

Analytics System to Improve Sales and Productivity

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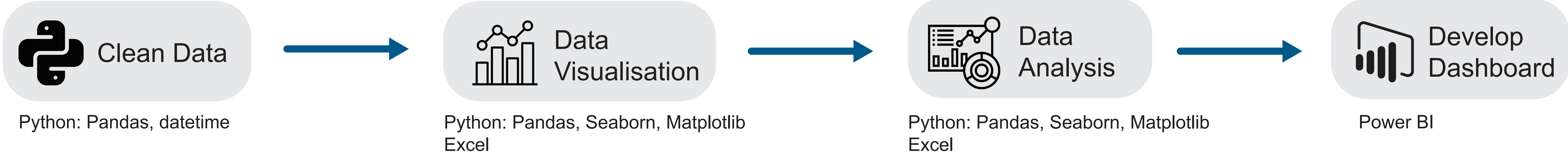


Established since 1977, Supermec Private Limited has been a niche electrical equipment manufacturer and distributor in the Asia Pacific & Middle East regions. They serve global needs for safety solutions by offering innovative, reliable and high-quality products and efficient services.

Problem: **Idle data** stored in **unconventional formats** prevents the use of **data analytics** in the business decision-making process

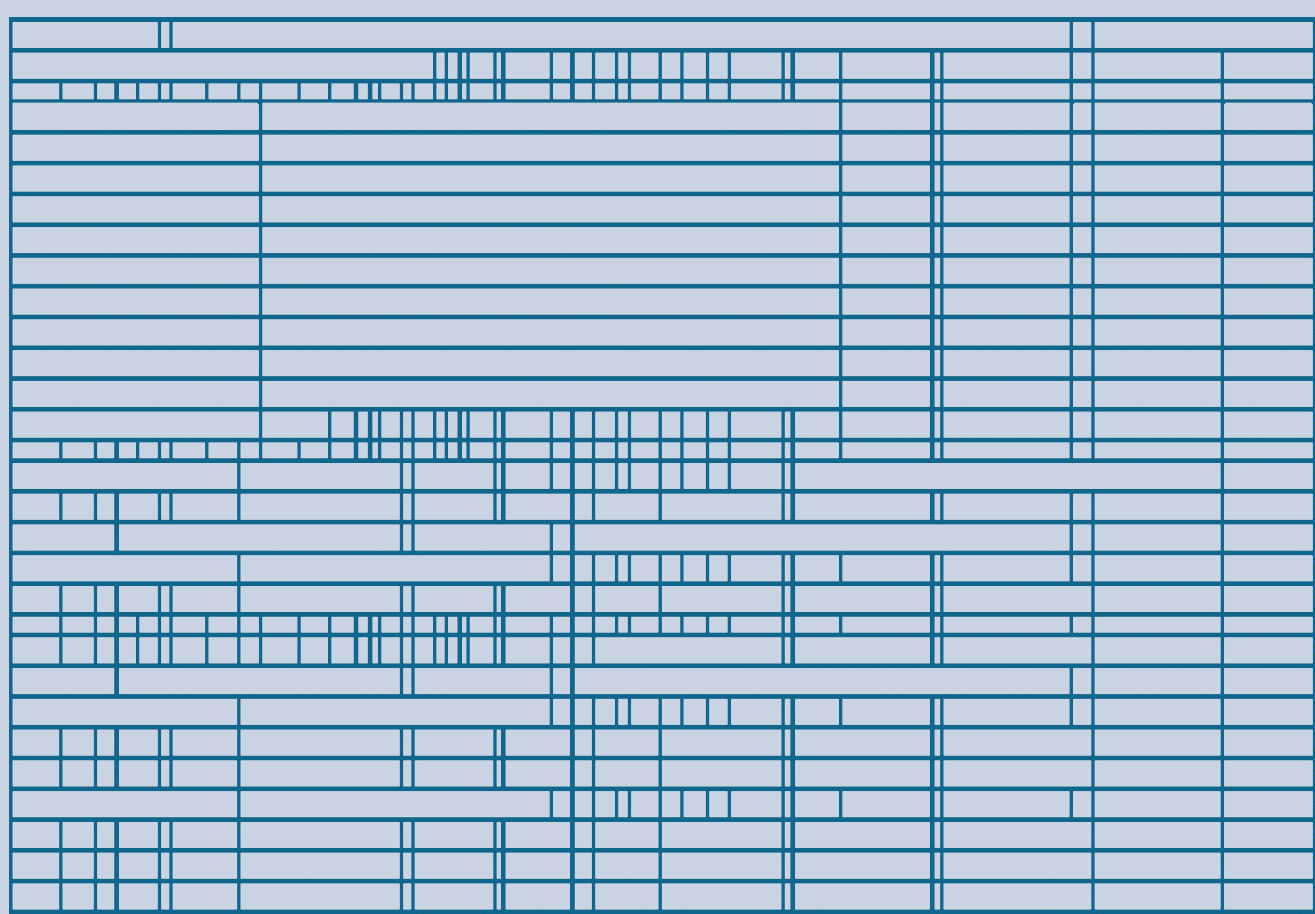
- Objective:** Showcase the benefits of adopting a data-driven approach in decision-making by
1. **Utilizing idle data** stored in the client's Enterprise Resource Planning (ERP) system
 2. Developing a **dashboard with KPI and metrics** for the management team

Methodology



DATA CLEANING

We were provided with **5 years of Sales and Purchase data**



Current Data Format

- Columns within rows
- Rows within columns
- Cannot be read with modern software

Automated Python Script

item	date	salesperson	customer	cost
...

