Analytical Study of Inventory Management and Customer Retention at XYZ Computers

Final report for the BDM capstone Project

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Contents

1 Executive Summary and Title

Analytical Study of Inventory Management and Customer Retention at XYZ Computers

XYZ Computers, a mid-sized IT distributor operating through both B2B (offline) and B2C (Amazon) channels, faces critical operational challenges: inventory inefficiencies due to overstocked slow-moving items, supplier price volatility exceeding ₹1,200 in some cases, and rising competition from online platforms. These issues have strained working capital and threatened customer retention—prompting the need for targeted, data-driven solutions.

To address these concerns, transactional data from April 2024 to January 2025 was cleaned and analyzed. This included over 2,000 B2B and B2C sales records and 850+ FIFO-based inventory entries. Key methodologies applied were: ABC classification for inventory prioritization, exponential smoothing for sales forecasting (95% confidence intervals), supplier risk matrixing based on price variance and dependency, and RFM segmentation for customer profiling and retention insights.

Findings revealed that 20% of SKUs (A-class) account for nearly 70% of total inventory value, while ₹1.2 lakh lies in unutilized dead stock. Repeat B2B buyers drive 80% of offline revenue, and B2C sales show strong seasonality (e.g., +558% MoM during Diwali). One supplier accounts for over 66% of procurement with high price fluctuation, intensifying sourcing risk. Sales are projected to stabilize at ~₹9L/month through April 2025 (CI: ₹5L–₹10L).

Recommendations include liquidating 40% of dead stock to unlock working capital, renegotiating supplier contracts to reduce cost unpredictability, and scaling B2C festive campaigns. The effectiveness of Diwali promotions validates the success of data-backed strategies in improving revenue, inventory efficiency, and procurement stability.

2 Detailed Explanation of Analysis Process and Methodology

2.1 Data Cleaning and Preprocessing

Data Sources:

- **B2B Sales**: Extracted from Debtors Ledger (April 2024–January 2025)
- **B2C Sales**: State-wise Amazon transaction data (online channel)
- **Inventory**: FIFO-based inward entries including quantity and rate
- **Suppliers**: Purchase rate variation from multiple vendors

Cleaning Steps:

1. **Structural Fixes**: Removed merged cells, eliminated blank and duplicate rows, aligned columns across months and categories.
2. **Format Standardization**:
    - Dates were standardized to MMM-YY (e.g. Apr-24)
    - ₹ currency removed from numeric cells for uniformity
    - Party names were made case-consistent
3. **Data Consolidation**:
    - Combined state-wise B2C data into monthly summaries
    - Merged FIFO batches per SKU using QTY × RATE to calculate inventory value
    - Unified customer names across sales entries to maintain consistency

Importance:

Clean and standardized data ensured:

- Accurate ABC classification for inventory management
- Correct MoM growth rates and forecasting
- Valid aggregation of B2B vs B2C trends
- Reliable supplier-wise pricing variance detection

2.2 Analytical Methodologies by Problem Statement

Problem 1: Inventory Inefficiencies

1. **ABC Classification-** This prioritization allows XYZ Computers to allocate resources toward high-impact SKUs and reduce investment in low-ROI items. **Formula:** $Cumulative\ \% = (Cumulative\ Inventory\ Value\ /\ Total\ Inventory\ Value) \times 100$

   Method: SKUs sorted by inventory value then classified into A/B/C based on cumulative percentage cutoffs

   Insight: A-class (20% items) contributed ~70% of inventory value

   Justification: Helps prioritize high-value items for tighter inventory control

2. **Monthly Sales Forecasting**

   Tool: Excel's Exponential Smoothing Forecast Sheet with 95% Confidence Interval

   Output: Predicted Feb–Apr 2025 B2C sales ~₹900K/month (CI: ₹500K–₹1M)

Justification: Enables proactive inventory planning for high-demand months

3. **Inventory Turnover Ratio**

   Formula:

   $Inventory\ Turnover = Average\ Inventory \div Annualized\ Sales$

   $Annualized\ Sales = Total\ 10\ month\ sales \times 1.2$

   Output: Class C items showed <1 turnover/year

   Justification: Measures SKU performance; supports inventory rebalancing decisions

Problem 2: Customer Retention and Online Competition

4. **B2B vs B2C Monthly Sales Trend**

   Method: Line chart of total B2B vs B2C sales over 10 months

   Insight: B2C peaks around Diwali (Oct–Nov); B2B remains stable

   Justification: Aids in channel strategy planning

5. **Top B2B Customers Analysis**

   Rule: Ranked by total sales from Apr-24 to Jan-25

   Insight: Top 3 customers contributed over ₹6L

   Justification: Identifies retention-critical clients

6. **Customer Frequency Segmentation**

   Rule:

   High Frequency: ≥4 months

   Medium: 2–3 months

   Low: 1 month only

   Output: Only 34% of B2B clients were high-frequency

   Justification: Helps target re-engagement campaigns for low-frequency buyers

7. **Repeat Buyer Trend Analysis-** This aids in measuring the success of retention strategies and highlights periods requiring customer reactivation efforts.

   Method: Monthly count of repeat buyers

Insight: December saw a dip; October–November had peaks

Justification: Tracks retention effectiveness and loyalty trends

8. **Promotions Impact Analysis**

   Formula:$MoM\ Growth = (Nov\ Sales - Oct\ Sales) \div Oct\ Sales \times 100$

   Output: Nov B2C sales rose by 558% MoM

   Justification: Quantifies success of Diwali promotional campaigns

9. **B2B vs B2C Monthly Sales Share**

   (%) Method: 100% stacked column

   chart

   Insight: B2C share increased from ~10% in Apr to ~40% by Nov

   Justification: Highlights channel shift toward e-commerce

10. **Sales Seasonality Analysis-** Understanding seasonal cycles supports inventory allocation, manpower scheduling, and marketing effort planning across high- and low-demand periods.

    Method: Combined monthly sales trend (B2B + B2C)

    Insight: Peak in Oct–Nov; Jan shows softening

    Justification: Aids resource allocation across festive/off-season months

Problem 3: Supplier Volatility and Pricing Risk

11. **Supplier Price Variance Analysis**

    Formula: $Variance\ \% = (Max\ Rate - Min\ Rate) \div Average\ Rate \times 100$

    Output: 3 key suppliers showed ≥25% price variance

    Justification: Highlights need for renegotiation or alternate sourcing

12. **Supplier Risk Matrix Axes**:

    X-axis: Price variance %

    Y-axis: Total procurement value

Insight: High-spend + high-variance vendors identified as critical risk points

Justification: Informs sourcing strategy and supplier management

Together, these methods offer a multi-dimensional understanding of XYZ Computers operational levers—spanning product mix, customer behavior, and supplier dynamics—enabling data-backed decision-making.

