**Exercise: Stakeholder experience**

**Introduction**

Previously, you learned that analysis insights and visualizations in reports are more likely to be impactful and useful when they are tailored to stakeholder experience (the needs, preferences, and expectations of the stakeholders who will engage with the visualizations in your data analysis report). In this exercise, you’ll work through a case study in which a data analyst undertakes a six-step process to inform data visualization based on stakeholder experience. You’ll then apply the insights you’ve gained to answer questions related to this process.

**Case study**



To help boost sales, Adio, the data analyst at Adventure Works, is tasked with investigating sales, marketing, and customer data. Adio is instructed to create and share a data report with visualizations, based on the insights, patterns, and trends he uncovers during the analysis. Adio knows that creating visualizations with stakeholder experience in mind contributes to improved stakeholder understanding and decision-making. To understand the needs, preferences, and expectations of the stakeholders that form his audience (stakeholder experience), Adio engages in the following process:

**Step 1: Identifying stakeholders**

The first step in the stakeholder experience process is to determine which stakeholders have an interest in the data analysis and visualizations. Adio identifies the executives, marketing team, and product managers as stakeholder groups for his current project.

**Step 2: Defining stakeholder goals**

Aware that these stakeholder groups will have diverse needs, preferences, and expectations, Adio moves on to the next step—understanding the different stakeholders' goals, priorities, and requirements. Through consultation with each group of stakeholders, Adio determines their respective interests in the sales data analysis:

* The group of executives is focused on improving the overall performance of the company and is interested in high-level insights that can drive strategic decisions related to their competitors, products, and customer marketing.
* The marketing team is interested in insights into marketing campaign effectiveness and how to improve conversion rates from their website and social media sites to increase sales.
* The product managers want to understand customer behavior, such as product popularity, preferences of different customer segments or groups, and the profitability of each of these segments.

**Step 3: Choosing the right visualization type**

Adio can now choose visualization types that are tailored to the stakeholders' goals and needs. Bar charts, line charts, and pie charts are common visualization types, but there are many others to consider. The visualizations you choose will depend on the type of data you're working with. You also have to think about which visualization types will best communicate the insights your stakeholders need while being visually appealing and easy to understand. For example:

* For executives, a dashboard with high-level metrics and key performance indicators (or KPIs) such as revenue and profit margins may be the right choice.
* The marketing professionals may find a conversion funnel that tracks the progress of customers from the stage of visiting marketing channels to the final stage of product purchases more useful. A bar chart to compare the effectiveness of different marketing channels may also be an appropriate choice.
* For the product managers, a map that visualizes the distribution of customer segments may be suitable.

**Step 4: Designing with stakeholder experience in mind**

Next, you need to design the visualizations with stakeholder experience in mind, ensuring visualizations are meaningful to each group. This means designing visualizations that answer stakeholder questions, are visually appealing, and easy to read, navigate and understand. When designing his visualizations, Adio keeps in mind that:

* The executives prefer visualizations that are concise, easy to understand, and convey key takeaways quickly.
* The marketing professionals are interested in visualizations that can help them identify trends, patterns, and opportunities for improvement.
* The product managers value visualizations that can help them identify gaps, opportunities for growth, and potential issues with specific products.

**Step 5: Making visualizations interactive**

You can enhance stakeholder engagement, exploration, and understanding of data insights by adding interactive features to your visualizations. For example, you can add filters and sorting options, or explanations that appear when stakeholders hover over different parts of a visualization. Adio uses Power BI to create interactive data visualizations that the stakeholders can explore and interact with. For example, he adds filtering and sorting options. That way, when Adio shares the report, the marketing team can view data by marketing channels or campaigns. Similarly, the product team can view sales distribution data by customer segment or product category.

**Step 6: Testing and iterating**

Before sharing the visualizations with stakeholders, Adio tests them with a small group of users that represent his target audience. Focus groups involve selecting and recruiting a diverse and representative sample of individuals from the different stakeholder groups and then conducting the focus group sessions. In this final step, you should gather and analyze feedback and make any necessary adjustments to ensure that your visualizations effectively communicate the intended insights. In doing so, you ensure that the stakeholders’ needs are met.

