THE BRIEF

You are working with a manufacturer who **receives and orders** a number of raw materials which are then **used in production or for general maintenance.**

Currently there is no procurement system in place and no way for the companies to validate **which suppliers are providing us with quality goods** and which are not.

There is also **no consistency between different plants and the vendors** we are purchasing from.

The programme management team has identified the need to **centralize and understand supplier quality as a priority.**

There has been a major effort in recent weeks to consolidate the data.

The team have now managed to gather **data from across the plants with information around the material, defect and vendor.**

They have also managed to get the **number of defective materials** and also provided a value for the **minutes of downtime** caused by the defective material.

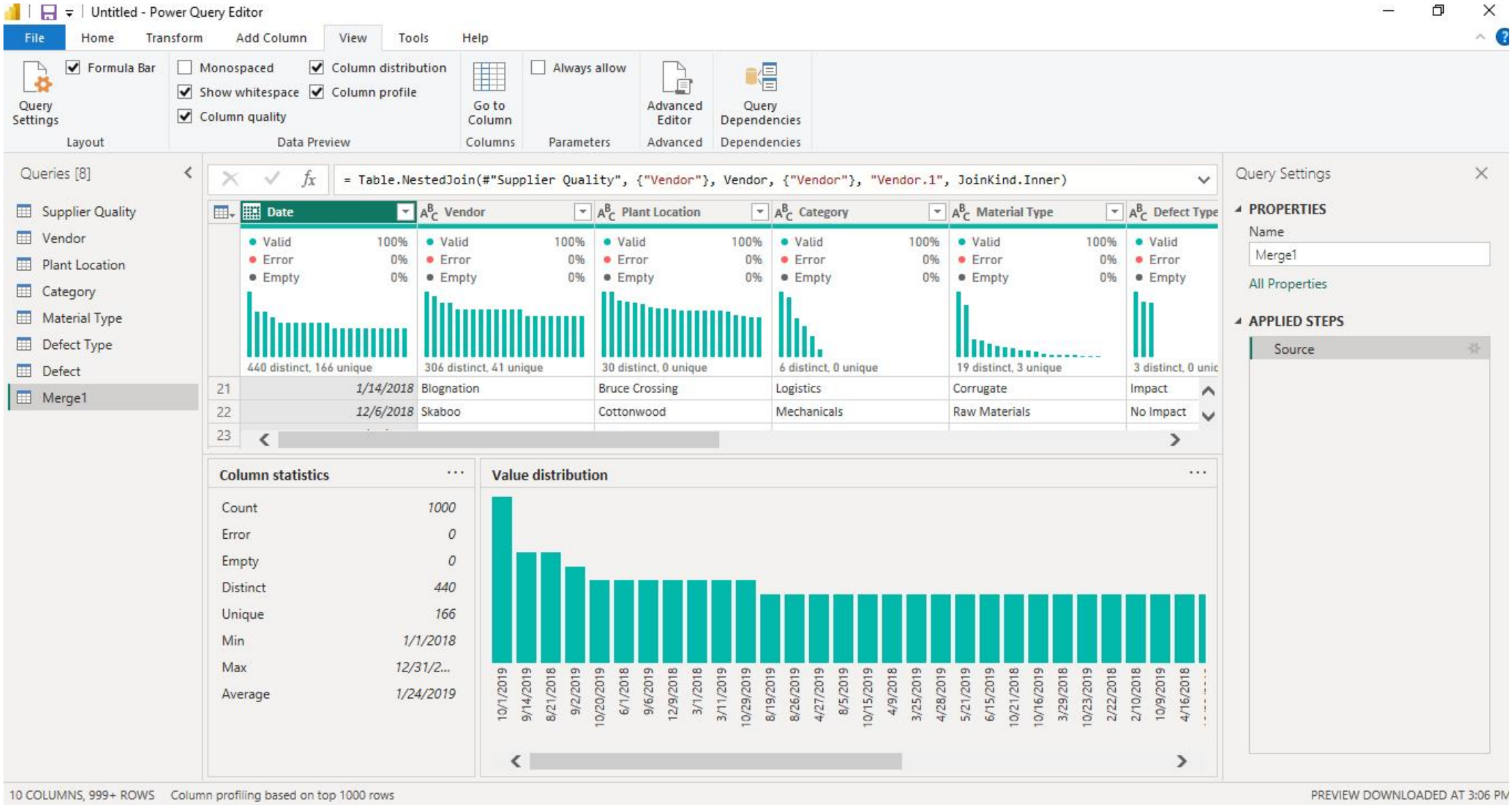
The management team are now looking for some help to visualize and extrapolate the findings from this data.

