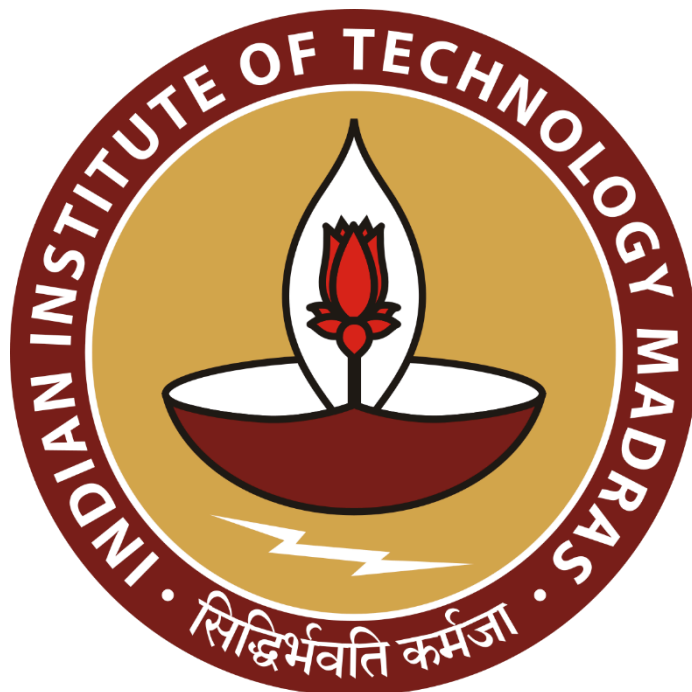# Digital Disruption: The Decline of Book Purchases in the Digital Era

A Final Submission report for the BDM capstone Project

Submitted by

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Declaration Statement

I am working on a Project titled "**Digital Disruption: The Decline of Book Purchases in the Digital Era**". I extend my appreciation to **NIMBUS BOOK RETAIL OUTLET**, for providing the necessary resources that enabled me to conduct my project.
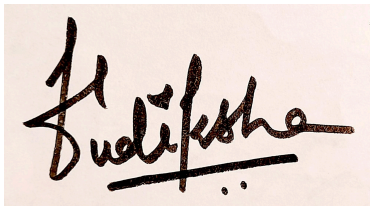
I hereby assert that the data presented and assessed in this project report is genuine and precise to the utmost extent of my knowledge and capabilities. The data has been gathered from primary sources and carefully analyzed to assure its reliability.

Additionally, I affirm that all procedures employed for the purpose of data collection and analysis have been duly explained in this report. The outcomes and inferences derived from the data are an accurate depiction of the findings acquired through thorough analytical procedures.

I am dedicated to adhering to the principles of academic honesty and integrity, and I am receptive to any additional examination or validation of the data contained in this project report.

I understand that the execution of this project is intended for individual completion and is not to be undertaken collectively. I thus affirm that I am not engaged in any form of collaboration with other individuals, and that all the work undertaken has been solely conducted by me. In the event that plagiarism is detected in the report at any stage of the project's completion, I am fully aware and prepared to accept disciplinary measures imposed by the relevant authority.

I understand that all recommendations made in this project report are within the context of the academic project taken up towards course fulfillment in the BS Degree Program offered by IIT Madras. The institution does not endorse any of the claims or comments.

Signature of Candidate

Name: Sudiksha Singh

Date: 01-08-2024

1. Executive Summary

This final submission focuses on analyzing the stock and sales data of Nimbus Book Retail Outlet, a well-established B2C bookstore located at F 25, CMC, R G College Road, Meerut, Uttar Pradesh. Founded in 2003 by Mr. Ram Kumar Gupta, Nimbus has grown to become the largest bookstore in Meerut. It offers a wide range of books, including school textbooks, competitive exam prep materials, fiction, non-fiction, and religious texts, serving a diverse group of customers—students, professionals, and avid readers alike.

However, despite its success, Nimbus is currently grappling with some significant challenges. The store's yearly turnover, which once surpassed ₹1 crore, has dwindled to around ₹70 lakhs due to the impact of the pandemic, lockdowns, and the increasing preference for digital media and online book purchases. Additionally, outdated inventory has become a burden, making it difficult to maintain profitability.

The analysis began with data cleaning in Google Sheets. Following this, the analysis processes were conducted in Google Colab, where sales trends, inventory management, and customer behavior were thoroughly examined. The report provides a detailed overview of the total SKUs used by the store, offering insights into optimizing stock management and improving overall business performance.

From this analysis, strategic recommendations have been developed to assist the store's owner in optimizing stock management. This includes the evaluation of profitability across different product categories and the formulation of informed, data-driven decisions for the future. Key areas for improvement in inventory management have been identified to enhance overall efficiency. Throughout the report, visual tools such as Pie Charts, Bar Charts, and Line Charts have been utilized to clearly present the findings.

The insights from this project are intended to guide Nimbus Book Retail Outlet towards better operational efficiency, more effective inventory management, and increased profitability, ultimately ensuring the store's long-term success.

