

Data Warehouse Design and Analysis for MonEquip

Enabling Business Intelligence for Equipment Sales & Hire

Objective

✓Goal

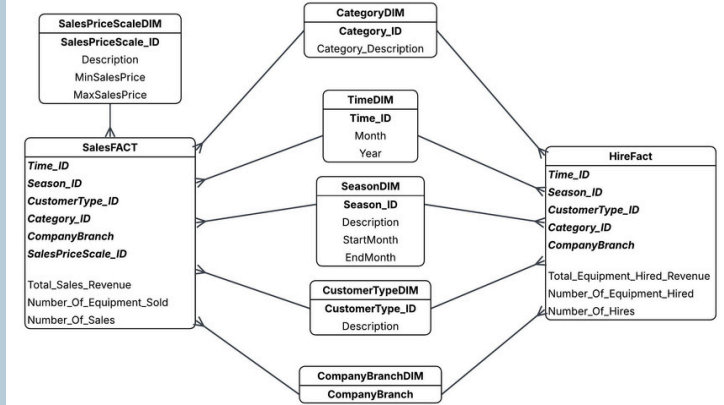
Design and implement a data warehouse for MonEquip to support BI reporting and trend analysis.



Data Cleaning Process

Check	Number of Issues Found	Action Taken
Data Duplication	2	Created new table with distinct rows; Removed duplicated rows
Invalid Foreign Keys	3	Removed rows with invalid references
Inconsistent Values	2	Standardized categorical values; Removed rows with invalid numerical values
Incorrect Values	2	Removed rows with wrong data entries
Null Values	1	Removed rows with 'null' string

Star Schema Design



This star schema has 2 fact tables: **Sales Fact Table** and **Hire Fact Table**. It also consists of multiple dimension tables that describe the attributes related to both fact tables.

This star schema is designed to highlight key indicators, such as **Total Sales Revenue**, and **Number of Hires**, along with their contextual dimensions (e.g., Time, Season, Customer Type, etc.) to enable comprehensive data analysis.

Descriptive Analysis

\$11,583,050
2020 Total Sales Revenue

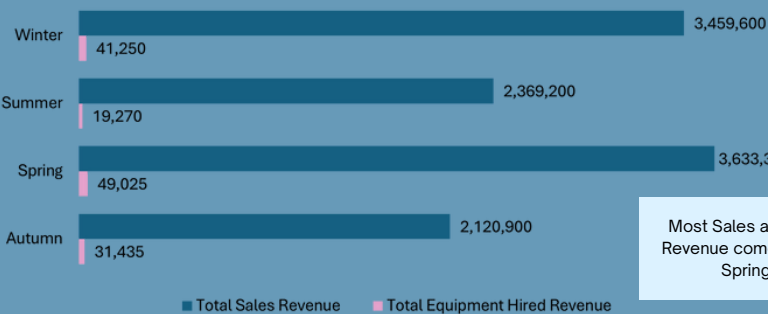
↑ **\$8,396,650**
↑ **263.52%**
From End Of 2018:
\$3,186,400

97.3%
of Total Sales Revenue
were generated from
HIGH SALES

\$140,980
2020 Total Hire Revenue

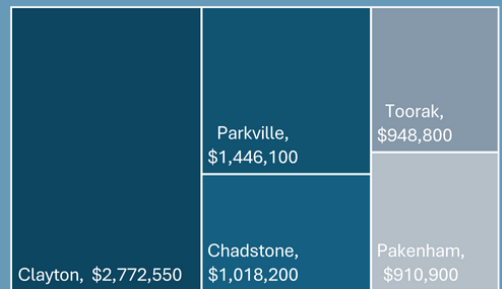
↑ **\$95,370**
↑ **209.10%**
From End Of 2018:
\$45,610

Total Revenue by Season

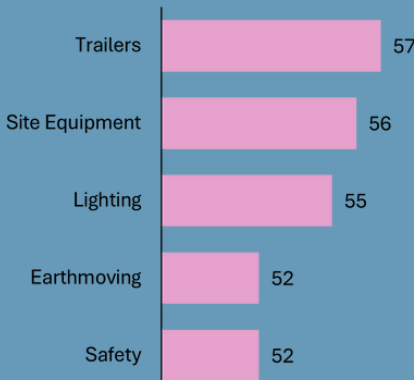


Most Sales and Hire Revenue come during Spring

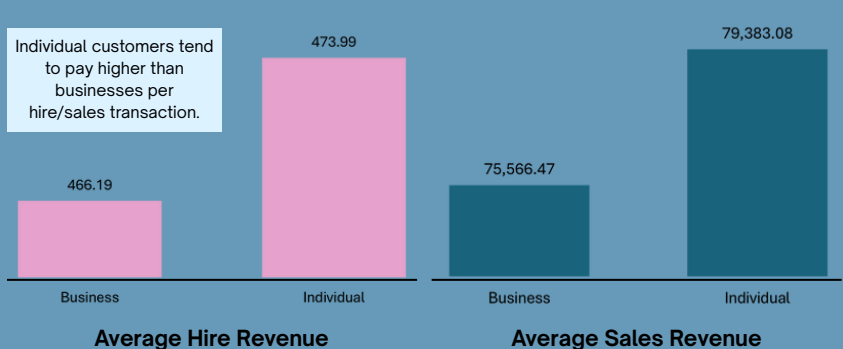
Top 5 Company Branch with Highest Total Sales Revenue



Top 5 Most Hired Equipment Category



Average Revenue By Customer Type



Individual customers tend to pay higher than businesses per hire/sales transaction.