**Instructions**

**Create a document**

Create a new Word document called *Stakeholder experience*. Use this document to record your answers to the exercise questions.

**Answer questions about stakeholder experience**

1. What is the primary goal of data visualization in the data analysis process?
2. Briefly define stakeholder experience in the context of data analysis and visualization.
3. Explain two reasons why stakeholder experience is important when creating data visualizations.
4. List the six steps in the stakeholder experience process.
5. How can you identify the goals and preferences of different stakeholder groups when designing visualizations?
6. What is one challenge you think Adio may face in designing data visualizations that meet the needs of the different stakeholders?
7. Briefly discuss what you need to consider when choosing the right visualization type for stakeholders.
8. What is the purpose of making visualizations interactive?
9. A focus group finds a visualization Adio designed difficult to understand. Adio adds more interactive features and updates the design. Which step in the process is Adio engaging in?
10. In no more than two sentences, discuss how you think stakeholder experience can contribute to improving business outcomes through data-driven decision-making.

**Conclusion**

In this exercise, you were introduced to tailoring visualizations based on stakeholder experience. You discovered how these tailored visualizations are essential to communicating data insights and can impact stakeholder decision-making.

**Stakeholder Experience**

**Question 1:**

The primary goal of data visualization in the data analysis process is to effectively communicate insights derived from data analysis in a visually appealing and understandable format to aid decision-making.

**Question 2:**

Stakeholder experience in data analysis and visualization refers to understanding stakeholders' needs, preferences, and expectations who will engage with the visualizations. It involves tailoring visualizations to meet the diverse requirements of different stakeholder groups to ensure effective communication of insights.

**Question 3:**

Two reasons why stakeholder experience is essential when creating data visualizations are:

1. Enhanced understanding and engagement: Tailoring visualizations to stakeholder preferences increases their understanding of insights and encourages active engagement with the data.

2. Improved decision-making: By meeting the specific needs of stakeholders, visualizations enable more informed and effective decision-making processes.

**Question 4:**

The six steps in the stakeholder experience process are:

1. Identifying stakeholders

2. Defining stakeholder goals

3. Choosing the right visualization type

4. Designing with stakeholder experience in mind

5. Making visualizations interactive

6. Testing and iterating

**Question 5:**

One can conduct interviews, surveys, or focus groups with representatives from each group to identify the goals and preferences of different stakeholder groups when designing visualizations. Additionally, analyzing past interactions with data and considering their roles and responsibilities can provide insights into their requirements.

**Question 6:**

One challenge Adio may face in designing data visualizations that meet the needs of different stakeholders is balancing the level of detail and complexity in visualizations. Other stakeholders may require varying levels of granularity and simplicity, making it challenging to create visualizations that cater to everyone's preferences.

**Question 7:**

When choosing the right visualization type for stakeholders, considerations include the type of data being visualized, the insights stakeholders seek, and their preferences for visual presentation. It's essential to select visualization types that effectively convey insights while aligning with stakeholders' expectations.

**Question 8:**

The purpose of making visualizations interactive is to enhance stakeholder engagement, exploration, and understanding of data insights. Interactive features such as filters, sorting options, and explanations allow stakeholders to interact with the data, uncovering more profound insights and facilitating data-driven decision-making.

**Question 9:**

Adio is engaging in the testing and iterating steps in the process. By gathering feedback from the focus group and adjusting the visualization design based on the input, Adio ensures that the visualizations effectively communicate the intended insights and meet stakeholders' needs.

**Question 10:**

Stakeholder experience can improve business outcomes through data-driven decision-making by ensuring that stakeholders effectively communicate and understand insights. When stakeholders can engage with data visualizations tailored to their preferences, they are more likely to make informed decisions that drive positive outcomes for the business.

