



BDM CAPSTONE

Advanced digital data management and demand forecasting framework
for optimizing inventory & sales in women's boutique.

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ORGANIZATION BACKGROUND

- The company that I am working with is Pattern House women's clothing boutique founded in 2021 by Ms. Neelam Verma.
- Which is a for-profit corporation and b2c business.
- 3 types of main products that are dresses, fabrics and dress rental stuff.

Pattern House ,2nd floor Shanti tower,Beawar, Rajasthan
Insta_page : @pattern_house_

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PROBLEM STATEMENT

DATA COLLECTION

patterphouse
IN READY-TO-WEAR CLOTHING

☐ Sell
☒ Customise Form

Form No. _____ Date 21/8/24 Mob. _____
Name Sanya
Dress Yellow dress Amount 2000 Adv. 1500 Due _____

Measurement :

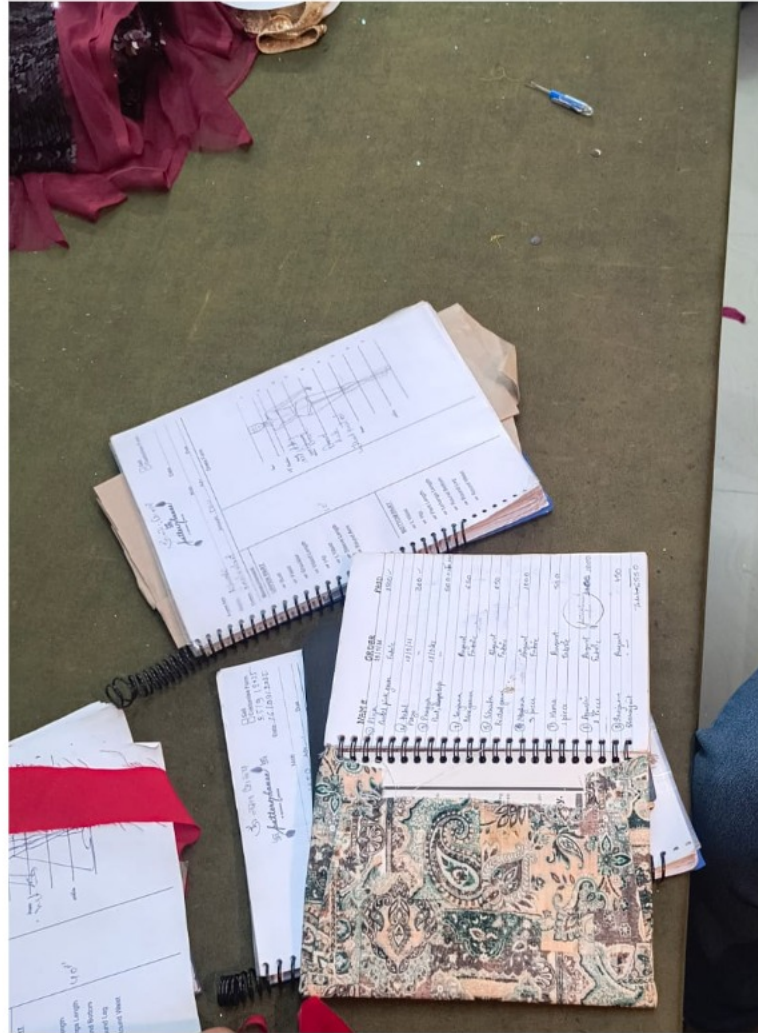
UPPER PART	Measurements
Bust	48"
Waist	42"
Shoulder	15"
Waist Length	16"
Hip	48"
L Waist	42"
Sleeve Length	22" (15"), 16"
Round Arm	
Crotch -	35"
Jeck Length -	54"

BOTTOM PART

L Waist	
Hip	
Pant Length	42"
Lehanga Length	
Round Bottom	26"
Round Leg	
Round Waist	
thigh -	30"
Knees	20"
Knee-length	22"

Dress Form

Hand-drawn sketch of a dress form with labels: "Belt", "Waist collar", "Panti sleeve", "Bust", "Waist", "Hips", "Knees", "Ankles".