Enterprise Manufacturers Ltd are slowly adopting Power Bi within their organization as such one of the analysts has made an effort at starting to model the data.

Given the importance of the project and urgency management have decided to enlist the experts to get this over the line.

Some key questions the business want answering are;

- **Which vendors/plants are causing the greatest defect quantity?**
- **Which vendors/plants are causing the greatest downtime?**
- **Is there a particular combination of material and vendor that perform poorly?**
- **Is there a particular combination of Vendor and plant that performs poorly?**
- **How does the same vendor and material perform across different plants?**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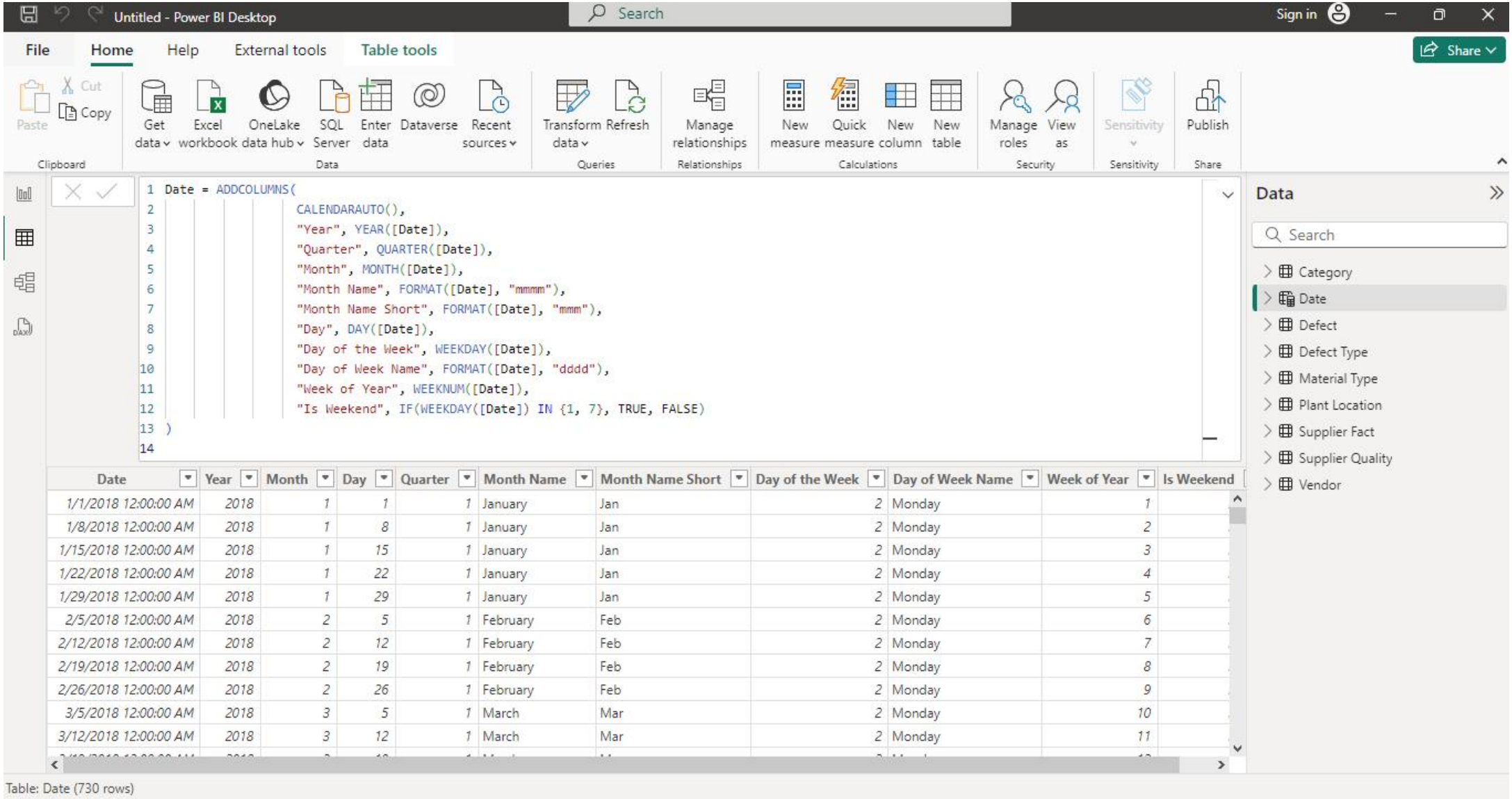

