P552 MANUFACTURING

Presented by Group-05

ExcelR

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Overview

Summary

KPI's

KPI Card

Excel
Dashboard

Tableau
Dashboard

Overview
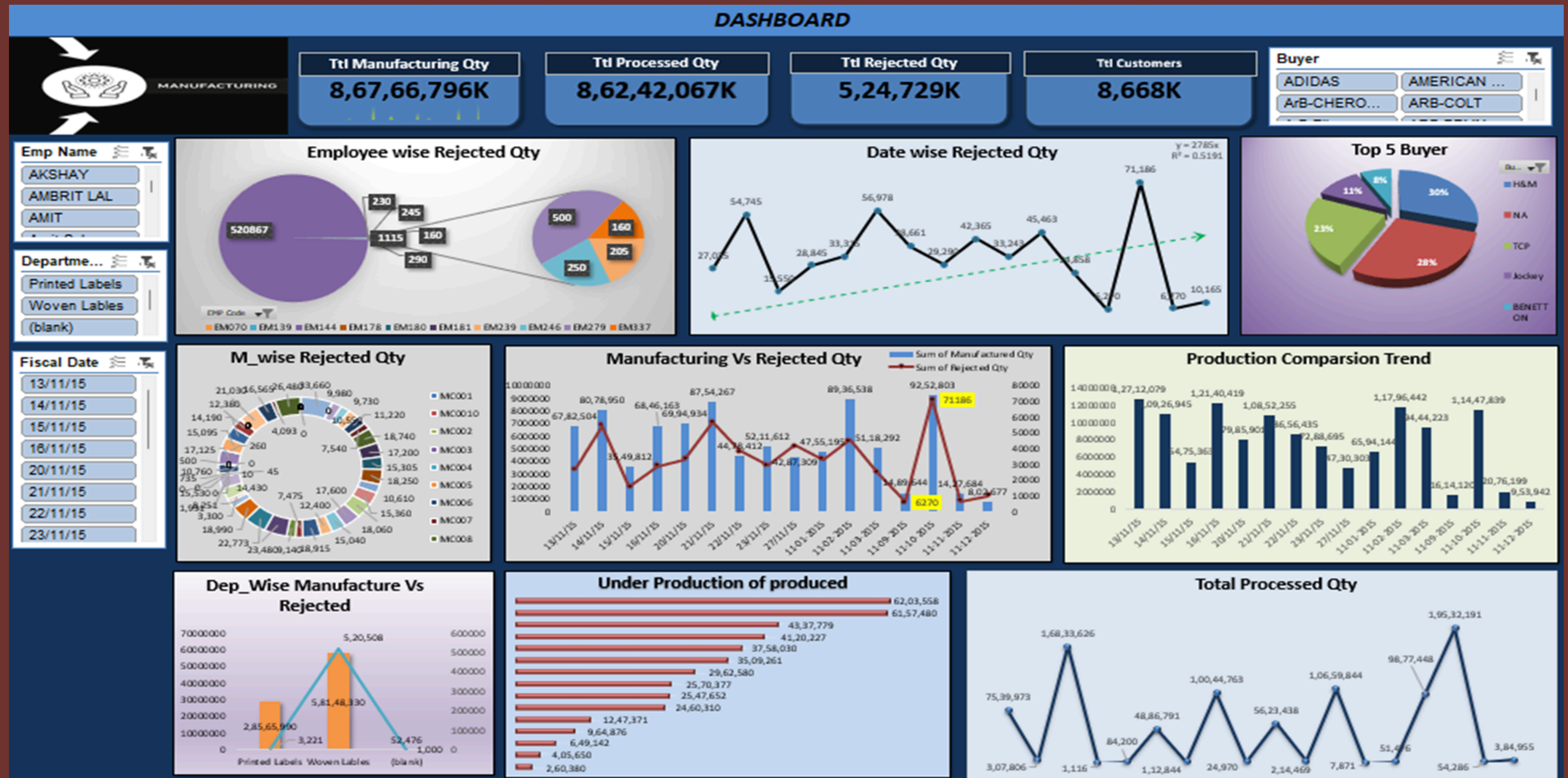Page

Power BI

SQL Query
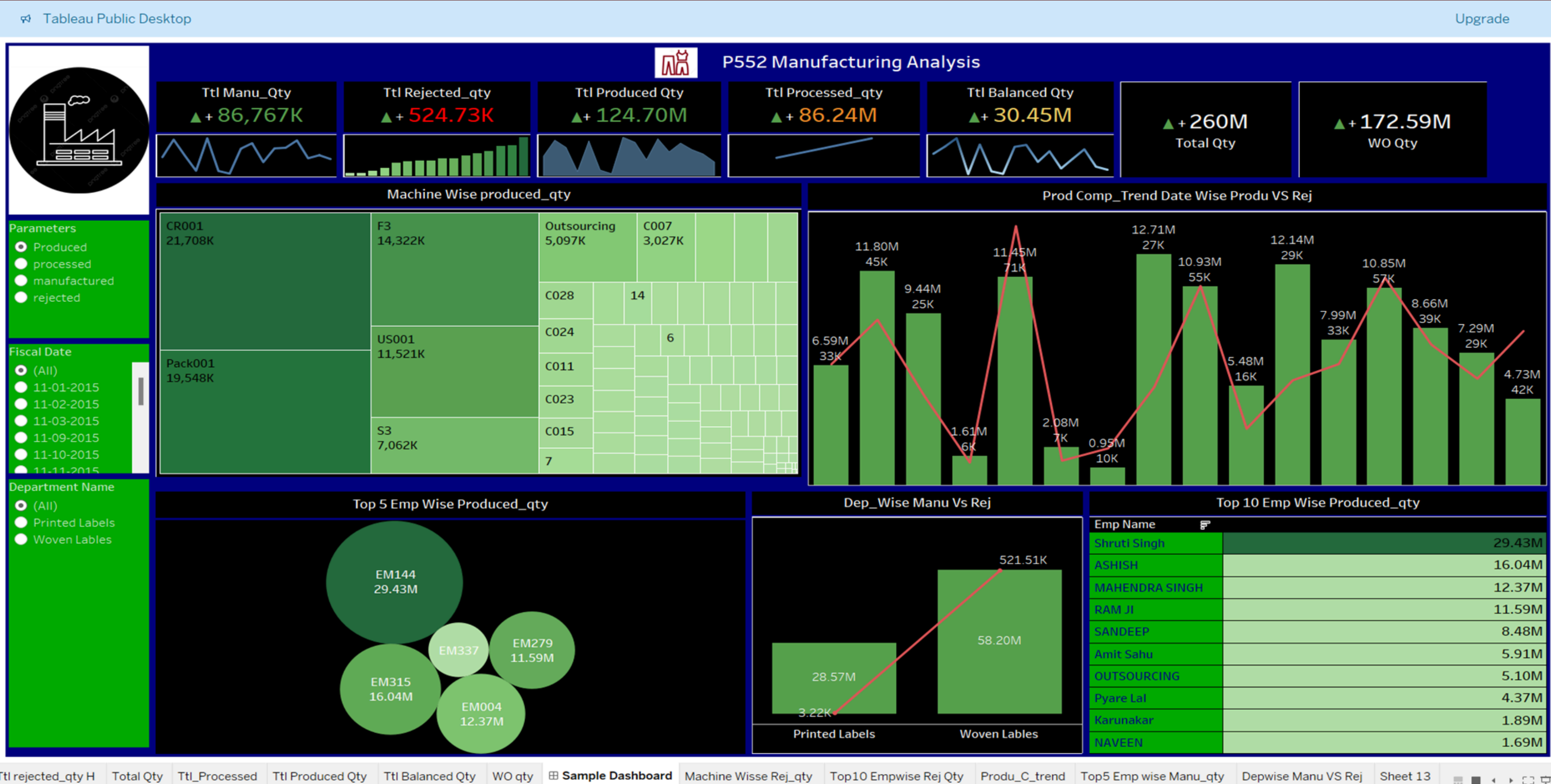
Key Point

Thank You

Implementation

Summary

- P552-Manufacturing Analysis involves analyzing the various processes involved in manufacturing a product or part, including materials sourcing, production methods, quality control, and cost analysis.
- By examining each stage of the manufacturing process, companies can identify areas for improvement, increase efficiency, and reduce costs. This analysis helps companies optimize their production processes to meet customer demand and maintain a competitive advantage in the market.
- Additionally, manufacturing analysis can also help companies identify opportunities for innovation and new product development.
- This analysis also focuses on identifying inefficiencies in the production process and finding ways to improve them.
- This includes reviewing production data, identifying bottlenecks, evaluating equipment performance, and optimizing workflows. By analyzing manufacturing processes, companies can increase productivity, reduce costs, and improve overall efficiency.
- Through continuous monitoring and analysis, businesses can make data-driven decisions to enhance their manufacturing operations and stay competitive in the market.

