

Interactive Dashboard and Excel Analysis for Growth

Objective for Annual Sales Report with Analytical Focus:

The objective of this Annual Sales Report is to provide Vmart with a comprehensive analysis of sales data for the current year. This analysis aims to highlight key performance indicators (KPIs) such as order statuses, customer demographics, and product performance. The insights derived from this report will enable Vmart to make informed decisions that drive growth and optimize strategies for the upcoming year.

Key areas of focus include:

1. **Customer Behaviour:** Understanding purchasing patterns and preferences based on demographics (age, gender) and order history. This will help Vmart tailor marketing efforts and product offerings to better meet customer needs.
2. **Product Trends:** Identifying the highest-selling categories and SKUs, as well as analysing returns and exchanges to gauge customer satisfaction and product quality. This information is vital for inventory management and product development.
3. **Sales Channel Efficiency:** Evaluating the performance of different sales channels (online vs. retail) to determine where to allocate resources and improve customer experience. This will aid in optimizing marketing strategies and enhancing sales efforts.
4. **Order Status Analysis:** Assessing the status of orders (delivered, returned, etc.) to identify any operational issues that may affect customer satisfaction and revenue.
5. **Geographical Insights:** Analysing sales data by region to uncover market trends and identify potential areas for expansion or targeted marketing campaigns.
6. **Revenue Growth Opportunities:** Leveraging the findings to propose actionable strategies aimed at increasing revenue, such as promotions, product bundling, or loyalty programs.

The report will serve as a strategic tool for Vmart, supporting targeted actions that are informed by data-driven insights to enhance overall performance and competitiveness in the market.

Dataset Information:

The dataset "**Vmart Store Sales**" contains a total of **19 features** and **31,047 records**.

Feel free to explore the dataset and analyse the data for insights that can contribute to Vmart's success!

Analytical Questions:

1. What are the different order statuses, and what percentage of orders fall into each category (completed, pending, cancelled)?

- Helps Vmart understand the efficiency of order fulfilment and where improvements can be made to reduce cancelled or pending orders.

2. Which product category generated the highest sales this year?

- Identify top-performing product categories (e.g., electronics, clothing) to focus marketing efforts and inventory planning on best-sellers.

3. Who purchased more: men or women?

- Analyse gender-based purchasing behaviour to determine which segment is driving more revenue. This helps create targeted marketing strategies for the dominant customer group.

4. What is the relationship between age and purchasing behaviour?

- Break down sales by age group to identify which demographic spends the most. This can inform age-specific promotions and product offerings.

5. Which sales channel (online vs. retail) performed better this year?

- Assess the performance of different sales channels to determine where to allocate resources and how to improve the weaker channel.

6. Which city or region generated the most sales?

- Geographical analysis will help Vmart understand which regions are most lucrative and where to focus marketing and logistics efforts.

7. Which SKU (product) was the top seller this year?

- Identifying the best-selling individual product (SKU) enables better inventory management and promotional strategies around popular items.

Instructions

You have been provided with a day-wise task plan to guide you through the project on the "**Vmart Store Sales**" dataset. Please follow these tasks carefully to ensure a thorough analysis and effective use of the data.

1. **Daily Tasks:** Each day's tasks are designed to build upon one another, leading you to develop a comprehensive understanding of the dataset and to create your interactive dashboard.
2. **Status Reporting:** You are required to report the status of your work during the scheduled status meetings. Please make a note of the following meeting dates:
 - **Friday, 04/10**
 - **Monday, 07/10**
 - **Wednesday, 09/10**
3. **Preparation for Meetings:** In each status meeting, be prepared to discuss:
 - The progress you've made on your tasks.
 - Any challenges you faced and how you addressed them.
 - Insights you've gained from your analyses.

By following these instructions, you will be able to stay on track and make the most of this project. If you have any questions or need clarification, don't hesitate to reach out.

Good luck, and Happy analysing!

Day 1: Data Collection & Preparation

Task 1: Collect and Clean the Dataset

- Gather the sales dataset.
- Remove duplicates and handle missing values.

Task 2: Ensure Data Consistency

- Standardize date formats and currency.
- Verify customer data accuracy.

Task 3: Identify Key Columns

- List key columns for analysis (e.g., Order Status, Category, Gender).
- **Add New Columns** to enhance analysis, such as:
 - Order Completed (Yes/No)
 - Age Group
 - Sales Channel (Online/Offline)

Task 4: Create a Summary Table

- Develop a summary table that includes an overview of the dataset's structure.

Goal: Prepare a clean and organized dataset ready for analysis, leaving room for personal insights and additional columns.

Day 2: Sales and Customer Demographics Analysis

Tasks:

Task 1: Analyse Overall Sales Performance

- Decide how to use a **Pivot Table** to calculate total sales and identify trends over time.

Task 2: Breakdown Sales by Order Status

- Determine the best way to assess the percentage of orders in each status (completed, pending, cancelled) using a **Pivot Table**.
- Choose a suitable visualization method (e.g., bar chart) to represent this data.

