Café Sales Dashboard – Design Report

Introduction

The Cafe Sales Dashboard was designed to help managers and sales teams analyze key sales metrics across various product categories and time periods, ensuring data-driven decisions could be made efficiently. The focus was on creating a balance between ease of use and functionality, ensuring that critical information is clear while allowing users to explore data more deeply when necessary. Drawing from the design principles discussed in works by Bach et al., Janes et al., and Hynek & Hruska, the dashboard design emphasized minimalism, clarity, and accessibility. This report outlines the design decisions made in the areas of layout, color, visualizations, and interactivity, providing insight into how these elements work together to create an effective tool for cafe sales analysis.

Page 1

Page 2

Page 3

Layout and Visual Hierarchy

The dashboard's structure was divided into three pages to simplify navigation and make data analysis more intuitive. The first page provides a high-level overview of the company's performance, while the second focuses on product-specific data, and the third delves into time-based analysis. This division ensures that users can focus on different aspects of sales without feeling overwhelmed. According to Bach et al., organizing data across multiple sections helps reduce cognitive load by allowing users to focus on specific areas of interest, a principle that this dashboard's structure follows closely.
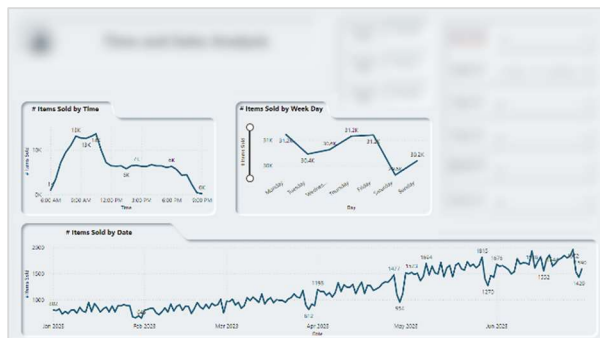

Figure 1

Figure 2

Figure 3

Each page title is placed at the top left, making it the first thing users notice **(Figure 1)**. This serves as a context for the page's functionality, helping users understand the visualizations' purpose as they navigate. Key performance indicators (KPIs), such as total sales and average transaction values, are placed prominently at the top center of each page **(Figure 2)**, guiding attention toward the most important metrics, as Bach et al. suggests for effective dashboards. Below these, the dashboard's visuals—limited to 2-3 per page—are organized clearly to ensure users can digest the information easily without feeling overwhelmed **(Figure)**. This clean layout aligns with Hynek & Hruska's advice on reducing visual complexity and maintaining a user-friendly interface.
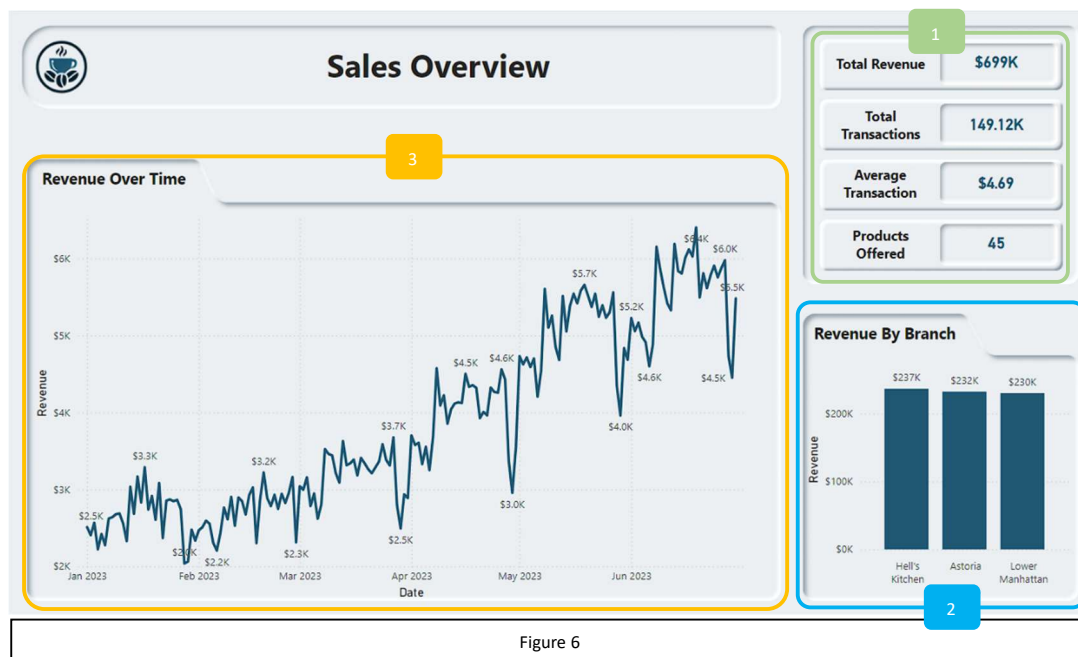
Figure 4

Color and Aesthetic Choices

A minimalist aesthetic was chosen to ensure clarity and maintain focus on the data **(Figure 4)**. The background of each page is a light grey, which provides contrast without being distracting. All text, including titles and labels, is a dark grey **(1)** to ensure legibility against the neutral background, while neomorphic borders **(2)** are used to separate sections and visuals. This structured use of borders follows Hynek & Hruska's guidance on separating content to avoid clutter.