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1/15/2018 12:00:00 AM	2018	1	15	1	January	Jan	2	Monday	3	
1/22/2018 12:00:00 AM	2018	1	22	1	January	Jan	2	Monday	4	
1/29/2018 12:00:00 AM	2018	1	29	1	January	Jan	2	Monday	5	
2/5/2018 12:00:00 AM	2018	2	5	1	February	Feb	2	Monday	6	
2/12/2018 12:00:00 AM	2018	2	12	1	February	Feb	2	Monday	7	
2/19/2018 12:00:00 AM	2018	2	19	1	February	Feb	2	Monday	8	
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3/5/2018 12:00:00 AM	2018	3	5	1	March	Mar	2	Monday	10	
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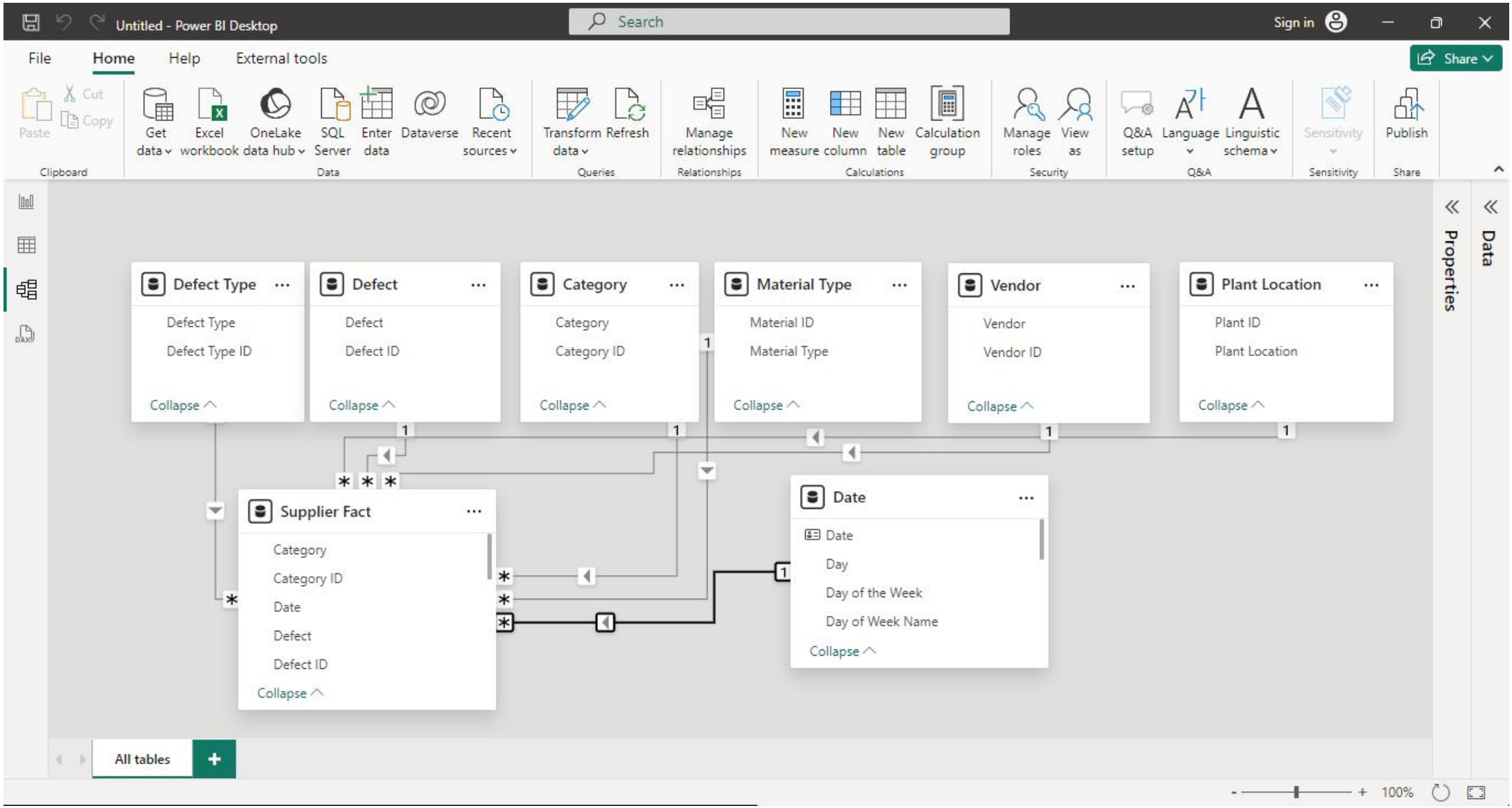
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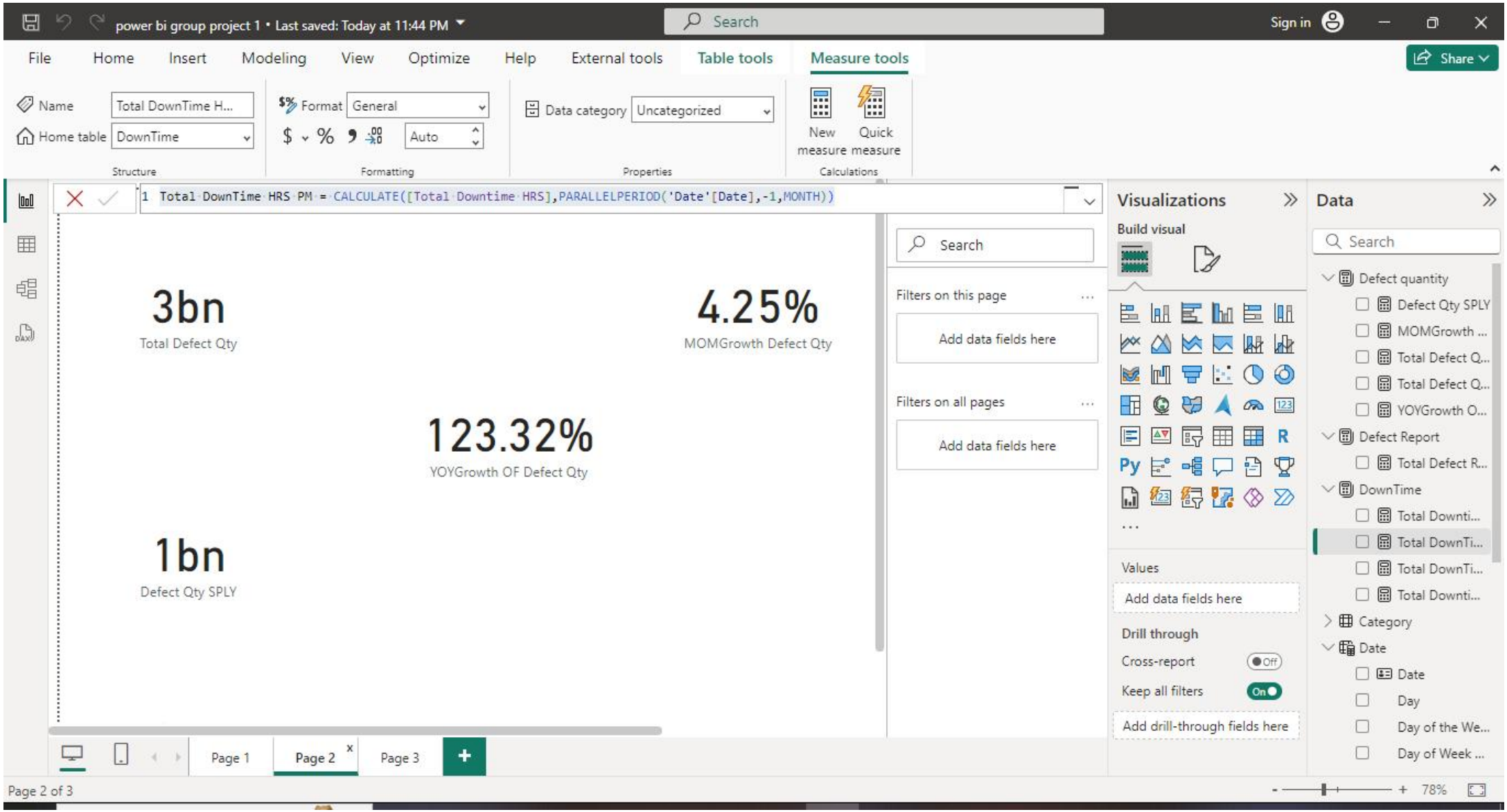
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4.25%
MOMGrowth Defect Qty
