



BUSINESS DATA MANAGEMENT PROJECT

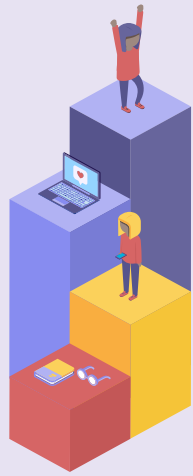
Enhancing Investment Rotation and Credit
Cycle Management for Optimal Performance
of Consumer Durables Distribution Firm,
Anuratna Corporation

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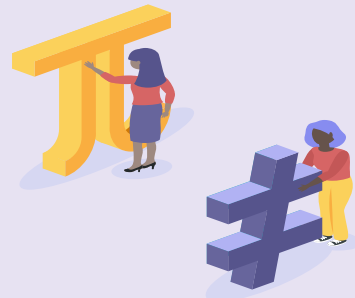
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BACKGROUND OF ORGANISATION



- Anuratna Corporation, located in Jaipur, Rajasthan, is a well-known **distribution firm** in the consumer electronics and durables sector.
- Type of Business: **B2B**
- It exclusively deals in **Sansui** brand products (i.e. Television and Washing Machine)
- Over the years, it has meticulously cultivated a robust network of several retail outlets in Jaipur, acting as pivotal touchpoints for their distribution endeavors.





UNDERSTANDING THE PROBLEMS



INVESTMENT ROTATION PROBLEM

- The firm struggles with **suboptimal investment strategies**, hindering its ability to generate satisfactory returns on capital.
- The aim is to develop a **comprehensive investment strategy** that **maximizes returns** while **minimizing risk**.



EXTENDED CREDIT CYCLE PROBLEM

- The firm faces **prolonged credit cycles that strain cash flow** and increase the risk of late or non-payments.
- The aim is to **implement efficient credit management processes** which will help reduce credit cycles and **enhance financial stability**.



PRICE WARS WITH COMPETITORS PROBLEM

- The distribution firm contends with **fierce price wars** in the market.
- Addressing **this issue proves challenging** as this firm is the sole distributor of SANSUI products in Jaipur and SANSUI itself fixes prices for the distributor to sell to retail outlets at.

DATA COLLECTED AND ANALYSIS USED

The following data was collected from the firm and used for analysis:

- **Inventory and Sales Data:**

- A. Classification of the firm's products into distinct categories, in this case, two: Television and Washing Machines, and firm's stock levels over the span of three years 2021, 2022 and 2023.
- B. The firm deals in distribution of only SANSUI products (i.e. Television and Washing Machine).

- **List of Sundry Debtors:**

- A. Catalog of dealers with debts to the firm.
- B. The data collected was of time periods- Apr' 22 – Oct' 22, Nov' 22 – March' 23, Apr' 23 – Oct' 23.

- **Market and Competitor Data:**

- A. The data consists of prices of different brands of TVs and Washing Machines in different sizes for which distributors of other companies were approached for their pricing per unit.

- **Firm's Credit Policies and Procedures:**

- A. Firm operates without a formal credit policy in place.
- B. Credit cycle duration is set at 30 days, indicating that customers have one month from the date of purchase to settle their outstanding balances.
- C. Credit Cycle 1: Ends at 30 days from Purchase Date, Credit Cycle 2: Starts at 31st day and ends at 60 days from purchase date and Credit Cycle 3: Starts at 61st day and ends at 90th day from purchase date.

The following approaches were used for analysis:

- **Payment Receipt Analysis:** It aims to understand **the relationship between payment receipt status of a dealer and the number of days since the purchase date**. By visualizing this relationship, the firm can gain insights into the frequency and severity of payment delays.
- **Model Performance Analysis:** It **includes an assessment of which TV and washing machine models are performing well**. This analysis helps in understanding product demand trends among dealers and identifying opportunities to optimize inventory management and marketing strategies.