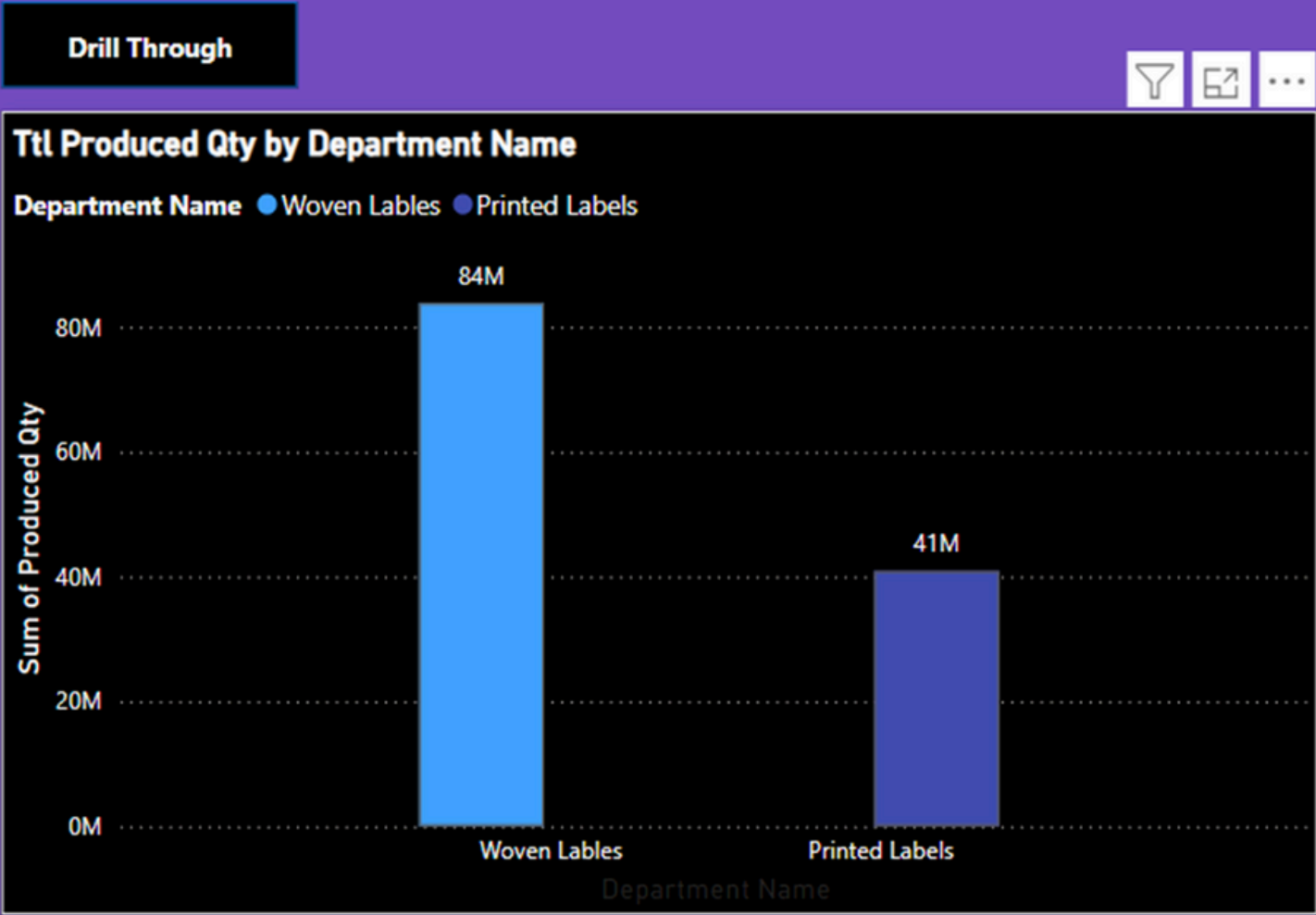# KPI's
