1. ABSTRACT OF THE PROJECT

The project represents an interactive dashboard for Chitra Collections' Annual Report 2024,

utilizing advanced Excel features such as Pivot charts, slicers, Pivot tables. The dashboard is

designed to provide Comprehensive insights into sales performance, customer demographics

and platform-based trends.

The dashboard includes six dynamic Pivot Charts: Order and sales, Order Status, Platform-

based Sales, Sales Men Vs. Women, Top 5 States, Age group and Gender based demographics.

These give a clear understanding of the company's sales distribution and customer preferences.

Additionally, three interactive Slicers – Months, Product Categories, Sales Channels, enable

users to filter and analyse data dynamically, facilitating real-time decision-making.

Keywords: Pivot Table, Pivot Chart, Slicers, Dashboard, Sales analysis, Data visualization.

2. INTRODUCTION

2.1. Overview:

Welcome to Chitra Collections Annual Report 2024 Dashboard. This Project report presents the annual report of a store using advanced Excel techniques such as Pivot table, Pivot charts and slicers. The primary objective of this project is to analyze and visualize key business metrics, providing stakeholders with a comprehensive overview of sales performance.

2.2. Key Features of the Project:

This report uses Excel's data Visualization and analytical capabilities, This Dashboard enhances data-driven decision making and enables real time monitoring of business performance. It includes six pivotal charts that cover crucial aspects of Chitra Collection's performance:

2.2.1. Order and Sales Performance:

Monitor the orders and sales throughout the year 2024, helps in identifying peak sales period and overall revenue growth.

2.2.2. Order Status Monitoring:

Tracks different status of orders, providing insights into completed, Refund, Cancelled or returned orders. It improves order management efficiently.

2.2.3. Sales by Top 5 States:

It highlights the highest revenue-generating locations, helps in identifying key market places.

2.2.4. Order Age Group of Men and Women:

Analyse the age demographics of customers, segmented by gender, helping in targeted marketing strategies.

2.2.5. Sales Men vs Women:

Analyzes gender-based purchasing behaviour, helps in identifying targeted customers.

2.2.6. Order Platforms Analysis:

Compares sales performance across various platforms, helps in determine the most profitable sales channels.

2.3. Interactive Features:

Furthermore, Three Slicers enables users to dynamically filter data according to their needs.

2.3.1. Month:

Filter data by specific months to observe seasonal trends.

2.3.2. Category:

Filter by product categories like saree, kurta, and more to analyse category specific performance.

2.3.3. Channel:

Filter by sales platforms to assess the effectiveness of different sales channels.

This interactive Excel dashboard provides a powerful business intelligence tool for Chitra Collections. This dashboard promises to deliver valuable insights and aim in making informed business decisions. The project demonstrates the effectiveness of Excel-based Data Visualizations in monitoring business performance and improving operational efficiency.

3.Objectives

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- **Dynamic Data Visualization:** Present sales and order insights through six pivot charts for better decision making.
- Comprehensive sales Analysis: Evaluate performance based on order status, gender-based sales, top-performing states, and age-group demographics.
- User-friendly Interaction: Enable data filtering using slicers for a customized view.
- **Performance Monitoring:** Analyze overall sales trends and order data to assess business growth.
- **Strategic Decision Support:** Provide actionable insights for improving sales strategies and targeting the right customer segments.

This report will give a visually appealing summary of Chitra Collections performance.

4. IMPLEMENTATION

4.1. Problem Definition and Feasibility Study

4.1.1. Problem Definition:

The Chitra Collection aims to analyse its annual sales data for 2024 to identify key performance trends, demographic insights, and platform effectiveness. Currently, the store lacks an integrated tool to visualize and analyse this data effectively. The primary challenge is to transform raw sales data into actionable insights that can drive strategic decisions and improve operational efficiency.

4.1.2. Feasibility Study:

To address the problem, an Advanced Excel dashboard is proposed, which will:

- Collect Data: Aggregate sales data from various sources.
- Visualize Trends: Use pivot charts to display key metrics such as order and sales trends, order status, top-performing states, demographic distributions, and platform performance.
- **Interactive Filtering:** Implement slicers for month, product category, and sales channel to enable dynamic data exploration.
- **Ease of Use:** Ensure the dashboard is user-friendly, allowing stakeholders to derive insights without extensive technical knowledge.