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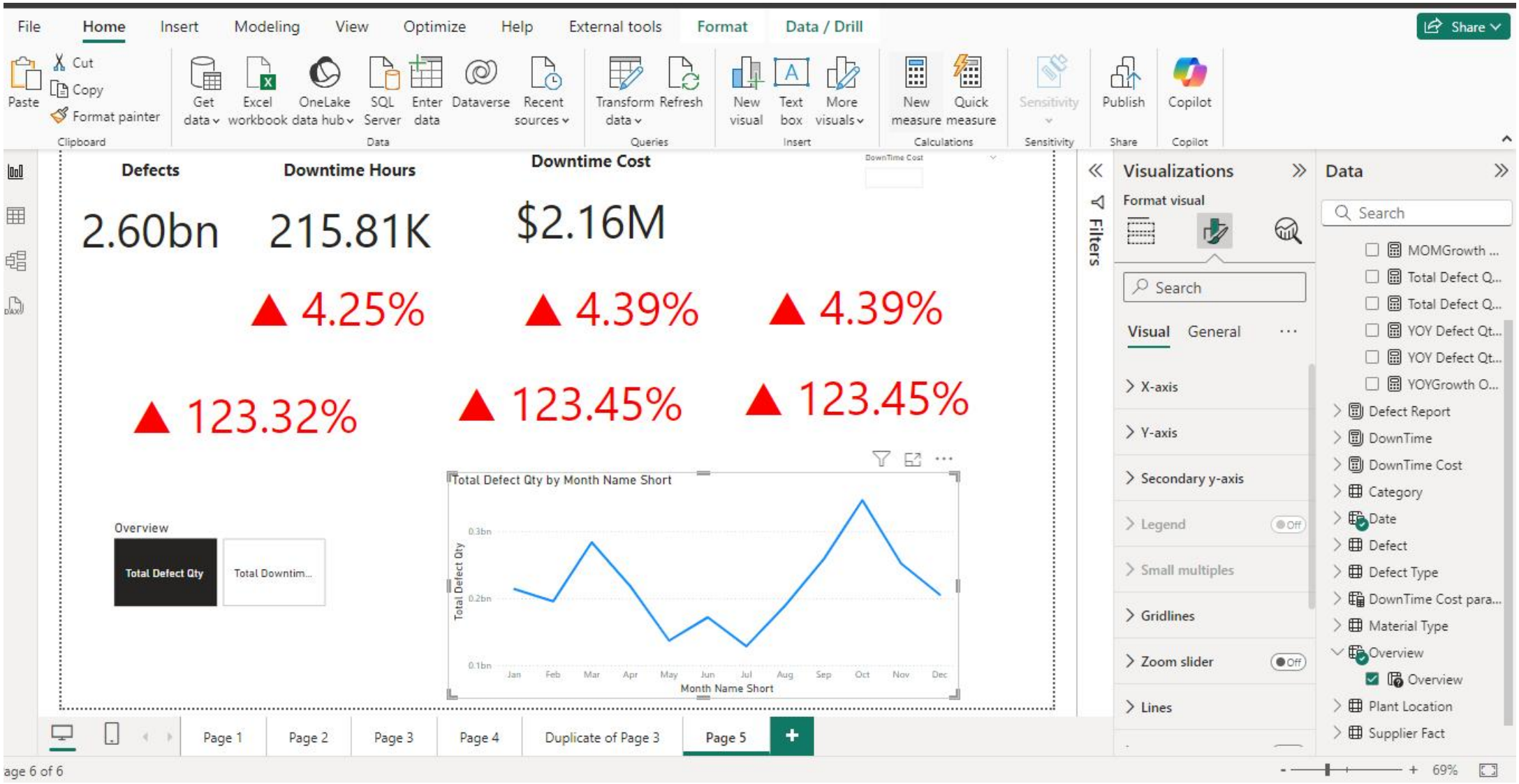
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Defects
2.60bn
Downtime Hours
215.81K
Downtime Cost
$2.16M
▲ 4.25%
▲ 4.39%
▲ 4.39%
▲ 123.32%
▲ 123.45%
▲ 123.45%
Total Defect Qty by Month Name Short
0.3bn
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Enterprise Manufacturers Ltd