2.3 Justification of Methodological Choices

Given the moderate dataset size (~2,000 records across sales, inventory, and suppliers), Excel was selected over Python or R for all analyses. Excel ensures higher accessibility and interpretability for XYZ Computers' business owner, who is more comfortable with spreadsheet tools. It also enabled transparent, formula-based methods like ABC classification, MoM growth, and exponential smoothing, without the overhead of code execution or dependency management.

For inventory valuation and classification (Problem 1), FIFO logic was retained instead of LIFO or weighted average, since XYZ Computers uses FIFO in its accounting system. This choice preserved consistency with real-world costs and ensured inventory value analysis aligned with financial records. To forecast B2C sales, Excel's Exponential Smoothing Forecast Sheet was preferred over simple moving average due to its ability to handle seasonality and assign exponentially decreasing weights to older observations. This method, applied with a 95% confidence interval, was essential for managing post-festival demand fluctuations and provided a stable basis for procurement planning.

To quantify promotional impact (Problem 2), Month-on-Month (MoM) growth was computed instead of Year-on-Year (YoY) change, since only 10 months of data were available. MoM allowed precise tracking of short-term spikes during Diwali and ensured alignment with the promotional calendar. For customer segmentation, frequency-based grouping was chosen instead of full RFM scoring initially, to keep the insights actionable. Frequency counts enabled a clear distinction between repeat, medium, and one-time buyers—crucial for designing retention strategies.

To assess supplier-related risks (Problem 3), price variance was computed using percentage deviation between max, min, and average purchase rates. This simple yet powerful approach highlighted volatility in procurement costs. Suppliers were further plotted in a risk matrix

combining price variance and procurement share, helping identify vendors with both high spend and unstable rates. Alternative clustering or ML-based techniques were considered but discarded due to limited supplier count (~40) and the need for interpretability.

Overall, all methodologies were selected with three priorities in mind: alignment with business problems, transparency in logic, and feasibility for operational use by the XYZ Computers team. Each approach directly supported one or more of the three defined problem statements—inventory inefficiency, customer churn, and supplier volatility—while maintaining clarity, traceability, and practical value.

3. Results and Findings

This section presents the outcomes of the 16 key analyses conducted on sales, inventory, supplier, and customer data of XYZ Computers. Each finding is supported by visualizations and includes a concise explanation and insight derived from it.

3.1 Inventory Management Insights

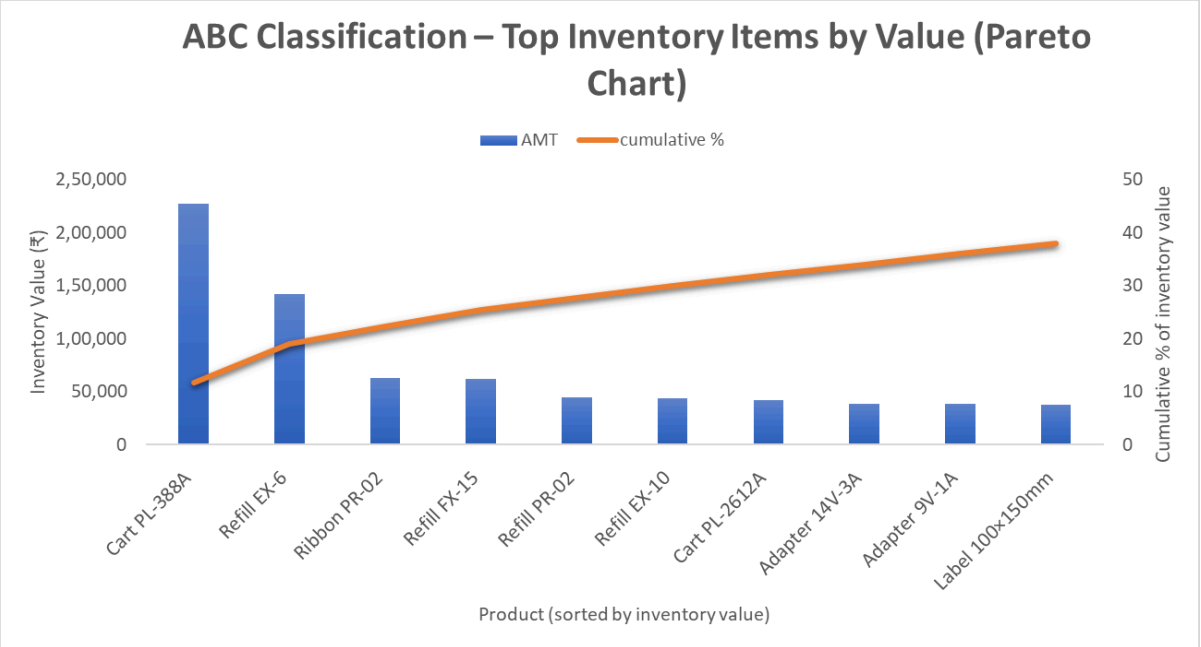

Figure 1: ABC Classification – Inventory Value Contribution

The above visualization reveals that 20% of SKUs (A-class) account for nearly 70% of the total inventory value, demonstrating a classic Pareto pattern. These SKUs include high-value products like PL cartridges and refills. In contrast, C-class items contribute less than 10% of the value despite forming the bulk of the stock. This concentration suggests that tighter

control over high-value SKUs can yield a disproportionate impact on inventory cost optimization.

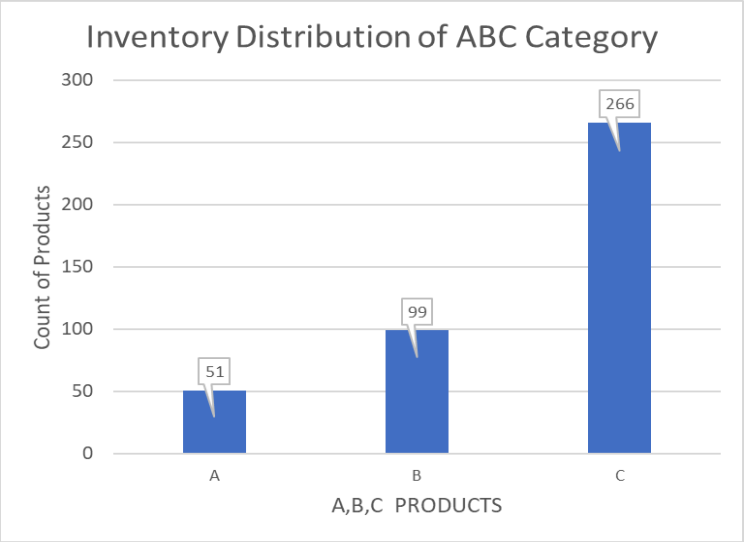

Figure 2: Count of Products in ABC Categories

The graph above highlights that while A-class SKUs hold the majority of value, they constitute a small share in terms of count. C-class products dominate in number but not in value, indicating a skewed assortment. This imbalance may lead to over-diversification and inefficiencies in stock management, storage, and handling without proportional revenue benefits.

