# Power Up Division SA / Sales Report 2020-2021

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## Power Up Division S.A

Case Study 3: The Company annual sales decreased for a new brand Generator FG2600

Full Power Division S.A

## Introduction

Welcome to Full Power Division S.A data analysis case study! In this case study, I will perform many real-world tasks of a junior data analyst. I 'm working for Full Power Division, a Power technology service of Electrical Power.

## Scenario

I'm a junior data analyst working at the Sales department analyst team at Full Power Division SA a Power Technology Company involved in power distribution and generator service provider. From 2020 to 2021 we recorded a decreasing less than 60% of sales for our new brand genset FG2600 comparing to the previous year 2020. The sales department want to run an analysis to find the root cause of the decreasing for the year 2021 and to take action in order to get insights before ordering new arrival for the same brand (FG2600) I will present my analysis to the Full Power Division SA executive team along with high-level recommendations for the next arrival.

● Characters

○ John Briggs: Full Power Division SA 's cofounder and Chief Creative Officer ○ Jacques Pierillus: Chief Mechanical at executive team ○ Sales analytics team: A team of data analysts responsible for collecting, analyzing, and reporting data that helps guide the executive to take decisions.

## Ask

The Sales analyst asks me to analyze the sales for the year 2021 and 2020 for the generator Brand FG2600 in order to gain insight about the decreasing of the sales for the year 2021.

I will produce a report with the following deliverables: A clear summary of the quantity of generators (FG2600) sold per year A description of all data sources used Documentation of any cleaning or

manipulation of data A summary of my analysis Supporting visualizations and key findings My top high-level content recommendations based on my analysis

Case Study Roadmap - Ask Guiding questions

I'm helping the stakeholders finding the cause of decreasing of the sales for the year 2021

My insights will help them taking proper decisions before the next arrival

# Key tasks

Identify the business task: analyze the sales for the year 2020 and 2021 for the generator Brand FG2600 in order to gain insight about the decreasing of the sales for the year 2021 and taking decision before the new order.

# Prepare

● The Sales department give to me a complete data set on the annual sales from their own database Now, I will prepare my data for analysis using the following Case Study Road map as a guide: Case Study Roadmap - Prepare Guiding questions Where is your data stored? How is the data organized? Is it in long or wide format? Are there issues with bias or credibility in this data? Does your data ROCCC? How are you addressing licensing, privacy, security, and accessibility? How did you verify the data integrity? How does it help you answer your question? Are there any problems with the data? Key tasks I stored the data appropriately. Identify how it's organized. Sort and filter the data. 4. Determine the credibility of the data. The data is credible because it comes from their own database collected from the sales department and stored on MySQL database on a local server. Deliverable A description of all data sources used MySQL server / Web Application and Sales point Team Process Then, process your data for analysis using the following Case Study Road map as a guide: Case Study Road map - Process Guiding questions What tools I'm choosing and why? I choose Spreadsheets to clean the data because it is a small data set that contains delivery for 2 years not big at all for this project. Have i ensured your data integrity? Yes, I verify with the team and stakeholders about the integrity of the data. The steps taken to ensure that my data is clean? I checked for null, 0, duplicate, Types, and inspect each column to make sure that the values are correct. How can i verify that the data is clean and ready to analyze? Have i documented my cleaning process so i can review and share those results? Yes, I Created a Change log to help me keep on track.

# Charts Showing the decreasing sales for the year 2021

- [Chart_line]

- https://github.com/Datafix/jmogene/blob/main/powerup_sales_report_2021.png

- [Chart_bar]

- https://github.com/Datafix/jmogene/blob/main/summary_power_up_sales_report_2020_2021.PNG

