

The Advertisers' Success in Advertising Their Products on Social Media Applications

This report presents a visualization of the survey data my group and I conducted while preparing our thesis as one of our graduation requirements.

The demographic distribution of the respondents we received came from Western and Central Indonesia. The largest number of respondents came from the provinces of Jakarta, Banten, and West Java, followed by North Sumatra and several other provinces. The demographic breakdown by age is broken down into five-year increments, from 20 to 39, followed by those under 20 and over 40.

In this graph report, I created two versions:

- Graph version with median values
- Graph version with original values according to the collected survey data

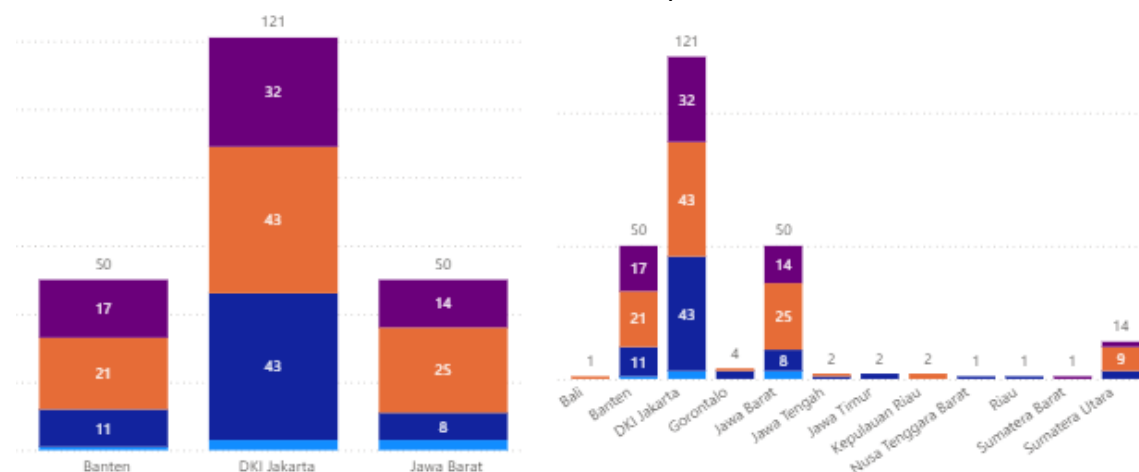
The graph version with median values is adjusted according to the following conditions:

- Hours: "<1 = 1", "1-3 = 2", "3-5 = 4", ">5 = 5" [The median value is calculated by the middle value]
- Times: "<2 = 1", "2-5 = 4", "5-9 = 7", ">10 = 10" [The median value is calculated by the middle values and rounded to 3, creating a range of 1-10 with equal intervals].

This graphic report uses a comparison between locations (Regional, Province, and City) with three survey questions:

- Screen Time Duration From Each Respondent
- Average Frequency of Ad Appearance in Social Media Apps by Location
- Average Frequency of Ads Clicked in Social Media Apps by Location

For data accuracy in this graphic, 221 of the 249 respondents (88.75% of respondents) came from only three provinces near the Indonesian capital (where the survey author resides): DKI Jakarta, Banten, and West Java. Therefore, it would be much more accurate if data conclusions could be drawn from these three provinces.



Left: Total Respondent from top 3 Indonesian's Province (221 Respondents)

Right: List of Respondent based on all of Indonesian Provinces (249 Respondents)

Next, I will explain each graph displayed:

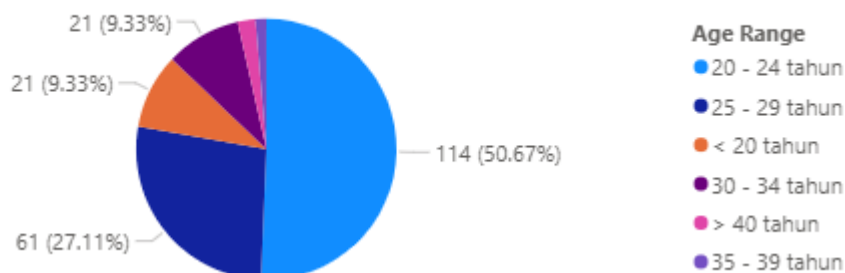
= **Location Slicer**: Filters locations based on: Region, Province, and City

Location Slicer

- ^ ☐ Jawa
 - ^ ☐ Banten
 - ☐ Tangerang
 - ☐ Tangerang S...
 - ✓ ☐ DKI Jakarta
 - ✓ ☐ Jawa Barat
 - ✓ ☐ Jawa Tengah
 - ✓ ☐ Jawa Timur
- ✓ ☐ Nusa Tenggara
- ✓ ☐ Sulawesi
- ✓ ☐ Sumatera

= **Respondent Demographics**: Pie charts used to show the demographic distribution of respondents based on gender and age range

Respondent Demographics by Gender and Age Range



= **Average Screen Time Duration From Each Respondent**:

- Uses map visualization to provide viewers with a clearer picture of the data distribution
- Based on respondents in the three most populous provinces, the average screen time duration is "<1 hour (1 hour in the cleaned version)." The remaining data varies but cannot be used as a reference because the data distribution is not as dominant as the top three provinces.