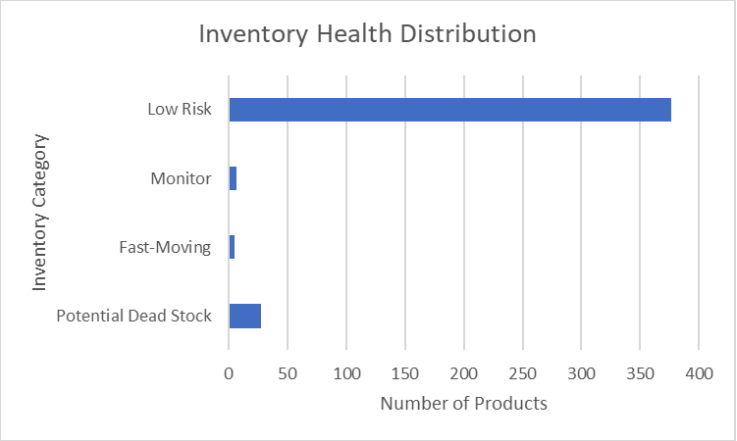

Figure 3: Inventory Turnover Ratio by Category

The chart above presents the turnover analysis, showing that only 5 items were fast-moving, while 28 were flagged as potential dead stock. The rest (376 products) fell under low-risk inventory with moderate movement. This highlights that a large portion of the inventory is underutilized, tying up working capital. Products with low rotation rates signal opportunities for clearance or reassessment of stocking policies.

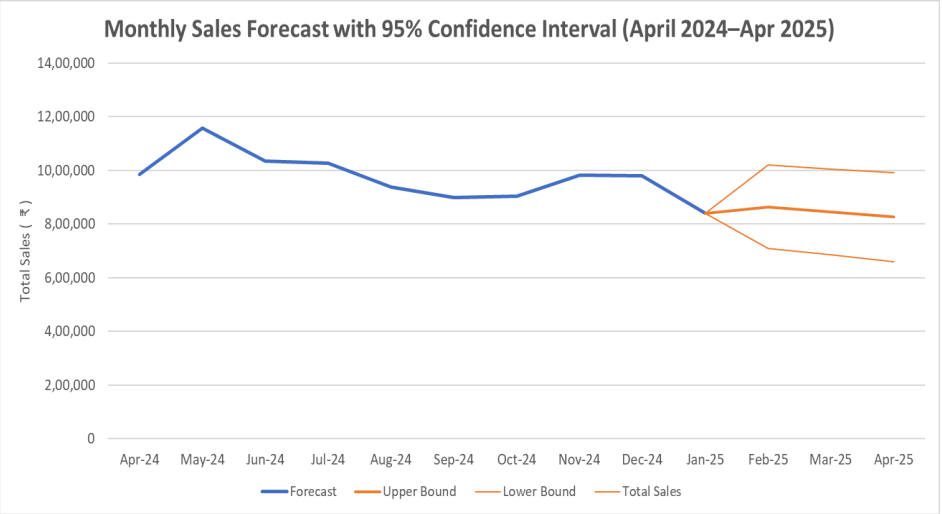

Figure 4: Monthly Sales Forecast with 95% Confidence Interval

The forecast visualization above, generated using exponential smoothing, indicates expected monthly sales of ₹845,000 between February and April 2025, with a 95% confidence interval from ₹661,000 to ₹1,020,000. The trend shows stabilization after seasonal fluctuations during Diwali, providing a reliable planning window. This insight is valuable for purchase scheduling and inventory restocking in Q1 of the next fiscal year.

3.2 Customer Retention and Channel Performance

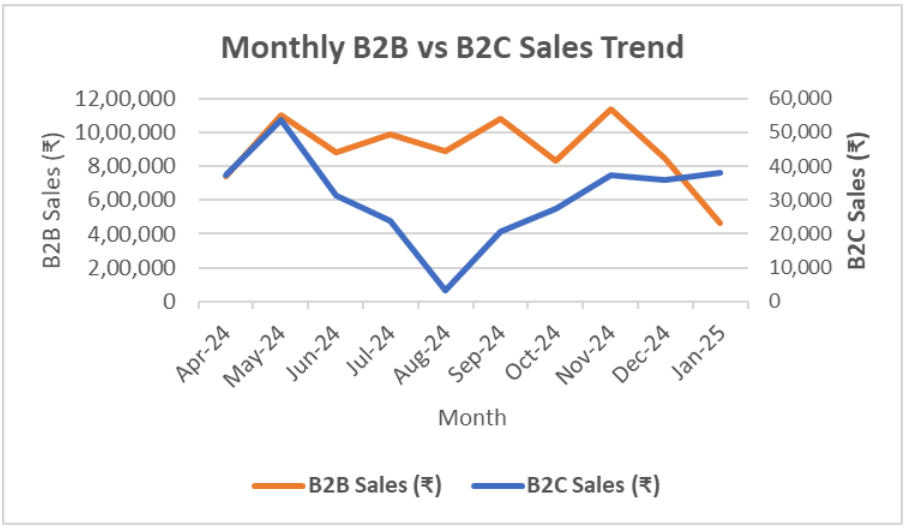

Figure 5: Monthly Sales Trend – B2B vs B2C

The above sales trend chart illustrates that B2B sales remained consistently strong, averaging above ₹9L per month with minor fluctuations. In contrast, B2C sales were volatile but showed a sharp surge in November, indicating festive season sensitivity. Notably, B2B sales dipped significantly in January (₹4.6L), while B2C held steady. This divergence reveals

B2C's potential as a stabilizer during B2B downturns and reinforces the value of seasonal campaigns for the Amazon channel.