The feasibility study indicates that Excel's powerful data analysis and visualization capabilities make it an ideal tool for this project. The use of pivot charts and slicers ensures flexibility and interactivity, while Excel's widespread use ensures accessibility and ease of adoption.

4.2. Algorithm/Steps/Methodology

4.2.1. Data Collection:

- Data Aggregation:
- **Sources:** Collect sales data from multiple sources including sales platforms (Ajio, Amazon, etc.), and CSV files.
- Tools Used:
 - i) Sales Platforms: Ajio, Amazon, etc.
 - ii) CSV Handling: Microsoft Excel 365
- Process: Data from these sources is aggregated using Excel's data import functionalities, which allows seamless integration from various data sources into a single worksheet for further processing.

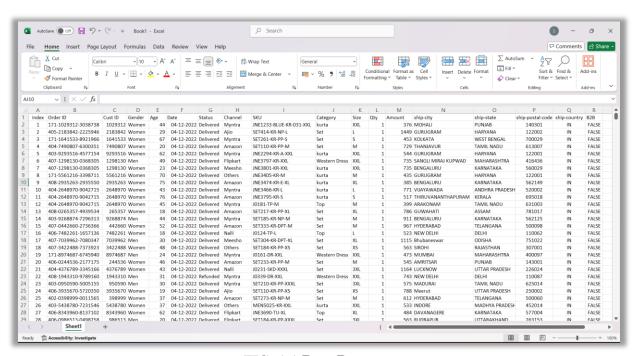


FIG: 1.1 Raw Data

Data Cleaning:

- Tools Used: Microsoft Excel 365
- Process:
- **Duplicates Removal:** Use the 'Remove Duplicates' feature in Excel to ensure no redundant data entries.
- **Null Values Removal:** Use filter to check if there are any null values or any wrong values.
- **Delete unnecessary column:** Here we can delete unnecessary column. For example, we can delete the currency column because it is an Indian store, every transaction is in INR.

Data Processing:

- Process:
- **Age Group:** Insert a new column 'Age group' to determine age group-based sales. To implement this the formula is used:-
 - =IF(F2>=50,"Senior",IF(F2>=25,"Adult","Teenager"))
- **Month:** There is an need to insert one more new column 'Month' to determine month based highest sale. To implement this the formula is used:-
 - =TEXT(G2,"MMMM")

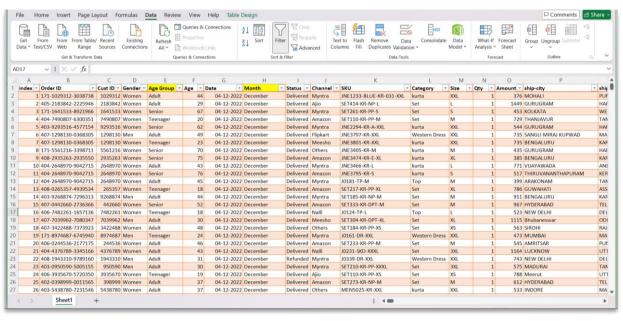


FIG: 1.2 Cleaned and Processed Data

4.2.2. Dashboard Development:

• Pivot Chart Creation:

1. Order and Sales: Create a pivot chart to show the number of orders and total sales over time in a single chart. Helps track business growth and sales fluctuations.

Steps: Single click on a cell of the data, go to insert and then Pivot table. Drag Month into the row section. Then Amount & order Id into the value section. Simply go to the Pivot Table Analyse then Pivot chart. Insert the chart and make require adjustment.

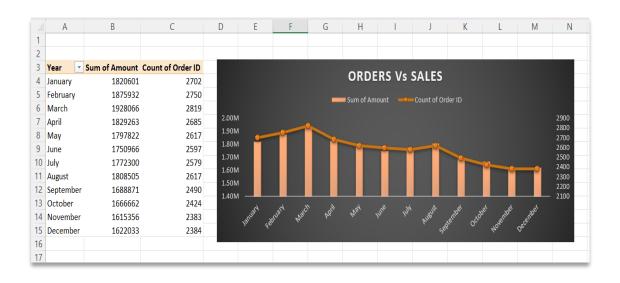


FIG-1.3 Pivot Chart - Order and Sales Bar Graph

2. Order Status: Develop a pivot chart to display the status of orders (Completed, Returned, Refund, Cancelled). Helps monitor order fulfilment and identify issues in supply chain.

