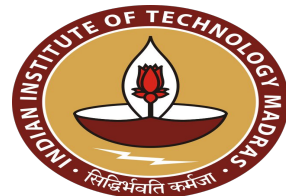

Strategic Insights for Submersible Pumps Sales and Resource Management

— Presentation for BDM capstone Project —

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ABOUT THE BUSINESS

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- HET PUMP is a prominent pump manufacturer in ahmedabad,Gujarat.
- It is ISO 9001:2015 certified company with 59% ownership by women directors.
- HET pump product portfolio contains S.drainage pump, s.dewatering pumps, horizontal centrifugal end suction bare shaft pump, s.sewage pumps,submersible pumps, centrifugal submersible pump, Abbrasive slurry pump, submersible borewell pump, vertical centrifugal sump pump,self-priming mud pump.
- Currently,HET pump also commenced supplying original equipment manufacturer pump for various raw water applications.
- Business Model: B TO B, B TO C.
- Vision: To establish indian-made quality product in global market.



Company Building



Testing Area



Finished Product

SWOT ANALYSIS

Strength 1)Quality of products. 2)New machines. 3)15-16 years market experience and expertise. 4)Logistically well-connected.	Weakness 1)Lack of skill workers availability. 2)Increasing manufacturing cost. 3)Market recognition in PAN india.
Opportunities 1)GoI Make in india's initiative. 2)GoI more focus on infrastructure and manufacturing base in india. 3)Opportunities in PAN india and global market.	Threats 1)Uncertainty in metal price.(Copper metal,cast iron, S.S,S.S 304,S.S 316, nickel) 2)Bureaucracy issue. 3)High competition and High worker's wage.

METHOD OF DATA COLLECTION

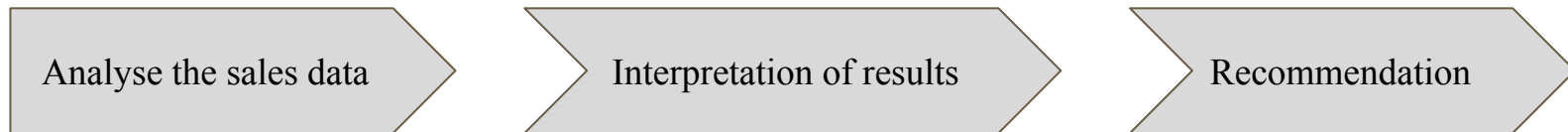
- 1)Personal visit to company and understand manufacturing process.(4 Times)
- 2)Video-call meeting with operational-in charge person.(4 Times)
- 3)Personal interview with operational- in charge person.
- 4)Analyze sales data,Material purchase data and inventory data.
(FY 2019-2020, FY 2020-2021, FY 2021-2022)

PROBLEM STATEMENT-1

Identify the Top revenue Generating Category:

- HET pump portfolio contain the various categories of pump.Challenges lie in identify the top revenue category.
- Analyze the season variation effect on sales of pump.