GRAPHS, PLOTS AND KEY FINDINGS

For Apr' 22 – Oct' 22



For Nov' 22 – March' 23



For Apr' 23 – Oct' 23



Dealer Performance Heatmap

Dealer Name	Payment received for Apr 22, Oct 22(Yes/No)	Payment received for Nov 22, March 23(Yes/No)	Payment received for Apr 23, Oct 23 (Yes/No)
Agarwal Mobile & Cold Drinks	Yes	Yes	No
ANJU MARKETING	Yes	No	No
Ashoka Electronics , Shastri Nagar	Yes	Yes	Yes
Balaji Mobile (Mahya Nagar)	Yes	Yes	Yes
Balodia Electronics	Yes	Yes	Yes
Deepanshi Electronics	No	No	No
Deepak Mobile Centre	Yes	Yes	Yes
GLOBAL COMMUNICATION	Yes	Yes	Yes
Goyal Electronics	Yes	No	No
Hitesh Communication	Yes	No	No
Jai Shree Shyam	No	No	No
Kumawat Mobile & Electronics (Road No 2)	Yes	Yes	No
Madan Aircons	Yes	No	No
Marwal Mobile And Electronics	Yes	Yes	No
Mayank Communication	Yes	Yes	No
Mobile Expert	Yes	Yes	Yes
Nishant Electronics	Yes	No	No
PARSHAV ELECTRONICS	Yes	Yes	Yes
Raasha Enterprises	Yes	No	No
Radhika Air & Vision	No	No	No
Riddhi Siddhi Enterprises	No	No	No
Shree Salasar Electronics	Yes	Yes	Yes
Shree Shyam Electronics	Yes	Yes	No
Shri Govindam Electronics And Appliances	No	No	No
Shri Rashi Mobile Point	Yes	Yes	Yes
Sundram Telecom	Yes	Yes	Yes
TECHNO TREE	Yes	No	No
YADAV ENTERPRISES	Yes	No	No
Yash Communication	Yes	Yes	Yes

In Sunburst Charts: **Green color-coded** sections indicate Dealers who fulfilled their payments **within the first Credit Cycle**, **Yellow color-coded** sections indicate Dealers who fulfilled their payments **in the second Credit Cycle**, **Red color-coded** sections indicate Dealers who fulfilled their payments **in the third Credit Cycle** and **Blue color-coded** sections indicate Dealers who **took more than 90 days** to fulfil their payments.

The Dealer Performance Heatmap displays the names of sundry debtors/dealers against their payment status for each period mentioned. **Orange cells** indicate that the **due payment has not been made** for that period (which is indicated in the column heading). **Green cells** indicate that **the due payment has been paid** for that period (which is indicated in the column heading).

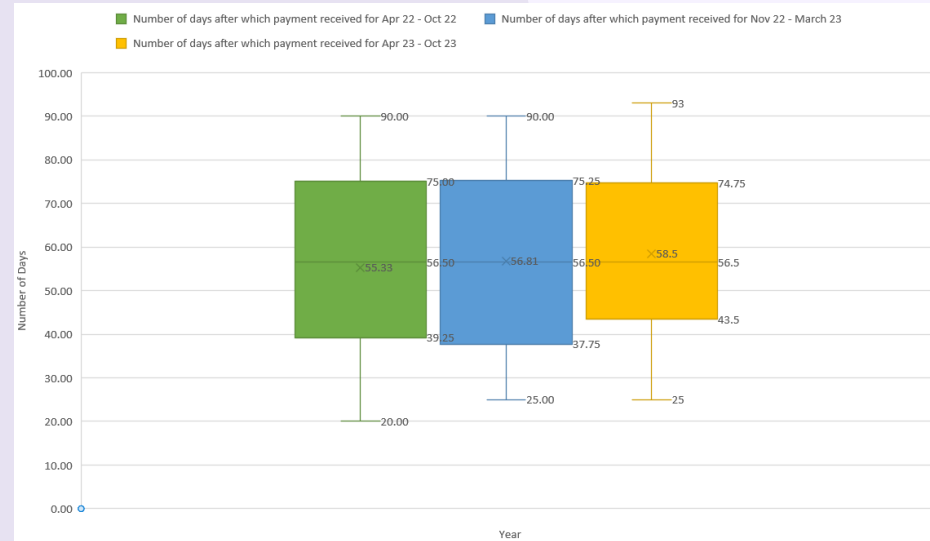
Inferences from the graphs:

- The analysis reveals a **decreasing trend in payment submission rates** over the observed periods. In April 2022-October 2022, 82.8% of dealers submitted payments, which decreased to 55.2% in November 2022-March 2023, and further dropped to 37.9% in April 2023-October 2023.
- A significant portion of dealers exhibits **a consistent pattern of non-payment**, with some dealers demonstrating non-payment across consecutive time periods.

GRAPHS, PLOTS AND KEY FINDINGS

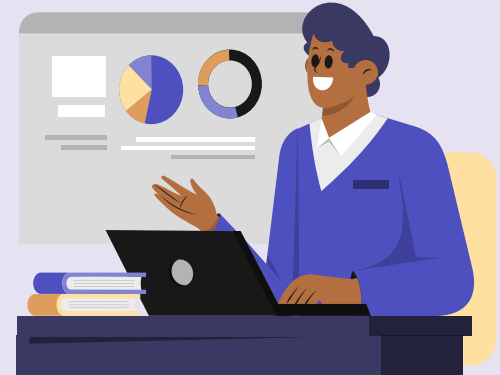
The Box and Whisker plot represents the number of days a dealer takes to submit their payment on the y-axis, with the year depicted on the x-axis. Each box plot is color-coded to represent different time periods:

- the green box plot represents the period from April 2022 to October 2022,
- the blue box plot represents the period from November 2022 to March 2023, and
- the yellow box plot represents the period from April 2023 to October 2023.