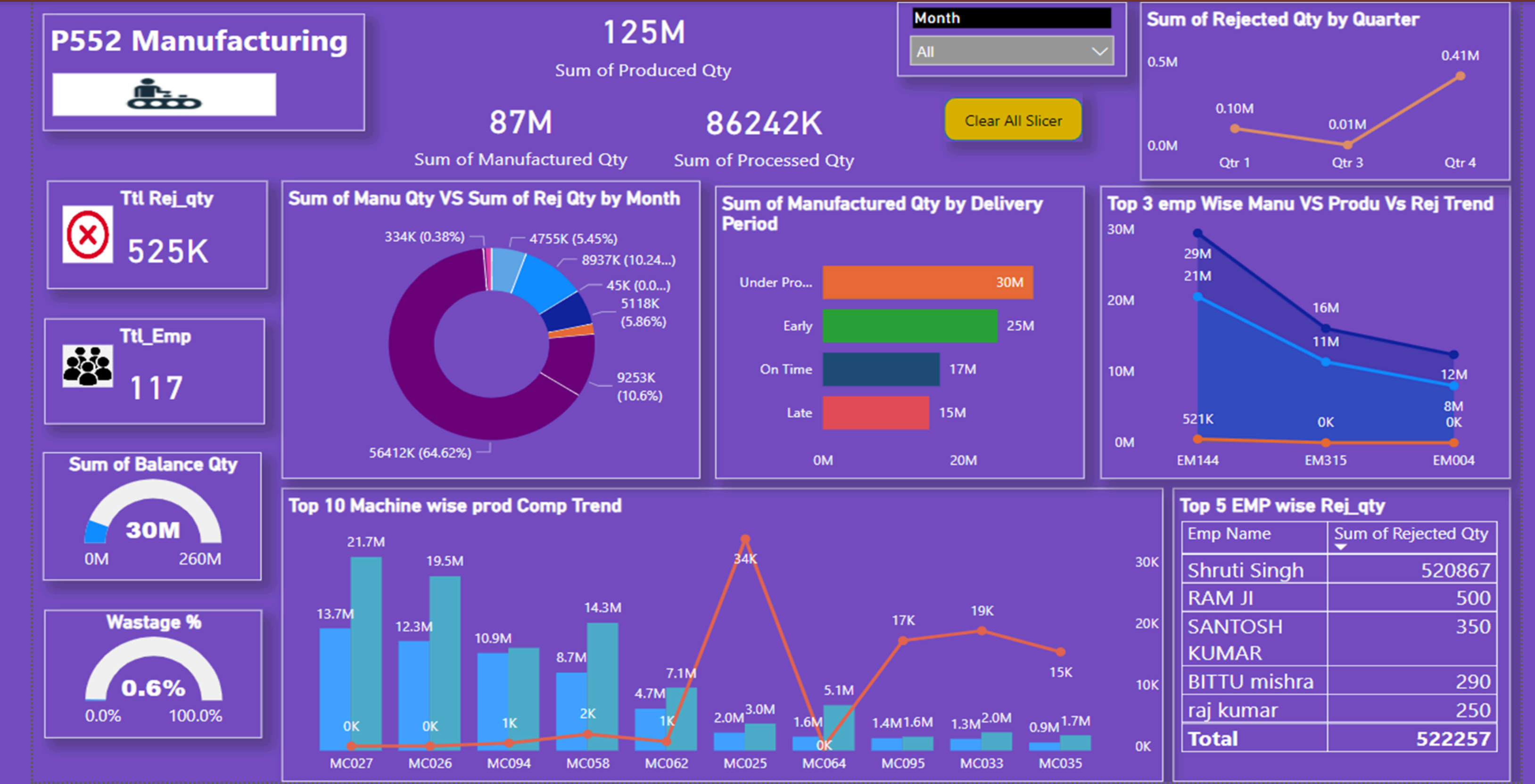
1.Manufacture Qty

