

Data Analyst Test

This is a real data set, in a real scenario from a real client. As a data analyst you will be required to make sense of something with little to no information, you will not always have the opportunity to clearly define parameters with a client due to any number of factors and will need to be able to defend your choices and assumptions.

Background

Correlate Digital currently runs all digital marketing operations for a large car company in South Africa. Our main directive is to generate quality leads.

We currently have a target of 3,000 leads per month and are achieving this target. All of our signals point to high performance (Conversions, CPL, CPM, CPC, etc).

The client is panicking and has complained of diminishing lead quality issues over the months; they are seeing a sharp increase in futile (unqualified/bad) leads and are blaming paid media marketing for this.

Correlate needs to discern where the problem actually lies in order to address this focus with the client. If this is a true representation of marketing and if so, what is the negative impact as well as where other areas of concern might be.

Leads are managed through a centralized system called CarHub, any lead form that is filled in ends up in a database that agents will assign to the appropriate dealership after going through a number of qualifying checks (the lead is a real person, contactable or still interested, etc). The status of the lead is then updated to the following;

- Qualified = Actioned
- Unqualified = Archived
- No action taken = Unactioned

Data Set

https://docs.google.com/spreadsheets/d/1ITY8EcQ8Q5teyX1QpsZalduRXzXzDxiUowC0lq_iMaU/edit?usp=drive_link

Tasks

- Identify, visualize and explain any patterns in the data set
- Identify issues with the current data set (if any)

- What insights have you gained against the problem statement (and client defined problem statement)?
- What recommendations do you have for the client based on the available data?
- How does this reflect against paid media marketing efforts?
- What is your conclusion based on the exercise?
- Present this information to us (as client) ([use this tool](#))
- Document your insights and outtakes in the document, on a new page, below “Rules”

Rules

You may not edit the **original** data set in any way but assume it changes frequently and copy pasting is not an option (nor is using custom apps scripts). Use pure sheets functions to extract this dataset onto another sheet.

You can use any visualization/data analysis method but you need to be able to easily disseminate your findings and dataset. It must be easily understandable and workable for the layperson and it must not require installation (it must be quick to set up and nor require specialized knowledge to interface with).

Time limit 4 hours (including analysis/visualization method setup)

Data Issues

- There's a missing record on row 7410, when using tables, other records that follow will be neglected causing inaccuracy.
- Missing data entries on the data set such as blank entries under Province and this causes data to be inaccurate.
- Missing dates within the data set, this has an impact on using timelines to view data
- Incorrect data entries under some fields such as "ýes" entry under the Province field.

Insights and Recommendations

Lead Status Distribution on Sheet 2

Insights:

1. Lead Qualification:

- A high number of leads have been actioned (qualified) compared to those archived (unqualified). This indicates a reasonably good lead qualification process but also suggests room for improvement.

2. Unqualified Leads:

- 1,924 leads were archived, which is significant. This could mean many leads do not meet the necessary criteria, causing resource wastage.

3. Inactive Leads:

- 363 leads are unactioned, meaning no follow-up has been performed. This could indicate inefficiencies in the lead management process.

Recommendations:

1. Strengthen Lead Qualification:

- Implement more rigorous pre-qualification criteria to filter out unsuitable leads earlier, reducing the number of archived leads.

2. Improve Follow-Up:

- Establish a more robust system for ensuring all leads are actioned timely. Automate follow-up reminders to ensure no lead is left unactioned.

3. Analyse Lead Sources:

- Break down the unqualified leads by their sources and adjust marketing strategies accordingly. If specific campaigns yield higher unqualified leads, reconsider or refine those strategies.

4. Feedback Loop:

- Create a feedback system where agents can provide insights on why leads were archived. Use this data to refine the lead generation process continuously.

Lead Source of enquiry Distribution on Sheet 2

Insights:

1. Dominant Source:

- CARBRAND.co.za and Facebook are major lead sources with 2,879 and 12,038 leads respectively. This suggests these platforms are effective in generating interest.

2. Secondary Channels:

- Cars.co.za and TikTok are also significant contributors with 355 and 298 leads respectively. They play a role in diversifying the lead funnel.

3. Lesser Contributors:

- Websites like the Dealer Website, Dealership Website, and Organic Website have fewer leads. This might indicate lower traffic or less effective engagement on these platforms.

Recommendations:

1. Optimize High-Performing Channels:

- Continue leveraging Facebook and CARBRAND.co.za as primary channels. Invest in more targeted ads and content to maximize Return on investment from these platforms.

2. Enhance Secondary Channels:

- Improve engagement on Cars.co.za and TikTok through tailored campaigns. Explore new ad formats and content strategies to boost lead generation further.

3. Improve Underperforming Channels:

- Investigate why the Dealer Website and Dealership Website have low lead counts. Consider Search Engine Optimisation enhancements, user experience improvements, or more aggressive marketing tactics.

4. Cross-Channel Analysis:

- Analyse the quality of leads from each source. If a high volume of leads from Facebook translates into many unqualified leads, refine targeting parameters or adjust the ad strategy.

Lead Distributions by Dealership, Campaign and Province on Sheet 1

Insights:

1. By Dealership:

- CARBRAND Alberton (687 leads) and CARBRAND Cape Town City (613 leads) are significant contributors. However, there are numerous dealerships with much lower counts, indicating potential discrepancies in lead allocation or dealership performance.