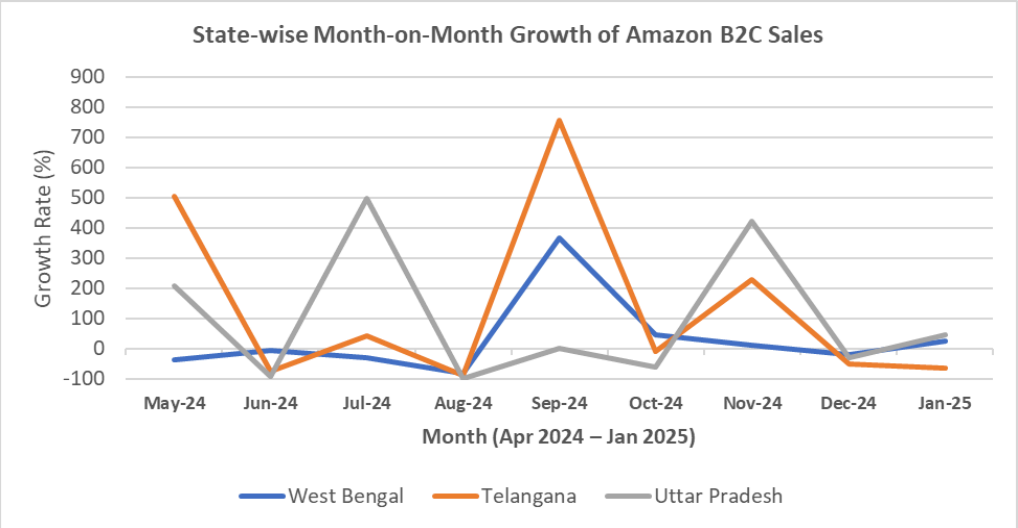

Figure 6: State-wise B2C Sales Trend (Top 3 States)

The above chart on state-wise B2C sales highlights that West Bengal led consistently across months, suggesting strong customer engagement in that region. Telangana and Uttar Pradesh showed sharp peaks in select months, especially during May and November, hinting at promotion-driven purchases. These regional sales patterns reflect geographic differences in consumer response, useful for tailoring future campaigns state-wise.

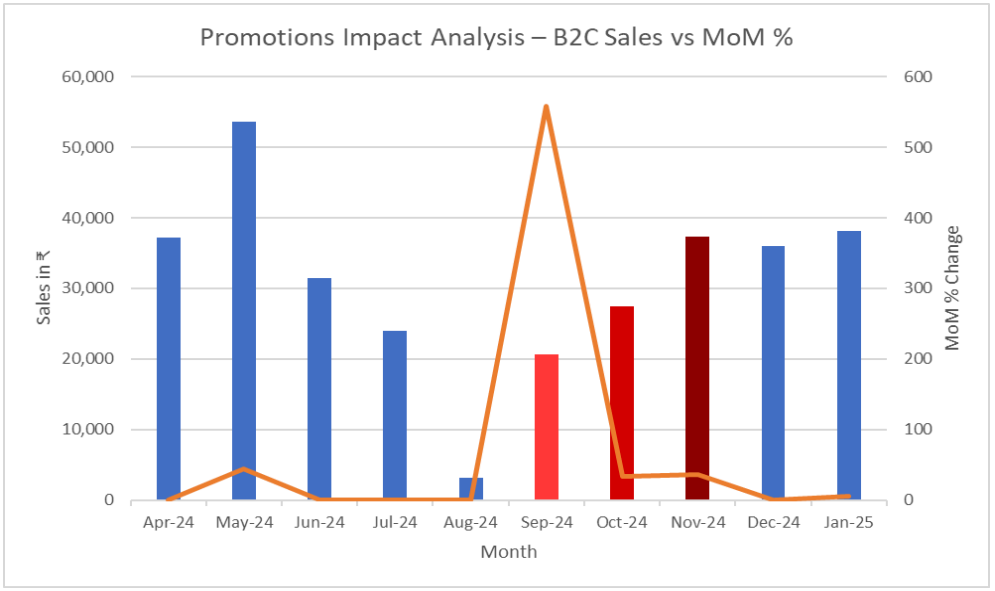

Figure 7: MoM Growth of Amazon B2C Sales (Promotional Impact Analysis)

The month-on-month B2C growth trend above reveals critical seasonal patterns. After a steep drop in August (–87%), sales rebounded sharply in September (+558%) and continued

growing through October and November. This sequence aligns with festive promotions like Durga Puja and Diwali. Conversely, growth stagnated in December and January. These dynamics confirm that seasonal timing strongly influences Amazon sales and reinforce the need for pre-festival stocking and marketing.

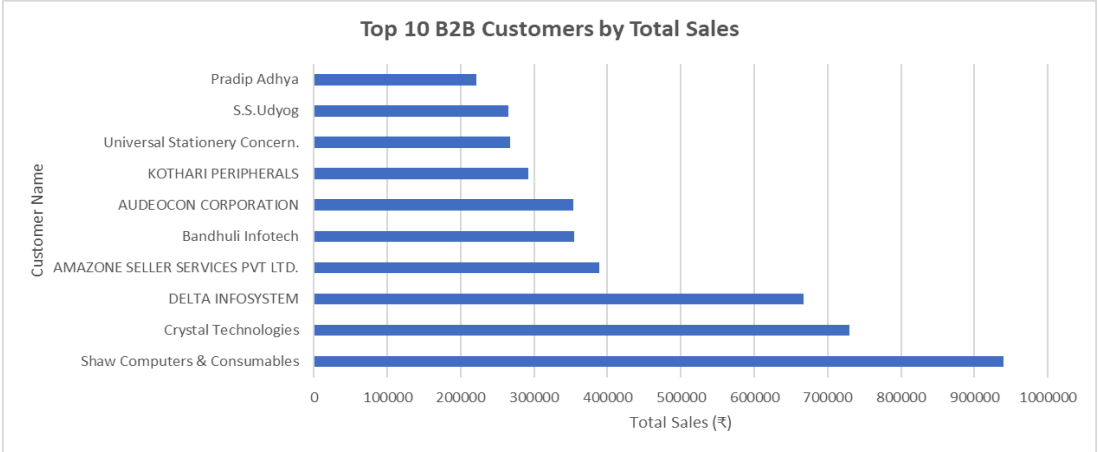

Figure 8: Top B2B Customers by Total Sales

The bar chart above showing top B2B customers reveals that the top 10 clients contributed over ₹22L during the 10-month period. The top 3 alone accounted for ₹6L+, indicating a highly concentrated revenue base. This highlights the presence of strategic key accounts whose retention is critical to revenue stability. It also implies that losing even one major client could significantly impact cash flow.