Figure 1: Photos of Nimbus Book Store

02. Detailed Explanation of Analysis Process/Method

The shopkeeper processes invoice bills from various wholesalers as well as daily sales bills from customers. To keep track of all transactions, the store's computer operator inputs this information into Tally on a regular basis. This method ensures that transaction records are precise and continuously updated. The data entry process captures essential details such as item descriptions, quantities, prices, rates, and any discounts or additional charges. Consistent data entry is vital for maintaining accurate financial records, which in turn supports effective stock management and financial reporting.

Following this, the data is exported from Tally into Excel. The exported dataset spans from April 2018 to March 2024 and is divided into 12 sheets: 6 sheets detailing sales data for each year, and 6 sheets documenting purchase data for the same period.

Each sheet features these columns:

- **Particular:** Lists the name of the publisher or bookstore from which the books were purchased.
- **Inwards Qty:** Shows the quantity of stock received from each publisher.
- **Rate:** Indicates the per-unit cost price of the incoming stock.
- **Inwards Amount:** Represents the total cost value of the stock received.
- **Outwards Qty:** Details the quantity of stock sold or transferred.
- **Selling Rate:** Lists the per-unit selling price of the books.

This organized format of data facilitates a thorough analysis of stock and sales performance over the specified period, providing valuable insights into inventory management and financial trends.

Particulars	Inwards Qty	Rate	Amount
Cash	16 pcs	313.80	5020.74
Analysis of Financial Statements	*2 pcs*	*449.63*	*899.25*
Business Studies	*2 pcs*	*604.80*	*1209.60*
Chemistry XII Part-II	*5 pcs*	*119.00*	*595.00*

Table 1: Purchase data provided from business owner

Data cleaning

X Cleaned data .xlsx

The analysis process began with comprehensive data cleaning. This involved using Google Sheets to remove duplicate entries and address missing data. Entries with incomplete information were removed, and two additional columns—**profit/loss**—were added to enhance the dataset. All instances of the same books were aggregated to consolidate sales data.

Particulars	Inwards Qty	Rate	Inward Amount	Outwards Qty	Outward Amount	PROFIT/LOSS
Asha Book Depot	40 pcs	80.00	3200.00	15 pcs	1500.00	1700.00
Bharatiya Jnanpith	65 pcs	120.00	7800.00	2 pcs	250.00	7550.00
Big Bang Publication	220 pcs	90.00	19800.00	46 pcs	6540.00	13260.00
Cambridge	105 pcs	220.00	23100.00	110 pcs	29500.00	-6400.00

Table 2: Inventory and Sales Summary with Profit/Loss Analysis from Google Sheets

The "Inwards Qty" and "Outwards Qty" columns provide a clear view of the stock flow—how many books have been purchased and are currently in stock versus how many have been sold. Additionally, the "Inwards Amount" and "Selling Amount" columns allow us to see the difference between the cost of purchasing the books and the revenue generated from selling them. This comparison helps in assessing the profitability of each item, making it easier to make informed decisions about stock management and pricing.

To keep track of financial outcomes for each item, a new column titled "PROFIT/LOSS" was introduced. This column allows for a clear calculation of the profit or loss associated with each item by comparing the costs incurred (in-quantity multiplied by the rate) with the revenue generated from sales (out-quantity multiplied by the selling rate).

Descriptive Statistics

Once the cleaned data was imported into Google Colab and transformed into a DataFrame using pandas 'read_excel()' function. Subsequently, the 'df.describe()' function was applied to the DataFrame to generate summary statistics, providing an overview of the key metrics such as mean, standard deviation, minimum, and maximum values for the sales data.

