

Demand Planning Analysis

Division 2 - Team 6

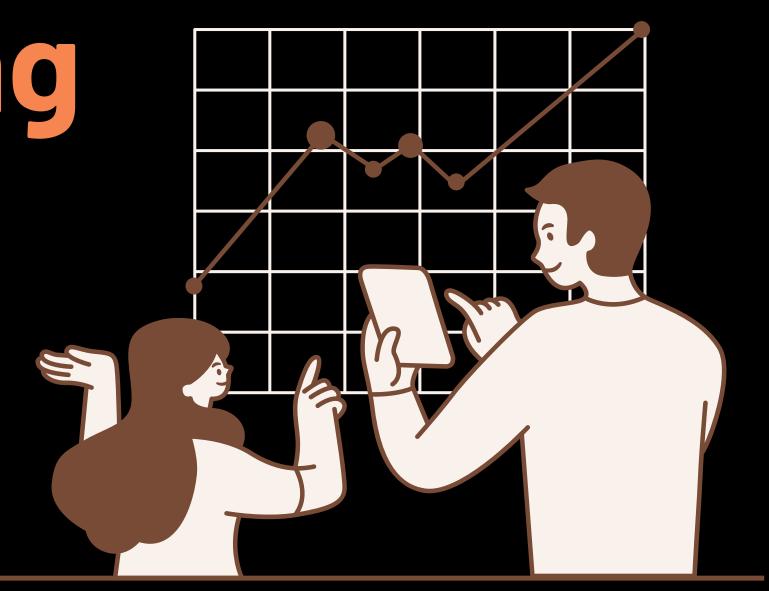




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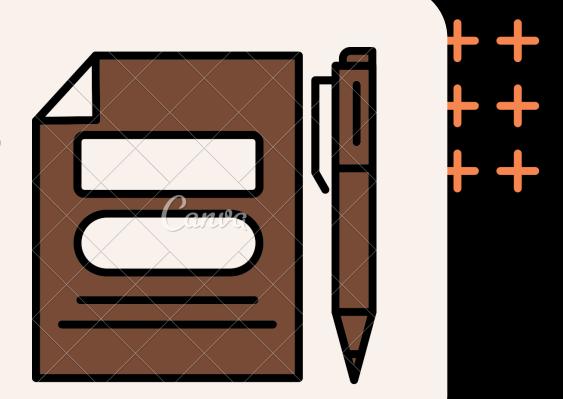




Executive Summary

To conduct the forecast number for the next one month (August 2022) for their stock item preparation in order to heightened company efficiency and increased customer satisfactory.

Therefore, based on the descriptive analysis, we found that the most proper method and approach to forecast the demand is by using Decomposition using Moving Average method.

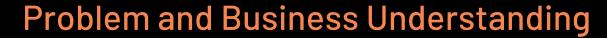




Methodology

Information Gathering

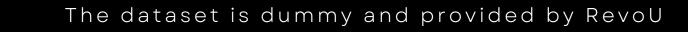
- Exploratory data analysis and forecast analysis
- Collects, integrates and analyses all relevant data and information



- Understanding project objectives and expected outcomes
- Creating analysis plan

