ShopNest Store Power BI Capstone Dashboard Report

Created Dashboard:

A screenshot of a graph

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Created Drillthrough:

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**Question Statement 1: Top Categories by Total Price**

*Identify and visually represent the top 10 product categories by total sales.*

**Visualization:**

The attached bar chart visual titled “Top Categories by Total Sales”. This chart presents Product categories on the Y-axis and the total sales (in monetary value) on the X-axis. It uses a horizontal bar chart format for clear comparison across categories.

A green and blue bar graph

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**Explanation:**

The bar chart displays the top 10 product categories based on total sales revenue. The ‘health\_beauty’ category leads with approximately 1.44 million in total sales, followed closely by ‘watches\_gifts’ (1.31M) and ‘bed\_bath\_table’ (1.24M). These top three categories show significantly higher sales compared to the rest. The bottom of the chart includes categories like ‘cool\_stuff’, ‘auto’, and ‘garden\_tools’, which generated lower sales figures, ranging from 0.58M to 0.72M. This analysis highlights which product segments contribute most to overall revenue, helping the business focus its marketing and inventory efforts on high-performing categories. The Product Categories are highlighted in different colors to partition the top performing Product Categories from low performing categories.

**Question Statement 2: Delayed Order Analysis**

*Determine the number of delayed orders in each category. An order is considered delayed if the actual delivery date is later than the estimated delivery date.*

**Visualization:**

The bar chart visual titled “Delayed Orders Analysis.” This horizontal bar chart presents product categories on the X-axis and the count of delayed orders on the Y-axis. Each bar represents the volume of delays per category, clearly highlighting those with high frequency.

A graph of a graph

AI-generated content may be incorrect.

**Explanation:**

The chart shows that the ‘bed\_bath\_table’ category has the highest number of delayed orders, totaling 920 delays, followed by ‘health\_beauty’ (858), ‘furniture\_decor’ (688), and ‘sports\_leisure’ (625). These categories appear to face more frequent logistical or fulfillment issues compared to others. Lower on the chart, categories such as ‘signaling\_and\_security’, ‘air\_conditioning’, and ‘fixed\_telephony’ show the least delays, each having only 11 delayed orders. This insight can help in identifying areas where delivery processes need improvement, especially in high-volume categories that are also frequently delayed. The top 3 Product Categories are highlighted in a different shade of Red to offer an easy understanding of the topmost product categories having the highest delayed order count.

**Question Statement 3: Monthly Comparison of Delayed and On-Time Orders**

*Create a dynamic visual that compares the number of delayed orders to the number of orders received earlier (on-time) for each month. Utilize the drill-through cross-report feature to provide a detailed analysis of late and on-time deliveries.*

**Visualization:**

The main visual is a stacked column chart displaying monthly order counts. Each column is split into two sections based on delivery status: “Delayed” (in red) and “On-time” (in green). The X-axis represents the purchase month, and the Y-axis represents the order count. A drill-through feature is also implemented to allow detailed exploration of specific records for both delivery types.

A green and red graph

AI-generated content may be incorrect.

**Explanation:**

From the chart, it is clear that August, May, and July had the highest overall order volumes, all with over 9.9K orders. However, March and February stand out with noticeably higher delayed order counts — especially March, with 1.6K delayed orders. This indicates potential delivery or logistics issues during those months. The main purpose of using this Stacked Column Chart is to distinguish between the ‘On-Time’ and ‘Delayed’ order counts so that the Business can easily infer what is exactly happening in the store.

The drill-through feature allows users to click on any bar (e.g., “Delayed” in March) and navigate to a detailed table view that displays individual orders, their actual and estimated delivery dates, and their delivery speed. This functionality provides a powerful layer of interactivity and transparency for operational analysis.

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This visual helps stakeholders identify peak order months, track fulfillment efficiency, and detect months with potential service gaps due to delayed deliveries.

**Question Statement 4: Payment Method Analysis**

*Analyze the most frequently used payment methods by customers using a visually appealing representation such as a pie chart or other suitable visuals.*

**Visualization:**

A pie chart was used to represent the distribution of different payment methods used by customers. The segments are color-coded and show the percentage share of each method. The chart includes five categories: credit\_card, boleto, voucher, debit\_card, and not\_defined, with their respective proportions.

A colorful circle with numbers and text

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**Explanation:**

The visual highlights that *credit cards* dominate as the most preferred payment method, accounting for 73.92% of all orders. This indicates a strong inclination toward digital payments among ShopNest customers. The next major method is *boleto* used in 19.04% of transactions, followed by *voucher* (5.56%) and *debit card* (1.47%). The *not\_defined* category is negligible, suggesting good data quality and consistency.

This analysis is useful for understanding customer behavior and can help the business focus on optimizing the most-used payment channels while possibly promoting lesser-used ones to diversify options and improve conversion rates.

**Question Statement 5: Product Rating Analysis**

*Determine the top 10 highest-rated products and the bottom 10 lowest-rated products using a bar or column chart.*

**Visualization:**

A horizontal bar chart was created where the x-axis represents the average product ratings, and the y-axis represents product IDs.

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The chart highlights the following insights,

* Top 10 highest-rated products in green, all having perfect scores of 5.0.
* Bottom 10 lowest-rated products in red, all having scores of 1.0.