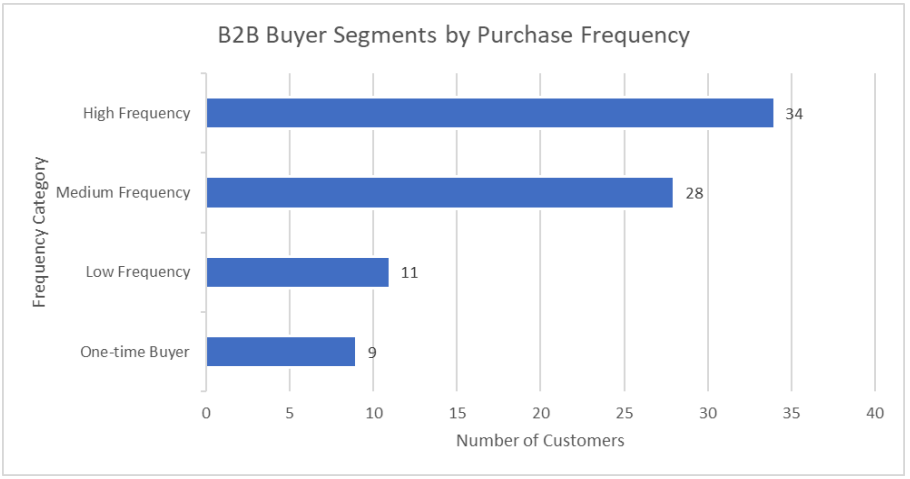

Figure 9: B2B Customer Purchase Frequency Segmentation

The chart above depicting customer purchase frequency shows that only 34% of customers purchased in 4 or more months (high-frequency), while 41% were medium-frequency (2–3 months), and 25% were one-time buyers. The skew shows that a substantial share of the

customer base is infrequent or disengaged. This pattern suggests that while some customer relationships are strong, many remain underdeveloped and may be at risk of churn.

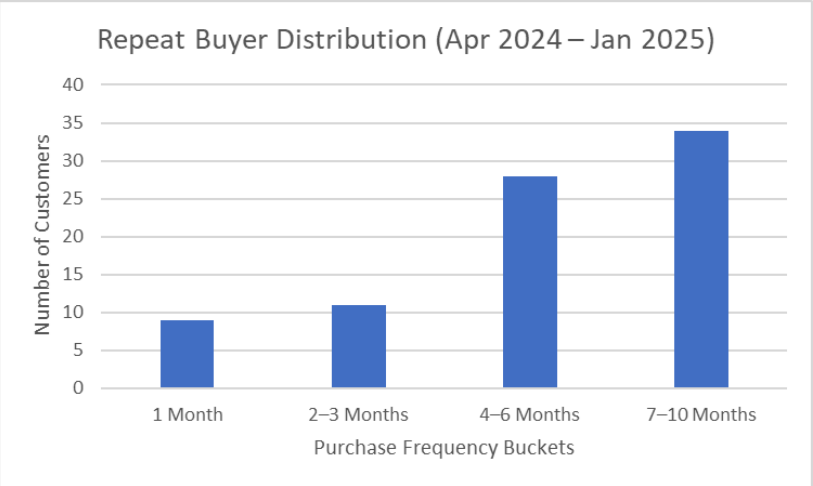

Figure 10: Monthly Trend of Repeat Buyers in B2B

The above graph illustrating repeat buyer trends shows that repeat buyer counts peaked in September–November, followed by a visible decline in December and January. This trend highlights seasonal engagement cycles within the B2B segment—likely driven by fiscal closings or festive procurement. However, the post-seasonal drop suggests vulnerability in maintaining customer engagement during quieter months.

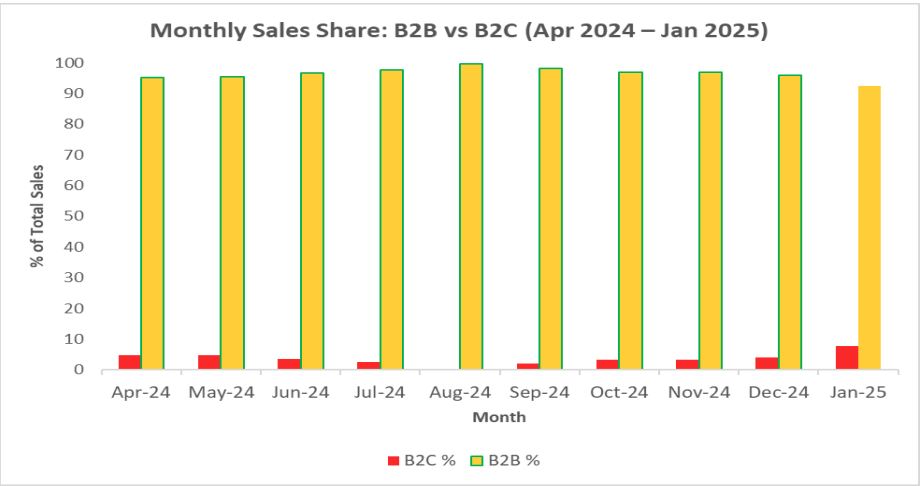

Figure 11: Contribution Share – B2B vs B2C Sales

The chart above highlights the monthly share of B2B and B2C sales from April 2024 to January 2025. B2B consistently contributes over 90% of revenue, peaking at 99.6% in August. A notable shift appears in January 2025, where B2C's share rises to 7.6% — its highest level. This spike aligns with stable B2C sales and a drop in B2B volumes. These

trends confirm B2B as the core revenue stream, but also show that B2C can absorb slowdowns, acting as a stabilizing lever during lean months.

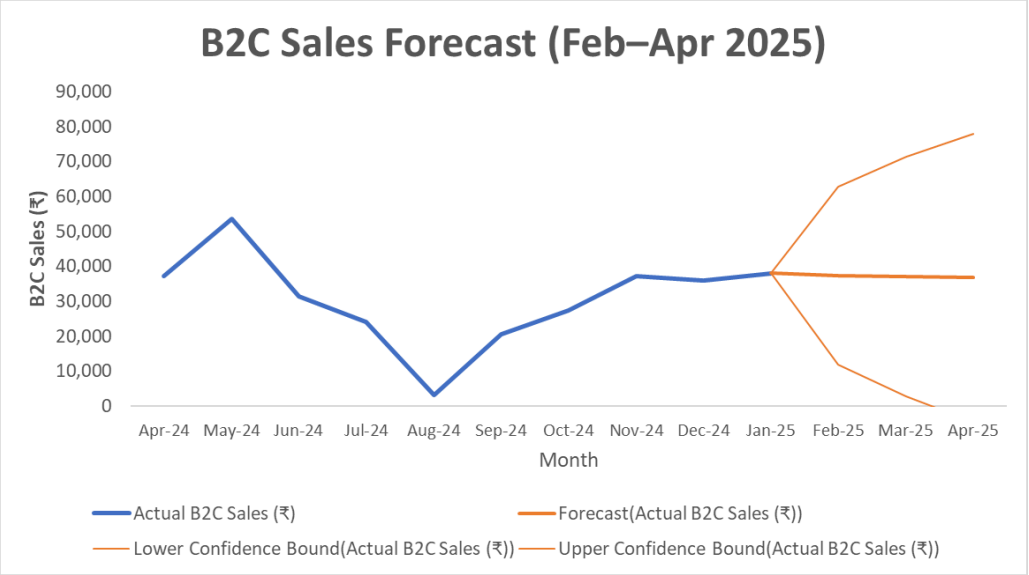

Figure 12: Forecasted B2C Sales – Feb to Apr 2025

The forecast above, generated using exponential smoothing, projects B2C sales for Feb–Apr 2025. Average monthly sales are estimated at ₹37,000, with confidence intervals widening from ₹12,046–₹62,944 in February to ₹–4,435–₹78,035 in April, reflecting growing future uncertainty. While month-to-month variation is minor, the trend stabilizes near ₹36K–₹38K, indicating post-festive normalization. The wide upper bounds highlight upside potential if campaigns are reintroduced.

