



**NATIONAL INSTITUTE OF ELECTRONICS AND
INFORMATION TECHNOLOGY
HARIDWAR**

PROJECT REPORT
ON

Data Analysis Using MS Excel
(A Comprehensive Study of Cart Store Sales Data — 2024)

SUBMITTED BY

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at

NIELIT HARIDWAR

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The institute provides a professional learning environment where students gain hands-on experience with practical datasets and analytical tools. The internship helped in improving analytical thinking, technical skills, and understanding of business reporting using Microsoft Excel.

NIELIT Haridwar continues to contribute significantly toward digital education and technical skill development in India through its quality training programs and industry-relevant curriculum.

DECLARATION

I hereby declare that the project report entitled “**A Comprehensive Study of Cart Store Sales Data — 2024**” submitted by me is a genuine record of the work carried out during the internship on “**Data Analysis Using MS Excel**” under the supervision of Aparna Tomar at National Institute of Electronics and Information Technology.

I further declare that this report has not been submitted previously, either fully or partially, for the award of any degree, diploma, or certification to any institution or university. The analysis and findings presented in this report are based on practical work performed using Microsoft Excel tools and techniques.

Place

Date

Praphul Kant

Project Coordinator Name & Signature

Abstract

This project report presents a comprehensive data analysis of Cart Store's annual sales data for the year 2024, conducted using Microsoft Excel. The primary objective of this study was to extract meaningful business insights from a raw transactional dataset containing 31,047 order records spread across 12 months, 7 sales platforms, 8 product categories, and multiple Indian states.

The dataset was first subjected to a thorough data cleaning and preprocessing phase in Excel, where duplicate entries were removed, inconsistent values were corrected, and key fields such as Month and Age Group were standardized. Pivot Tables, Charts, Slicers, and an interactive Dashboard were then used to perform multi-dimensional analysis across dimensions including monthly trends, sales channels, product categories, geographic distribution, customer demographics, and order fulfilment status.

Key findings of the study reveal that Cart Store generated a total revenue of INR 2,11,76,377 with an average order value of INR 682.07. March emerged as the highest revenue month (INR 19,28,066), while Amazon was the leading sales platform contributing 35.5% of total orders. The 'Set' category dominated product sales with 49.6% of total revenue. Maharashtra, Karnataka, and Uttar Pradesh were the top three states by revenue. Women customers accounted for 69.4% of all orders, and the Adult age group (30–60 years) formed the largest customer segment at 50.6%. The overall delivery success rate stood at an impressive 92.3%.

Based on these findings, strategic recommendations have been provided covering seasonal campaigns, platform diversification, women-centric marketing, tier-2 city expansion, and B2B growth opportunities.

This project enhanced practical skills in data cleaning, Pivot Table creation, data visualization, and business insight generation using Microsoft Excel — core competencies required in today's data-driven business environment.

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1. Introduction

This report presents a comprehensive data analysis of Cart Store's annual sales operations for the year 2024. The analysis was conducted using Microsoft Excel, employing advanced features such as Pivot Tables, data cleaning techniques, conditional formatting, and visual dashboards to extract meaningful business insights from raw transactional data.

Cart Store is an Indian e-commerce fashion retailer selling products across multiple online platforms including Amazon, Myntra, Flipkart, Ajio, Nalli, and Meesho. The dataset spans the entire calendar year 2024, covering 31,047 order records across various product categories, customer demographics, and geographic regions.

The primary objective of this project is to understand sales patterns, identify top-performing channels and categories, study customer demographics, and provide data-driven recommendations to improve business performance.

2. Objectives of the Study

- To analyze monthly sales trends and identify peak and low-revenue months throughout 2024.
- To evaluate performance of different sales channels (Amazon, Myntra, Flipkart, etc.) in terms of order volume and revenue.
- To study product category-wise sales distribution and identify top-performing categories.
- To understand the geographic distribution of sales across Indian states and identify top markets.
- To analyze customer demographics — gender and age groups — and their purchasing behavior.
- To assess order fulfilment quality by examining delivery, return, cancellation, and refund rates.
- To clean, process, and structure raw data using MS Excel tools for accurate and reliable analysis.