DATA DIGITALIZATION & PREPROCESSING

DIGITALIZATION PROCESS

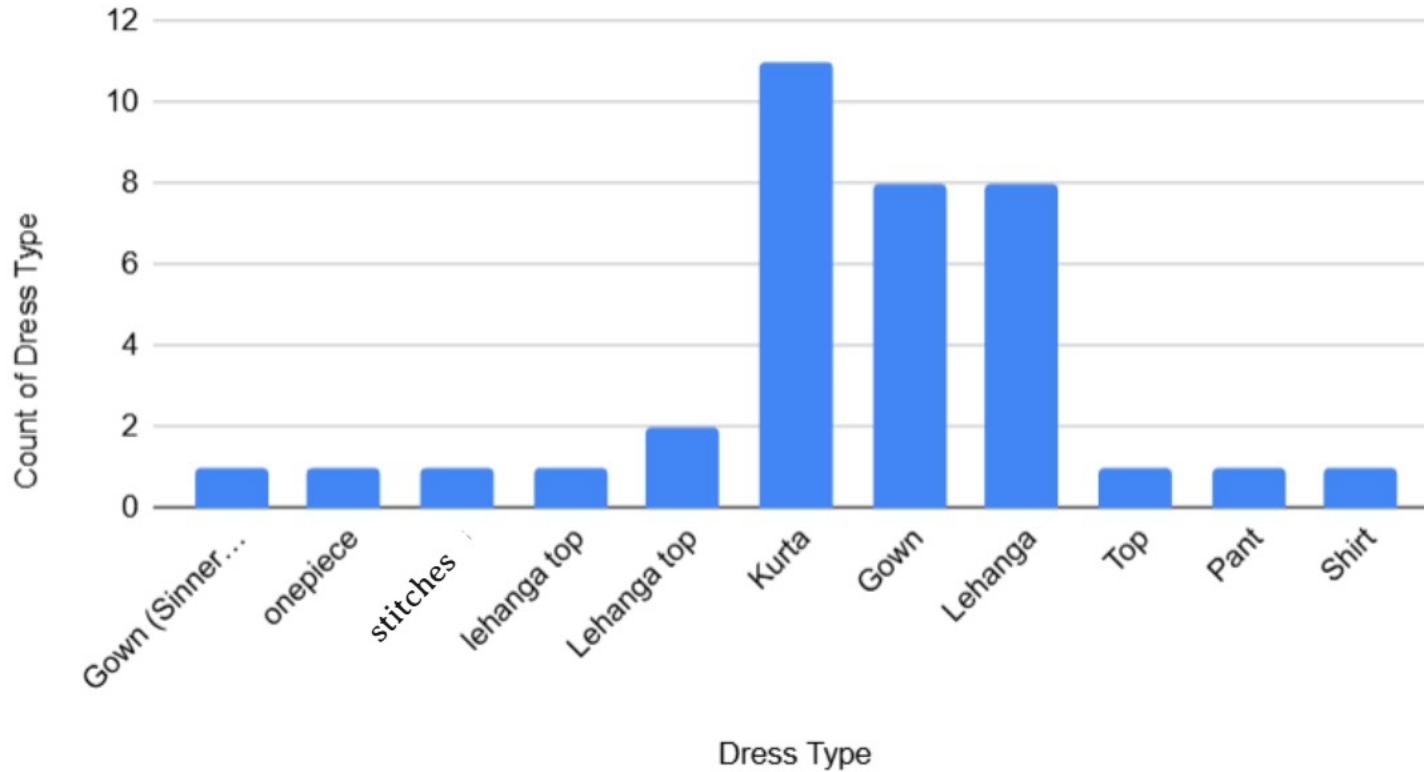
- Data Collected:
 1. Form numbers
 2. Customer names & contact details
 3. Booking & delivery dates
 4. Dress types (6 SKU categories)
 5. Order amounts, advances, pending balances
 6. Order type (Sell vs. Rent)
 7. Time duration:
July – October 2025 (4 months)

PREPROCESSING

- Physical order diaries & measurement notebooks collected from shop.
 1. Photography pages organize by month.
 2. Manual data entry into Google sheet :
Sr no. , name, order , date, etc
 3. Data Cleaning in sheet: remove duplicates, fix dates, standardize dress names, fill missing fields.
 4. Data transformation: add month column, tailor timing, due date, start date.
 5. Analysis-ready dataset for season-wise trends, ABC analysis, forecast

DATA ANALYSIS - Inventory Optimization

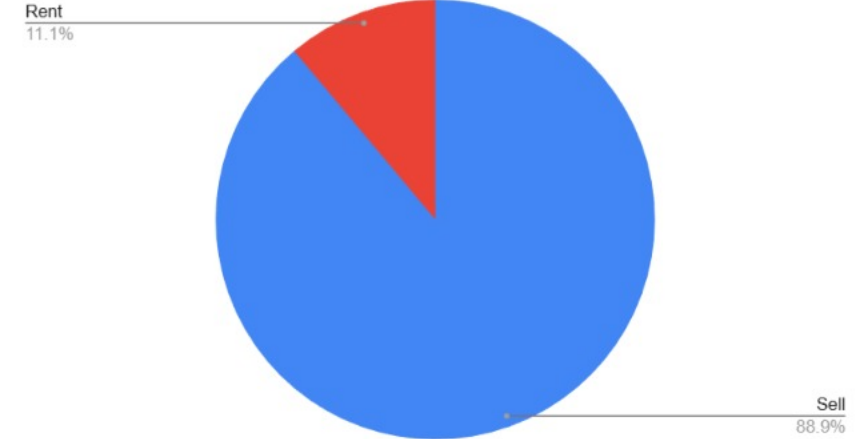
Best Selling Dress



Focused resource allocation Top-performing items Class A items (Kurta + Gown + Lehanga = 64% revenue).