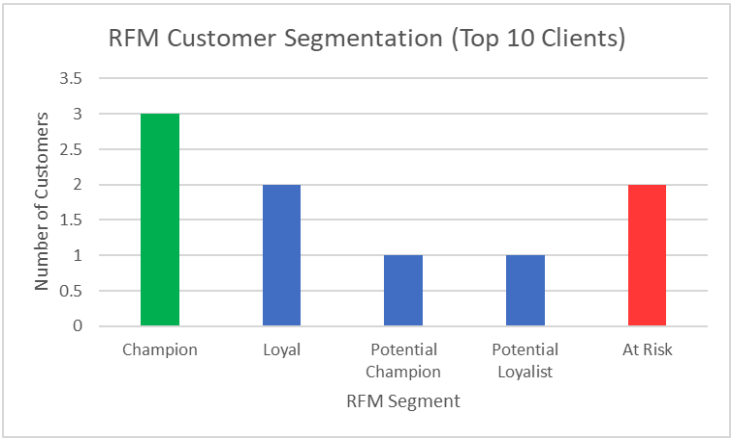

Figure 13: RFM Segmentation of B2B Customers

The above RFM chart segments top B2B clients by recency, frequency, and monetary value. Three Champion customers: Shaw Computers, Crystal Technologies, and Delta Infosystem—purchased in January, were active for 9–10 months, and contributed over ₹6.5L each. Loyal customers like Amazon Seller Services and Bandhuli Infotech also showed

sustained engagement. 'At Risk' clients, such as Pradip Adhya and Universal Stationery Concern, displayed recent inactivity. This segmentation guides where to focus retention—on nurturing champions and reactivating at-risk clients.

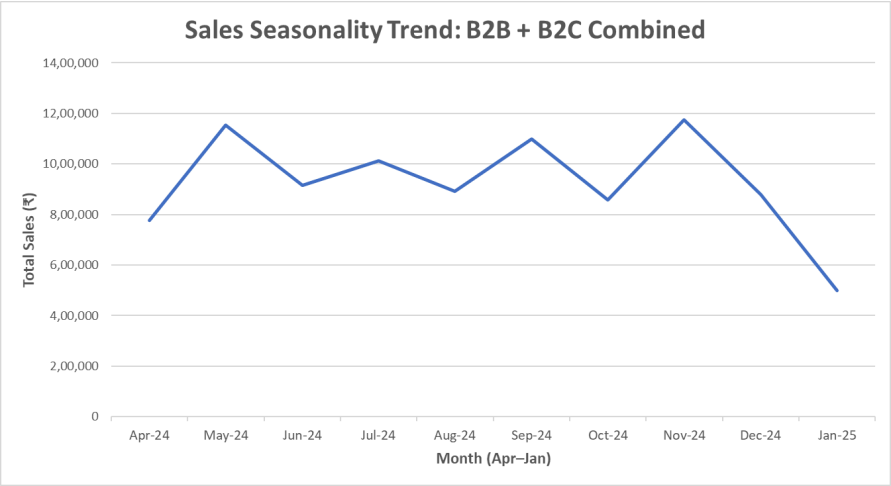

Figure 14: Seasonal Trend of Combined Sales (B2B + B2C)

The above combined sales trend illustrates seasonal shifts in total business volume. Peak months- May and November saw revenues exceed ₹11.5L, aligned with school-year and Diwali demand. January recorded the lowest at ₹4.98L. While B2B remains the primary contributor (90–95%), B2C adds timely boosts during festive periods. The August dip reflects an off-season across both channels. These trends highlight the need for differentiated planning—steady stock and service for B2B, and campaign-based pushes for B2C during key retail cycles.

3.3 Supplier Risk and Volatility

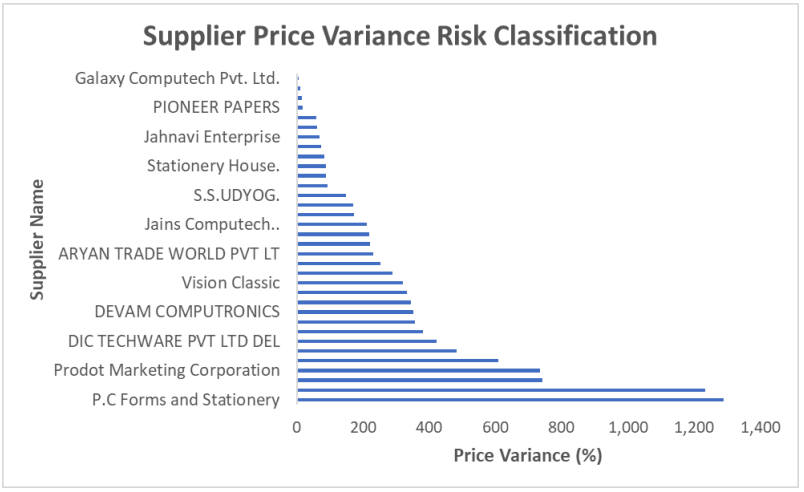

Figure 15: Price Variance Analysis – Supplier vs. Price Volatility

The supplier variance chart above plots vendors by their price inconsistency across purchase orders over the 10-month period. Suppliers with a variance above ₹300 are classified as high risk, indicating pricing instability that can severely impact cost planning, budgeting, and overall profitability. The highest variance was recorded for Ganapati Udyog (₹1,233), followed closely by P.C. Forms and Stationery (₹1,290) and XYZ Siddhi Enterprise (₹741). Other high-risk suppliers include KOTHARI PERIPHERALS, Universal Stationery Concern, and Shree Karni Trading Co., all showing price variance well over ₹300 despite being critical to procurement operations. Moderate-risk vendors like Infinity Cartridge and BALAJI TRADING CO. displayed price fluctuations in the ₹200–₹300 range. While not immediately alarming, these suppliers still require close tracking. Low-risk suppliers, such as Alphabet Imaging Technologies, AVANTE GARDE ENTERPRISE, and Next-Gen Infotech, maintained consistent rates, with a variance of ₹0—indicating strong pricing discipline and reliability. This analysis clearly highlights the need for robust contract renegotiations and potential sourcing alternatives to mitigate the impact of unpredictable vendor pricing. Uncontrolled price variance—especially when paired with high procurement volume—poses significant risks to financial stability and supply chain efficiency at XYZ Computers.