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```
[3]  import numpy as np
     import pandas as pd
     df = pd.read_excel('/content/Data  (2).xlsx', sheet_name= 'sales')
     df.describe()
```

1 to 8 of 8 entries   Filter

index	Unnamed: 0	2018	2019	2020	2021	2022	2023
count	0.0	21.0	42.0	38.0	48.0	44.0	49.0
mean	NaN	511838.5714285714	325613.1666666667	39189.60526315789	27464.958333333332	90736.15909090909	159608.16326530612
std	NaN	562743.7254762216	384929.2571232529	94040.39411281743	99691.85881909684	181311.41897465257	199724.01719084207
min	NaN	21800.0	1290.0	0.0	80.0	468.0	9950.0
25%	NaN	185420.0	76448.75	607.5	1107.5	14296.25	53600.0
50%	NaN	255000.0	222384.0	2550.0	4840.0	30585.0	92400.0
75%	NaN	755800.0	483875.0	18662.5	16225.0	85402.5	172750.0
max	NaN	1950000.0	2218900.0	382500.0	680500.0	1085000.0	1254110.0

Show 25 per page

Figure 2: Descriptive Statistics of sales data from Google Colab

By examining the sales data from 2018 to 2023, we can uncover several important trends and patterns that shed light on the bookstore's performance over these years:

Average Sales (Mean):

- The average sales figures show a lot of fluctuation. In 2018, the bookstore had a high average sales value of around ₹407,947.60, but this dropped significantly in the following years, especially during 2020 and 2021, likely due to the impact of the COVID-19 pandemic. There's a slight recovery visible in 2023, with an average of ₹81,993.37, but it's still far from the pre-pandemic levels.

Variability (Standard Deviation):

- The data reveals significant ups and downs in sales figures, especially in 2018 and 2021, where the standard deviation was particularly high. This indicates that the bookstore experienced very inconsistent sales during these years, with some days or transactions being much larger than others.

Minimum Sales:

- In 2020 and 2021, the bookstore recorded some very low sales figures, with the lowest being just ₹220 and ₹175, respectively. These figures highlight the challenges the bookstore faced during the pandemic, when customer footfall and sales were severely impacted.

Lower Quartile (25th Percentile):

- In 2021 and 2022, a large portion of the bookstore's sales fell into the lower end, reflecting weaker overall sales during these challenging years. This means that a significant number of transactions were of relatively low value during this time.

Median Sales:

- The median sales figures, which represent the middle point of sales data, showed a decline from 2018 to 2021, indicating that sales were generally decreasing. However, the slight increase in 2022 and 2023 suggests that the bookstore is starting to bounce back.

Upper Quartile (75th Percentile):

- The higher sales values in 2018 and 2019 suggest that the bookstore had some strong sales, but by 2022 and 2023, these values had become more moderate. This might indicate a move towards more consistent, if less spectacular, sales.

Maximum Sales:

- The data shows a few standout transactions, particularly in 2020, where the highest recorded sale was a whopping ₹2,027,500. Such large transactions are likely outliers, perhaps due to special events or bulk purchases, and they skew the overall picture of that year's sales.

Overall Analysis:

- **Skewness**: The data exhibits some skewness, particularly in 2020, where a few high-value transactions have a disproportionate impact on the overall sales figures.
- **Variability**: There is considerable variability in sales performance across the years, with some years showing more stability than others. The high variability in 2018 and 2021 suggests that external factors, possibly including the pandemic, significantly impacted sales.
- **Trend**: The data reveals a declining trend in sales from 2018 to 2021, followed by a gradual recovery in 2022 and 2023. This trend likely reflects the challenges posed by the pandemic and the subsequent recovery as conditions improved.

Visualizations

To enhance the clarity and impact of the data analysis, various visualizations were employed. Google Sheets was utilized to create stacked charts, line charts, and pie charts. These visual tools effectively illustrate trends over time, compare different categories, and provide a clear breakdown of sales and inventory data.

03.Results and Findings

Inventory vs. Sales Analysis for Nimbus Bookstore (2018-2023):