Problem Solving and Recommendation

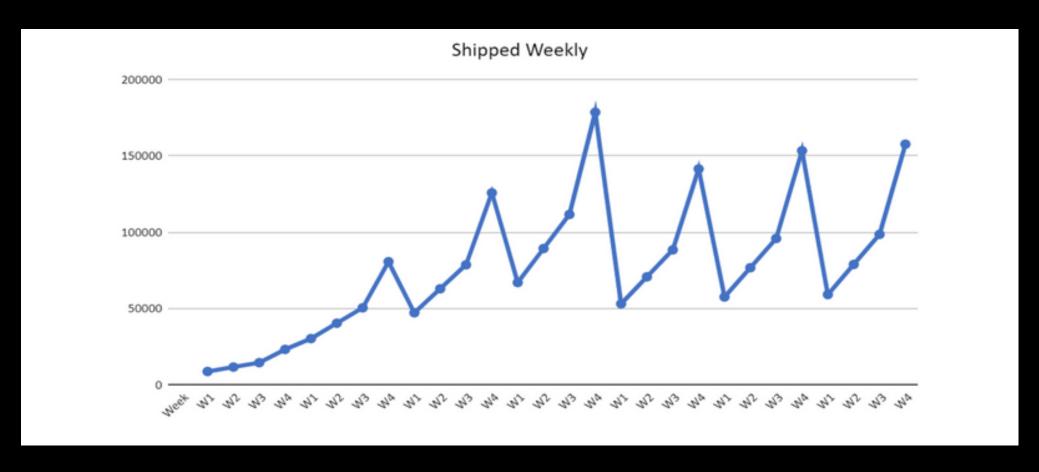
- Draw logical and objectives conclusion
- Identifies a number of solutions
- Priorities Solutions

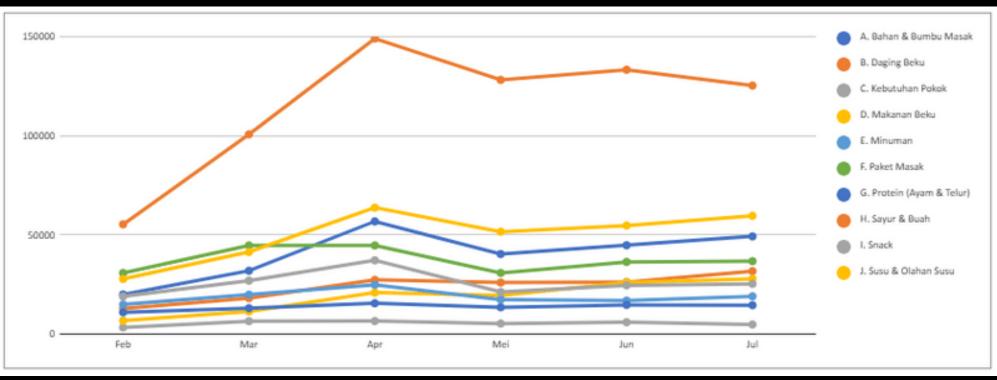


Milestone 3 O O O

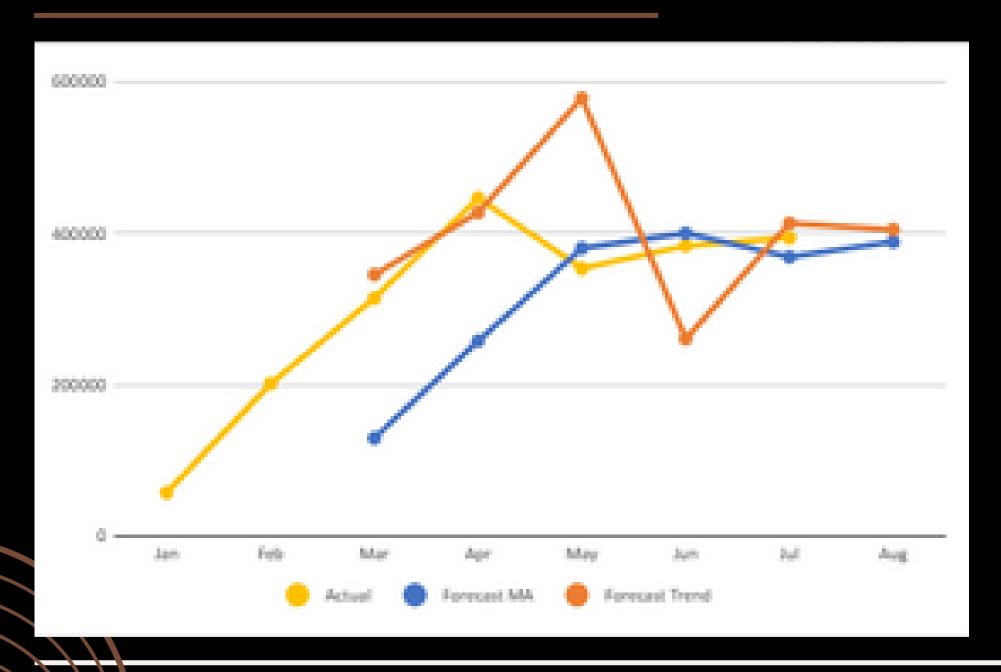
EDA and Trend Analysis

We chose to forecast based on product category view with weekly view for time series option. Based on chart trend per product category below, we can see that some of the categories didn't have same trend pattern.