ROAD MAP



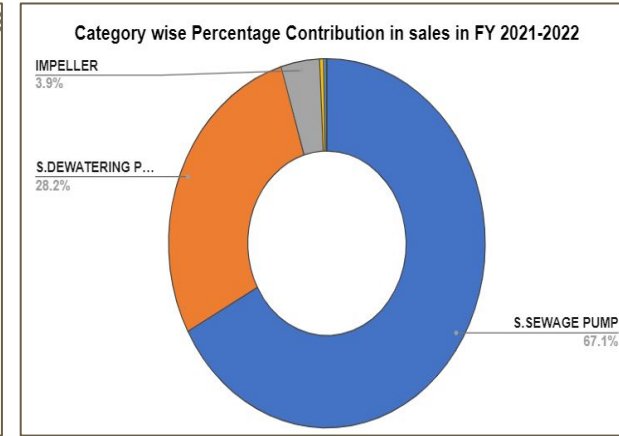
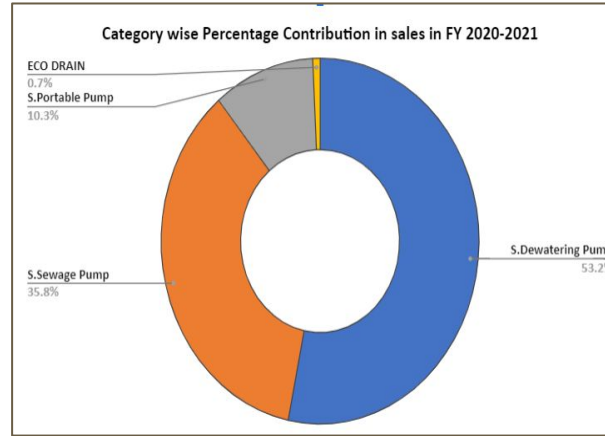
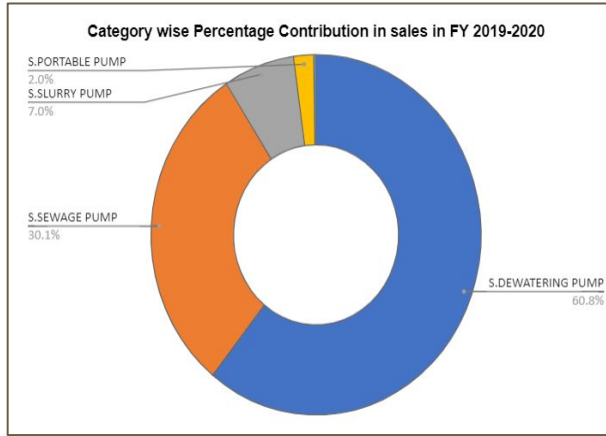
TOOLS

- Google sheet
- Google colab

INTERPRETATION OF RESULTS

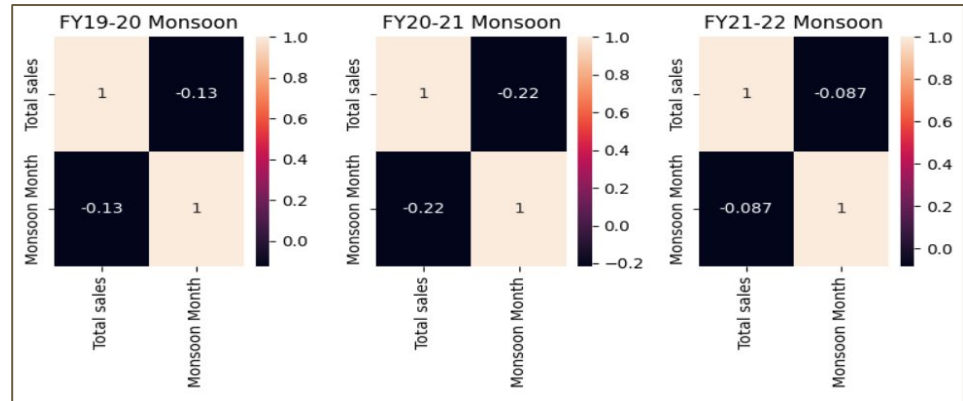
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Top revenue generating category



Season v/s Sales correlation analysis

- Negative correlation between sales and monsoon month.
- Original hypothesis, that the sales increase during monsoon is rejected.

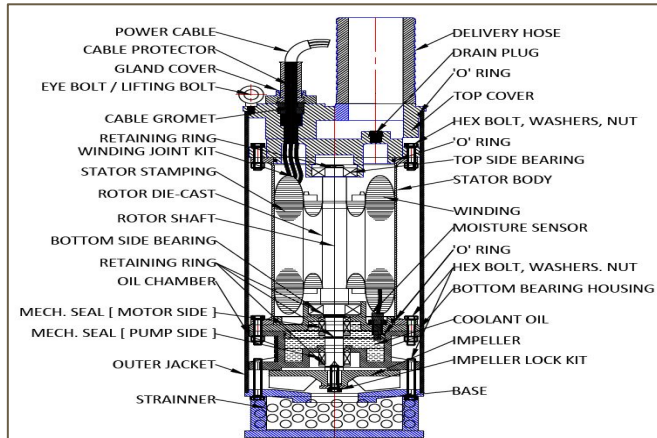


PROBLEM STATEMENT-2

Challenges in effective inventory management:

- HET pump portfolio contain the various categories of pump.
- Every pump category require different parts and some special material.so it necessary to optimize the inventory.

ROAD MAP



Cross section view of S. Dewatering pump

- 1st phase of pump production involve motor section.Motor section parts are expensive.Important phase in production process.
- 2nd phase is pump section.Pump section are moderate in value.
- 3rd phase is support/ hardware parts.These parts are least expensive.Least important phase in production process.