New Data Format

- Stored in a conventional and standardised manner
- Allows client to conduct data analysis and visualisations easily

IMPACT: Script allows client to reformat new data on their own in the future.

Assumptions:

- Format of data stored in ERP does not change
- Currency conversion based on 10-year average rates

DATA ANALYSIS

We analysed **Revenue** based on **5 key variables** to determine their effects on the business

Revenue

COGS

- Track yearly performance

Item Type

- Make better decisions for inventory management

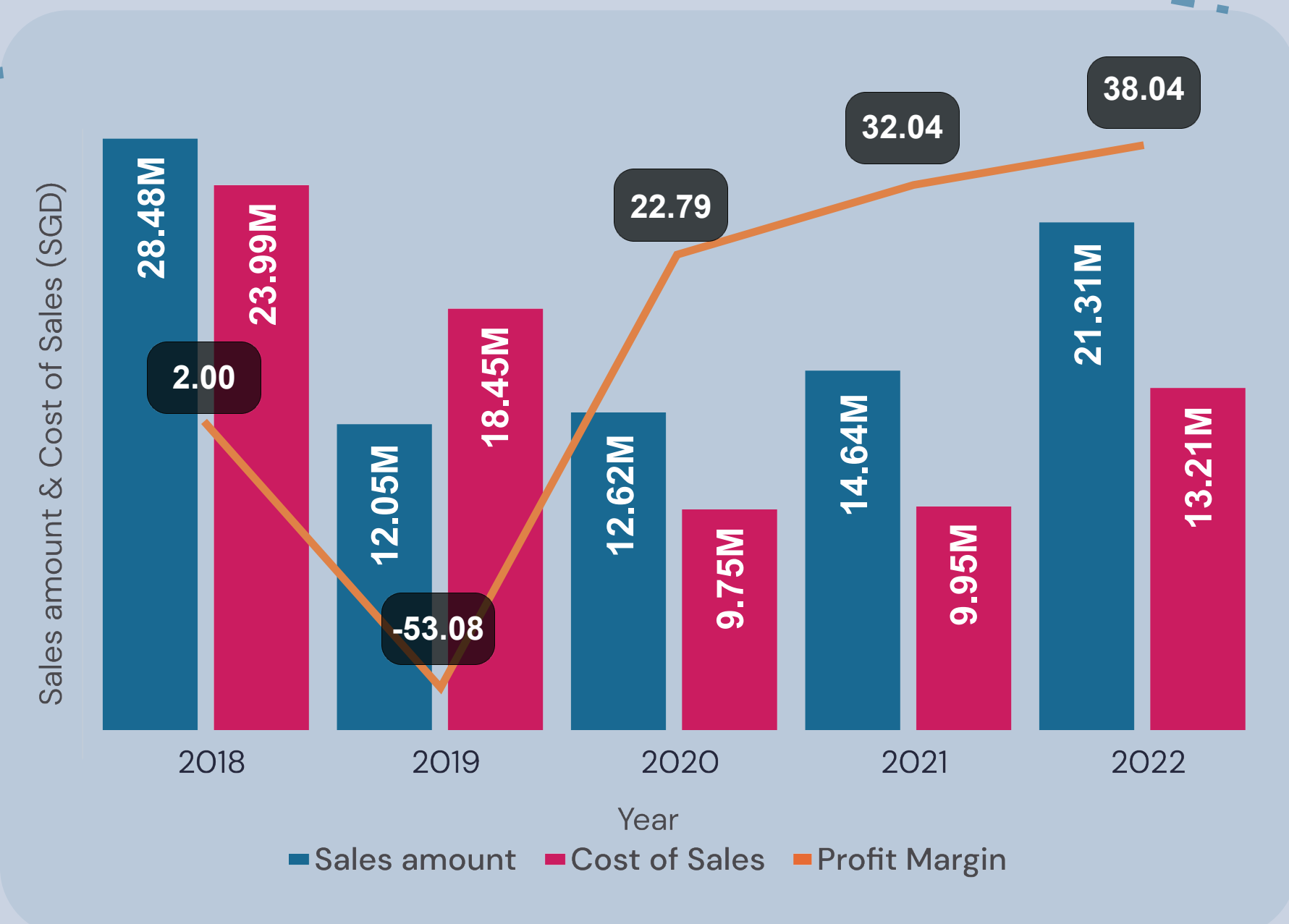
Item

Salesperson

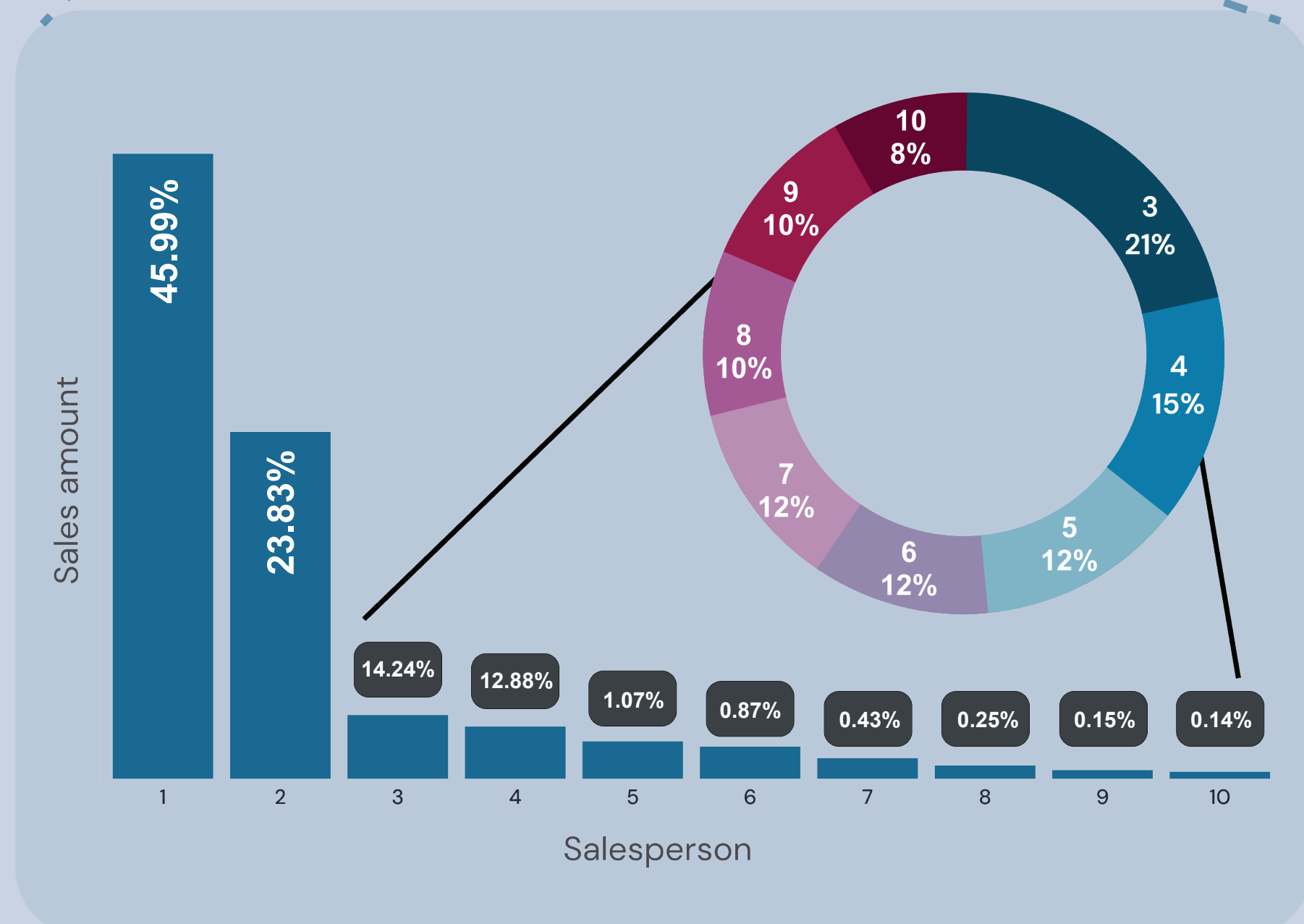
- Identify and reward outstanding employees

Customer

- Develop relationships with high-value customers



High-level snapshot of the business health and identify trends in total revenue and profit.



Across 5 years, Salesperson 1 can be identified as the top salesperson contributing \$14M to revenue.

FINAL SOLUTION

Features

Filters allow client to customise dashboard to display data points of interest.

Year, Quarter, Month	Salesperson	Item Type
All	All	All

Limitation: User has to reselect filters when changing pages due to Power BI software.

Individual KPI charts.

Detailed tables with actual values for inspection

Item Type	Sales Amount
C	40,096,481.20
X	17,675,231.02
O	12,679,966.04
M	6,763,386.67
R	6,721,688.12
D	842,242.35
Total	85,116,669.52

Tabs to switch between pages.

Contributions:

1. Python script enables Supermec to **perform data analysis** on new data.
2. Data analytics dashboard with identified KPIs enables Supermec to **make informed business decisions** based on variables that affect revenue.