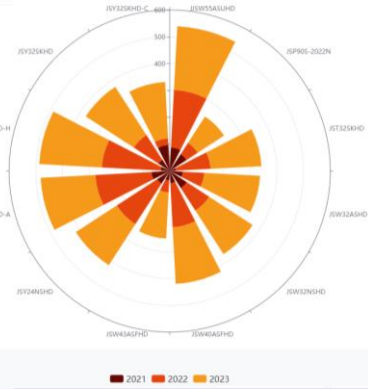


From the Box and Whisker Plot, it's evident that:

- The median payment submission time remains consistent across different periods, with dealers typically taking around 56-57 days to submit payments.
- However, there are slight variations in the first and third quartiles across the periods, suggesting some fluctuation in payment submission times among dealers.
- Overall, the data indicates a general pattern of payment submission times over the observed periods.



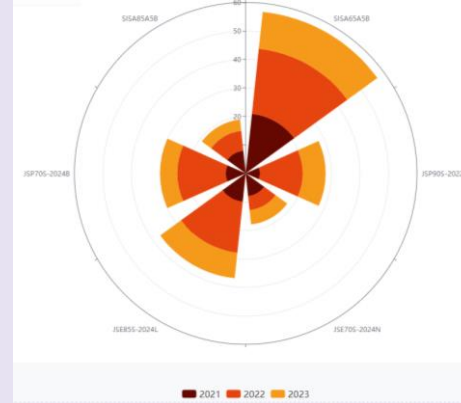
GRAPHS, PLOTS AND KEY FINDINGS



TV Models' Performance Analysis

	A	B	C	D
1		2021	2022	2023
2	JJSW55ASUHD	88	215	237
3	JSP90S-2022N	75	50	117
4	JST32SKHD	23	130	190
5	JSW32ASHD	49	80	209
6	JSW32NSHD	76	100	193
7	JSW40ASFHD	45	165	211
8	JSW43ASFHD	35	45	172
9	JSY24NSHD	56	180	182
10	JSY24NSHD-A	68	210	205
11	JSY32NSHD-H	34	220	234
12	JSY32SKHD	50	110	214
13	JSY32SKHD-C	97	25	210

Names and No. of TV Models Ordered throughout 2021-2023



Washing Machine Models' Performance Analysis

	A	B	C	D
1		2021	2022	2023
2	SISA65A5B	21	23	13
3	JSP90S-2022N	5	15	8
4	JSE70S-2024N	8	5	5
5	JSE85S-2024L	10	18	9
6	JSP70S-2024B	7	17	6
7	SISA85A5B	8	7	4

Names and No. of Washing Machine Models Ordered throughout 2021-2023

Important Observations that can be made from the above Stacked Rose Charts are:

- Model Stability-** TV Models such as **JJSW55ASUHD** and **JSW32NSHD**, WM models such as **SISA65A5B** and **JSE85S-2024L** maintain relatively **consistent demand across the three years**.
- Emerging Trends-** TV Model **JSY32NSHD-H** and WM model **JSE70S-2024N** show a **notable increase** from 2021 to 2022 and further growth in 2023.
- Declining Trends-** Some models experience **decreases in purchase/order over the years**, such as TV Model **JSP90S-2022N**, which shows a significant decrease in purchase from 2021 to 2022 before only a slight increase in 2023.
- Fluctuation in Preferences-** Some models exhibit fluctuations in purchases/orders across the years, such as WM Model **JSP90S-2022N** shows a **notable increase in purchase** from 2021 to 2022 **before stabilizing in 2023**. Conversely, **JSP70S-2024B** experiences a **decrease in purchase** from 2021 to 2022 **before a slight increase in 2023**.



PROPOSED SOLUTIONS



REALLOCATE RESOURCES TO POPULAR AND EMERGING MODELS

Allocate **more investments to popular and emerging** TV Models like JJSW55ASUHD, JSW32NSHD and JSY32NSHD-H and Washing Machine models like SISA65A5B, JSE85S-2024L and JSE70S-2024N.



EXPLORE ALTERNATIVE FINANCING OPTIONS

Explore alternative financing options such as invoice financing or factoring to mitigate the impact of prolonged credit cycles on cash flow.



IMPLEMENTING TIMELY PAYMENT INCENTIVES

- > A penalty of 9% should be applied if the debtor fails to settle dues within the first credit cycle. Why?
 - The 9% penalty aligns with industry norms.
 - It strikes a balance between incentivizing prompt payments and covering costs without being overly burdensome.
- > Additionally, offering a 3% discount for payments made within the first credit cycle can further encourage prompt settlements. Even within a 30-day cycle, a 3% discount remains valuable, differentiating credit terms and attracting debtors.



EXPECTED OUTCOMES



STRENGTHENED FINANCIAL POSITION

Through efficient investment allocation and credit management, the firm will enhance its financial position, reducing risks and improving long-term stability.



STREAMLINED CREDIT CYCLE

Improved credit management processes are expected to reduce credit cycles by a substantial number of days, enhancing cash flow and strengthening financial stability.