3. Dataset Overview

The dataset was provided as a raw Excel file titled 'Cart_Store.xlsx'. After processing, it contained the following sheets:

- Raw Data — Original unprocessed transactional records.
- Cleaned Data — Data after removing duplicates, fixing inconsistencies, and standardizing fields.
- Processing Data — Working dataset used for analysis (31,047 records, 21 columns).
- Pivot — Pivot Table summaries for multi-dimensional analysis.
- Location — Geographic mapping data by state.
- Dashboard — Visual summary combining all key KPIs and charts.

3.1 Dataset Attributes

Each record in the dataset contains 21 fields: Order ID, Customer ID, Gender, Age, Age Group, Date, Month, Order Status, Sales Channel, SKU, Product Category, Size, Quantity, Currency, Amount (INR), Ship City, State, Postal Code, Country, and B2B flag.

4. Data Cleaning & Preprocessing

Before performing analysis, the raw dataset underwent a thorough data cleaning process in MS Excel. The following steps were performed:

- Removed duplicate entries based on Order ID to ensure data integrity.
- Standardized the Gender column — corrected data entry errors where 'Men' was embedded in channel names (e.g., 'Menyntra' corrected to 'Myntra', 'AMenazon' corrected to 'Amazon').
- Standardized the Channel field to retain only valid platforms: Amazon, Myntra, Flipkart, Ajio, Nalli, Meesho, and Others.
- Validated Age Group categorization — Adult (30–60 years), Teenager (18–29 years), Senior (60+ years).
- Formatted the Date column and extracted the Month field for time-series analysis.
- Checked for and handled blank or null values across all critical columns.
- Verified numerical consistency in the Amount column — all values confirmed in INR.

5. Key Performance Metrics

The table below summarizes the key business metrics derived from the complete analysis of 31,047 order records:

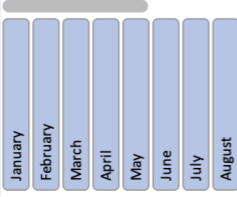
Key Metric	Value
Total Records (Orders)	31,047
Total Revenue	INR 2,11,76,377
Average Order Value	INR 682.07
Total Delivered Orders	28,641
Delivery Success Rate	92.3%
Cancelled Orders	844 (2.7%)
Returned Orders	1,045 (3.4%)
Refunded Orders	517 (1.6%)
Top Selling Category	Set (INR 1,05,07,546)
Top Sales Platform	Amazon (INR 75,12,955)
Top State by Revenue	Maharashtra (INR 30,01,779)
Women Customers	21,553 (69.4% of total)
Men Customers	9,494 (30.6% of total)
B2C Orders	30,861 (99.4%)
B2B Orders	186 (0.6%)