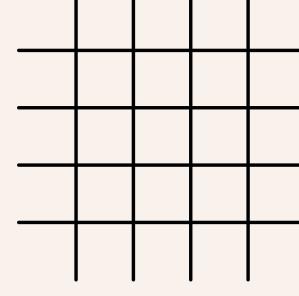


Forecast Analysis

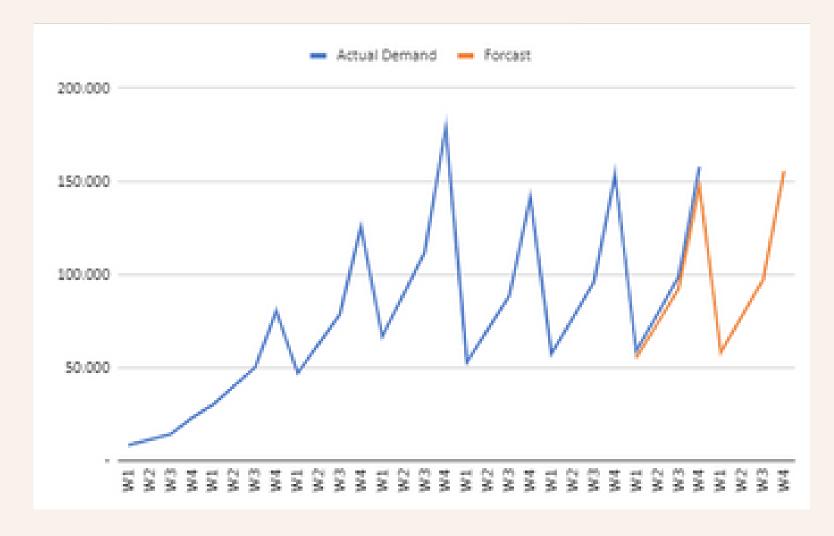


Based on the chart, yellow line represents actual data. Blue line represents forecase using moving average and the orange line represents forecast using trend. Using the data from previous 2 month, we can see that forecast using moving average method pattern is closer to the pattern of actual data.

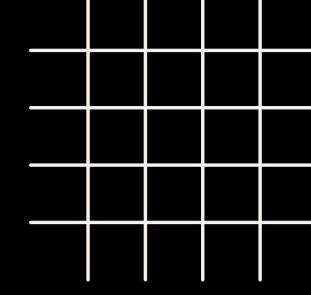
Stock Item Recommendation



Hub	Week	A. Bahan & Bumbu Masak	B. Daging Beku	C. Kebutuhan Pokok	D. Makanan Beku	E. Minuman	F. Paket Masak	G. Protein (Ayam & Telur)	H. Sayur & Buah	I. Snack	J. Susu & Olahan Susu
Α	W1	1156	1670	231	1424	538	892	439	2434	440	1178
Α	W2	1541	2227	307	1899	718	1189	585	3246	587	1571
Α	W3	1927	2783	384	2374	897	1486	732	4057	734	1964
Α	W4	3083	4453	615	3798	1435	2378	1170	6492	1174	3142



The graph shows the actual demand trend and the forecast for hub A in August. The table above shows the stock item for each product category that operation team should be prepared for shipping in August



Appendix

- Demand Planning Analysis
- **EDA Dataset**

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If you have any question, feel free to contact our team



Maman Setiawan LinkedIn



Galih Satriani <u>LinkedIn</u>



Tsabita <u>LinkedIn</u>



Bintang Candra A.S LinkedIn