



# POWER BI CAPSTONE PROJECT: TECHTRONIX INNOVATIONS ANALYSIS.

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# CASE OVERVIEW

- ▶ Techtronix Innovations, a forefront player in the microchip and robotics industry, is encountering challenges in streamlining its sales strategies, optimizing production planning, and pursuing market expansion.
- ▶ The company boasts an extensive portfolio that caters to automotive, consumer electronics, and industrial sectors. However, it grapples with demand unpredictability, inventory management inefficiencies, and the identification of profitable market opportunities.

# TECHTRONIX SALES DASHBOARD

\$4,522,687  
Profit MTD

\$22,167,002  
Revenue MTD

CustomerSector

All

Sales Analysis

Customer Insight

Inv management &  
Profitability

Expansion

\$501K

Total Qty Sold

\$252M

Total Revenue

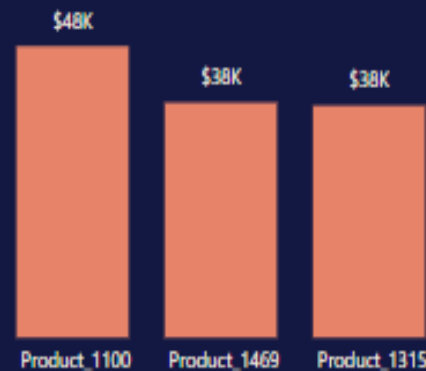
\$4M

Production cost

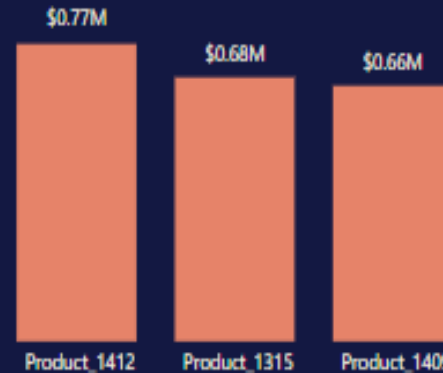
\$53.09M

Total profit

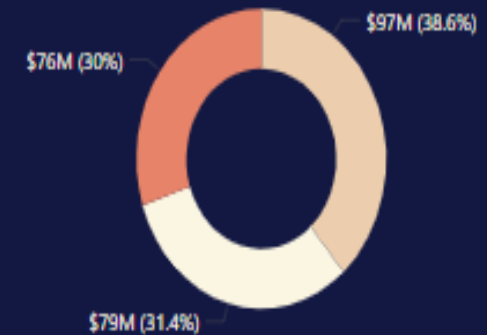
Top 3 Most Expensive Product to Produce



Total profit by ProductName



Total Revenue by ProductCategory



Total Revenue by Month



Total Revenue by Country



# TECHTRONIX SALES DASHBOARD

Sales Analysis

Customer Insight

Inv management &  
Profitability

Expansion

Month

All

Quarter

All

WeekDay

All

\$501K

Total Qty Sold

\$252M

Total Revenue

\$4M

Production cost

\$53.09M

Total profit

CustomerSector ×

Industrial

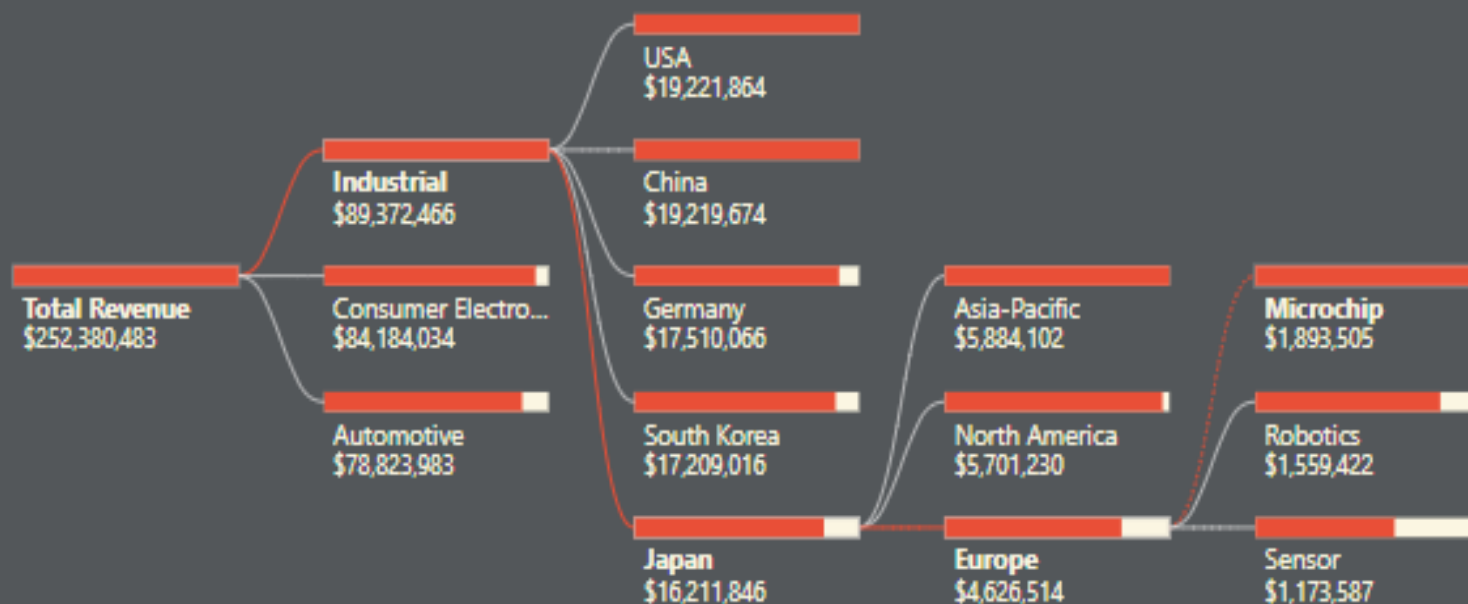
Country ×

Japan

Region ×

Europe

ProductCategory ×