Steps: Single click on a cell, go to insert and pivot Table. Drag the status into the row section and order id into the value section. Insert a Pivot chart From the Pivot Table Analyse section and make require adjustments.

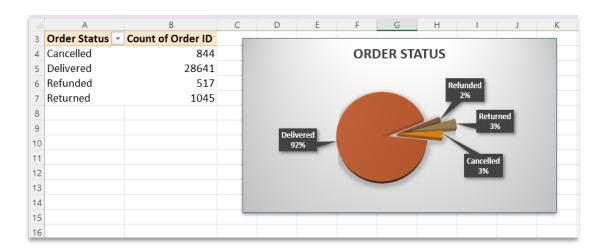


FIG-1.4 Pivot Chart - Order Status Pie Chart

3. Top 5 States by Sales: Design a pivot chart that highlights the top 5 states with the highest sales to identify regional performance.

Steps: Single click on a cell, insert Pivot table. Drag the Ship-State in the row section and amount in the value section. Filter Row labels by Top 5 states, then Sort Amount by largest to smallest. Insert a pivot chart and make require adjustments.

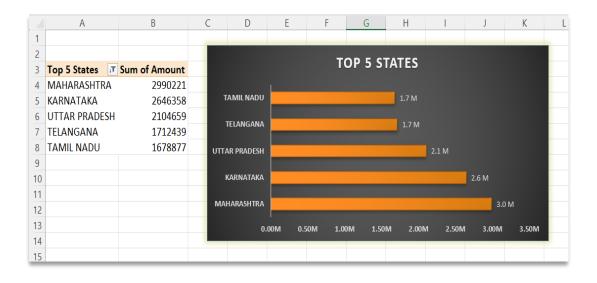


FIG-1.5 Pivot Chart - Top 5 States by Sales Horizontal Bar Graph

4. Sales Men vs Women: Create a pivot chart comparing sales between men and women to identify gender-based purchasing behaviour.

Steps: Single click on a cell, insert Pivot table. Drag Gender into row section and Amount into Value section. From Design Turn off the Grand Total option, as it is not required. Go to Pivot table Analyse and insert a pie chart from there. Make necessary adjustments.

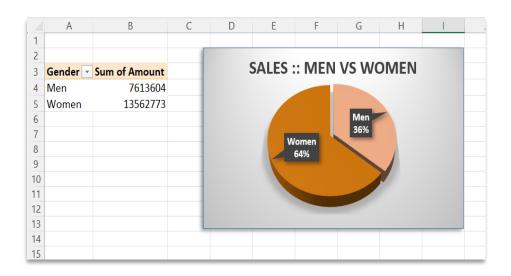


FIG-1.7 Pivot Chart - Sales Men vs. Women Pie Chart

5. Orders Age and Gender Based: Generate a pivot chart Showing the order of Different Age group's (Adult, Senior, Teenager) Men and Women to compare revenue from each age group.

Steps: Single click on the cell, insert pivot table. Drag Age group into row section, Gender into column section and order id into value section. Right click on column, click on show value as % of grand total and then simply turn off the grand total option from design. Insert a pivot chart and make necessary adjustments.

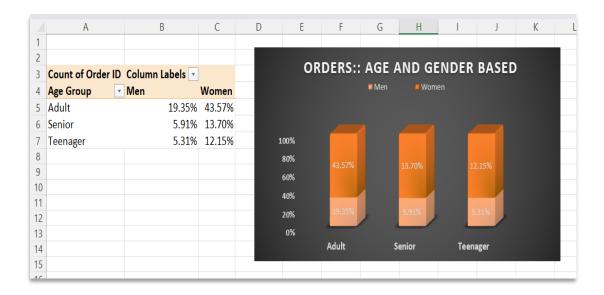


FIG-1.6 Pivot Chart - Order Age Group of Men and Women

6. Order Platform: Develop a pivot chart to display sales across different platforms (Ajio, Amazon, etc.) to determine platform performance.