Figure 5

The color blue was chosen exclusively for all data-related visuals **(Figure 5)**, providing a strong contrast against the grey tones and ensuring the data stands out. As Nussbaumer Knaflic explains, blue is an excellent choice for accessibility, as it is one of the least affected colors for most types of

color blindness. By using blue for all data visualizations, the dashboard ensures consistency while enhancing accessibility. The decision to limit the color palette to just these tones minimizes distractions, keeping the user's focus on the data, aligning with the recommendations of Bach et al. regarding the avoidance of unnecessary visual embellishments.


Figure 6

Visualizations and Data Representations

The dashboard employs three main types of visualizations **(Figure 6)**: static cards for KPIs **(1)**, bar charts for comparing categorical data **(2)**, and line charts for displaying trends over time **(3)**. Static KPI cards **(1)** highlight key metrics such as total sales, providing users with immediate information on the company. These cards deliver concise information without overwhelming users. Bar charts **(2)** are used to display the number of items sold and the revenue generated in a format allowing for easy visual comparisons of different product categories. Meanwhile, line charts **(3)** track revenue trends over time, providing a clear visual representation of how sales evolve across different time periods. According to Nussbaumer Knaflic, bar and line charts are among the most effective ways to display comparative and time-based data, respectively, as they reduce cognitive load and make complex data easier to interpret.

Functionality and Interactivity

Figure 7
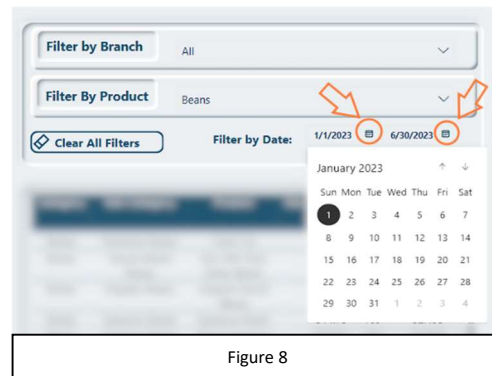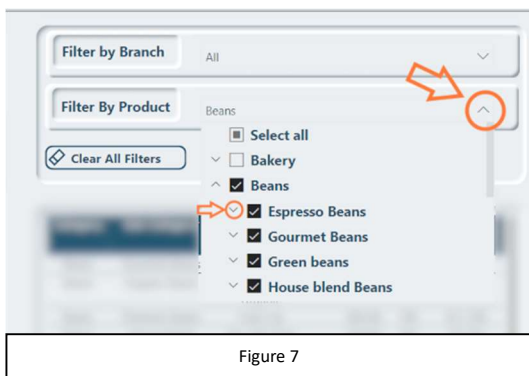
Figure 8

Figure 9

Although the visuals on each page are intentionally limited to prevent information overload, the dashboard's functionality is improved by filters **(Figure 7)** and drill-down capabilities **(Figure 9)**. For instance, the product analysis page initially presents data by product category but allows users to drill down to subcategories or individual products for more granular insights **(Figure 9)**. Similarly, users can apply filters to analyze specific date ranges, days of the week, or times of day **(Figure 7)**. This combination of filters and drill-down options supports Bach et al.'s emphasis on balancing passive data viewing ("push") with active data exploration ("pull"), enabling users to tailor their analysis to their specific needs without overcomplicating the interface.

Figure 9
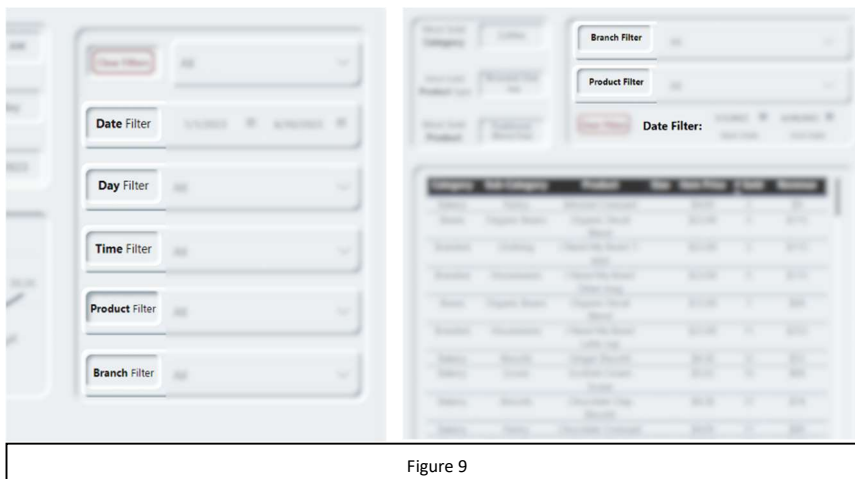
The dashboard's interactive features are designed to be intuitive, ensuring that both novice and experienced users can navigate it effortlessly. As Hynek & Hruska emphasize, interactivity should not overwhelm users but instead provide them with the tools needed to explore data at their own pace. The clear labelling of filters **(Figure 10)** and intuitive drill-down options **(Figure 7)** ensure that users can easily and intuitively interpret and interact with the dashboard.

Conclusion

The Café Sales Dashboard integrates simplicity, clarity, and interactivity to meet the specific needs of café managers and sales teams, ensuring that essential metrics are both accessible and actionable. By incorporating key design principles from Bach et al., Janes et al., and Hynek & Hruska, the dashboard offers a balance between high-level overviews and detailed analysis. Its clean layout, consistent color palette, and carefully chosen visualizations enhance both usability and accessibility. The result is a dashboard that strikes a balance between functionality and ease of use, ensuring that users are helped rather than hindered in their pursuit of analytical insights.

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