Over the past six years, Nimbus Bookstore has experienced fluctuations in inventory levels and sales due to various factors, including market trends and external disruptions like the COVID-19 pandemic. This analysis provides an overview of how these factors influenced the bookstore's inventory and sales performance. By examining these trends, we can better understand the challenges faced and the effectiveness of the bookstore's response strategies.
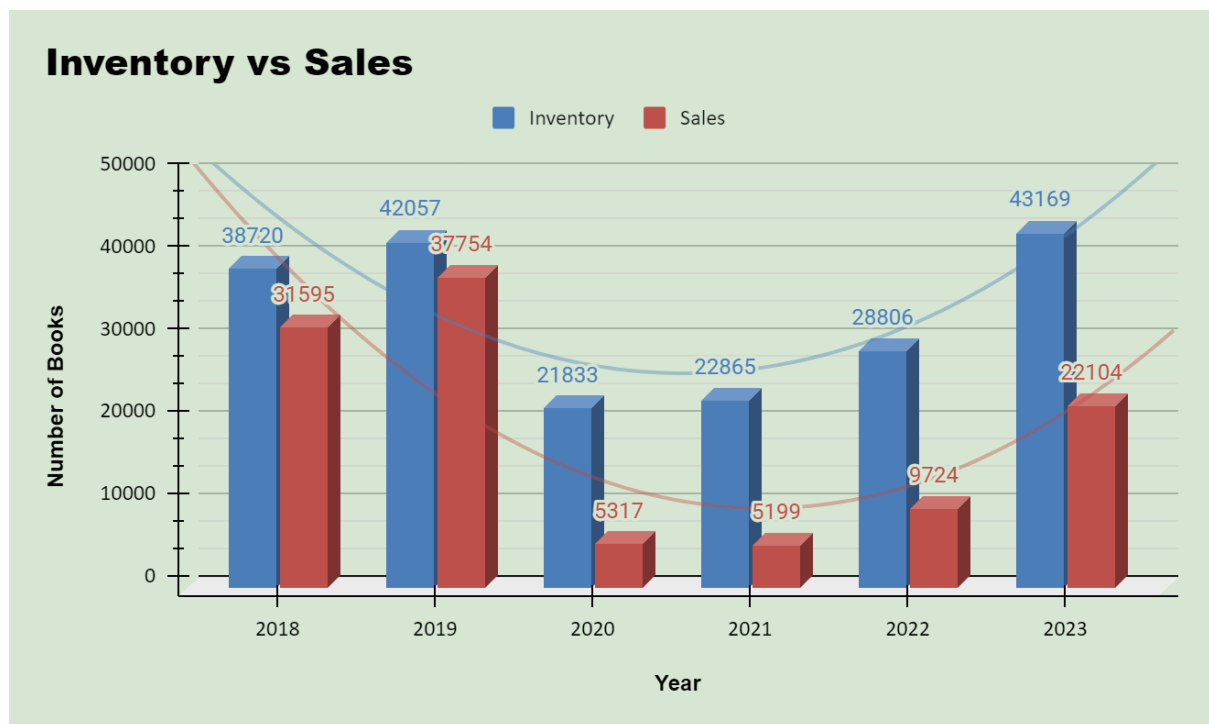
figure3 : Bar chart of - Inventory vs Sales for Nimbus Bookstore (2018-2023)

The graph illustrates the relationship between inventory levels and sales at Nimbus Bookstore over a six-year period, from 2018 to 2023.

2018-2019: Stable Period
In 2018 and 2019, Nimbus Bookstore showed a balanced relationship between inventory and sales. Inventory levels were moderately higher than sales, with 38,720 books in stock and 31,595 books sold in 2018, and 42,057 books in stock with 37,754 sold in 2019. This balance reflects a healthy stock turnover rate, with inventory levels closely aligned with demand. The small difference between inventory and sales indicates effective inventory management and responsiveness to market needs during these years.

2020-2021: Disruption and Overstocking
The impact of the COVID-19 pandemic in 2020 led to a sharp decline in sales, dropping dramatically to just 5,317 books, while inventory levels remained relatively high at 21,833 books. This disparity widened further in 2021, with sales only slightly increasing to 5,199 books against an inventory level of 22,865 books. The significant difference between inventory and sales during these years highlights a critical issue of overstocking. Maintaining a large inventory in the face of reduced sales suggests poor stock management practices, possibly due to an overestimation of demand or delays in adjusting inventory orders in response to the rapidly changing market conditions caused by the pandemic.

2022-2023: Gradual Recovery with Ongoing Issues

In 2022, sales started to pick up, reaching 9,724 books. However, the inventory also increased to 28,806 books, which meant there were still a lot of unsold books on hand. This big gap between inventory and sales shows that the bookstore had more stock than it was selling, which isn't ideal.

By 2023, sales improved further to 22,104 books, but inventory climbed even higher to 43,169 books. This suggests that while sales were getting better, the store was still holding onto too many books. Having too much inventory compared to sales can be problematic because it ties up money and can lead to increased storage costs. Plus, there's always the risk that some of the books might become outdated or harder to sell over time, which could hurt the store's profits.

Conclusion:

The graph indicates that Nimbus Bookstore was impacted by the COVID-19 pandemic, which led to a sharp decline in sales and an accumulation of inventory. However, with gradual market recovery, the store experienced an increase in sales, demonstrating resilience and effective inventory management in adapting to changing market conditions. Moving forward, the bookstore may benefit from closely monitoring market trends to better align inventory levels with expected sales, ensuring optimal stock management and avoiding overstock situations.
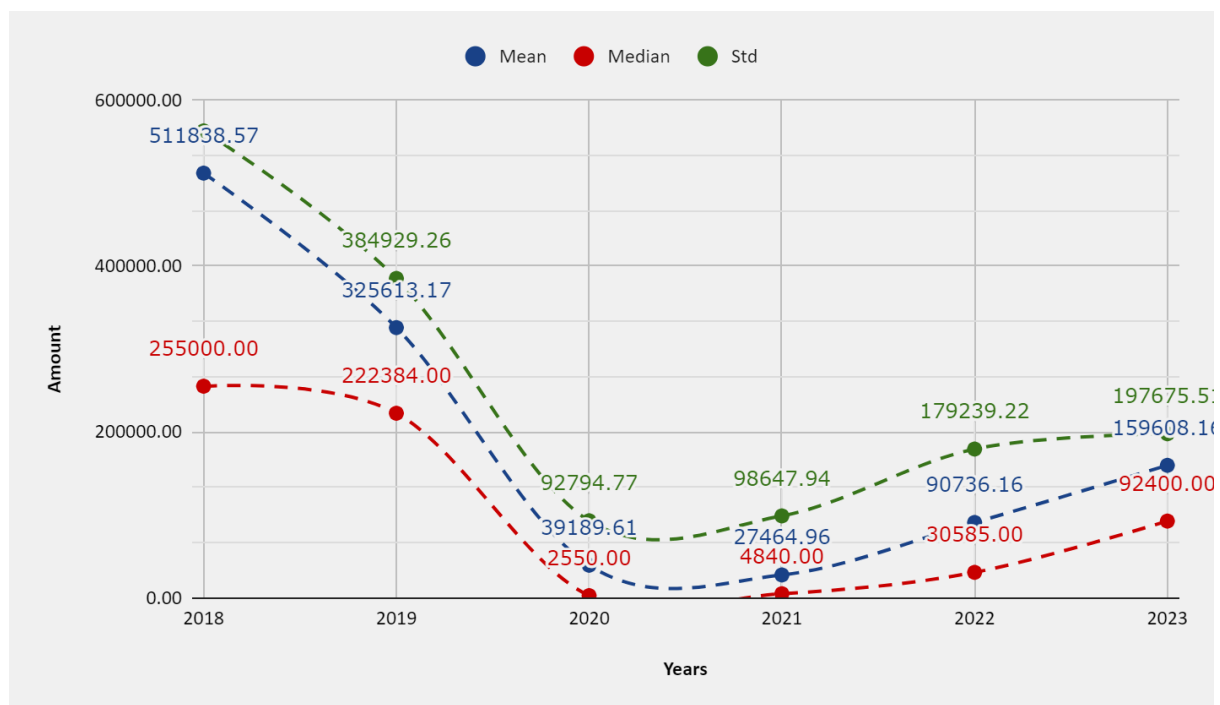
Central Tendency and Dispersion Analysis (2018-2023)

figure4 : Line Chart of Statistical Overview: Mean, Median, and Standard Deviation

Nimbus Book Store's sales data, the **Mean**, **Median**, and **Standard Deviation (Std)** provide important insights into the overall performance and variability of sales over time:

Mean (Blue):

- The mean represents the **average sales** over the specified period.
- A declining mean, especially from 2018 to 2020, reflects an overall drop in the bookstore's sales due to factors like the pandemic. The gradual increase after 2020 shows a slow recovery in average sales.
- However, in 2020, the mean dropped drastically, highlighting the worst point of sales during the pandemic.
- The upward trend from 2021 onwards reflects a return to higher average sales, though not fully back to pre-pandemic levels by 2023.

Median (Red):

- The median is the **middle value** when the sales data are sorted in ascending order, providing a sense of what a typical sale amount might look like.
- A higher median than the mean (as seen in 2018 and 2019) indicates that fewer high-value sales were pulling the average up, suggesting that the store had some larger sales but many smaller transactions.
- The sharp drop in the median in 2020 to ₹2,550 shows that **half the sales were below this very low amount**, indicating that sales were extremely low during the pandemic.