Steps: Single click a cell, go to insert, click on pivot table. Drag Channel into row section and order ID into value section. Go to pivot table analyse and insert a pie chart from pivot chart option. Then simply make require adjustments.

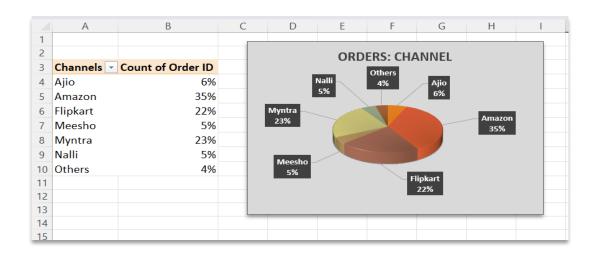


FIG-1.8 Pivot Chart - Order Platform Pie Chart

Slicer Implementation:

• **Tools Used:** Microsoft Excel 365

• Process:

1. Month Slicer: Add a slicer to filter data by month, enabling users to view data for specific periods.

Steps: click on the pivot table go to pivot table analyse, Insert slicer. Choose Month, Click on Ok. Right click on the slicer, click on Report Connection to make sure the slicer is connected to each and every pivot chart.

2. Category Slicer: Include a slicer for product categories (e.g., saree, kurta) to facilitate category-specific analysis.

Steps: click on the pivot table go to pivot table analyse, Insert slicer. Choose Category, Click on Ok. Right click on the slicer, click on Report Connection to make sure the slicer is connected to each and every pivot chart.

3. Channel Slicer: Integrate a slicer for sales channels (e.g., Ajio, Amazon) to allow users to filter data by sales platform.

Steps: click on the pivot table go to pivot table analyse, Insert slicer. Choose Channel, Click on Ok. Right click on the slicer, click on Report Connection to make sure the slicer is connected to each and every pivot chart.

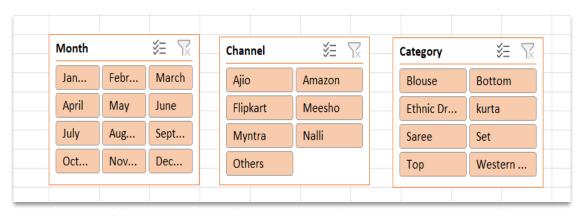


FIG-1.9 Slicer Implementation - Month, Channel, and Category Slicers

• Dashboard Integration:

- Tools Used: Microsoft Excel 365
- **Process:** Combine all pivot charts and slicers into a single Excel sheet, forming an interactive dashboard. Ensure the dashboard is user-friendly and visually appealing by arranging charts and slicers logically and consistently.



FIG-1.10 Final Dashboard of Chitra Collections

4.2.3. Testing and Validation:

Data Accuracy:

• **Tools Used:** Microsoft Excel 365

 Process: Validate the accuracy of the data and calculations by cross-checking with raw data sources and ensure dates, values are in correct format. Verify that the raw data used in pivot tables correctly reflects the original dataset.

Usability Testing:

Process: Conduct usability testing with end-users to ensure the dashboard is
interactive and meets their needs. Gather feedback on the dashboard's functionality,
design, and ease of use. Make necessary adjustments based on user feedback to
improve the overall user experience.

Functionality Testing:

Process: Ensured all six pivot charts display accurate and updated data. Verified
proper filtering and updating when interacting with slicers. Checked multiple slicer
combinations to ensure data integrity is maintained. Make sure that Slicers work
properly without errors.

4.3. Result And Discussion

4.3.1. Results:

The Advanced Excel dashboard for Chitra Collections Annual Report 2024 provides comprehensive insights into various aspects of sales and orders:

- Order and Sales Trends: The pivot charts reveal monthly sales trends, helping identify peak sales periods and seasonal patterns. Women are more likely to buy compared to men (~65%).
- Order Status: Visualization of order statuses highlights the proportion of completed, pending, and cancelled orders, allowing for better order management.
- **Top 5 States:** The chart for top-performing states showcases regional sales performance, guiding regional marketing efforts. Maharashtra, Karnataka and Uttar Pradesh are the top 3 states (~35%).
- **Demographic Insights:** The age group and gender distribution charts offer valuable insights into customer demographics, aiding targeted marketing strategies. Adult age group is max contributing (~50%).
- **Platform Performance:** The platform chart identifies the most effective sales channels, informing platform-specific strategies. Amazon, Flipkart and Myntra channels are max contributing (~80%).