Supplier Quality & Performance Dashboard

This dashboard provides a comprehensive overview of supplier performance, highlighting key metrics such as defect quantity, downtime, and their impact on overall operations.

Overview

Downtime cost/Hour ($): 5

Defects

2.60bn

▲ 4.25% vs last month | ▲ 123.32% vs last year

Downtime Hours

215.81K

▲ 4.39% vs last month | ▲ 123.45% vs last year

Downtime Cost

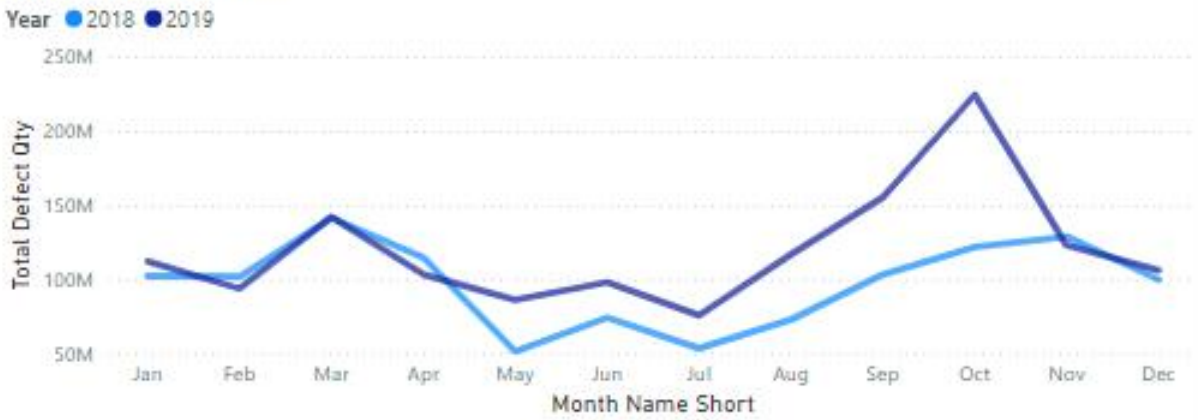
$1.08M

▲ 4.39% vs last month | ▲ 123.45% vs last year

Overview

Total Defect Qty | Total Downtime HRS

Monthly Trend



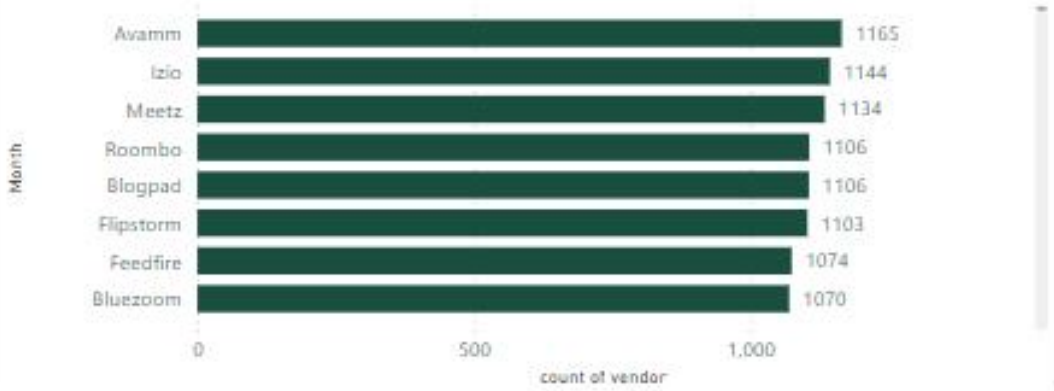
Top 5 Losses

346,062,418 Total Defect Qty	29,203.43 Total Downtime HRS
702 Total Defect Report	10 Month
283,354,436 Total Defect Qty	23,525.33 Total Downtime HRS
563 Total Defect Report	3 Month
258,304,507 Total Defect Qty	21,723.47 Total Downtime HRS
515 Total Defect Report	9 Month

Vendor Performance

Total Defect Qty | Total Downtime HRS

Vendor Trend



Vendor by Plant Location

By Vendor

