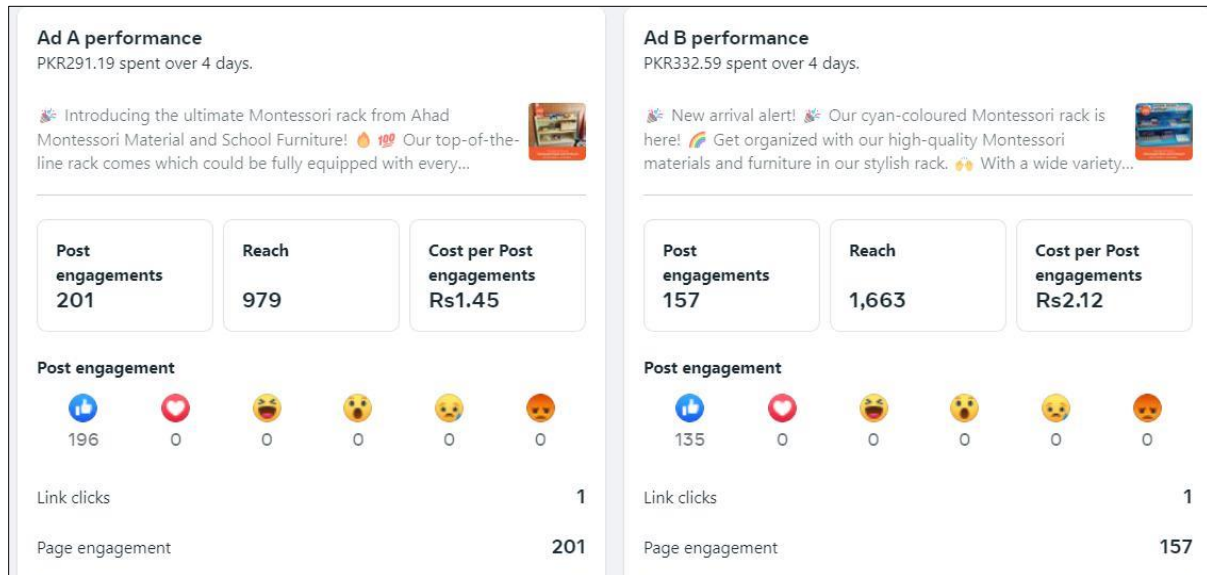


Figure 1 A/B test results for A & B version

Moreover, audience fragmentation and placement details are as under in Figure 2 and Figure 3:

