A logo for a store

AI-generated content may be incorrect.

Table Of Contents

**INTRODUCTION ………………………………………………………………………………… 2**

**DESCRIPTION OF TASK 1 ……………………………………………………………………… 2,3**

**DESCRIPTION OF TASK 2 ……………………………………………………………………… 3 ,4**

**DESCRIPTION OF TASK 3……………………………………………………………………… 4,5**

**DESCRIPTION OF TASK 4……………………………………………………………………… 5,6**

**DESCRIPTION OF TASK 5……………………………………………………………………… 6,7**

**DESCRIPTION OF TASK 6……………………………………………………………………… 7,8**

**DESCRIPTION OF TASK 7……………………………………………………………………… 8,9**

**DESCRIPTION OF TASK 8……………………………………………………………………… 9,10**

**CONCLUSION ……………………………………………………………………………………. 10**

**Shop Nest Store – Ecommerce Platform**

**Introduction**:

Shop Nest stands as the leading department store in the e-commerce marketplace in Portugal. Serving as a seamless link. It connects small businesses from various regions in Portugal to channels, streamlining the process with a single point of contact. Through the Shop Nest store, these merchants can showcase and sell their products, with the added convenience of direct shipment to customer’s facilitated by Shop Nest logistics partners. The provided data represents authentic commercial information that has undergone the process of anonymization.

This report depicts the sales performance of Shop Nest store for the years of 2016, 2017 and 2018. The below charts give the detailed analysis of the store’s performance in terms of Numbers, Bar charts, Column charts and Pie Charts for a better understanding.

**Task 1**

**Top Categories by Total Sales**

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

A bar graph with blue and white text

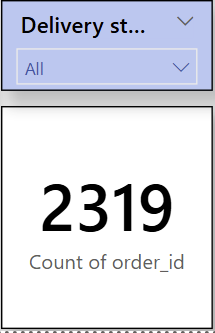
AI-generated content may be incorrect.

* **Explanation of the above chart**:
  + The bar chart above visually represents the **Top 10 product categories by total sales.**  Each bar corresponds to a products category, with the length of the bar indicating the total sales value contributed by that category.
  + OBSERVATIONS:
    - Health & beauty is the highest grossing category with total sales of approximately 1.26 million.
    - It is followed by watches & gifts and Bed bath & table, with sales of 1.21 million and 1.04 million respectively.
    - Categories like garden tools and auto are among the lower end of the top 10 but still contribute significantly to total revenue.
    - Below DAX formula has been used to calculate total sales value.
      * DAX Formula (Total sales= sum(Nexusgoods\_order\_items\_dataset[price])

**Task 2**

**Delayed Orders 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**:

A screenshot of a number of items

AI-generated content may be incorrect.

* **Explanation of the above chart:** 
  + The table and chart illustrate the distribution of delayed and on-time orders across various product categories. A total of 2,319 orders were recorded, out of which 1,421 orders were delayed, and 898 orders were delivered on time.
    - OBSERVATIONS:
      * The “Other” category has the highest number of orders (761), with 468 delayed deliveries, indicating potential inefficiencies in this broad category.
      * Home & living, Health & Beauty also has high volume of delayed orders.
      * The visual card showing 2,319 confirms the total number of processed orders across all categories.
      * I have used slicer to meet the requirements of the task, if we filter the slicer with delivery status as “DELAYED” we can get the count of orders which has not been delivered on time.
      * For a better understanding additionally I have created a matrix which depicts the product category and delivery status and total orders.
      * Below are the **DAX** formulas used to get product category and delivery status:
        + Delivery\_Status = IF('Nexusgoods\_orders\_dataset (1)'[order\_delivered\_customer\_date]>'Nexusgoods\_orders\_dataset (1)'[order\_estimated\_delivery\_date], "Delayed","On-Time Delivery")
        + Product\_categories=CALCULATE(MAX(product\_category\_name\_translation[Product Categorization]),FILTER(Nexusgoods\_order\_items\_dataset, Nexusgoods\_order\_items\_dataset[order\_id] = 'Nexusgoods\_orders\_dataset (1)'[order\_id]))
  + This analysis helps identify which product categories may need attention or improvement in logistics and delivery planning.

**Task 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 for each month. Utilize the drill through cross report feature to provide a detailed analysis of late and on time deliveries.
* **Visualization**:

A graph of a delivery order

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

* **Explanation of the above chart:**
  + The above-mentioned bar chart visually compares the number of delayed and on-time orders across different months.
  + X-axis: Represents the months (January to December)
  + Y-axis: Shows the count of customer IDs, essentially reflecting the number of orders.
  + Each bar is stacked:
    - Dark Blue for Delayed orders.
    - Light Blue for On time delivery.
  + This allows quick identification of:
    - Which month has the highest or lowest number of deliveries.
    - Patterns or trends in delays across the year for E.g., higher delays in certain months like May or January.
  + This chart also has the feature of Drill Through option if we click on the bar, we can get to see the option of drill through.
  + After clicking on the drill through option select order details to get the entire details of orders.
  + The details that I have added in the drill through page are
    - Customer ID,
    - Order ID,
    - Order\_approved at,
    - Order\_estimated\_delivery\_date,
    - Order\_delivered\_customer\_date,
    - Month Name (month of order approved at)
    - Order Status
    - Delivery Status
  + Clicking on a specific bar enables drill through, filtering the related data in the second visual (Order Details) for deeper analysis.
  + To get the drill through page easily first click on any bar or delivery category, hold control button and click on drill through button provided in the chart itself. This button will redirect you to the order details page.

