

# BAIT 3013 BUSINESS INTELLIGENCE

## Sales & Purchase Performance: A Quick Analysis



Programme : RMM (Intake:202006)

Tutorial Group : G2

Group name : Three Monkeys

Student : Fong Wei Chen, Eng Wei Hang, Wong Ke Ying

# HOTAYI



# BACKGROUND

A company leading Global Electronics Manufacturing Services (EMS)

Offer high value manufacturing solutions and services since 1992.

Two Branches

- Bukit Tengah
- Batu Kawan

Certified with IATF 16949, ISO 9001 and ISO 14001

Product serving Divided in 7 categories

- Automotive
- Storage device
- Consumer
- Communication
- Industri equipment
- DRAM modules
- Optical

Service provided

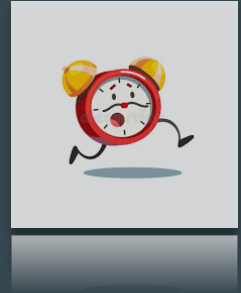
- Supply Chain Management
- NPI Program Management
- Quality Management
- Traceability and Data Management

# PROBLEM STATEMENT

**Manual Bookkeeping System** to record business transactions and financial records

Problem facing

- Pooling data process -----> **Troublesome and time Consuming**
- Delay in providing a real-time analysis result
- Delay the process of reporting critical information
- Difficult in assessing their sales & purchases performance
- Difficult in making decision of procurement and sales
  - Wasn't able to select the best supplier
  - Difficult to compare sales margin
  - Can't determine their best products and customers



# PROJECT SCOPE

Use BI software (tableau)

- solving the technical problems faced
- analyzing the sales and purchase data
  - Show the sales and procurement overview in each year
  - Find out the top few vendors and top items purchased
  - Find out the top customers and best sales products
  - Analyze the delivery performance of Hotayi and vendors
  - Predict sales and purchases performance in the next three years
  - Calculate total sales margin earned and year over year growth rate



# DATA REQUIREMENT

Data set provided by **Hotayi**

- Categorized
  - ◆ Sales data
  - ◆ Purchases data
- Insufficient data
  - ◆ Contract date → Purchase table
  - ◆ actual received date → Sales table
- Perform data cleaning



# DATA REQUIREMENT (Purchase)

Data Name	Data Description	Data Type
Purchasing Doc No	Purchasing document number	String
Receipt Date	The date the materials purchased were received	Date
Contract Date	The date the materials are promised to be shipped out	Date
Project Code	Project ID	Integer
Vendor No	Vendor ID	Integer
Receipt Amount	Amount paid for the purchases	Float
Country	Country of the vendor	String
Trade Term	Trade term (can also call terms of shipment)	String

# DATA REQUIREMENT (Sales)

Data Name	Data Description	Data Type
Sales Doc No	Sales document number	String
Shipping Date	The date the products were shipped out	Date
Actual Received Date	The date where customer received the materials	Date
Customer No	Customer ID	Integer
Project Code	Project ID	Integer
Sales Amount	Amount earned from the sales	Float
Country	Country of the customer	String
Transport Type	Type of transport used for shipment	String



**Change to Tableau**

# ADVANTAGES AND DISADVANTAGES

Dashboard 1 & 7

(Descriptive Analysis)

Dashboard 2,3,4,8,9 & 10

(Diagnostic Analysis)

Dashboard 5 & 11

(Predictive Analysis )

Dashboard 3 & 6

(Prescriptive Analysis)



# DASHBOARD

## Descriptive Analysis

- Used to describe the basic features of the data in a research
- Simplify large amounts of historical data