# TECHTRONIX SALES DASHBOARD

\$4,522,687  
Profit MTD

\$22,167,002  
Revenue MTD

\$252,380,483  
Total Revenue

\$53,094,315  
Profit

Search



Sales  
Analysis

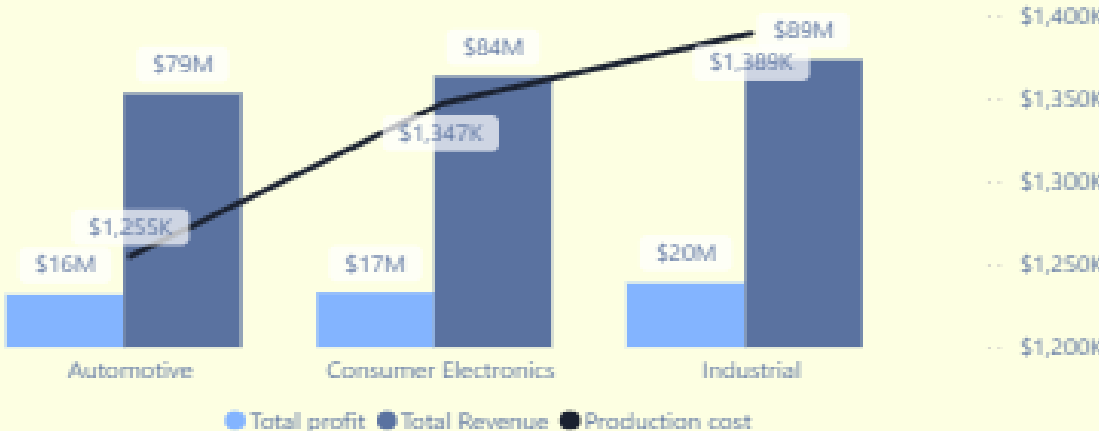
Customer  
Insight

Inv  
management &  
Profitability

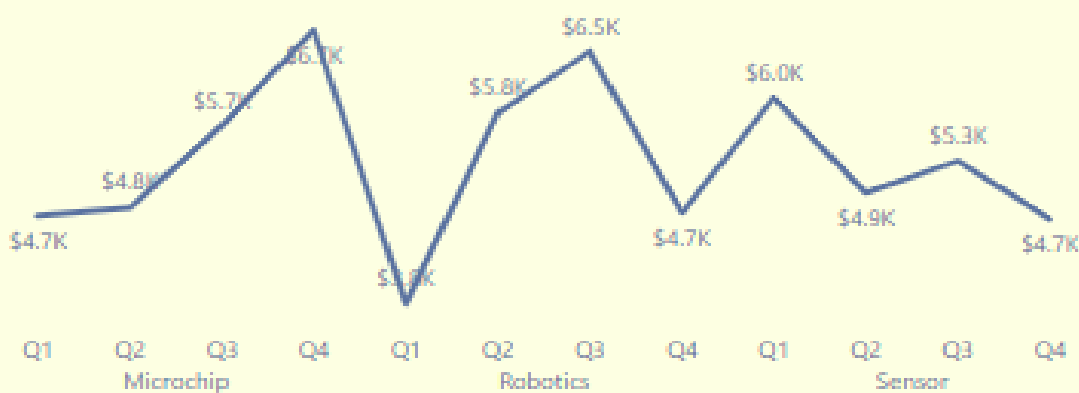
Expansion

ProductName	Q1	Q2	Q3	Q4	Total
Product_1013	64%	51%	67%	29%	59%
Product_1481	13%	56%	33%	91%	57%
Product_1178	51%	20%	59%	65%	54%
Product_1486	39%	41%	69%	51%	54%
Product_1239	67%	84%	406%	50%	53%
Product_1088	50%	40%		55%	51%
Product_1019	28%	19%	78%	43%	50%
Product_1260	26%	52%	42%	56%	48%
Product_1014	39%	49%	56%	26%	47%
Product_1478	75%	51%	56%	81%	47%

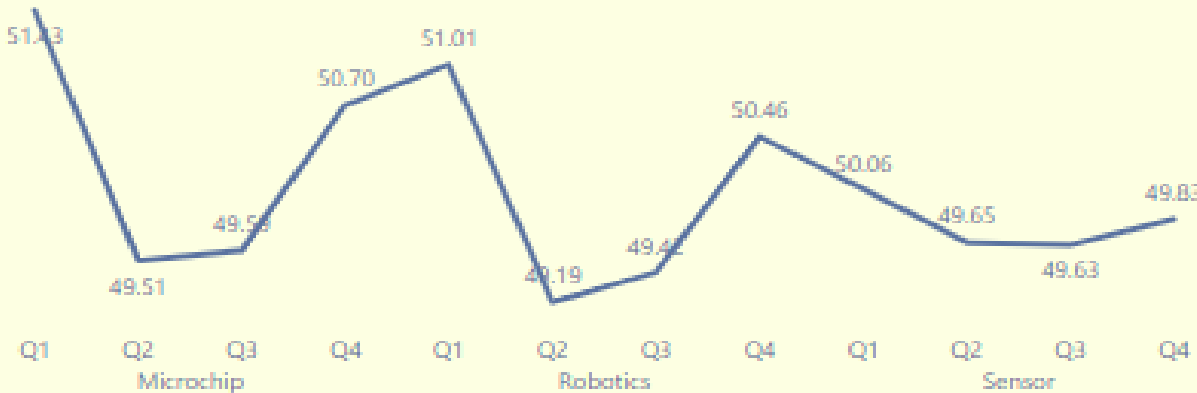
Total profit, Total Revenue and Production cost by CustomerSector