 2.Ttl Rejected Qty

 2.Processed Qty

 3.Wastage Qty.

 4.Employee Wise Rejected Qty.

 5.Machine Wise Rejected Qty.

 6.Production Comparison trend.

 7.Manufacture Vs Rejected.

 8.Department Wise Manufacture Vs Rejected.

10.total under Production Qty.

12.no of customers(Distinct Customers)

13.top 5 buyers. in Percentage.

14.dashboard Design.

Overview Page

P552 Manufacturing

125M
Sum of Produced Qty

87M
Sum of Manufactured Qty

86242K
Sum of Processed Qty

Month
All

Clear All Slicer

Sum of Rejected Qty by Quarter
0.5M
0.41M
0.10M
0.01M
0.0M
Qtr 1 — Qtr 3 — Qtr 4

Ttl Rej_qty
525K

Ttl_Emp
117

Sum of Balance Qty
30M
0M — 260M

Wastage %
0.6%
0.0% — 100.0%

Sum of Manu Qty VS Sum of Rej Qty by Month
334K (0.38%)
4755K (5.45%)
8937K (10.24...)
45K (0.0...)
5118K (5.86%)
9253K (10.6%)
56412K (64.62%)

Sum of Manufactured Qty by Delivery Period
Under Pro... 30M
Early 25M
On Time 17M
Late 15M
0M — 20M

Top 3 emp Wise Manu VS Produ Vs Rej Trend
30M
29M
21M
20M
16M
11M
12M
10M
8M
521K 0K 0K
0M
EM144 — EM315 — EM004

Top 10 Machine wise prod Comp Trend
21.7M
19.5M
13.7M
12.3M
14.3M
10.9M
8.7M
4.7M
7.1M
34K
5.1M
2.0M 3.0M
1.6M
1.4M 1.6M
1.3M 2.0M
0.9M 1.7M
17K
19K
15K
30K
20K
10K
0K
0K 0K 1K 2K 1K 0K
MC027 MC026 MC094 MC058 MC062 MC025 MC064 MC095 MC033 MC035

Top 5 EMP wise Rej_qty

Emp Name	Sum of Rejected Qty
Shruti Singh	520867
RAM JI	500
SANTOSH KUMAR	350
BITTU mishra	290
raj kumar	250
Total	522257

```
4        # Total Manufacturing Qty
5  •     SELECT
6  ⊖         CONCAT(ROUND((SUM(manufacturedQty) / 1000), 0),
7                 'K') AS Ttl_ManufacturingQty
8        FROM
9            p552_manufacturing.p552manufacturing_data;
```

Ttl_ManufacturingQty
86767K

```
9  •   SELECT
10         CONCAT(ROUND(SUM(RejectedQty) / 1000, 0), 'K') AS Ttl_RejQty
11     FROM
12         p552_manufacturing.p552manufacturing_data;
```

Ttl_RejQty
525K

```
26  •   SELECT
27  ⊖       CONCAT(ROUND(SUM(producedqty) / 1000000, 0),
28             'M') AS Ttl_RejQty
29      FROM
30          p552_manufacturing.p552manufacturing_data;
```