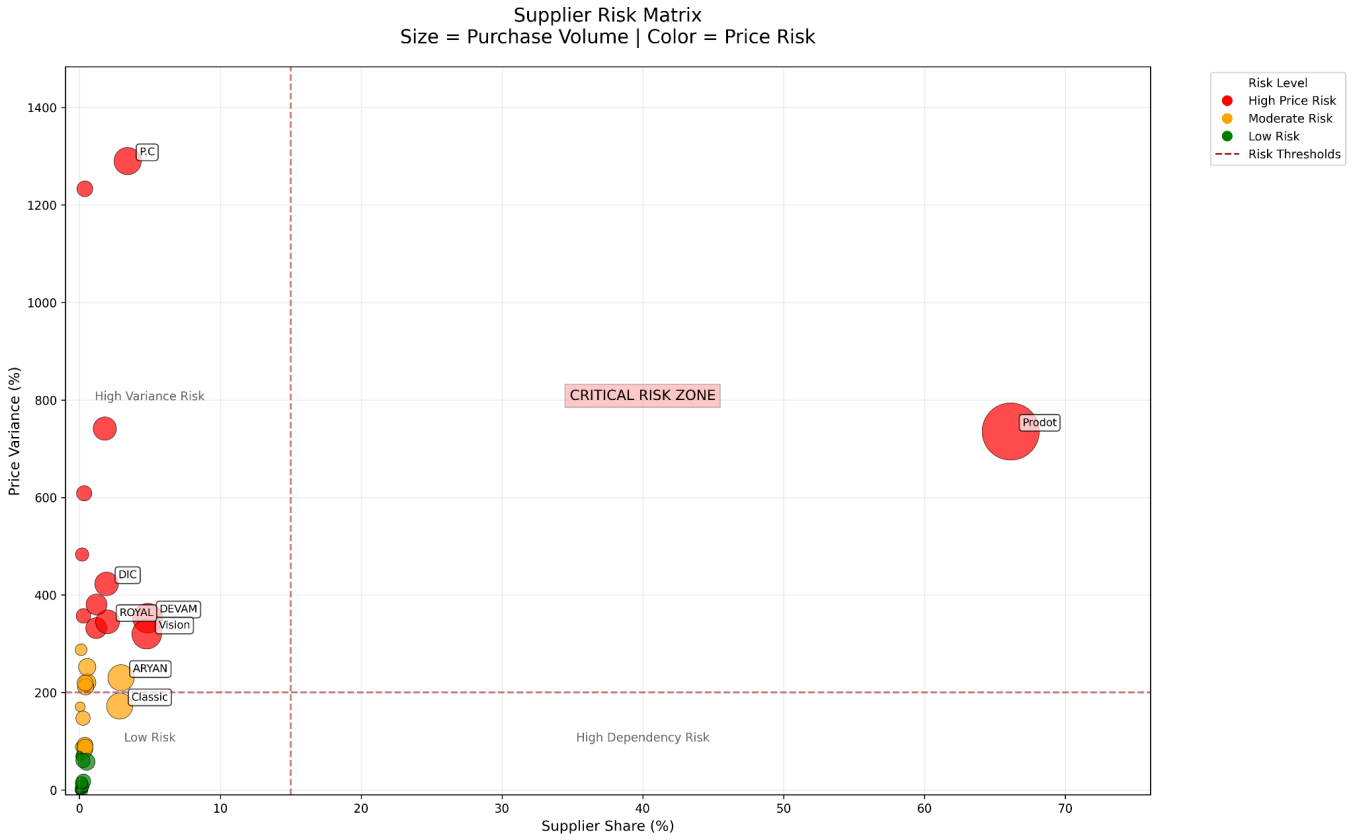

Figure 16: Supplier Risk Matrix – Price Variance vs Spend

The supplier matrix above classifies over 40 vendors across two critical procurement risk dimensions: the X-axis represents price risk (capturing variance in unit rates across multiple purchase orders), while the Y-axis measures procurement dependency (defined by the vendor's share of total purchase value). The analysis reveals that more than 60% of suppliers fall into the High Price Risk + Critical Dependency quadrant. Notable among these are Prodot Marketing Corporation, with ₹1.11 crore in spend (66% share) and a ₹735 variance; P.C. Forms and Stationery, with ₹5.76 lakh and a variance of ₹1,290; XYZ Siddhi Enterprise, with ₹3.03 lakh and ₹741 variance; and Ganapati Udyog, which despite a relatively smaller spend of ₹65K, exhibits the highest price variance at ₹1,233. Other vendors, including Royal Ribbons & Shells, Universal Stationery Concern, and Devam Computronics, also fall into this high-risk category with combined procurement exceeding ₹10 lakh. These suppliers are not only major contributors to procurement but also introduce instability due to erratic pricing, presenting the most urgent risks to cost predictability and supply continuity. In contrast, low-dependency, low-risk vendors such as JAJU INFOTECH, AVANTE GARDE, and R.K. ENTERPRISES demonstrate consistent pricing and limited procurement exposure, making them strong candidates for volume scaling or preferred vendor partnerships. The clustering of suppliers in high-risk zones underscores the pressing need to tighten procurement policies. Key recommendations include negotiating contractual rate caps, securing volume-based discounts, diversifying the supplier base, and enforcing a mandatory three-quote policy for purchases exceeding ₹50,000. These steps will enhance procurement stability, mitigate pricing shocks, and support resilient long-term sourcing at XYZ Computers.

The above analyses provided detailed insights across inventory, sales, customer behavior, and supplier dynamics. These findings reveal clear patterns and actionable opportunities. The next section interprets these results in the business context of XYZ Computers and outlines strategic recommendations to improve efficiency, retention, and profitability.

3 Interpretation of Results and Recommendations

This section interprets the analytical findings from inventory, sales, customer, and supplier data to provide actionable insights and business-focused recommendations for XYZ Computers. These actions are designed to improve operational efficiency, reduce risks, and unlock revenue growth opportunities.

Inventory Management

1. The ABC analysis confirmed that a small subset (A-class) of high-value SKUs accounts for the majority of inventory investment, while a large pool of C-class items contributes minimally. This misallocation ties up working capital in underperforming stock.

- Enforce tighter controls on A-class SKUs, including frequent reviews and reorder limit automation.
- Gradually phase out or repurpose low-value C-class SKUs to create space for faster-moving, higher-margin items.