**Explanation:**

This visual helps identify both excellent and poorly performing products based on customer feedback:

The top 10 products have consistently received the highest rating of 5.0, suggesting exceptional customer satisfaction. The bottom 10 products, each rated at 1.0, indicate dissatisfaction or poor product experience.

This analysis is vital for recognizing and promoting high-performing products. Examining and improving the lowest-rated products to enhance customer experience.

**Question Statement 6: State-wise Sales Analysis**

*Identify and visually represent states with high and low sales, providing a clear understanding of regional sales performance.*

**Visualization:**

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A column chart was used to display total revenue by customer state. The x-axis represents different customer states. The y-axis represents the total revenue generated. The States are color-coded as follows,

* High revenue states (e.g., SP, RJ, MG) are highlighted in green.
* Moderate to low revenue states are shown in blue.
* The lowest revenue states (e.g., AC, AP, RR) are marked in red.

**Explanation:**

This visualization makes it easy to identify regional performance,

* São Paulo (SP) leads significantly, contributing nearly 5.9M in revenue.
* Other high-performing states include Rio de Janeiro (RJ) and Minas Gerais (MG).
* Several states (e.g., AC, AP, RR) have minimal or no revenue contribution.

**Insights:**

Marketing and logistics efforts can be concentrated more in high-performing states to sustain momentum.

Low-performing states offer potential opportunities for expansion or investigation into barriers (e.g., logistics, demand, supply).

**Question Statement 7: Seasonal Sales Patterns**

*Investigate and visualize any seasonal patterns (Quarterly) or trends in sales data over the course of the year.*

**Visualization Highlights:**

The line chart uses ‘Purchase Quarter’ on the X-axis and Sum of Total\_Cost on the Y-axis.

A graph with a line going up

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Data points are colored (green, blue, red) to visually indicate periods of high, stable, or declining revenue. Data labels are shown to clearly mark revenue figures per quarter, making it easy to identify patterns.

**Insights:**

* Peak Revenue was observed during Q2-2018 (₹3.33M), followed by Q1-2018 and Q3-2018, showing a strong performance during the first half of 2018.
* Sales started declining gradually from Q4-2017 to Q3-2016, reaching the lowest point at Q3-2016 (₹0.00M).
* There is a clear seasonal pattern where Q2 (Apr–Jun) and Q1 (Jan–Mar) tend to perform better, while Q4 (Oct–Dec) and Q3 (Jul–Sep) show relatively weaker sales, especially in earlier years.

**Conclusion:**

The analysis reveals that ShopNest experiences stronger sales during the first half of the year, especially Q2, possibly due to seasonal campaigns or consumer behavior. Sales drop significantly in Q4 and Q3, which could be due to fewer promotional events or market saturation.

**Question Statement 8: Revenue Analysis**

*Determine the total revenue generated by ShopNest Store and analyze how it changes over time (Yearly). Represent this information through suitable visuals to highlight trends and patterns.*

**Visualization Highlights:**

A graph showing a bar graph

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Bar Chart (Blue/Green) for Total Revenue (Sum of Total\_Cost)

Line Chart (Purple) for Order Volume (Count of order\_id)

Total Revenue by Year:

|  |  |  |
| --- | --- | --- |
| Year | Total Revenue | Order Count |
| 2016 | 0.1M | ~1K |
| 2017 | 7.1M | 45K |
| 2018 | 8.6M | 54K |

**Insights:**

* Revenue and order volume were very low in 2016, indicating the store was just getting started.
* There was massive growth from 2016 to 2017 as the Revenue jumped from ₹0.1M to ₹7.1M. Orders increased by nearly 44K
* Continued growth was seen in 2018 as the Revenue peaked at ₹8.6M. Orders crossed 54K, showing increasing customer engagement.

**Conclusion:**

ShopNest Store experienced rapid growth in both revenue and customer orders year-over-year. The strong increase between 2016–2018 reflects successful business expansion, improved product reach, and growing customer trust. This upward trend is clearly captured in the combo chart where both bars (revenue) and lines (orders) rise consistently year after year.

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**Executive Summary**

This Power BI dashboard provides a comprehensive analysis of ShopNest Store’s sales, customer behavior, delivery efficiency, and product performance across multiple dimensions. The insights generated help stakeholders understand key trends and identify areas for operational and strategic improvements.

Key takeaways include:

* **Top-performing product categories** like *health\_beauty* and *watches\_gifts* generate the highest revenue.
* **Delayed orders** are concentrated in specific categories such as *bed\_bath\_table* and *furniture\_decor*, highlighting the need for logistics improvements.
* **Monthly and seasonal patterns** indicate that *Q2 and Q1* are strong sales quarters, while *March* shows higher delivery delays.
* **Credit cards** dominate as the preferred payment method, showing strong adoption of digital payments.
* **Product ratings** reveal clear leaders and underperformers, enabling targeted product strategies.
* **State-wise sales** highlight major revenue regions (SP, RJ, MG) and identify potential areas for growth.
* **Overall revenue growth** from 2016 to 2018 shows the store’s rapid scaling and increasing customer base.

The dashboard also features interactive visuals and drill-through capabilities for deep-dive analysis, making it a valuable tool for decision-making and strategic planning.

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