Average of Sosial Media Screen Time Duration by Location

Screen Time Duration ● 1 ● 2 ● 4 ● 5



Average of Sosial Media Screen Time Duration by Location

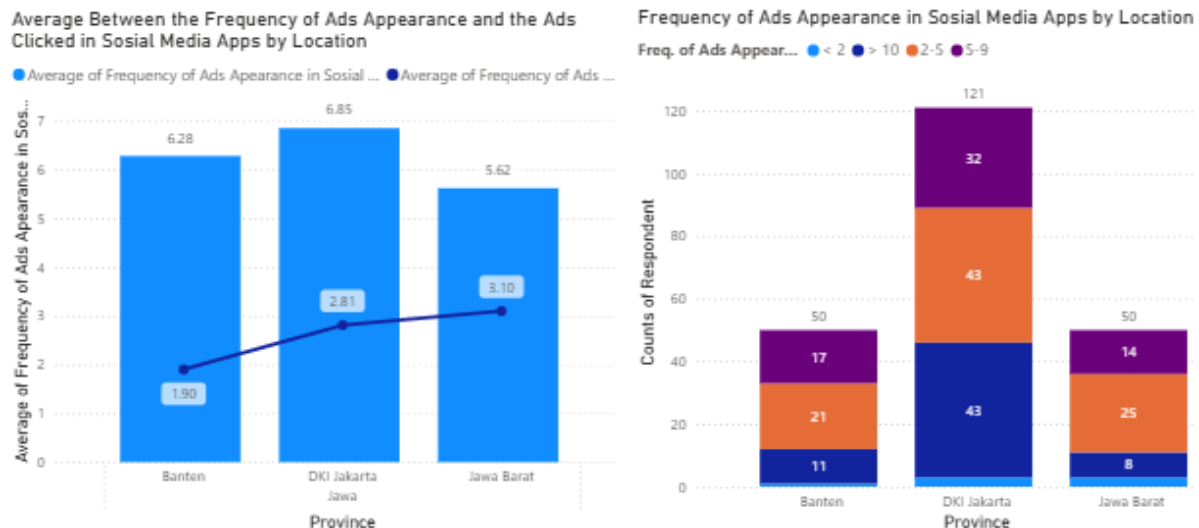
Screen Time Duration ● < 1 ● > 5 ● 1-3 ● 3-5



The **Left** Graphic depicts "the cleaned or medianized data" graph. The **Right** Graphic depicts "the original grouped data" graph. Both are showing the same results for the top 3 Indonesia's Province with a low Social Media Screen Time Duration

= Average Screen Time Duration From Each Respondent:

- Using a map visualization to give viewers a clearer picture of data distribution.
- Based on respondents in the three provinces with the highest average screen time duration of "<1 hour (1 hour in the cleaned version)," the remaining data varies but cannot be used as a reference because the distribution is not as dominant as in the top three provinces.

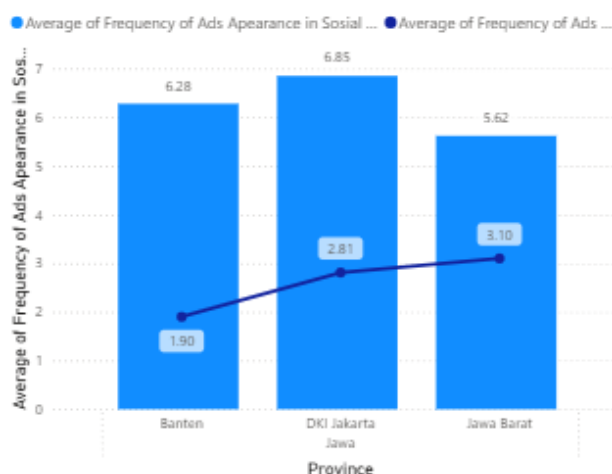


The **Left** Graph showing the combine chart between "Average Frequency of Ads Appearance & Ads Clicked in Social Media Apps by Location" [where the Ads Appearance graph depicted in the bar chart] using "the cleaned or medianized data" graph. The **Right** Graph showing the single chart of "Average Frequency of Ads Appearance in Social Media Apps by Location" using "the original grouped data" graph. But, both of the graphs that are showing here're the top 3 Indonesia's Province with a high Ads Appearance in Their Social Media Apps.