Task 3: Analyse Gender-Based Purchasing Behaviour

- Create a **Pivot Table** to compare sales figures for male and female customers.
- Decide on a graphical representation (e.g., pie chart) to illustrate the proportion of sales by gender.

Task 4: Study the Relationship Between Age and Purchasing Patterns

- Use a **Pivot Table** to summarize sales data by age group.
- Choose an appropriate visualization (e.g., line graph or bar chart) to depict the relationship between age groups and sales.

Goal: To empower and explore and analyse sales and customer demographics independently.

1. Select appropriate methods to create Pivot Tables for their analysis.
2. Derive insights from the data on overall sales performance and customer demographics.
3. Choose effective visualizations to communicate their findings.

Day 3: Product Performance and Sales Channel Analysis

Tasks:

Task 1: Identify Highest Selling Products

- Use a **Pivot Table** to identify the products with the highest sales volume and revenue.
- Consider using functions like **INDEX-MATCH** or **VLOOKUP** to pull additional details about the products if needed.

Task 2: Analyse Sales by Product Category

- Create a **Pivot Table** to compare sales figures across different product categories.
- Use **VLOOKUP** to cross-reference additional data from other tables or sheets that may enhance your analysis.
- Choose a suitable visualization method (e.g., bar chart) to represent the sales distribution among categories.

Task 3: Evaluate Sales Channel Performance

- Develop a **Pivot Table** to analyse sales performance by channel (e.g., Online, Retail).
- We encourage you to use **INDEX-MATCH** to retrieve detailed metrics or descriptions related to each sales channel.
- Decide on an effective visualization method (e.g., stacked bar chart) to compare performance across channels.

Task 4: Explore Seasonal Trends

- Create a **Pivot Table** to analyse sales data over different months or quarters and identify any seasonal trends.
- Think about using **VLOOKUP** or other functions to integrate external data (like promotional periods) that might impact sales.
- Choose an appropriate graph (e.g., line chart) to visualize these seasonal trends.

Goal: By the end of today's activities, you should be able to:

1. Identify the highest-selling products and relevant metrics using your analysis.
2. Analyse sales figures across different product categories, utilizing advanced Excel functions.
3. Evaluate the performance of various sales channels and enrich your analysis with supplementary data.
4. Recognize seasonal trends and understand their implications for future sales strategies.

Note: Make sure to leverage **INDEX-MATCH**, **VLOOKUP**, and other Excel functions throughout your tasks to enhance your data analysis skills!

Day 4: Analysing Customer Insights and Building Your Dashboard with Slicers

Tasks:

Today, you will focus on solving the following analytical questions and enhancing your dashboard with slicers:

1. What are the key demographics of our customers (age, gender, location)?
2. How many customers are repeat purchasers compared to new customers?
3. Which customer segments have the highest average order value?
4. What percentage of customers made multiple purchases within the year?
5. How do purchasing behaviors differ between male and female customers?
6. What products are frequently purchased together (potential for upselling)?
7. Which demographic groups show the highest retention rates?

Dashboard Development:

- Start working on creating a dashboard that visualizes your findings from the analytical questions above.
- Incorporate **slicers** into your dashboard to allow for interactive filtering of data, enabling users to easily explore insights by different demographics, purchase behaviour, or product categories.

Goal: By the end of the day, you should be able to:

1. Answer the analytical questions based on your analysis.
2. Develop a dashboard that presents your insights effectively, with slicers enhancing user interactivity.

Note: Focus on clarity and simplicity in your dashboard design, ensuring that your findings are easily understood and accessible for further exploration!

Day 5: Finalizing Your Analysis, Dashboard, and Insights Presentation

Tasks:

Today, you will focus on completing your analysis, enhancing your dashboard with slicers, and preparing your insights for presentation.

1. Review Your Insights:

- Go through the findings from your previous analyses and ensure all questions are thoroughly answered.
- Confirm that your data is accurate and all relevant insights are included.

2. Enhance Your Dashboard with Slicers:

- Add **slicers** to your dashboard to allow for interactive filtering of data (e.g., by category, sales channel, or customer demographics).
- Ensure that slicers enhance user experience, making it easier to explore different aspects of the data.

3. Prepare Your Presentation:

- Create a brief presentation summarizing your key findings and insights from the dashboard.
- Include an overview of the analytical questions, your methodology, and the conclusions drawn from your analysis.

4. Final Insights:

- Reflect on the overall trends and key takeaways from your analysis. Consider how these insights can inform future strategies for sales and marketing.
- Be ready to highlight any significant findings, such as top-performing products, customer preferences, and areas for potential growth.

5. Practice Your Presentation:

- Rehearse presenting your dashboard and insights to ensure you can explain your findings clearly and confidently.
- Be prepared to answer questions or provide additional insights based on your analysis.

Goal: By the end of the day, you should be able to:

1. Finalize your analysis and dashboard, incorporating slicers for interactivity.
2. Prepare a concise presentation that effectively communicates your findings and insights.

Note: Focus on clarity, interactivity, and confidence in your presentation, as these elements will help convey the significance of your insights to your audience!