I lead a survey to discover the root cause and correlation between the 2 years 2020 - 2021 of the decreasing of the sales. For the all 98 clients/re sellers. Please, see the below for a summary of the survey our expectation was about 90% as sample.
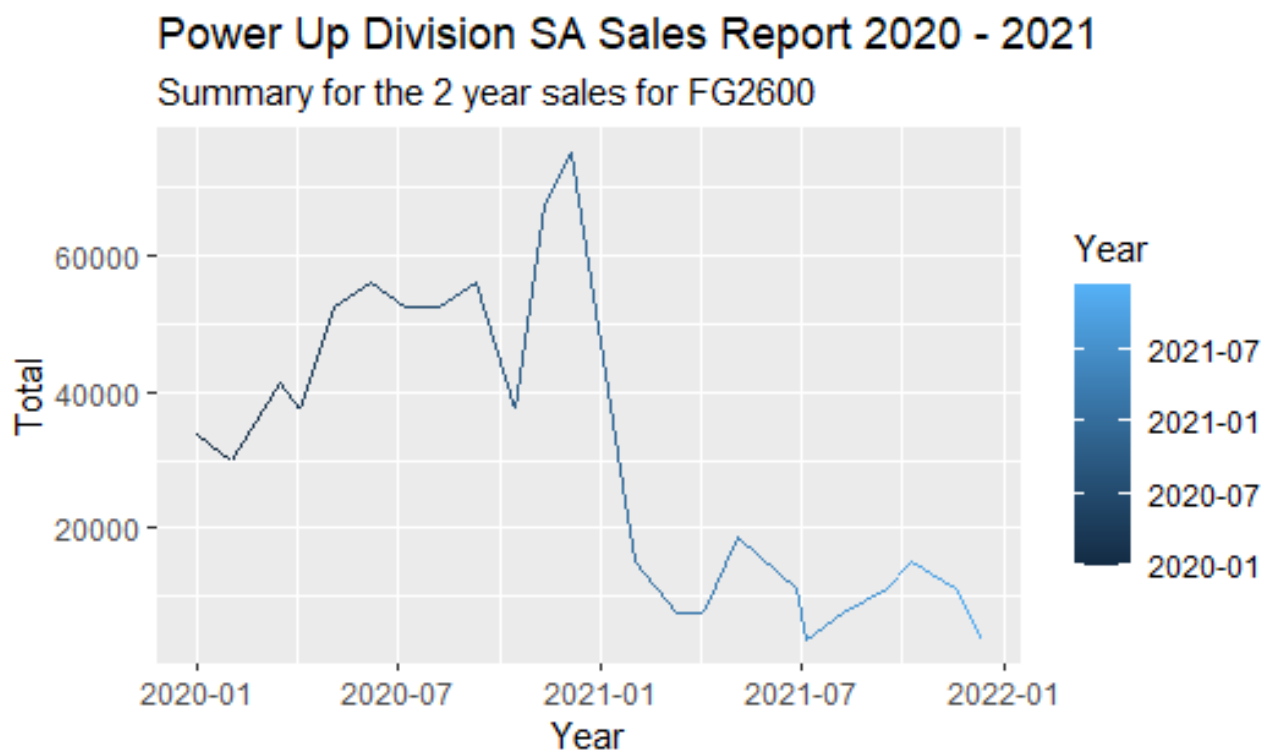
[Survey summary]

- https://github.com/Datafix/jmogene/blob/main/survey_power_up_division_2020_2021.PNG

# My Conclusion :

After the analysis of the sales report and data form the survey i realize that as follow

- 76.53% of the clients are not satisfied because of the high consumption of fuel

- 4.80% have no budget at the moment

- 3.60% Clients that have not bought a FG2600 yet

- 1.60% Claim that the price is too high

Based on the these data, we suggest that the Mechanical head lead a technical investigation to find the root cause of high consumption of the fuel on the generators FW2600 before placing any order from the external company for the coming years.



Power Up Division SA Sales Report 2020 - 2021
Summary for the 2 year sales for FG2600

Data Collected from sales department / imaginary data

- Note that the Documentations are generated using R Markdown, Chart_line created using, R tidyverse, ggplot2 packages except for the chart_bar and data cleaning using excel



Summary Report Power Up Division (Sales 2020-2021)



Surveying 98 Resellers /clients to find the cause of the sales decreasing for the year 2021.
(100% of the population sample)