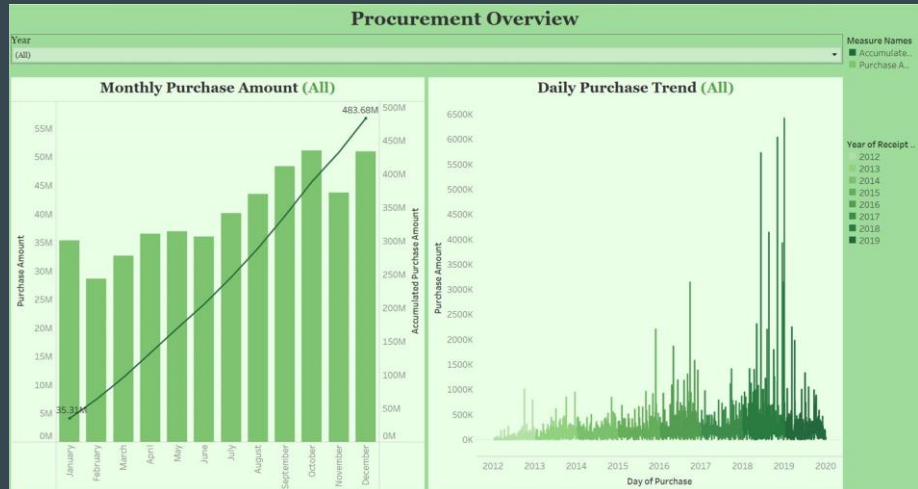
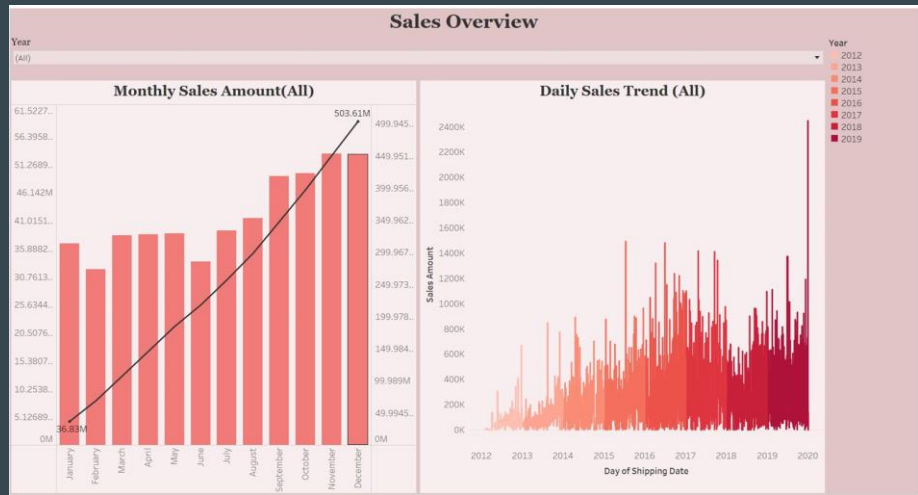
**Advantages** > Displays all the things at a glance

**Disadvantages** > Will be messy when there is a large number of data



## Diagnostic Analysis

- Takes one step further of descriptive data
- Provides insight into the reasons behind the current situation that is happening now
- Explore the data and make correlations between each data

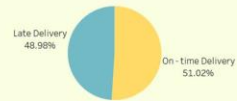




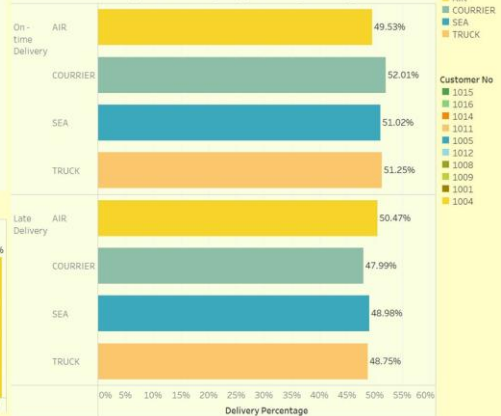
- Able to determine the major factors
- Provide a clear brief review of the analysis

### Customer Delivery Performance

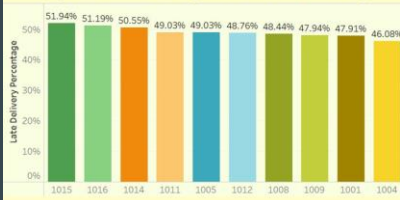
#### Delivery Performance Percentage



#### Delivery Percentage by Transport Type



#### Top 10 Customers experienced Late Delivery

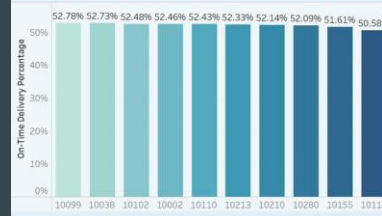


### Vendor Delivery Performance

#### Delivery Performance Percentage



#### Top 10 On-Time Delivery Vendors

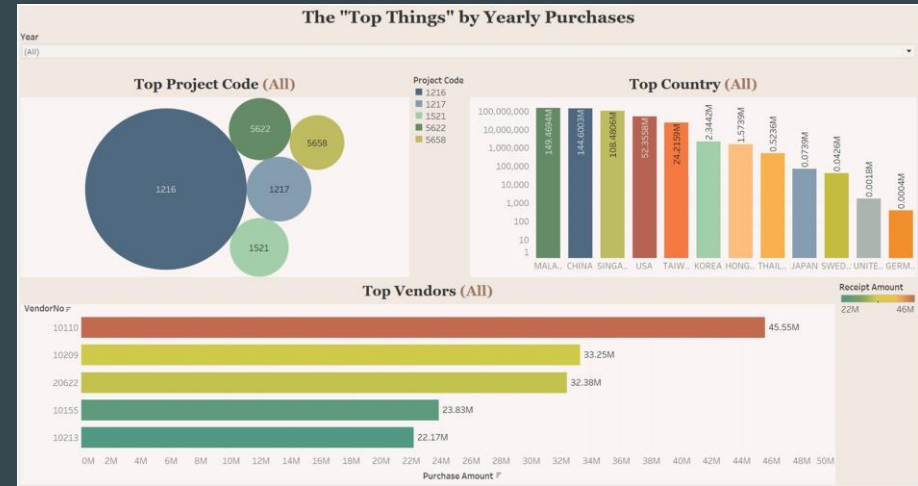
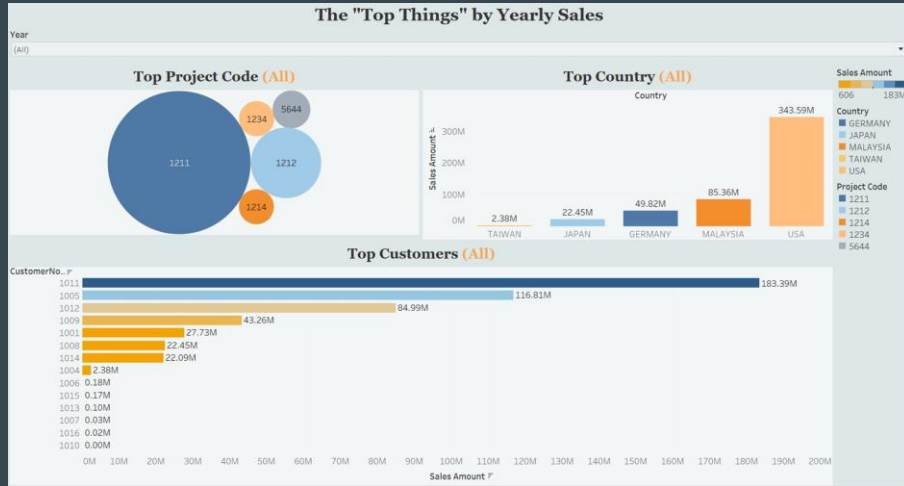