4.3.2 Discussion:

The dashboard's interactive features, such as slicers, enable users to filter data dynamically, facilitating detailed analysis and quick decision-making. The project successfully addresses the initial problem of data visualization and analysis. It makes easier to analyse trends over specific period, product category or sales channels.

This project effectively transforms raw sales data into meaningful insights, making it easier for business managers to identify trends, monitor key performance indicators, and strategize accordingly. The interactive nature of the dashboard ensures that users can navigate and filter data effortlessly, making it a valuable analytical report.

Overall, the dashboard serves as a powerful tool for Chitra Collections management, enabling data driven decision-making and strategic planning. Future improvements could include additional metrics for a more comprehensive analysis.

5.CONCLUSION AND APPLICATION

The Chitra Collections Annual Report 2024 Dashboard, developed using Advanced Excel, offers a robust tool for in-depth data analysis and visualization. By incorporating six detailed pivot charts and three interactive slicers, this dashboard provides a comprehensive overview of the store's performance across various dimensions.

5.1. Conclusion:

- Insightful Analysis: The dashboard's pivot charts enable a detailed examination of order and sales data, order status, regional sales performance, customer demographics, gender-based sales comparisons, and sales channel effectiveness.
- **Real-time Decision-Making:** The integration of slicers for month, category, and channel allows for dynamic filtering and drill-down capabilities, facilitating targeted and informed decision-making.
- User-Friendly Interface: The interactive and intuitive design ensures that
 users can easily navigate through the data, making complex analyses
 accessible to stakeholders at all levels.

5.2. Application:

- **Strategic Planning:** This dashboard can be used by management to identify trends, set sales targets, and formulate strategies to boost performance in underperforming areas.
- Operational Efficiency: By monitoring order status and sales data in realtime, the dashboard aids in streamlining operations and improving customer satisfaction.
- Marketing and Sales Campaigns: Insights into customer demographics and regional sales can inform targeted marketing campaigns and promotional activities to maximize reach and effectiveness.
- **Product Development:** Understanding category-specific performance helps in making informed decisions about product development, inventory management, and expansion into new markets.

The Chitra Collections Annual Report 2024 Dashboard exemplifies the transformative potential of advanced Excel functionalities. It not only provides valuable business insights but also enhances the ability to respond swiftly to market changes and customer needs. As a versatile tool, it is poised to support Chitra Collection in achieving sustained growth and success.

6. FUTURE SCOPE

For future enhancements, consider the following:

- **Integration with Live Data Sources:** Implementing APIs for live updates from sales platforms to ensure the dashboard reflects the most current data.
- Predictive Analytics: Utilizing machine learning models to forecast sales trends based on historical data, enabling proactive decision-making.
- Expense & Profit Analysis: Expanding the dashboard to include profit margins, operational costs, and overall financial health.
- **Mobile Compatibility:** Optimizing the dashboard for mobile devices to enable onthe-go access and analysis.
- Improve sales: Target women customer of age group(30-49 yrs) living in Maharastha, Karnataka and Uttar Pradesh by showing ads/offers available on Amazon, Flipkart and Myntra.
- Expanded Slicers and Filters: Adding more slicers and filters to allow for more granular data analysis, such as by customer segment, region, or product type.

7. REFERENCE

These References are used for implementation of this project.

❖ Books:

- o "Data Visualization with Excel Dashboard and Reports: " by Dick Kusleika.
- o "Excel Dashboards and Reports" by Michael Alexander and John Walkenbach.

Articles:

o "Excel Dashboard Tutorial" by Tutorials Point:

(https://www.youtube.com/watch?v=Yx7o1a5Sw9o)

o "Data Visualization Best Practices":

(https://www.datavizbestpractices.com)

These references provide foundational knowledge and practical guidance essential for developing the Advanced Excel dashboard for the Chitra Collections Annual Report 2024.