- By 2023, the median of ₹92,400 suggests a healthy rebound, where typical sales values are closer to normal.

Standard Deviation (Std) (Green):

- The standard deviation measures the **spread or variability** of sales.
- A high standard deviation in 2018 (₹532,561.37) indicates significant fluctuation in sales values, meaning that there were some very high and very low sales figures.
- The decreasing standard deviation from 2018 to 2021 suggests that sales became more consistent, albeit at much lower levels during the pandemic (2020 saw ₹92,794.77), meaning there wasn't a lot of variation because sales were consistently poor.
- The increasing standard deviation in 2022 and 2023 shows that while sales have increased, the variability has also returned, possibly due to inconsistent performances in different categories or months.

Sales Trends at Nimbus Book Store (2018-2023): Analysis of Mean, Median, and Standard Deviation over Time

1. **2018–2019:**
   - **Mean (Blue):** The sales mean started high in 2018 at ₹511,838.57 but experienced a sharp decline in 2019 to ₹384,929.26. This indicates a significant drop in overall sales performance.
   - **Median (Red):** The median also dropped, from ₹255,000 in 2018 to ₹222,384 in 2019, suggesting that the central tendency of sales was lowering.
   - **Std (Green):** The standard deviation shows decreasing variability in sales, from ₹532,561.37 in 2018 to ₹322,613.17 in 2019, which suggests a narrowing range of sales data.

2. **2020 (Pandemic Impact):**
   - **Mean:** The mean fell drastically to ₹39,189.61, reflecting the profound impact of the pandemic on sales.
   - **Median:** The median plummeted to ₹2,550, showing that half of the sales were below this very low value.
   - **Std:** The standard deviation dropped further to ₹92,794.77, showing that sales were consistently low with less fluctuation.

3. **2021-2023 (Recovery Period):**
   - **2021:** There was some recovery, as the mean increased to ₹27,464.96 and the median rose slightly to ₹4,840, indicating slow improvement.
   - **2022:** Sales improved further, with the mean reaching ₹30,585 and the median climbing to ₹9,073.6, suggesting some stabilization.
   - **2023:** The most significant recovery is seen in 2023, with the mean rising to ₹159,608.11 and the median reaching ₹92,400. The standard deviation also jumps to ₹197,675.55, indicating that while sales are improving, there is more variability, possibly due to inconsistent sales performances across months or categories.

Overall Analysis:

- **Initial Downtrend Before the Pandemic(2018–2019):**
  In 2019, the mean and median sales values already show a decline from 2018, even before the pandemic. This drop could suggest other challenges faced by the business, such as increasing competition or changes in market demand, which contributed to reduced sales.
- **Decline (2020):**
  The steep decline in sales during 2020 reflects the immediate and severe impact of the COVID-19 pandemic. Lockdowns, reduced foot traffic, and a shift in consumer priorities led to a sharp drop in both mean and median sales values. The disruption of in-store shopping and increased reliance on digital alternatives heavily affected physical retailers like Nimbus Bookstore.

- **Recovery (2021–2023):**
  The business shows steady recovery post-pandemic, although the increasing standard deviation in the later years highlights some inconsistency in this rebound.

Book and Genre Composition Analysis:

A detailed analysis of the book inventory by genre was conducted to understand the diversity and range of books available at the store. This evaluation focuses on identifying the total number of books in each genre, providing insights into the store's genre distribution and overall inventory structure. By categorizing books into various genres and visualizing their distribution using pie charts, we aim to showcase the proportion of each genre within the store. This approach helps in highlighting the variety of books offered and understanding the balance between different genres in the store's collection.

This pie chart offers an in-depth look at the SKU (Stock Keeping Unit) distribution by category within the bookstore. With over 20,000 SKUs in stock, the chart highlights how these items are divided across various categories. It visually showcases the proportion of each category, providing a clear picture of the store's product variety and how different types of books and items are represented in the inventory.
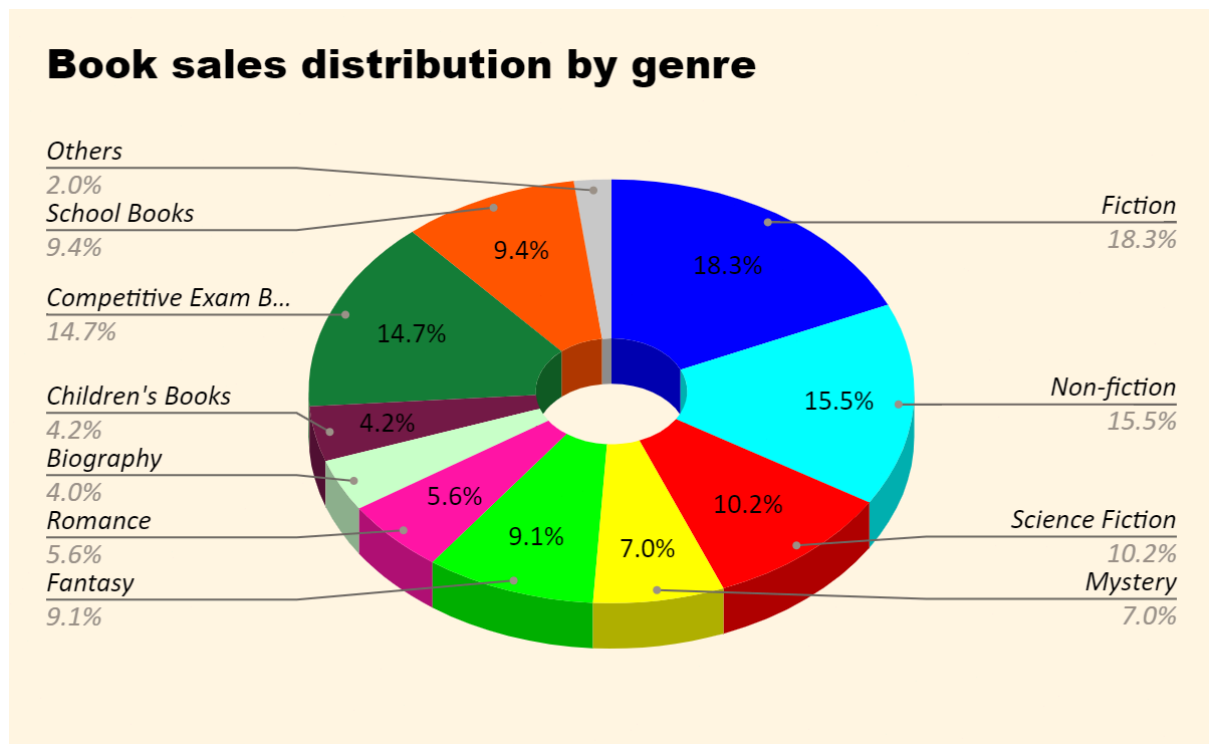