Slower-moving items like **Shirt, Top, One-piece** show low volumes (1-4 units), indicating niche demand; these should be **made-to-order only** to avoid dead stock.

Count of Order Type



Sell orders dominate at **88.9%** of total transactions, confirming that tailoring & ownership is the core business model.

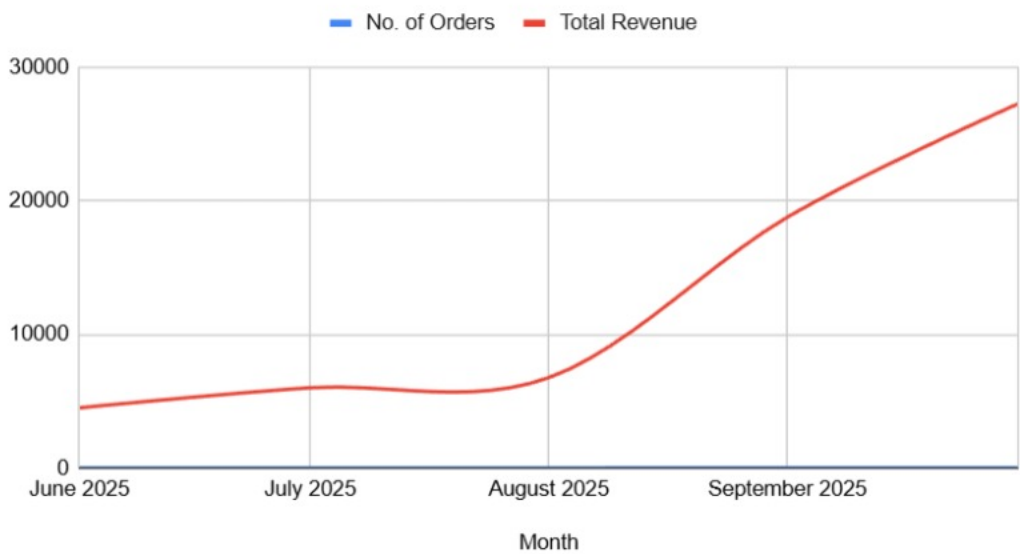
Rent orders represent only **11.1%**, indicating a small side business; focus remains on custom stitching and sales.

DATA ANALYSIS - REVENUE TRENDS

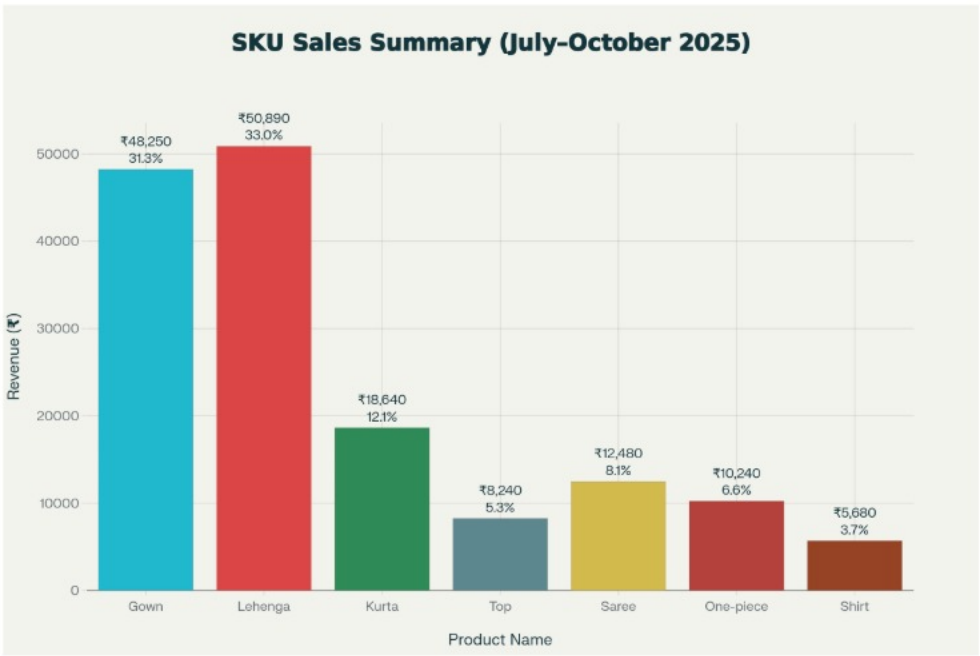
Month	No. of Orders	Total Revenue	No. of Days of Operation	Avg. Revenue/Day
June 2025	4	4500	10	450
July 2025	7	6000	31	193.5483871
August 2025	8	6755	31	217.9032258
September 2025	11	18760	30	625.3333333
October 2025	16	27250	31	879.0322581
TOTAL	46	63265	133	475.6766917