FULL CART STORE ANNUAL REPORT 2024

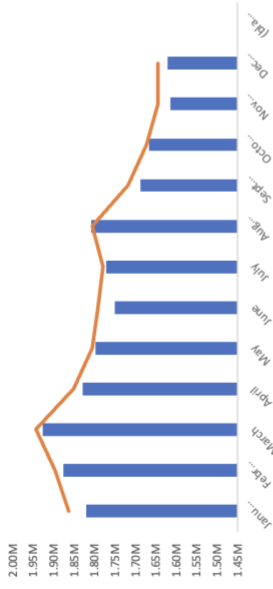
TOP SELLING CATGORY

Set
10507546

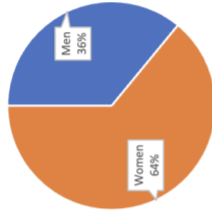
MONTH



Order VS Sale



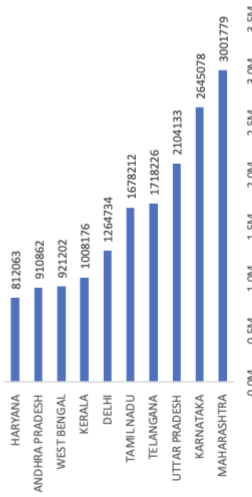
SALE: MEN VS WOMEN



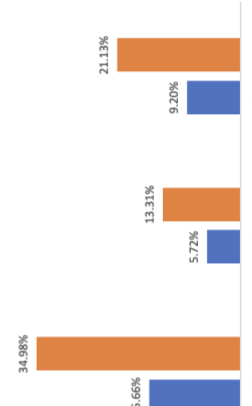
Order Status



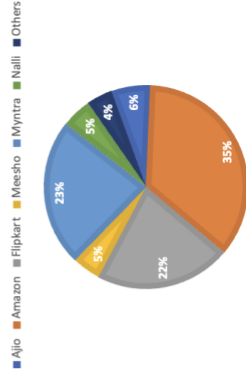
Sales: Top 10 States



Orders: Age VS Gender



ORDERS: CHANNELS



Dashboard

6. Monthly Sales Analysis

The monthly sales trend for 2024 reveals clear patterns of peak and low-revenue periods. The data was aggregated using Pivot Tables in Excel to calculate total revenue and order count for each month.

Month	Revenue (INR)	Orders	Avg Order Value (INR)
January	18,20,601	2,702	673.4
February	18,75,932	2,750	682.2
March	19,28,066	2,819	684.0
April	18,29,263	2,685	681.6
May	17,97,822	2,617	687.0
June	17,50,966	2,597	674.2
July	17,72,300	2,579	687.0
August	18,08,505	2,617	691.1
September	16,88,871	2,490	678.3
October	16,66,662	2,424	687.6
November	16,15,356	2,383	677.9
December	16,22,033	2,384	680.4

6.1 Key Observations

- March 2024 recorded the highest revenue of INR 19,28,066 with 2,819 orders — best-performing month of the year.
- February also performed strongly with INR 18,75,932 — likely driven by Valentine's Day season fashion shopping.
- A consistent decline is observed from April through November, with November being the lowest month at INR 16,15,356.
- December showed a slight recovery (INR 16,22,033) indicating early festive and year-end shopping activity.
- Average monthly revenue across 2024 was approximately INR 17,64,698, showing stable year-round demand.

7. Sales Channel Analysis

Cart Store sells its products through seven major online platforms. Channel-wise performance was analyzed using Pivot Tables to understand each platform's contribution to orders and revenue.

Platform	Orders	Order %	Revenue (INR)	Revenue %
Amazon	11,006	35.5%	75,12,955	35.5%
Myntra	7,236	23.3%	49,27,415	23.3%
Flipkart	6,703	21.6%	45,73,301	21.6%
Ajio	1,931	6.2%	13,31,427	6.3%
Nalli	1,484	4.8%	10,15,329	4.8%
Meesho	1,397	4.5%	9,26,973	4.4%
Others	1,261	4.1%	8,67,241	4.1%

7.1 Key Observations

- Amazon is the dominant platform — contributing 35.5% of total orders and INR 75,12,955 in revenue.
- Myntra ranks second (23.3%, INR 49,27,415), followed closely by Flipkart (21.6%, INR 45,73,301).
- Amazon, Myntra, and Flipkart together account for 80.4% of total sales — they are the core revenue drivers.
- Ajio, Nalli, Meesho, and Others contribute the remaining ~19.6%, representing growth opportunities.

8. Product Category Analysis

The product catalog spans 8 major categories. Category-wise analysis was performed to identify top-selling product types by both volume and revenue generated.

Category	Units Sold	Unit %	Revenue (INR)	Rev %
Set	12,391	39.9%	1,05,07,546	49.6%
Kurta	10,446	33.7%	49,59,377	23.4%
Western Dress	4,064	13.1%	31,47,241	14.9%
Top	2,193	7.1%	11,86,199	5.6%
Saree	1,380	4.4%	10,10,471	4.8%
Ethnic Dress	264	0.9%	1,95,256	0.9%
Blouse	229	0.7%	1,40,888	0.7%
Bottom	78	0.3%	27,804	0.1%

8.1 Key Observations

- 'Set' is the bestselling category by both units (39.9%) and revenue (49.6%), showing strong customer preference for coordinated outfits.
- 'Kurta' ranks second with 10,446 units and INR 49,59,377 — reflecting high demand for traditional Indian ethnic wear.
- 'Western Dress' ranks third with 4,064 units and INR 31,47,241, showing significant demand for western fashion.
- The dominance of Sets and Kurtas highlights Cart Store's core strength in the ethnic and traditional Indian fashion segment.