figure 5: Pie chart of - books sales distribution by genre

The pie chart of book sales distribution offers a clear view of reader preferences across various genres. Fiction leads with 18.30% of total sales, showcasing its broad appeal and widespread popularity among readers. Non-fiction follows with 15.50%, reflecting a strong interest in factual and educational content. Competitive Exam Books also make a significant impact, accounting for 14.70% of sales, highlighting the high demand for study materials among those preparing for exams.

Science Fiction and Fantasy hold substantial shares at 10.20% and 9.10%, respectively, indicating a solid interest in imaginative and speculative genres. School Books contribute 9.45% to the total, emphasizing the ongoing need for educational resources. Genres like Mystery and Romance attract smaller portions of 7% and 5.60%, respectively, suggesting that these genres cater to more specific interests.

Biography and Children's Books each make modest contributions with 4% and 4.20%, respectively, while the Others category, covering specialized genres, stands at 2%. This distribution reveals a diverse range of reading preferences, with a notable focus on Fiction and educational materials.

The pie chart of book sales distribution provides several key insights into reader preferences and store inventory management:

1. **Dominance of Fiction and Non-Fiction:**
   - **Fiction (18.30%)** and **Non-fiction (15.50%)** together make up over one-third of total sales, indicating these genres are highly favored by readers. This suggests that the bookstore should prioritize stocking a diverse range of titles in these categories to meet ongoing demand.

2. **High Demand for Educational Materials:**
   - **Competitive Exam Books (14.70%)** and **School Books (9.45%)** collectively represent a significant portion of sales. This strong interest in educational resources highlights the importance of maintaining a robust inventory of these books and possibly expanding offerings to include more specialized study materials.

3. **Interest in Genre-Specific Categories:**
   - **Science Fiction (10.20%)** and **Fantasy (9.10%)** show a solid interest in imaginative and speculative genres. The bookstore could consider increasing promotions or special events focused on these genres to attract and engage fans.

4. **Niche Genres and Growth Opportunities:**
    ○ **Mystery (7%)** and **Romance (5.60%)** have smaller market shares, which may indicate more niche interests. Targeted marketing strategies or themed displays could be used to boost visibility and sales in these genres.

5. **Modest but Steady Interest in Other Genres:**
    ○ **Biography (4%)** and **Children's Books (4.20%)** each contribute modestly to the total sales. These genres could be further developed through tailored marketing efforts or special promotions to enhance their appeal.

6. **Specialized Genres:**
    ○ The **Others category (2%)**, which includes specialized genres, represents a small yet diverse segment of the market. Offering a selection of unique or less common titles in this category might attract a niche audience looking for specific interests.

Overall, the pie chart reveals a well-rounded picture of reader preferences, with notable strengths in Fiction and educational materials. By leveraging these insights, the bookstore can make informed decisions about inventory management, marketing strategies, and promotional activities to better align with customer interests and optimize sales.

Financial Overview of Nimbus Book Retail Outlet (2018-2024)

Year	Duration	Purchase Amount	Sales Amount	Profit/Loss Amount
2018	01/04/2018 to 31/03/2019	8566900	10748610	2181710
2019	01/04/2019 to 31/03/2020	9232385	13675753	4443368
2020	01/04/2020 to 31/03/2021	6546721	1489205	-5057516
2021	01/04/2021 to 31/03/2022	1277508	1318318	40810
2022	01/04/2022 to 31/03/2023	2472210	3992391	1520181
2023	01/04/2023 to 31/03/2024	4017675	7820800	3803125

Table 3: Annual Financial Data for Nimbus Book Retail Outlet

Examining the financial trajectory of Nimbus Book Retail Outlet from April 2018 to March 2024 provides valuable insights into the store's ability to navigate through diverse challenges and capitalize on opportunities.

2018: In 2018, the store experienced a solid financial performance, achieving a commendable profit of ₹2,181,710. This outcome reflects the store's effective sales strategies and robust operational management during this period.