Zoomlounge		
8,348,204 Total Defect...	658.65 Total Downt...	8,348,204 Total Defect Qty
Zoomzone		
7,918,959 Total Defect...	414.23 Total Downt...	7,918,959 Total Defect Qty
Zooveo		
10,889,087	718.45	10,889,087

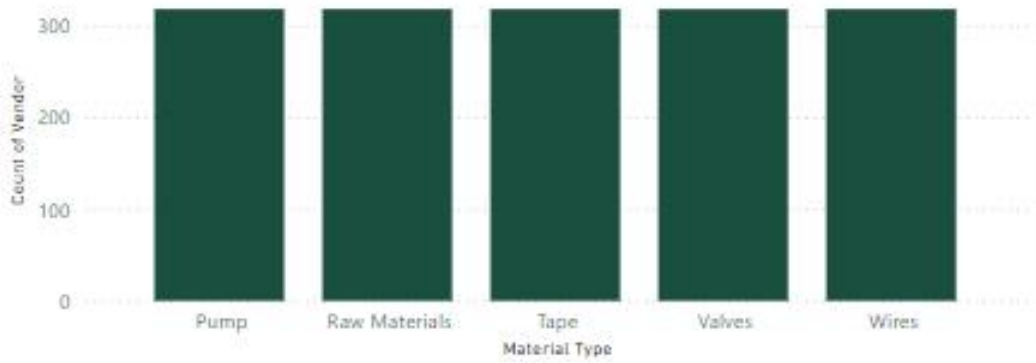
By Defect

2,476,168 Total Defect...	105.28 Total Downt...	No Impact Defect Type
Buzzshare Vendor		
2,323,825 Total Defect...	143.35 Total Downt...	Rejected Defect Type
Topicshots Vendor		
2,204,249	129.80	Impact

Material Performance

Total Defect Qty | Total Downtime HRS

Vendor by Material Type



Defect by Material Type

By Material Type

Raw Materials
770,580,317 Total Defect Qty
65,918.17 Total Downtime HRS

Corrugate
624,441,951 Total Defect Qty
51,303.85 Total Downtime HRS

Film
200,395,634 Total Defect Qty
16,580.43 Total Downtime HRS

Defect by material type and vendor

2,219,360 Total Defect ...
68.35 Total Downti...
Brainsphere Vendor
Corrugate Material Type

1,886,983 Total Defect ...
77.23 Total Downti...
Gabvine Vendor
Labels Material Type