9. Geographic (State-wise) Sales Analysis

Sales data was mapped across Indian states to identify key markets. The top 10 states by revenue contribution are presented below.

State	Revenue (INR)	Revenue %	Rank
Maharashtra	30,01,779	14.2%	1st
Karnataka	26,45,078	12.5%	2nd
Uttar Pradesh	21,04,133	9.9%	3rd
Telangana	17,18,226	8.1%	4th
Tamil Nadu	16,78,212	7.9%	5th
Delhi	12,61,865	6.0%	6th
Kerala	10,08,176	4.8%	7th
West Bengal	9,21,202	4.4%	8th
Andhra Pradesh	9,10,862	4.3%	9th
Haryana	8,12,063	3.8%	10th

9.1 Key Observations

- Maharashtra leads with INR 30,01,779 (14.2%) — driven by large urban consumers in Mumbai and Pune.
- Karnataka ranks second (INR 26,45,078 — 12.5%), with Bengaluru contributing significantly as a tech-driven online shopping hub.
- Uttar Pradesh is third (INR 21,04,133 — 9.9%), reflecting large population and growing e-commerce reach in tier-2 cities.
- The top 5 states together account for 52.6% of total revenue, highlighting strong geographic concentration.

10. Customer Demographics Analysis

Customer demographics were analyzed using Pivot Tables to understand gender and age group distribution across all 31,047 orders.

10.1 Gender-wise Analysis

Gender	Orders	Order %	Revenue (INR)	Revenue %
Women	21,553	69.4%	1,35,62,773	64.0%
Men	9,494	30.6%	76,13,604	36.0%

10.2 Age Group Analysis

Age Group	Orders	Percentage
Adult (30–60 years)	15,723	50.6%
Teenager (18–29 years)	9,415	30.3%
Senior (60+ years)	5,909	19.0%

10.3 Key Observations

- Women dominate at 69.4% of all orders and 64% of total revenue (INR 1,35,62,773).
- Men account for 30.6% of orders but generate 36% of revenue — indicating a slightly higher average spend per order.
- Adults (30–60 years) form the largest customer segment at 50.6%, indicating working professionals are the primary shoppers.
- Teenagers (18–29 years) represent 30.3%, showing strong youth engagement with fashion e-commerce.
- Seniors (60+) account for 19% — a notable segment that should be considered for inclusive product and UI design.

11. Order Status & Fulfilment Analysis

Order fulfilment quality directly impacts customer satisfaction. The status of all 31,047 orders was analyzed as follows:

Order Status	Orders	Percentage
Delivered	28,641	92.3%
Returned	1,045	3.4%
Cancelled	844	2.7%
Refunded	517	1.6%

- 92.3% delivery success rate reflects a highly efficient fulfilment chain across all platforms.
- The combined return and refund rate of 5% is within acceptable industry benchmarks for fashion e-commerce in India.
- Cancellation rate of 2.7% suggests minor friction in the ordering process — possibly payment or inventory-related issues.
- Reducing returns through better size guides and accurate product descriptions can further improve fulfilment metrics.

12. B2B vs B2C Sales Analysis

The dataset distinguishes between Business-to-Business (B2B) and Business-to-Consumer (B2C) orders:

- B2C orders dominate with 30,861 records — representing 99.4% of all transactions.
- B2B orders account for only 186 records (0.6%), indicating Cart Store primarily operates as a direct-to-consumer fashion retailer.
- The negligible B2B volume presents an opportunity to expand into bulk and wholesale orders for boutiques and resellers.