- Key Feature:**
- 1. Strong seasonal demand peak in Oct.
 - 2. Premium items dominate revenue
 - 3. Allocate 60% focus to Gown & Lehenga designs

No. of Orders and Total Revenue



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INTERPRETATION & KEY FINDINGS



Sales Seasonality & Festival Impact:

- ❖ **Peak demand in Sept–Oct** during festival/wedding season; Gown & Lehenga orders.
- ❖ **Festival-driven growth confirmed** via trend analysis; 3-month moving averages smooth volatility and reveal consistent upward trajectory leading into Diwali.



Inventory Efficiency Gains:

- ❖ **Turnover rate analysis** reveals Kurta (3.2x), Lehenga (2.8x), Gown (2.3x) as fast movers needing 8–12 ready units.
- ❖ **Optimized stock levels by category** reduce blocked capital and improve cash flow; focus deep inventory on A-items, semi-stock for B-items, minimal for C-items.



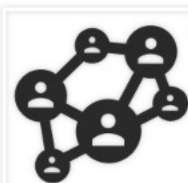
Premium Product Dominance (ABC Insights):

- ❖ Top-performing items **Class A items (Gown + Lehenga = 64% revenue)**.
- ❖ **Class B items Kurta + Saree = 20% revenue** with 26 units.
- ❖ **Class C items (One-piece, Top, Shirt = 15% revenue)** from 14 units.



Revenue & Payment Behavior Insights:

- ❖ **High correlation between Gown & Lehenga sales** (both peak in Sept–Oct), confirming they respond to same seasonal triggers and should be procured as a single portfolio.
- ❖ **One piece & Top show negative correlation**, indicating substitution; bundling them can balance demand and clear slower items.



Finalized Strategic Insights:

- ❖ **boutique** anchored in Gown & Lehenga (64% revenue) casual/experimental SKUs are supporting categories.
- ❖ **Digitalization from diary to Excel/Sheets** enables data-driven decisions on inventory, staffing, marketing and cash-flow planning vs. intuition-driven approach.

STRATEGIC RECOMMENDATIONS



Computerize Records

- Store the sku(stock keeping unit) for each item sold.
- Give every design a fixed SKU code and use it on all bills.
- Enter all diary orders into one Excel/Google Sheet.



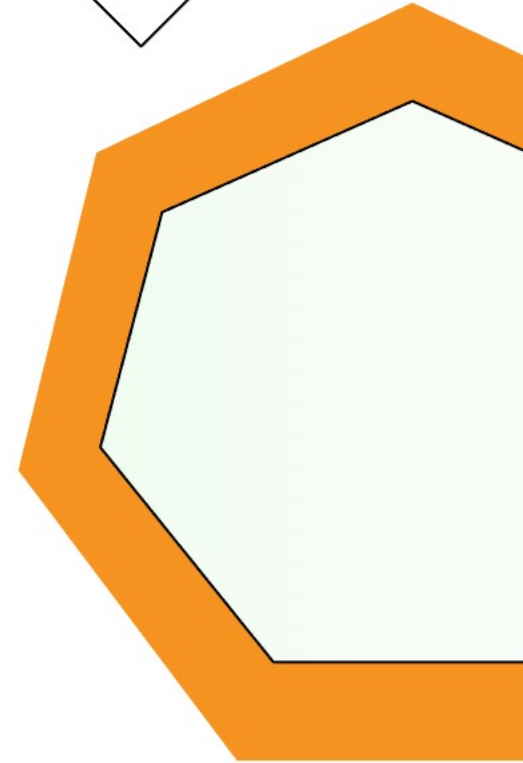
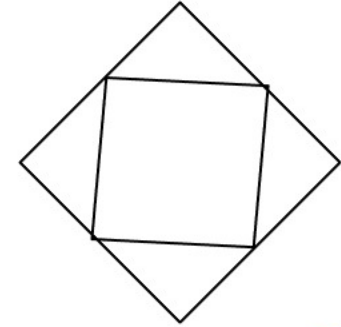
Season-Wise Planning

- Use monthly sales to spot peak months for lehenga/gown.
- Stock up before festivals; focus on casual/clearance after.



Customer & Order Analytics

- Maintain a customer list with contact and occasion.
- Apply ABC: A = Lehenga/Gown, B = Kurta/Saree, C = Top/One-piece/Shirt.
- Keep deep stock for A, moderate for B, minimal/made-to-order for C.





Thank You