**Task 4**

**Payment Method Analysis**

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

A blue circle with orange and blue numbers

AI-generated content may be incorrect.

* **Explanation of the above chart:**
  + The above donut chart illustrates the distribution of payment methods used by customers. It reveals that credit cards are by far the most preferred payment method, accounting from 73.92% of all transactions. This is followed by.
    - Boleto at 19.04%
    - Voucher at 5.56%
    - Debit Card at 1.47%
    - Not Defined at a negligible percentage
* This analysis helps understand customer behaviour in terms of payment preferences. Businesses can use this insight to optimize payment gateway options and promotional strategies, focusing more on credit card related offers or partnerships.

**Task 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 screenshot of a graph

AI-generated content may be incorrect.

* **Explanation of the above chart:**
  + The above bar chart depicts the product rating analysis by presenting the Top 10 highest rated and bottom 10 lowest rated product categories based on customer reviews.
  + Observations:
    - Top 10 Rated Products:
      * The highest rated product category is CDS DVDS musicals with an average rating of 4.6.
      * Other well rated categories include books general interest, construction tools and fashion sport all with average rating between 4.3 to 4.4
      * This indicates that customers were generally more satisfied with products from these categories.
    - Bottom 10 Rated Products:
      * The lowest rated category is security and services with an average rating of 2.5, which is significantly below average.
      * Other poorly rated categories include diapers and hygiene, office furniture and home comfort ranging from 3.3 to 3.8
      * These categories might have issues related to quality, delivery, or customer expectations
  + The DAX formula used to calculate overall customer satisfaction score is as follows:
    - Average score = AVERAGE(Nexusgoods\_order\_reviews\_dataset[review\_score])

**Task 6**

**State Wise sales analysis**

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

A screenshot of a computer

AI-generated content may be incorrect.

* **Explanation of the above chart:**
  + The above charts represent states with high and low sales, giving a clear understanding of regional sales performance.
  + Observations (Bar Chart):
    - X-axis – Total sales, Y-axis – seller states
    - The longer the bar, the higher the sales.
    - SP state has significantly higher sales than others
  + Observations (Map):
    - Geographical representation shows sales performance across different states or regions on the map.
    - Legend Notes explain the logic behind bubble size.
  + I have used a Map chart as well to depict the overall sales performance regionally to satisfy the requirements of the task given.
  + Additionally, I have added it in the state and region sales(MAP) in the Power BI file.
  + The DAX formula used to calculate total sales is as follows:
    - Total sales = sum(Nexusgoods\_order\_items\_dataset[price])

**Task 7**

**Seasonal Sales Patterns**

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

A graph with a line

AI-generated content may be incorrect.

* **Explanation of the above chart:**
  + The above chart is used to analyze the seasonal sales patterns.
  + It is used to investigate and visualize quarterly or seasonal trends in total sales over a multi-year period.
  + X-axis represents time, divided quarterly from around July 2016 to July 2018.
  + Y-axis represents total sales in units, with a scale going from 0k to 100k+.
  + Line Graph connects quarterly data points to show the trend of sales over time.
  + Sales tend to peak in Q1 and Q4, which are often high-demand quarters in many industries.
  + Sales dip mid-year, especially around Q2-Q3, suggesting off-peak performance.
  + It has the following 5 Phases:
    - Initial Flat Sales (around mid-2016)
    - Growth Phase (late 2016 to early 2017)
    - Mid -2017 Decline Phase
    - Sharp Rise (late 2017 to early 2018)
    - Drop in sales (mid to late 2018).
  + Below DAX formula has been used to calculate total sales value.
    - DAX Formula (Total sales= sum(Nexusgoods\_order\_items\_dataset[price])

**Task 8**

**Revenue Analysis**

* Determine the total revenue generated by Shopnest store and analyse how it changes over time(yearly). Represent this information through suitable visuals to highlight trends and patterns.

**Visualization**:A graph of a sales funnel

AI-generated content may be incorrect.

* **Explanation of the above chart:**
  + The above chart represents the total annual revenue generated by the ShopNest Store from 2016 to 2018.
  + X-axis represents time, year of sales 2016,2017 and 2018.
  + Y-axis represents total sales in units, with a scale going from 0k to 200K+.
  + From 2016 to 2018 sales surged to around 210K, showing a significant increase in revenue compared to the previous years.
  + The upward slop between 2016 to 2018 highlights a positive growth trend.
  + The steeper incline from 2017 to 2018 suggests that store experienced a major revenue boost.
  + Below DAX formula has been used to calculate total sales value.
    - DAX Formula (Total sales= sum(Nexusgoods\_order\_items\_dataset[price])

**Conclusion:**

The above report depicts the detailed analysis of the shopnest store performance.

Some of the key points explained in this report are

1. Sales Growth and Performance.
2. Top Performing categories and products.
3. Customer ratings.
4. Payment Method Trends.
5. Delivery Performance.
6. Customer Engagement.