13. Tools & Methodology

13.1 Microsoft Excel Features Used

- Data Cleaning — Remove Duplicates, Find & Replace, TRIM/CLEAN functions, Text-to-Columns.
- Pivot Tables — Multi-dimensional summarization by Month, Channel, Category, State, Gender, Age Group, and Order Status.
- IF / VLOOKUP Formulas — For conditional categorization and data enrichment.
- Conditional Formatting — Color-coded highlights for quick identification of high/low performers.
- Charts — Bar charts, Pie charts, and Line graphs for visual representation of key metrics.
- Slicers — For dynamic filtering of Pivot Table data by month, channel, and category.
- Dashboard Sheet — Interactive summary combining all KPIs and visualizations for quick overview.

13.2 Analysis Methodology (5-Step Process)

- Step 1 — Data Collection: Received raw transactional sales data from Cart Store for FY 2024.
- Step 2 — Data Cleaning: Identified and fixed errors, duplicates, and inconsistencies using Excel functions.
- Step 3 — Data Processing: Structured cleaned data with added calculated columns (Month, Age Group).
- Step 4 — Data Analysis: Built Pivot Tables and applied formulas to extract insights across all dimensions.
- Step 5 — Visualization & Reporting: Created Dashboard in Excel and compiled this comprehensive project report.

14. Key Findings Summary

- Cart Store generated total revenue of INR 2,11,76,377 from 31,047 orders in 2024, with an average order value of INR 682.07.
- March was the best-performing month (INR 19,28,066) and November the weakest (INR 16,15,356) — indicating stronger sales in Q1.
- Amazon dominates as the primary sales channel (35.5% orders), followed by Myntra (23.3%) and Flipkart (21.6%).
- 'Set' is the star product category — contributing 39.9% of units sold and 49.6% of total revenue.
- Maharashtra, Karnataka, and Uttar Pradesh are the top three states, contributing 36.6% of total revenue combined.
- Women are the primary customers (69.4% of orders); Adults (30–60 years) form the dominant age segment (50.6%).
- Delivery success rate is 92.3%, with a low combined returns and cancellation rate — indicating strong operational performance.
- Business is overwhelmingly B2C (99.4%) — the brand is deeply consumer-focused.

15. Recommendations

- Seasonal Campaigns: Capitalize on Q1 (Jan–Mar) momentum with special collection launches to maintain peak-season revenue.
- Platform Diversification: Invest in Meesho and Ajio growth strategies to tap into value-seeking and trend-conscious segments.
- Women-centric Marketing: Personalized campaigns, style recommendations, and loyalty programs targeting women shoppers can significantly boost repeat purchases.
- Expand in Tier-2 Cities: UP, Rajasthan, and Bihar show growing demand — increasing regional marketing can unlock significant revenue.
- Reduce Returns Rate: Implement size recommendation tools, 360-degree product views, and clear size charts to minimize the 3.4% return rate.
- B2B Expansion: Explore bulk-order partnerships with boutiques and resellers, especially in Maharashtra and Karnataka.
- Festive Season Focus: November and December showed lower revenues — targeted festive campaigns (Diwali, Christmas) can reverse this trend.

16. Conclusion

This project successfully demonstrated the power of Microsoft Excel as a data analysis tool for real-world business datasets. By applying data cleaning, Pivot Tables, formula-driven calculations, and interactive dashboards, meaningful insights were extracted from 31,047 transactional records of Cart Store's 2024 operations.

The analysis reveals that Cart Store is a well-performing fashion e-commerce business with strong delivery metrics, a loyal women customer base, and dominant sales in urban states like Maharashtra and Karnataka. Amazon, Myntra, and Flipkart are the primary revenue drivers, while 'Set' and 'Kurta' are the star product categories.

Opportunities exist to grow in tier-2 markets, expand B2B operations, improve festive quarter performance, and reduce return rates through smarter product presentation. Implementing the recommendations outlined in this report can help Cart Store achieve higher revenue and improved customer satisfaction in the coming year.

This internship project provided valuable hands-on experience in the complete data analysis lifecycle — from raw data collection to actionable business insights — using industry-standard Excel tools and techniques.

References

- Primary Dataset: Cart_Store.xlsx — Raw and Processed Sales Data (2024)
- Microsoft Excel Documentation — Office Support, Microsoft Corporation
- Indian E-Commerce Industry Reports — IBEF (India Brand Equity Foundation), 2024
- Statista — E-Commerce in India: Revenue and User Statistics, 2024