ANALYTICS SPOTLIGHT

Insightful Analysis Begins With Asking the Right Questions

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You're working at a data-driven organization. A

serious one. One that wants everyone—not just finance or ops people—to use data to improve their work, and provide value to the company.

They've even made it easy for you, providing access to a data warehouse and analytics tools that don't require a degree in computer science to understand.

Okay, great. But how exactly do you analyze? Does this have anything to do with what you learned in that stats class in college? (What's a hypothesis test, again?) Slow down. Take a deep breath. You don't have to be a math genius to be a data nerd. We've broken the analysis journey down into a series of questions that anyone can follow.

The most helpful questions focus on some kind of business goal or outcome.

What do you want to know?

Domain expertise combined with data analysis

results in business value. So begin with your domain and knowledge of the company. Start by conducting [exploratory data analysis](#) to see if anything interesting jumps out at you, especially in your domain of expertise.

Once you've found something interesting, it's time to formulate your question. The most helpful questions focus on some kind of business goal or outcome. We recommend a simple approach:

① Try to avoid questions like this: What was the most consumed piece of marketing collateral during Q3?

The problem? First, it isn't clear how or why answering this question is critical to the business. Second, the answer would probably not help you in developing an action plan to improve content marketing engagement.

② Instead, frame the question like this: Why was X the most consumed piece of marketing collateral during Q3?

Here, you are creating an opportunity to tell a story and build a model for content marketing plans in the future.

While you're still in this step, consider others in your organization who may also find this information valuable (executives, teammates, vendors, partners) and how you should disseminate this information to them (regular reports, dashboard, etc.).

Do you have the data to answer your question?

In the marketing example mentioned earlier, you would probably need to know the following in order to answer the question:

- Content type

- Word count (if applicable)

- Video length (if applicable)

- Time spent on page or time spent viewing

- If/how the content was disseminated (email, social media, etc.)

- Other sources of traffic (organic, paid media)

In this era of data-driven initiatives, it's likely that your company has the data to help you solve a business problem. The question is really where to find the data sources and how to merge them. While this may sound daunting, it's easy if your organization utilizes a modern data stack. Cloud ETL tools can bring together multiple sources of data, making them accessible to you in the [data warehouse](#).

How will you approach analysis?

Another way to think of this is what form will your

answer take? A correlation? A prediction? A grouping of segments? The analytical technique you use will depend on the type of data you've chosen to collect and analyze. Data can be divided into two broad categories: *quantitative* and *qualitative.*

Quantitative data

Quantitative data consists of hard numbers–things that you can count. [Quantitative analysis techniques](#) include:

- **Regression** – Predicts the relationship between a dependent variable and one or more independent variables.

- **Classification (probability estimation)** – Predicts, or calculates a score of probability of how likely an individual belongs to a class. In the content marketing example from earlier you could think of two classes: "Will consume" and "Will not consume" and

predict the likelihood of the success of an individual piece of marketing collateral.

- **Clustering** – The grouping of individuals in a population based on similarities.

Qualitative data

[Qualitative data](#) is more subjective and less structured than quantitative data. In the realm of business, you encounter qualitative data from customer surveys and interviews. Common analysis methods include:

- **Content analysis** – Used to classify and categorize different types of text and media.

- **Narrative analysis** – Analyzes content from various sources including interviews and field observations.As you conduct

your analysis, make sure your metrics are in the format that your company already using. For example, if your company budgets quarterly, your metrics should reflect the same.

Has this question been asked before?

Don't give yourself unnecessary work. Using a data set that already has most your necessary parameters will get you to your answer faster. Solving business problems is a team sport, not a solo endeavor. When you use a cloud analytics tool with shared workspaces you can easily see what your colleagues are doing and build off of their analyses.

In the same vein, solving business problems and creating solutions is an ongoing process. You (or a colleague) will come back to a question in the future. If the hard work is already done, you can focus on providing more value and adhering to the goals of your data-driven organization.

Wanna start asking more of your data?

Sigma can help. [Schedule a demo](#) or [start a free trial](#) today.

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