= Average Frequency of Ads Appearance & Ads Clicked in Social Media Apps by Location:

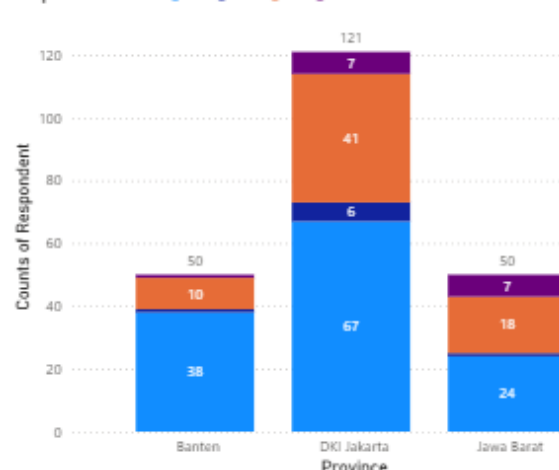
- Using two different versions, the cleaned data version uses a visualization that combines "Average Frequency of Ads Appearance & Ads Clicked in Social Media Apps by Location." This is done because the data can be combined using regular numbers so that the values can be averaged and compared.
- The cleaned data version is also only differentiated by "Location (Regional, Province, and City)." If I further broke the data down by "Age Range" and "Gender," as the data would be too cluttered and difficult to read.
- In the original version of the data, for data visualization, the "Average Frequency of Ads Appearance & Ads Clicked in Social Media Apps by Location" data are separated because the data is read as text and cannot be averaged; only the frequencies can be summed. Combined, the data is difficult to discern differences, so they are separated.
- In this original version of the data, we can see the influence of various ad appearance frequency ranges on ads clicked in social media apps, as the data is easier to read and contains less information.
- Based on respondents in the three provinces with the highest number of clicks, the both two graph versions for these two indicators show a high Ads Appearance (>6 times), but not a high Ads Clicked (+/- 2 times).

Average Between the Frequency of Ads Appearance and the Ads Clicked in Sosial Media Apps by Location



Frequency of Ads Clicked in Sosial Media Apps by Location

Freq. of Ads Clicked ● < 2 ● > 10 ● 2-5 ● 5-9



The **Left** Graph showing the combine chart between “Average Frequency of Ads Appearance & Ads Clicked in Social Media Apps by Location” [where the Ads Clicked graph depicted in the line chart] using “the cleaned or medianized data” graph. The **Right** Graph showing the single chart of “Average Frequency of Ads Clicked in Social Media Apps by Location” using “the original grouped data” graph. But, both of the graphs that are showing here’re the top 3 Indonesia’s Province with a low Ads Clicked in Their Social Media Apps.

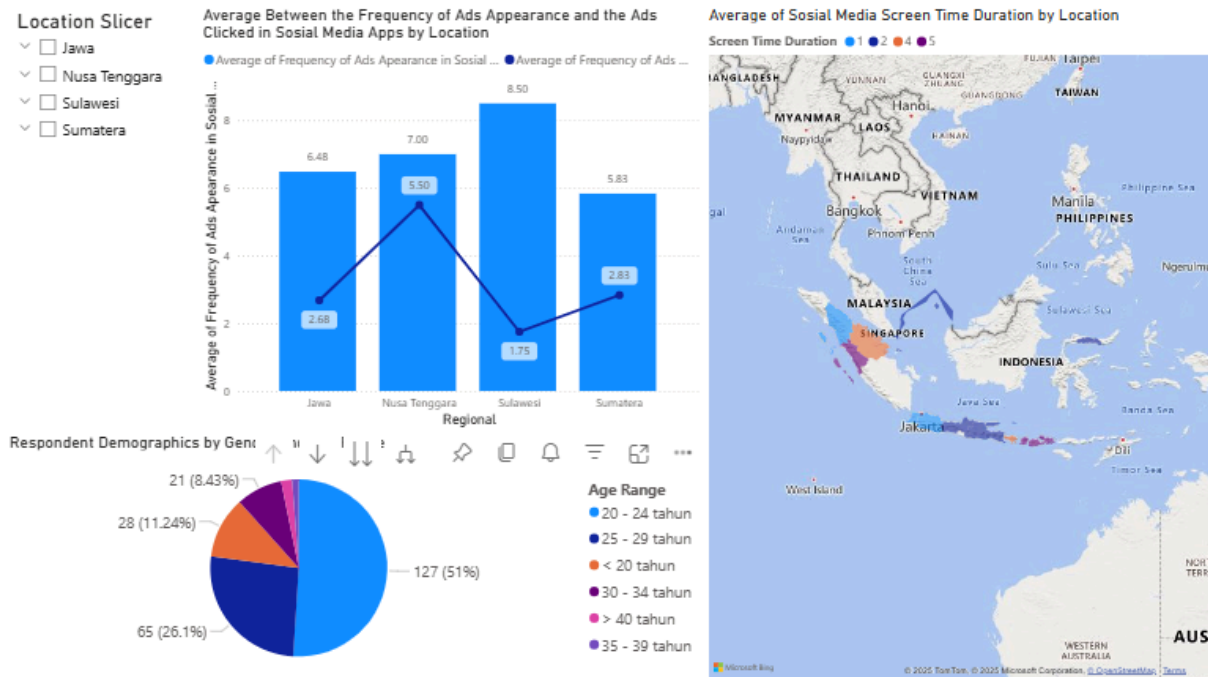
In the conclusions:

From all of the graph shown above, based on the three indicators from the previous questionnaire, it can be concluded that the high app ads exposure (>6 times) to users does not guarantee a high number of potential customers (only +/- 2 clicks) to learning more about the advertised product. Since the screen time retention in social media apps is also relatively low (only <1 hour) which indicates most of the people don't really have much time to spare some time to take a detailed look at the advertised product details from the previous social media ads that they’re seeing before.

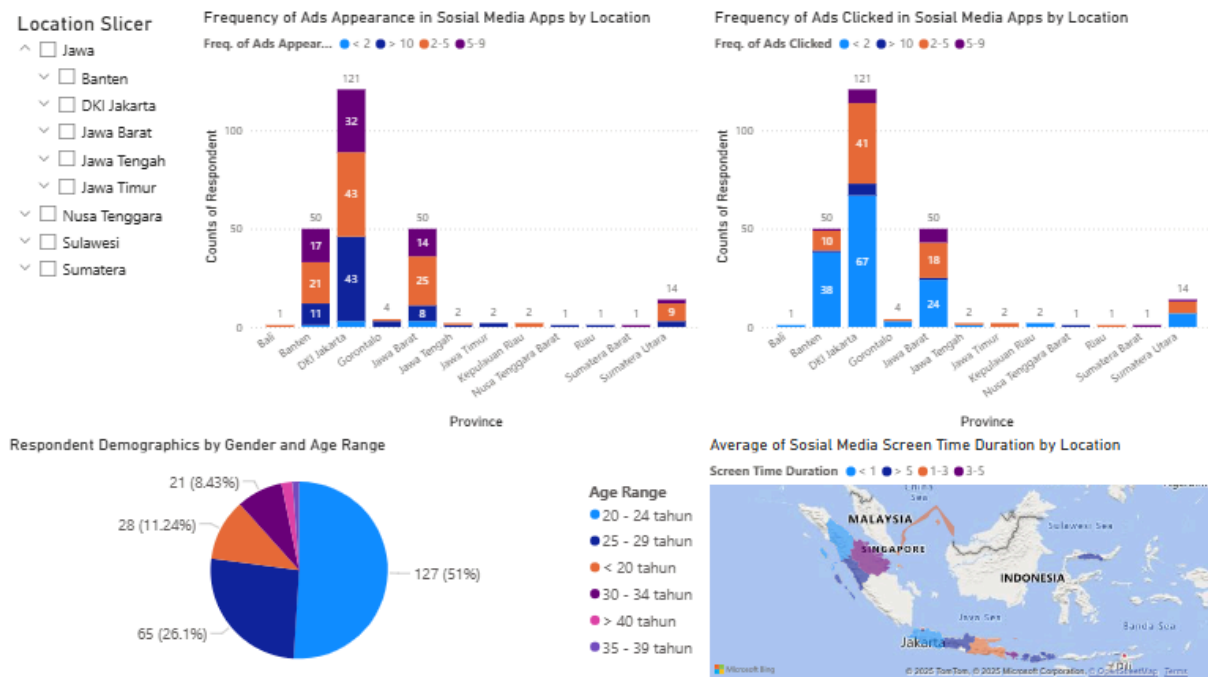
Therefore, the author recommends for the advertisers to also use other promotional media besides ads in social media apps, such as affiliate programs, brand ambassadors, and promotions using Google SEO features, or other tools.

Future researchers could also consider "The Influence of Affiliate Programs or the Use of SEO on Google or Other Search Engines on the Success of Product Promotion in Attracting Potential Customers" as a research topic.

Attachments:



The **Above** Graphic depicts "the cleaned or medianized data" graph, related to "The Advertisers' Success in Advertising Their Products on Social Media Applications" report.



The **Below** Graphic depicts "the original grouped data" graph, related to "The Advertisers' Success in Advertising Their Products on Social Media Applications" report.

PBIX File:

https://drive.google.com/file/d/16xu2ZV9ZCZUSUk4GisePcJ5CGS3jrcP7/view?usp=drive_link