This will reduce carrying costs, enhance shelf utilization, and improve overall inventory ROI. Reallocating even 10% of space from dead stock could free ₹1.2 lakh in capital.

2. Inventory movement revealed 28 products with zero rotation—clear indicators of dead stock and only 5 fast-moving items.

- Design clearance campaigns, such as bundling or seasonal discounts, to liquidate stagnant stock.
- Categorize low-turnover items for semi-annual review to avoid future blockage.

Liquidating stagnant stock will enhance turnover ratio, free up shelf space, and support a lean, demand-driven inventory model.

3. Sales forecasting suggests normalization of demand around ₹8.45 lakh/month with reduced volatility.

- Base procurement planning on forecast ranges (₹6.6L–₹10.2L) to maintain service levels while minimizing excess purchase.
- Adjust reorder frequency based on seasonality to optimize working capital across quarters.

This demand stability post-festival period can be leveraged to realign supplier orders and buffer stock quantities.

Customer Retention and B2C Channel Performance

1. B2B remains the dominant revenue source with consistent month-on-month sales, but B2C shows clear seasonality and high responsiveness to festive promotions.
    - Continue prioritizing service quality for B2B while nurturing B2C with timed campaigns around Diwali and other festivals.

- Design mid-tier festive promotions for August and December to fill sales dips.

This dual-channel strategy will mitigate dependence on any one segment and strengthen overall resilience.

2. Geographic B2C trends reveal West Bengal as a consistent performer and Telangana/Uttar Pradesh as highly responsive during campaigns.
    - Launch ongoing loyalty efforts (e.g., Amazon coupons, SMS reminders) in West Bengal.
    - Schedule targeted, state-specific offers in Telangana and UP during Q2 and Q3.

Such region-wise targeting optimizes promotional spending and enhances conversion rates.

3. MoM growth patterns show the strongest B2C uplift in September–November, with sharp drop-offs afterward.
    - Establish a 90-day promotional cycle ahead of key festive months, allocating higher ad budgets during these high-conversion windows.
    - Ensure sufficient stock, especially fast-moving SKUs, ahead of these

months. A well-timed marketing and inventory sync could double B2C revenue during this period.

4. The top three B2B accounts contribute over ₹6 lakh cumulatively, exposing the firm to significant client concentration risk.
    - Implement customer-specific SLAs, loyalty perks, and periodic feedback collection to retain these clients.
    - Offer exclusive quarterly discounts or first-access to new inventory.

Maintaining these relationships ensures revenue continuity and safeguards against abrupt sales loss.

5. Customer segmentation showed that only one-third of B2B customers are highly engaged, while 25% are one-time buyers.
    - Develop tailored re-engagement workflows—such as reorder reminders, bulk-deal alerts, and loyalty credits—to activate lapsed users.
    - Track customer inactivity >90 days and trigger reactivation campaigns.

A 10% uplift in B2B retention can directly stabilize recurring revenue and reduce acquisition dependence.

6. Repeat buyer counts declined after November, suggesting reliance on seasonal demand.
    - Introduce post-festive loyalty schemes and sales call follow-ups to sustain engagement.
    - Assign sales reps to monitor buyer dormancy and personalize

outreach. This will help reduce Q1 volatility and balance sales inflow year-round.

7. January saw B2C contribution rise to 7.6%—a record for the year—just as B2B dropped sharply.
    - Capitalize on this momentum by expanding B2C outreach in February–April with targeted Amazon ads.
    - Aim to grow B2C share to 10% by end of Q1 FY26.

This diversification cushions the business against seasonal or client-based shocks.

8. Sales forecast shows B2C likely to stabilize at ₹37K/month, with potential to reach ₹78K.
    - Run a pre-summer campaign in March–April targeting high-response states to push sales toward the upper bound.
    - Include limited-time offers and cart-abandonment nudges for better conversion.

This can help XYZ consistently exceed baseline forecasts through proactive demand generation.

9. RFM segmentation identified ₹4 lakh in revenue tied to “At Risk” customers, despite high activity earlier.
    - Launch personalized retention offers or bundle deals to revive these accounts.
    - For “Champion” customers, introduce referral bonuses or annual loyalty incentives to deepen ties.

Reviving even 50% of “At Risk” clients could contribute an additional ₹2 lakh revenue.

10. Seasonal sales trends reveal sharp peaks in May and November, with low demand in January.
    - Roll out Republic Day and Financial Year-End campaigns to balance seasonality.

- Align marketing, staffing, and inventory in quarterly cycles to prepare for known demand shifts.

This proactive planning will create a steadier sales curve and smoother cash flow.

Supplier Risk and Procurement Stability

1. Supplier risk analysis uncovered high price variance among key vendors, notably Prodot and P.C. Forms, who also account for significant spend. This jeopardizes budget accuracy.

- Renegotiate fixed-rate contracts or set maximum variance thresholds in vendor agreements.
- Enforce bulk order discounts and formalize procurement SLAs.

These efforts will improve price predictability and reduce unexpected cost inflation.

2. Multiple high-price-variance vendors also show critical dependency, amplifying risk.

- Identify alternative suppliers and shift 10–15% procurement away from high-risk profiles.
- Introduce a 3-quote procurement policy for purchases above ₹50,000 to benchmark pricing.

This will de-risk procurement cycles and ensure smoother supply continuity without sacrificing margins.

If implemented, these interventions could unlock over ₹1.5 lakh in working capital, reduce procurement risk by diversifying vendor exposure, and drive a 10–15% increase in B2C contribution by Q1 FY26. More importantly, they establish data-backed practices for inventory control, customer engagement, and cost containment—laying the foundation for scalable and resilient operations at XYZ Computers.

4 References and Data Links

The project analysis was performed using four structured Excel workbooks, each containing multiple sheets for data cleaning, processing, and visualization.

- **Workbook 1 – B2B Sales Analysis**
  Included customer segmentation, top client contribution, monthly sales trends, and repeat buyer analysis.

- **Workbook 2 – B2C Sales Analysis (Amazon)**
  Used for MoM growth calculations, state-wise trends, Diwali promotion impact, sales forecasting, and B2B vs B2C share.
- **Workbook 3 – Inventory Analysis (FIFO Ledger)**
  Covered ABC classification, inventory turnover, dead stock detection, and overall sales forecasting.
- **Workbook 4 – Supplier Risk Analysis**
  Included supplier price variance, spend concentration, and risk matrix generation.

All project materials, including the raw datasets, multi-sheet analysis workbooks (4 Excel files), and proof of originality have been uploaded in the following Google Drive folder:

Google drive link(Excel sheets, Proof of Originality)