INTERPRETATION OF RESULTS

Motor Section-Category-A	Pump Section-Category-B	Support parts/Hardware-Category-C
Stator Stamping	Mech.seal (Motor side)	Power Cable
Rotor Die-cast	Mech.seal(Pump Side)	Cable Protector
Rotor shaft	Outer jacket	Gland Cover
Bottom side bearing	Strainer	Eye bolt/ Lifting Bolt
Retaining Ring	Impeller	Cable Grommet
Oil chamber	Impeller Lock Kit	Winding Joint Kit
'O' Ring		Delivery Hose
Top Side Bearing		Drain Plug
Winding		Hex bolt
Moisture sensor		washer
Bottom Bearing Housing		Nut
Coolant Oil		

In category-A control on inventory is tight, record maintenance must be accurate and purchase strategies must be just in time.

In category-B control on inventory is moderate, record of maintenance must be good and purchase strategies must be planned orders.

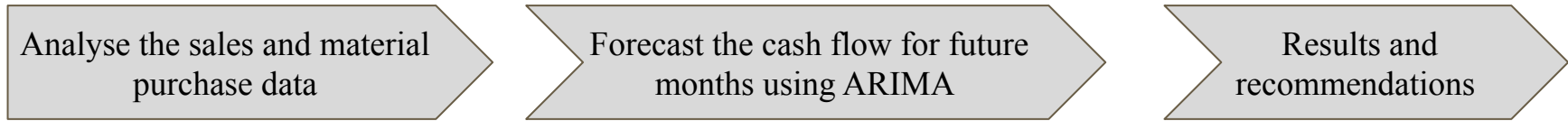
In category-C control on inventory is minimally controlled, record of maintenance must be simple and purchase strategy must be economical.

PROBLEM STATEMENT-3

Negative cash flow

- The current situation involve the immediate payment of vendors for raw materials, while the company extends credit terms to clients. This dynamic results in a negative cash flow situation.