#### Delivery Percentage by Trade Term



## Disadvantages

- Some invalid data or the missing value will become null value
- The accuracy will be affected



## Predictive Analysis

- Takes historical data and current data to predict future trends and what will happen next
- Estimate the following year trend performance



Advantages > Have an idea of company future growing

## Disadvantages

- > Analysis can be misleading
- > Predictive models are not always 100% accurate

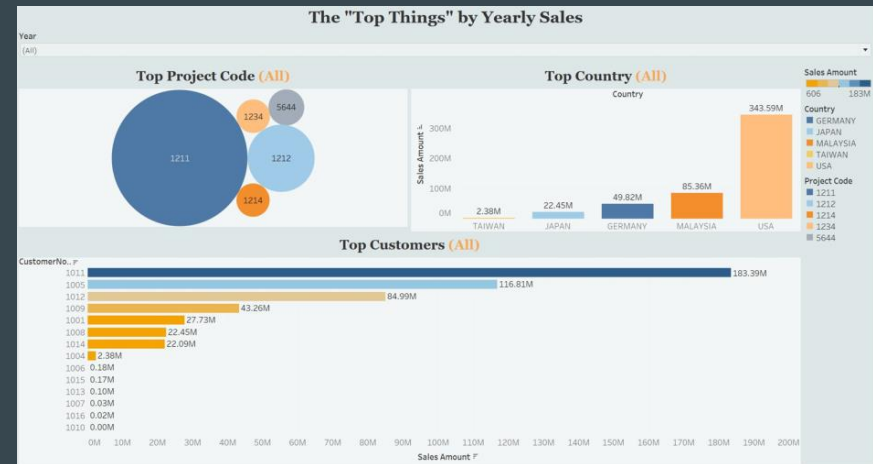
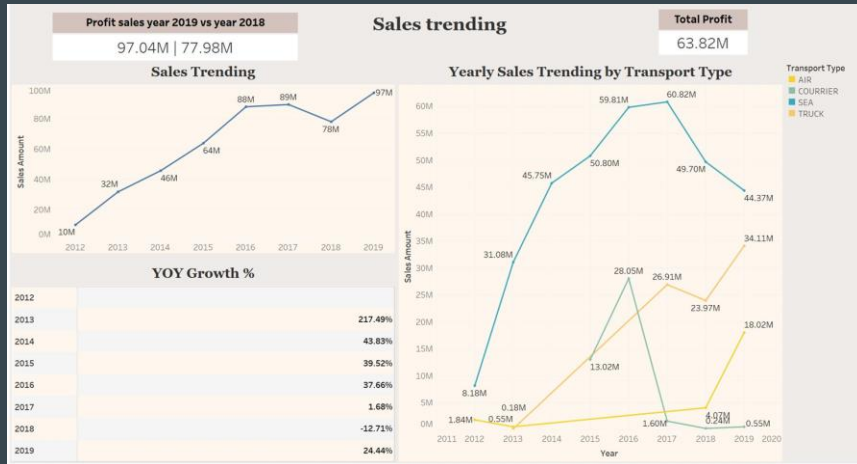


## Prescriptive Analysis

- Takes predictive data to the next level
- Recognize the past performance, current trends, and possible forecasts
- Suggest and provide decisions, action or strategy to achieve the best performance

**Advantages** > Helps users to make better decisions

**Disadvantages** > There is no disadvantages





# CONCLUSION



Problems **solved** using Tableau

- Provides timely insights **without consuming** much time
- Able to identify business performance
- **Increase the speed** of process of reporting critical information
- Analyze the sales & purchases performance in a short period of time
- It can suggest and recommend better decision making to boost the performance

# THANK YOU !!!