2019: The year 2019 was notably successful, with Nimbus Book Retail Outlet generating a substantial profit of ₹4,443,368. This remarkable increase in profitability underscores the store's strategic excellence and operational efficiency, marking it as one of the most prosperous years in recent history.

2020: The financial year 2020 posed significant challenges due to the COVID-19 pandemic, resulting in a considerable loss of ₹5,057,516. This downturn highlights the severe impact of the pandemic on retail operations, underscoring the difficulties faced by the bookstore amidst widespread market disruptions.

2021: In 2021, the store began to see signs of recovery, albeit with a modest profit of ₹40,810. While the profit margin was narrower compared to previous years, this positive result signifies the store's efforts to adapt and stabilize in the wake of the pandemic's ongoing effects.

2022: The year 2022 marked a period of renewed strength, with Nimbus Book Retail Outlet recording a profit of ₹1,520,181. This improvement indicates the effectiveness of the store's recovery strategies and its ability to regain stability and profitability following the pandemic's adverse impacts.

2023: In 2023, the store demonstrated a strong rebound, achieving a notable profit of ₹3,803,125. This significant increase in profitability reflects the successful implementation of strategic initiatives to enhance customer engagement and boost sales, showcasing the store's resilience and adaptability in the post-pandemic market.

The analysis of Nimbus Book Retail Outlet financial performance highlights a clear impact of the pandemic, with a sharp decline in 2020, followed by gradual recovery in subsequent years. The outlet experienced a strong return to profitability in 2023, reflecting effective management and strategic adjustments. The data underscores the importance of adapting to market conditions and managing inventory and sales effectively to sustain profitability.

This in-depth financial review provides valuable insights into the store's performance and can guide future strategies to ensure continued growth and stability.

Additional Insights

To further enrich the analysis of Nimbus Book Retail Outlet performance, several key insights regarding the pricing and sales of specific books provide a deeper understanding of customer preferences and inventory dynamics:

- **Least Priced Book**:
  Among the least expensive items in the store are religious texts such as the "Hanuman Chalisa," priced at just ₹10. These budget-friendly options cater to a wide audience and contribute to the store's accessibility.
- **Highest Priced Book**:
  A notable high-end item is the limited edition of "Gitanjali" by Rabindranath Tagore, priced around ₹7,500. This special edition is valued for its exclusive binding and collectible nature.
- **Most Sold Book**:
  Among the store's bestsellers are works by Premchand, a prominent Indian author known for his insightful portrayal of social issues. His books continue to be popular, reflecting a strong interest in classic Indian literature.

These insights highlight the diversity in book pricing and consumer preferences, demonstrating the store's ability to cater to both budget-conscious buyers and those seeking high-value collectibles.

04. Interpretation of Results and Recommendation

Interpretation:

The Nimbus Bookstore has faced challenges in aligning its inventory with sales, especially during and after the pandemic. While the recent improvement in sales is encouraging, the persistent high inventory levels point to a need for better inventory management practices. Moving forward, the bookstore should focus on optimizing its inventory to more closely match actual sales trends. This would help reduce excess stock, lower holding costs, and improve overall profitability. Adjusting inventory strategies based on more accurate sales forecasting and being more responsive to market changes could greatly benefit the bookstore in the long run.

Over the past few years, the profit and loss trends for **Nimbus Bookstore** have shown significant changes, largely due to external factors like the COVID-19 pandemic. Before the pandemic (2018-2019 and 2019-2020), the bookstore was in a stable position, with steady profits supported by a strong economy and high consumer confidence. Social media was becoming an important marketing tool, and online shopping platforms like Amazon were gaining popularity. However, the physical store remained essential for community engagement and in-person book sales.