1,874,751 Total Defect ...
28.58 Total Downti...
Linklinks Vendor

Plant Performar

Total Defect Qty

Total Downtime HRS

By Plant Location

Hingham
100,174,656 Total Defect Qty
7,317.08 Total Downtime HRS

Charles City
99,390,908 Total Defect Qty
8,283.10 Total Downtime HRS

Twin Rocks
96,903,184
8,000.70

By Defect

Not Certified
17,190,701 Total Defect Qty
1,085.42 Total Downtime HRS

Misc
15,500,214 Total Defect Qty
1,562.20 Total Downtime HRS

Warped
12,902,951 Total Defect Qty
827.90 Total Downtime HRS

Material Type

Defect By Vendor And Plant

Vendor	Plant Location	Total Defect Qty	Total Downtime HRS
Abata	Riverside	257,039	29.87
Abatz	Riverside	820,888	71.73
Abatz	Twin Rocks	324,313	48.93
Agimba	Henning	856,495	8.72
Agimba	Hingham	1,122,955	96.67
Total		**486,415,187**	**39,699.47**

Downtime Impact

Downtime Cost Analysis

Month Name	Friday	Monday	Saturday	Sunday	Thursday	Tuesday	Wednesday
January	858.25	3,734.85	108.18	3,222.75	2,702.10	3,490.07	3,462.77
February	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
March	3,434.82	3,508.28	2,550.45	4,044.50	3,371.53	3,454.28	2,261.47
April	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
May	2,768.48	2,107.20	1,063.63	2,282.67	377.97	3,191.37	66.30
June	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
July	1,705.80	1,946.42	1,728.33	1,560.00	166.67	2,519.20	410.53
Total	28,208.22	39,397.17	27,110.07	36,970.70	18,589.92	41,118.53	28,444.32

Monthly Trend

Vendor Plant Analysis

Vendor	Plant Location	Total Defect Qty	Total Downtime HRS	DownTime Cost/HR
[illegible]	Charlevoix	103,793	42.75	$427.50
Abara	Chatham	344,251	67.58	$675.83
[illegible]	Chevening	384,097	2.82	$28.17
Abara	Carbondale	139,225	43.00	$430.00
[illegible]	Clay	811,305	38.10	$381.00
Abara	Clinton	110,549	29.03	$290.33
[illegible]	De Ruyter	79,506	61.22	$612.17
Total		2,598,634,464	215,809.92	$2,158,099.17

Vendor Material Analysis

Vendor	Material Type	Total Defect Qty	Total Downtime HRS	DownTime Cost/HR
[illegible]	Carton	573,083	0.12	$1.17
Rhyton	Controllers	105,782	0.17	$1.67
[illegible]	Electrolytes	582,606	0.17	$1.67
Yazoo	Film	920,433	0.22	$2.17
[illegible]	Batteries	645,821	0.28	$2.83
Owatonna	Film	435,601	0.42	$4.17
[illegible]	Driven	666,834	0.52	$5.17
Total		2,598,634,464	215,809.92	$2,158,099.17

Conclusion

The analysis identifies that Vendor Abatz and Vendor Abata are responsible for the highest defect quantities, particularly impacting Plant Riverside and Plant Twinrock. These vendors also contribute the most to downtime, with Plant Riverside being especially affected by defective materials, causing significant operational delays.

Raw Materials from these vendors consistently show high defect rates across all plants, indicating quality control issues or mismatched specifications. The combination of these vendors and the plants they supply performs poorly, with frequent defects and downtime, calling for a reevaluation of vendor relationships.

Overall Recommendations:

- Implement a centralized procurement system for consistent vendor performance monitoring.
- Conduct vendor audits and enforce stricter quality control measures to address supply issues.
- Standardize quality metrics across all plants to minimize inconsistencies in material performance.
- Focus on high-impact plants like Plant Riverside and Plant Twinrock to improve efficiency.

Addressing these findings will reduce defects, downtime, and ultimately lead to cost savings and improved production efficiency for Enterprise Manufacturers Ltd.