2. By Campaign:

- Campaigns like CARBRAND - TikTok - [H7] - Broad - Leads (297 leads) and CARBRAND H7 Enquire Now v1 Correlate (1289 leads) are generating substantial leads. This suggests these campaigns are effective in attracting potential customers.

3. By Province:

- Gauteng (2133 leads) and Western Cape (362 leads) lead in terms of geographical distribution. This implies a higher interest or better marketing penetration in these regions.

Recommendations:

1. Dealership Optimization:

- Low-Performing Dealerships: Investigate why some dealerships have significantly lower lead counts. This might involve assessing their marketing efforts, sales processes, and lead follow-up strategies.
- Top-Performing Dealerships: Identify best practices from high-performing dealerships like Alberton and Cape Town City and replicate these strategies across other locations.

2. Campaign Effectiveness:

- Successful Campaigns: Continue and possibly expand campaigns that are already generating high volumes of leads, such as the TikTok and H7 campaigns. Ensure these campaigns are also aligned with lead quality goals, not just lead quantity.
- Underperforming Campaigns: Re-evaluate and tweak campaigns that are not generating substantial leads. Consider altering ad copy, targeting parameters, or marketing channels used.

3. Geographical Focus:

- **High-Interest Regions:** Enhance marketing efforts in Gauteng and Western Cape, where there's already a strong lead presence. Customize campaigns to local interests and demographics to maximize impact.
- **Low-Interest Regions:** Increase efforts in regions with fewer leads. Tailor marketing strategies to the specific preferences and needs of these areas to drive higher engagement.

Pivot table and Heat map on Sheet 3

Insights:

1. Lead Distribution:

- Facebook leads the pack with 12,038 total leads. However, there's a noticeable spike in Archived leads (4,119), suggesting a significant proportion of low-quality leads from this source.
- CARBRAND.co.za and TikTok generate substantial leads too, but with a better ratio of Actioned to Archived leads.

2. Quality of Leads:

- Facebook and CARBRAND.co.za provide the highest number of Actioned leads, but Facebook also has a high number of unactioned leads (1,199), indicating potential gaps in lead follow-up processes.
- TikTok also shows a decent amount of Actioned leads (279), reflecting its growing potential as a lead source.

3. Lead Conversion Efforts:

- Channels like Dealer Website, Dealership Website, and Organic Website are underperforming in terms of total leads but might have higher quality leads worth further examination.

Recommendations:

1. Improve Lead Quality from Facebook:

- Refine targeting criteria and ad content to filter out low-quality leads.
- Increase the frequency and intensity of follow-up actions on unactioned leads to convert them.

2. Leverage High-Performing Sources:

- Invest more in high-performing channels like CARBRAND.co.za and TikTok. They show a healthier balance of actioned and archived leads, suggesting better lead quality.
- Expand successful campaigns and test new strategies within these platforms to maximize reach.

3. Boost Underperforming Channels:

- Conduct a detailed review of the Dealer Website and Dealership Website to identify why they are underperforming.
- Implement improvements in user experience, Search Engine Optimisation, and targeted marketing strategies for these channels.

4. Enhanced Follow-Up Process:

- Develop a robust follow-up system for unactioned leads, particularly from Facebook. Use automated reminders and lead tracking tools to ensure no lead slips through the cracks.
- Provide training to agents on how to handle leads from different sources effectively, ensuring a consistent and high-quality follow-up process.

How does this reflect against paid media marketing efforts?

1. Lead Volume vs. Quality:

While platforms like Facebook generate a high volume of leads, the quality, as indicated by the high number of archived and unactioned leads, can be questioned. This implies a need to refine your targeting and ad content.

2. Platform Performance:

- Facebook: High volume but mixed quality leads. Re-evaluate targeting strategies to focus on higher intent users.
- CARBRAND.co.za and TikTok: Balancing volume and quality. Expand efforts here with targeted campaigns.

3. Marketing Spend Efficiency:

It's crucial to align spend with platforms providing the best Return on investment in terms of lead quality, not just quantity. High spend with low-quality leads means wasted resources.

4. Follow-Up Efficiency: The number of unactioned leads highlights potential inefficiencies in handling leads from paid campaigns. Streamlining follow-up processes can convert more leads into qualified prospects.

What is your conclusion based on the exercise?

Conclusion:

This exercise highlights several key insights:

1. Lead Quality vs. Quantity:

While certain channels like Facebook generate a high volume of leads, the quality of these leads is questionable due to the significant number of archived and unactioned leads. This suggests a need for more refined targeting strategies to ensure better lead quality.

2. Effective Channels:

Platforms such as CARBRAND.co.za and TikTok are not only generating substantial leads but also maintaining a healthier balance of actioned versus archived leads. This indicates that these platforms are more effective in attracting high-quality leads.

3. Follow-Up Efficiency:

The presence of a considerable number of unactioned leads highlights potential gaps in the lead management and follow-up processes. Streamlining these processes can improve lead conversion rates.

4. Optimization Needs:

Underperforming channels like the Dealer Website and Dealership Website require a detailed review and optimization to enhance their lead generation capabilities.

5. Geographical Focus:

Focusing more on high-performing regions like Gauteng and Western Cape could yield better results, while tailored strategies are needed for low-interest regions to boost engagement.

Overall, the exercise underscores the importance of not only generating leads but ensuring their quality and efficient follow-up to maximize marketing Return on investment and client satisfaction. Moving forward, prioritizing these areas will be crucial for sustained improvement in lead generation and management.