# Exemplar: Stakeholder experience

## Introduction

In the exercise, Stakeholder experience, you explored stakeholder experience and its importance in designing effective data visualizations. You were tasked with examining a case study involving a data analyst that engaged with stakeholder experience in the data visualization process. You then answered questions that related to stakeholder experience and the process of understanding and using stakeholder experience in designing effective data visualizations.

You can use the example answers in this reading as a guide to assess your answers to the questions in the exercise. Your answers may differ from these and still be correct.

## Questions about stakeholder experience

### 1. What is the primary goal of data visualization in the data analysis process?

The primary goal of data visualization in the data analysis process is to help stakeholders understand trends, patterns, and insights from data, supporting them in making informed business decisions.

### 2. Briefly define stakeholder experience in the context of data analysis and visualization.

Stakeholder experience, in the context of data analysis and visualization, refers to the specific needs, preferences, and expectations of the stakeholders who will engage with the visualizations and insights in a data analysis report. It involves understanding the audience's goals, technical expertise, and the context in which they will be using the visualizations.

### 3. Explain two reasons why stakeholder experience is important when creating data visualizations.

Understanding stakeholder experience makes it possible to tailor visualizations based on stakeholders’ goals, priorities, and needs. These tailored and appealing visualizations make it easier for stakeholders to comprehend and use data insights for decision-making, enhancing their engagement with the data. By demonstrating an understanding of stakeholders' goals and priorities, data analysts can build trust, leading to greater stakeholder support, data-driven decisions, and positive business outcomes.

### 4. List the steps in the stakeholder experience process.

The steps in the stakeholder experience process are:

* Identifying stakeholders
* Defining stakeholder goals
* Choosing visualization types
* Designing for stakeholder experience
* Making interactive visualizations
* Testing and iterating

### 5. How can you identify the goals and preferences of different stakeholder groups when designing visualizations?

To identify the goals and preferences of different stakeholder groups when designing visualizations, you can consult with each group, understand their specific interests and priorities, and gather feedback throughout the design process.

### 6. What is one challenge you think Adio may face in designing data visualizations that meet the needs of different stakeholders?

One challenge Adio may face in designing data visualizations that meet the needs of different stakeholders is balancing the diverse needs, preferences, and expectations of each group, while still creating concise, easy-to-understand, and visually appealing visualizations. Adio will need to build different versions of the report with varying levels of detail based on the specific needs, preferences, and backgrounds of each group.

### 7. Briefly discuss what you need to consider when choosing the right visualization type for stakeholders.

When choosing the right visualization type for stakeholders, you need to consider the type of data you're working with, which visualization types best communicate the insights that the stakeholders need and improve understanding, as well as visual appeal.

### 8. What is the purpose of making visualizations interactive?

The purpose of making visualizations interactive is to enhance data insight engagement, exploration, and understanding by allowing stakeholders to interact with the data and filter, sort, and explore various aspects of the visualizations according to their needs.

### 9. A focus group finds a visualization Adio designed difficult to understand. Adio adds more interactive features and updates the design. Which step in the process is Adio engaging in?

When a focus group finds a visualization difficult to understand and Adio adds more interactive features and updates the design, he is engaging in the **Testing and iterating** step of the stakeholder experience process.

### 10. In no more than two sentences, how do you think stakeholder experience can contribute to improving business outcomes through data-driven decision-making?

Stakeholder experience can improve business outcomes through data-driven decision-making by ensuring that visualizations are tailored to the needs and preferences of stakeholders. These visualizations then enable stakeholders to better understand and act upon data insights for informed decision-making.

## Conclusion

By understanding stakeholder experience and its role in data visualization, you can apply the steps necessary for creating effective data visualizations, driving decision-making, and producing meaningful results. By considering each stage of the process—from identifying stakeholders and defining their goals to choosing the right visualization type, designing with stakeholder experience in mind, making visualizations interactive, and testing and iterating—you can ensure that your visualizations connect with diverse audiences and effectively communicate the insights they need.