ROAD MAP

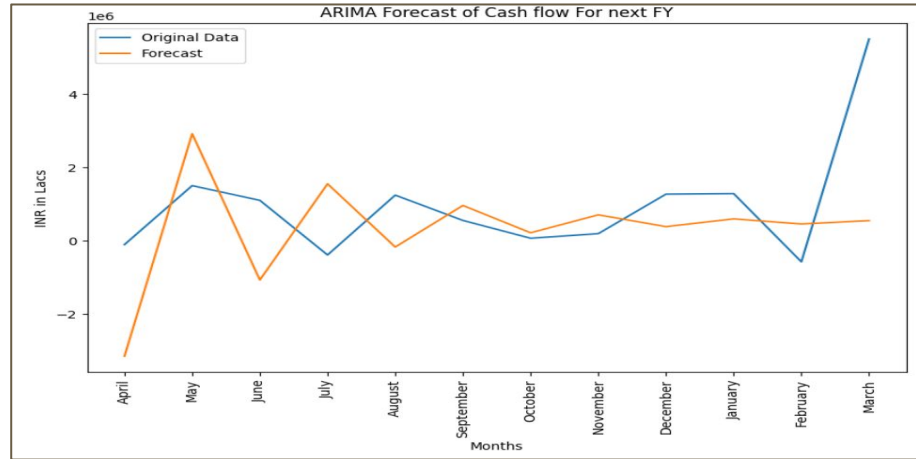
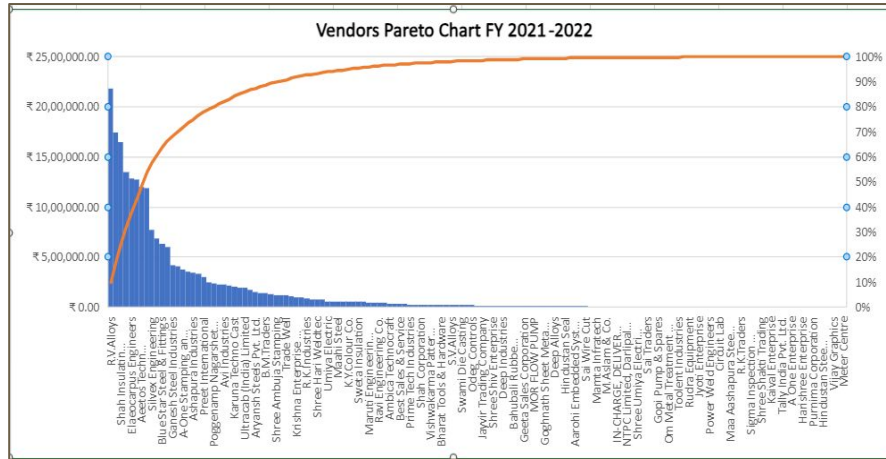
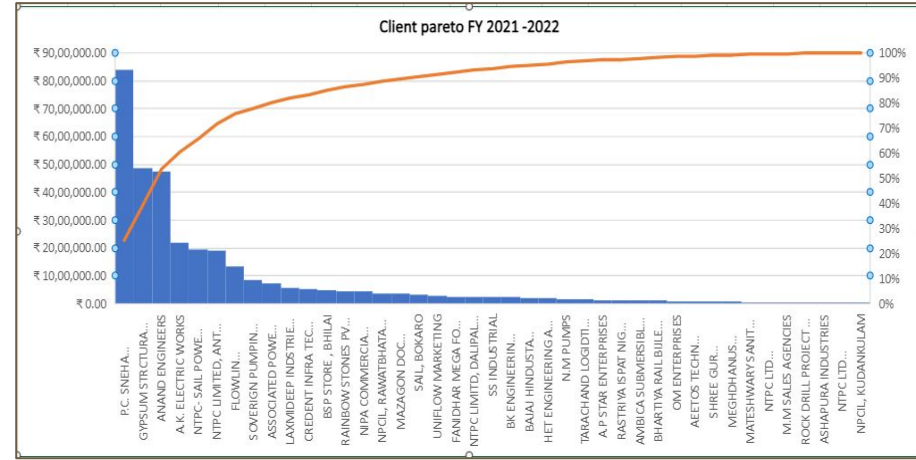
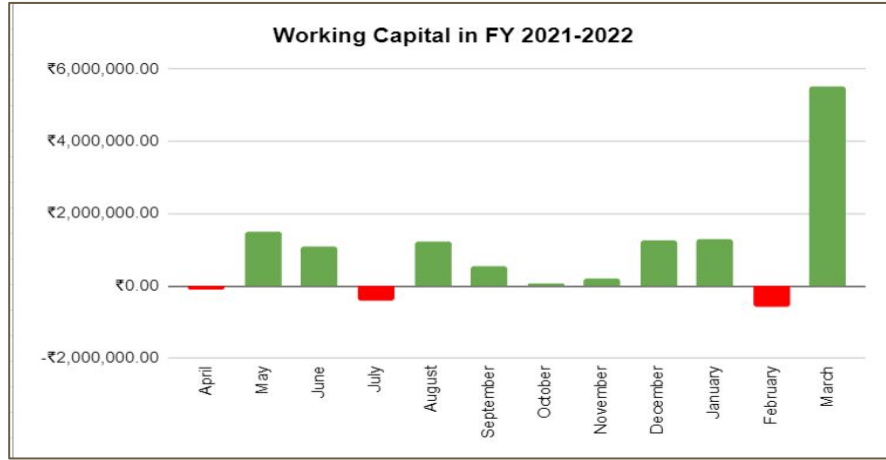


TOOLS

- Google sheet
- Google colab

INTERPRETATION OF RESULTS

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Top revenue generating category	Optimize the inventory management	Improve cash flow
Identify the new customer base in different demographics.	Calculate the safety stock for category-A and Category-B.	Improve credit terms with key vendors and increase the payment window time with them.
Get customer feedback within a revenue category to identify the area of improvement.	Reduce lead time for category-A and category-B.	Strengthen relationships with key clients like P.C.Snehal Construction PVT.LTD,GYPSUM Construction PVT.LTD.etc.
Invest more in R&D to enhance the performance of the product.	Reduce the holding cost and ordering cost for category-C.	Setting aside a financial buffer of 20% to 30% to cover negative cash flow months.
keep close monitoring on inventory of this category. Optimize the supply chain for this category.	Increase your vendor base,so you will get category-A parts in larger quantities at competitive prices.	Offer various discounts on early payment to clients,This will reduce the payment time cycle.