When the pandemic hit in 2020-2021, **Nimbus Bookstore** experienced a sharp decline in profits. Lockdowns, reduced consumer spending, and the temporary closure of the store caused major disruptions. To adapt, the store had to shift to e-commerce and rely heavily on social media for customer engagement. Platforms like Instagram and Facebook became vital for driving sales, and the increased demand for books as home entertainment during lockdowns helped soften the blow. Still, profits didn't fully recover until 2021-2022, as the market slowly stabilized.

By 2022-2023 and 2023-2024, **Nimbus Bookstore** saw a stronger recovery. Profits reached or even exceeded pre-pandemic levels as the store adapted to new consumer behaviors. Online sales remained important, but the return of in-person shopping also boosted business. While challenges like inflation and supply chain issues caused some fluctuations, the bookstore's resilience and ability to embrace a hybrid shopping model have helped it regain financial stability.

Recommendations:

1. **Clear Out Old Stock Before Ordering New Books**: To manage excess inventory more effectively, the bookstore should focus on reducing new book purchases and prioritize clearing out existing stock. This approach will help minimize storage costs and make room for fresh inventory. Begin by evaluating which old books are moving slowly, and create targeted promotions to encourage their sale before placing new orders. This strategy will help balance inventory levels and optimize the bookstore's stock management.

2. **Introduce Discounts on Older Books:** Implement attractive discounts on older stock to drive sales. Consider offering markdowns, buy-one-get-one-free deals, or bundle offers. These promotions can incentivize customers to purchase older books, helping to make space for new arrivals.

3. **Expand to E-Commerce Platforms:** With the growing trend of online shopping, it's crucial for Nimbus Book Retail Outlet to establish a presence on e-commerce platforms like Amazon and Flipkart. Setting up an online store will enable the bookstore to reach a wider audience and cater to customers who prefer shopping from home. Integrating online sales with in-store inventory will streamline operations and improve customer service.

4. **Enhance Social Media Engagement:** To attract a younger audience, the bookstore should become more active on social media platforms such as Instagram, Facebook, and WhatsApp. Regularly update followers about new arrivals, special discounts, and store events. Collaborate with local influencers to create engaging content that highlights the bookstore's offerings and promotions.

5. **Partner with Schools and Colleges:** Forge partnerships with local schools and colleges to supply books in bulk for their libraries and academic needs. This collaboration can boost sales and build strong relationships with educational institutions. Organize book fairs or events in conjunction with these institutions to promote the bookstore and engage students and educators.

6. **Participate in Local Fairs and Events:** Set up stalls at local fairs, festivals, and community events to increase brand visibility and attract new customers. Use these opportunities to offer special promotions, distribute flyers, and interact with potential customers.

7. **Host Book Exhibitions:** Organize book exhibitions to draw more visitors to the store. These events could feature new book releases, author signings, and special discounts. Collaborate with authors, publishers, and local artists to create interactive and engaging experiences for attendees.

8. **Leverage Customer Feedback:** Actively gather and analyze customer feedback to better understand their preferences and needs. Use this feedback to make improvements to the bookstore's offerings and customer service. Surveys, online reviews, and direct in-store interactions can provide valuable insights.

9. **Improve the In-Store Experience:** Enhance the shopping experience by creating a more inviting store environment. Invest in store layout improvements, better signage, and comfortable reading areas. Ensure that staff are well-trained to assist customers and provide personalized recommendations.

10. **Optimize Inventory Management:** Consider adopting advanced inventory management software to track stock levels, sales trends, and customer preferences

more effectively. This technology can help forecast demand, reduce excess inventory, and ensure timely reordering of popular items.

By implementing these strategies, Nimbus Book Retail Outlet can better manage its inventory, adapt to market changes, and enhance its overall business performance.