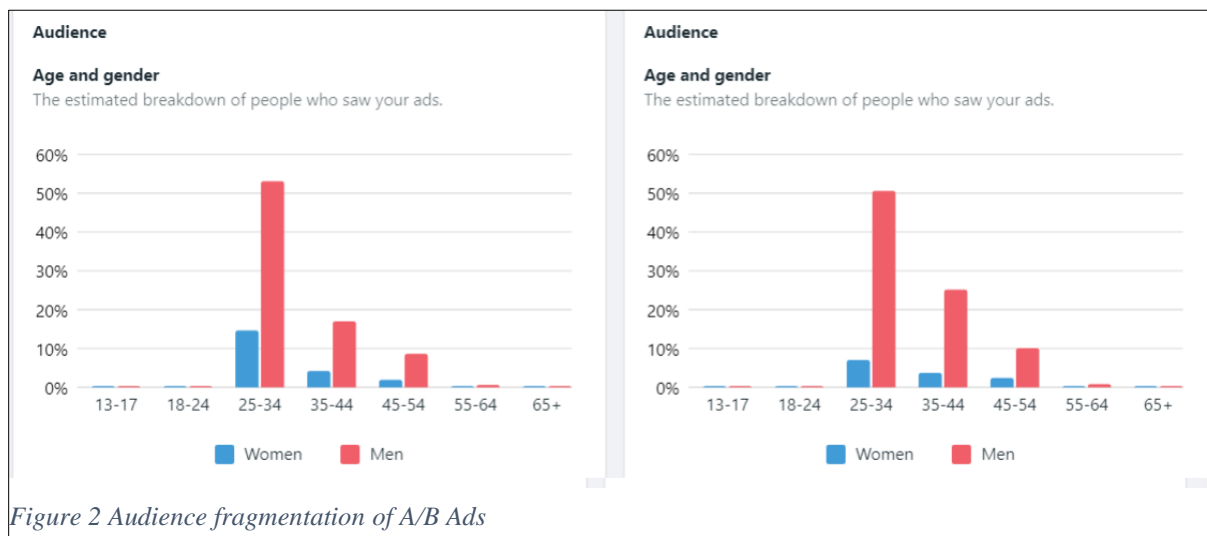


Figure 2 Audience fragmentation of A/B Ads

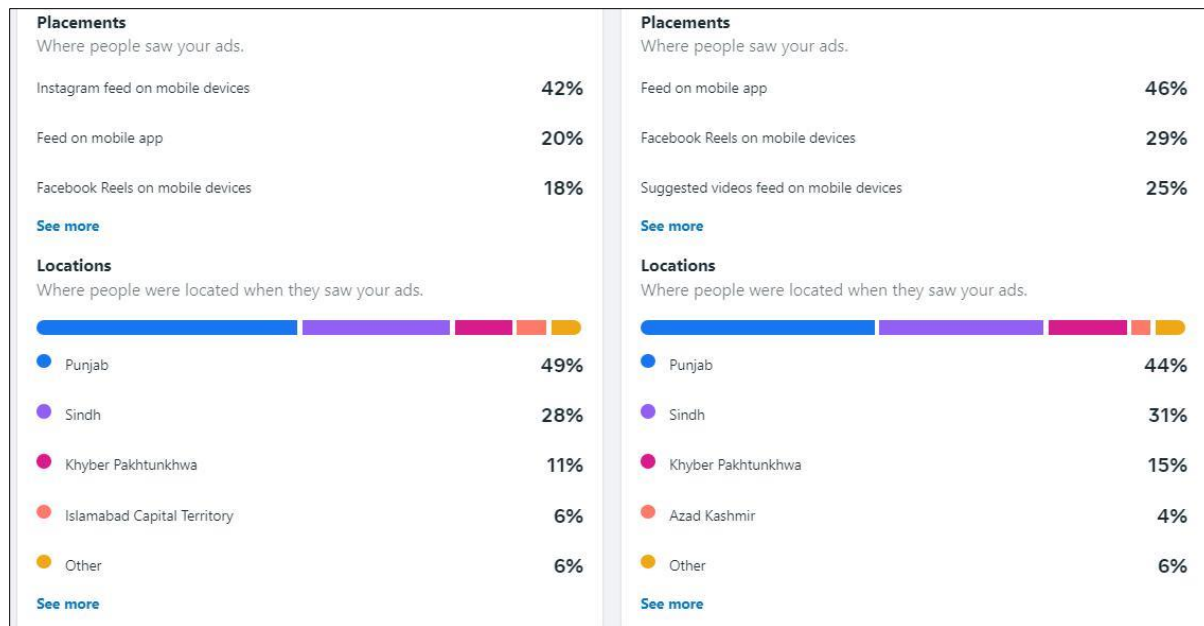


Figure 3 Ad A & B Placements & Locations

Discussion

There are a number of limitations to this study. First, the sample size was relatively small. This means that the results may not be generalizable to larger populations. Second, the study only looked at two different types of ads. It is possible that the results would be different for other types of ads. Third, the study only looked at reach and engagement as measures of success. It is possible that other factors, such as click-through rate or conversion rate, could also be important.

Despite these limitations, the results of this study provide valuable insights into the importance of engagement in A/B testing for social media optimization. Content creators and social media marketers should focus on creating ads that are engaging and that will encourage users to interact with them. This can help them to improve the reach and engagement of their ads, and ultimately to increase brand awareness.

In addition to the limitations mentioned above, it is also important to note that the results of this study may not be applicable to all social media platforms. For example, the definition of success may be different for different platforms. Additionally, the results may be affected by the target audience and the specific goals of the campaign.

Overall, the results of this study suggest that engagement is an important factor in determining the success of an A/B test for brand awareness. Content creators and social media marketers should focus on creating ads that are engaging and that will encourage users to interact with them. This can help them to improve the reach and engagement of their ads, and ultimately to increase brand awareness.

Conclusion

The results of this study suggest that engagement is a more important factor than reach in determining the success of an A/B test for brand awareness. This is because engagement indicates that users are interacting with the ad and are more likely to remember the brand. Reach, on the other hand, simply indicates that the ad was seen by a large number of people, but does not necessarily mean that they were paying attention to it or that they will remember the brand.

This finding has important implications for content creators and social media marketers. It suggests that they should focus on creating ads that are engaging and that will encourage users to interact with them. This can be done by using humor, storytelling, or other techniques that will capture the attention of users. It is also important to make sure that the ad is relevant to the target audience. If the ad is not relevant, users are less likely to engage with it.

The results of this study also confirm the importance of A/B testing for social media optimization. A/B testing allows content creators and social media marketers to test different versions of an ad to see which one is more effective. This can help them to improve the reach and engagement of their ads, and ultimately to increase brand awareness.

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