Average of Profit by ProductCategory and Quarter



Average of QuantitySold by ProductCategory and Quarter



# TECHTRONIX SALES DASHBOARD

Sales Analysis

Customer Insight

Inv management &  
Profitability

Expansion

Quarter

All

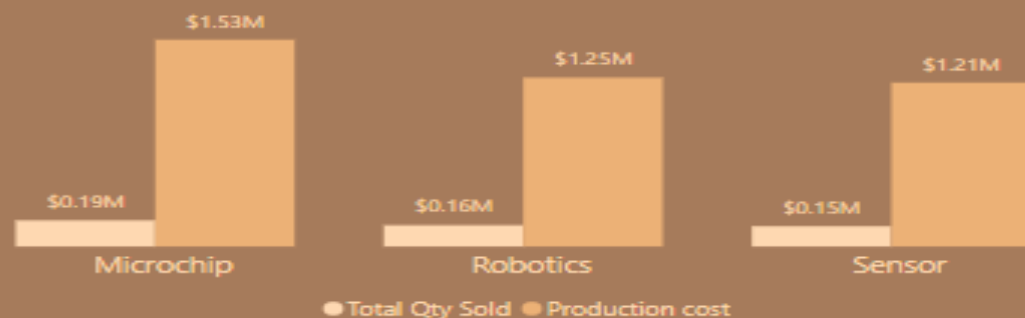
WeekDay

All

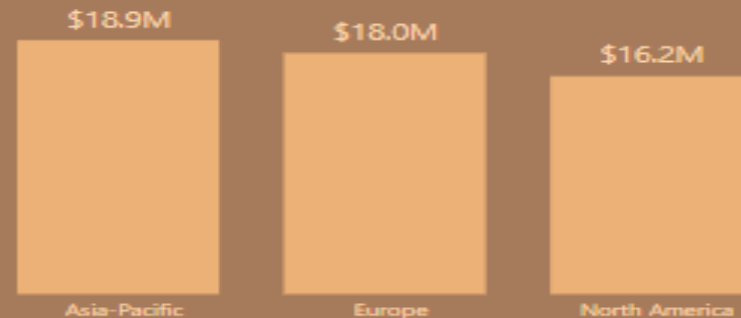
Month

All

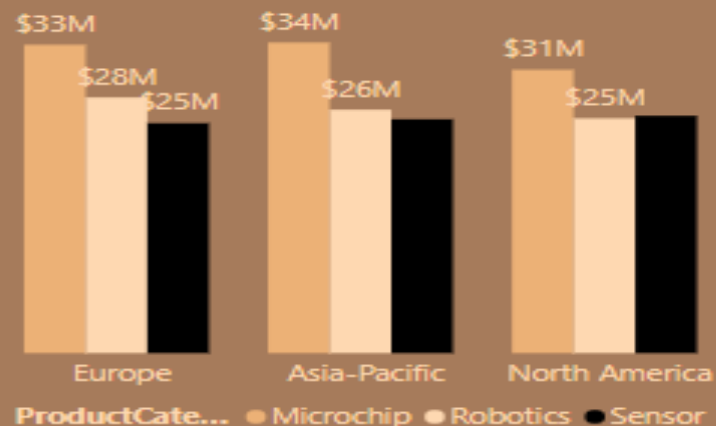
Total Qty Sold and Production cost by ProductCategory



Total profit by Region



Total Revenue by Region and ProductCategory



Total Revenue by CustomerName



# INSIGHTS

## 1. Top Products and Costs:

- The three most expensive products to produce (1100, 1469, and 1315) highlight the significant investment required. However, they do not appear to be among the top in profitability.

## 2. Profit Leaders:

- Products 1412, 1315, and 1409 generate the highest profits, suggesting a strong demand or favorable pricing strategies for these items. It's crucial to analyze the success factors behind these products.

## 3. Revenue Breakdown by Country:

- The USA leads in revenue generation, followed closely by China and Japan. There is a consistent revenue stream across these markets, which may indicate stable demand.

## 4. Customer Sector Performance:

- The industrial sector shows the highest revenue and profit, followed by consumer electronics and automotive. This suggests that focusing on industrial applications may yield the best returns.



## 5. Quarterly Trends:

- There are slight variations in average profits across quarters. Notably, the fourth quarter seems to yield higher profits for microchips. This may be due to seasonal demand, particularly in consumer electronics during the holiday season.

## 6. Inventory Management:

- Products 1013 and 1481 have varying quarterly sales, which could indicate demand fluctuations. Managing inventory levels proactively could prevent overproduction or stockouts.

## 7. Regional Profitability:

- Asia Pacific shows the highest total profit, followed by Europe and North America. This indicates a potentially stronger market presence and customer loyalty in Asia.

## 8. Sales Quantity and Cost Analysis:

- Microchips sell the most (193,030 units) and have the highest production costs but also appear to be quite profitable. This suggests room for increasing production efficiency or price adjustments.



# RECOMMENDATIONS

## 1. Focus on High-Profit Products:

- Consider investing in marketing and further development of the most profitable products (e.g., 1412, 1315). Conduct customer feedback sessions to understand their needs better.

## 2. Optimize Production Costs:

- Investigate the production processes of the most expensive products (1100, 1469, 1315) to identify cost-reduction opportunities without compromising quality.

## 3. Enhance Customer Segmentation:

- Tailor marketing strategies based on customer sector performance. For example, increase targeted advertising in the industrial sector to capitalize on its strong profitability.

## 4. Expand in High-Performing Regions:

- Given the higher profits in the Asia Pacific region, consider expanding operations or marketing efforts there. Local partnerships could help boost market share.



## 5. **Leverage Seasonal Trends:**

- Prepare for seasonal demand shifts, especially for microchips in Q4. Increase inventory ahead of expected spikes and ramp up marketing efforts during this period.

## 6. **Customer Relationship Management:**

- Develop strong relationships with top customers (e.g., Customer 91, 95). Consider loyalty programs or bulk purchasing incentives to maintain and grow sales from these key accounts.

## 7. **Explore New Markets:**

- Research potential markets that are emerging in the industrial, consumer electronics, and automotive sectors, particularly in developing countries where demand may rise.



THANK YOU