Ttl_RejQty
125M

```
11  •   SELECT
12         CONCAT(ROUND(SUM(balanceQty) / 1000000, 0), 'M') AS Balance_qty
13     FROM
14         p552_manufacturing.p552manufacturing_data;
```

Balance_qty
30M

```
46  •   SELECT
47  ⊖       CONCAT(ROUND(SUM(Processedqty) / 1000000, 2),
48             'M') AS Ttl_Proc_qty
49      FROM
50          p552_manufacturing.p552manufacturing_data;
```

Ttl_Proc_qty
86.24M

```
17      # Total Wastage%
18  •   SELECT
19  ⊖       CONCAT(ROUND((SUM(rejectedqty) / SUM(manufacturedQty) * 100),
20             2),
21             '%') AS Wastage_percentage
22      FROM
23          p552_manufacturing.p552manufacturing_data;
```

Wastage_percentage
0.60%

MySQL

```
 99      # Top10 EMP_wise Produced_qty
100 • ⊖  with CTE as(select Emp_code,
101      concat(round(sum(Producedqty)/1000,2),"K")as Prod_qty,
102      row_number() over(order by (sum(Producedqty)/1000)  desc) As RN
103      from p552_manufacturing.p552manufacturing_data
104      group by EMP_Code )
105      select Emp_code, Prod_qty, RN
106      from CTE limit 10;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: IA

Emp_code	Prod_qty	RN
EM144	29427.17K	1
EM315	16038.62K	2
EM004	12368.80K	3
EM279	11590.70K	4
EM337	5751.14K	5
EM261	5097.46K	6
EM265	3292.83K	7
EM198	2274.36K	8
EM049	2091.58K	9
EM264	1903.26K	10

```
90      #Departmentwise manufactured qty VS Rejected qty
91 •    SELECT
92          department_name,
93          concat(round(SUM(manufacturedqty) / 1000,2),"K") AS Manu_qty,
94          concat(round(SUM(rejectedqty) / 1000,2),"K") AS Rej_qty
95      FROM
96          p552_manufacturing.p552manufacturing_data
97      GROUP BY Department_Name;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: IA

department_name	Manu_qty	Rej_qty
Woven Lables	58200.81K	521.51K
Printed Labels	28565.99K	3.22K

```
72      # Top5 empwise Rejected Qty
73 •    select EMP_code, Rej_Qty,
74      row_number() over(order by Rej_qty desc) as RN
75      from
76 ⊖    (select distinct EMP_Code, concat(round(sum(rejectedQty)/1000,2),"K") as Rej_qty
77      from p552_manufacturing.p552manufacturing_data
78      group by EMP_Code) as CTE
79      limit 5;
80
81
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: IA

EMP_code	Rej_Qty	RN
EM144	520.87K	1
EM279	0.50K	2
EM070	0.35K	3
EM139	0.29K	4
EM246	0.25K	5

```
81      # Top5 machinewise rejected qty
82 •    select MachineCode, Rej_Qty,
83      row_number() over(order by Rej_qty desc) as RN
84      from
85 ⊖    (select distinct MachineCode, concat(round(sum(rejectedQty)/1000,2),"K") as Rej_qty
86      from p552_manufacturing.p552manufacturing_data
87      group by MachineCode) as CTE
88      limit 5;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: IA

MachineCode	Rej_Qty	RN
MC028	9.98K	1
MC029	9.73K	2
MC047	9.14K	3
MC051	8.25K	4
MC032	7.54K	5

Key Points

- Through this analysis we can conclude that H&M has been the highest buyer with 71M of quantity produced.
- Quarter 4 has been the more economic quarter with highest production and Quarter 3 been the least produced quarter.
- Optimization of machine settings to reduce defects and increase yield in the machines(like MCO25).Implementation of quality control measures to detect and address issues earlier in the process.
- Improvement of material handling employees and storage procedures machines to reduce waste and increase efficiency.
- Enhancement of operator training programs for the employees to ensure consistent and high-quality production.
- Investigation into alternative materials or suppliers to reduce costs and improve quality.

THANK YOU

Group-05 | P552 Manufacturing
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