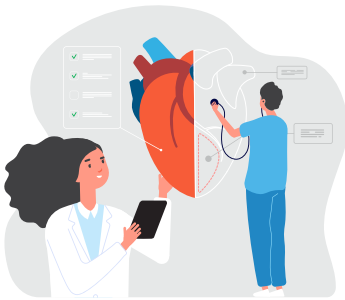# CASE STUDY

ACTIONABLE INSIGHTS ON PROCEDURES FOR A GLOBAL TOP 10 COMPANY IN THE CARDIOVASCULAR MARKET

DEVELOPING DASHBOARDS AND DELIVERING INSIGHTS FOR CARDIOVASCULAR PRODUCTS

INTRODUCTION

Cardiovascular disease (CVD), or heart disease, includes all conditions affecting the heart. It refers to conditions that can lead to chest pain, heart attacks, strokes, and other related conditions, such as coronary artery disease, arrhythmias, and heart defects. Heart disease is the leading cause of death in the US. About 697,000 people in the US died from heart disease in 2020—one in every five deaths.[1,2]

The CVD products market consists of:

- cardiac assist devices;
- cardiac prosthetic devices;
- cardiac rhythm management;
- cardiovascular monitoring and diagnostic devices;
- cardiovascular surgical devices;
- electrophysiology; and
- interventional cardiology.

There is increased scrutiny of MedTech CVD offerings and heightening requirements for MedTech companies to succeed in the CVD products market due to the confluence of trends such as:

- growing demand for value;
- uptake of innovative treatment technologies;
- increasing adoption of digital solutions;
- changing MedTech competitive landscape; and
- evolving provider and care delivery shifts.

Today, it is critical that MedTech organizations:

- get to the heart of the changes taking place in the CVD ecosystem;
- reexamine how best to engage with patients, providers, payers, emerging competitors, and other stakeholders; and
- assess which strategies they should pursue to position their organizations for success in CVD.

This case study illustrates how Axtria helped a cardiovascular market top 10 global player gather insights on market trends by analyzing data that lacked standardization. In the data's current state, manual intervention was necessary, and the insight generation was cumbersome.
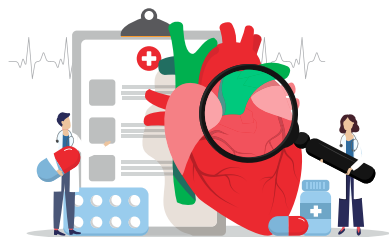
BUSINESS SCENARIO

The client faced two distinct problems:

1. A competitive environment
2. Brand cannibalization that impacted the company's market share.

The company wanted to understand current trends in the US cardiovascular market and how they affected its percentage of total sales. However, the procedural data the company purchased from its data partner lacked standardization, with the data format and fields changing yearly. This data included procedure records in adult cardiac surgery, general thoracic surgery, congenital heart surgery, and a registry for the clinical outcomes of patients who receive an FDA-approved mechanical circulatory support (MCS) device to treat advanced heart failure.

Overall, the company faced the following issues:

It was difficult to understand the data trends because the data was incomplete and had quality issues.

The dashboards and reports were developed manually and lacked the business insights required for executive reporting.

The lack of a self-service option made the process time-consuming, so only a few business unit members could access the data.

DATA CHALLENGES

In the data source, key attribute values, such as procedure types, were not consistent year-on-year (y-o-y).

Given the richness of data, it was essential to identify specific views and analyses based on stakeholder needs. However, the following conditions existed:

- The fields purchased varied y-o-y, creating a lack of continuity.
- Certain fields were complete only for a fraction of procedures requiring the implementation of business rules for completeness.

AXTRIA'S APPROACH

Cleanse the data and implement business rules to improve the completeness of key fields.
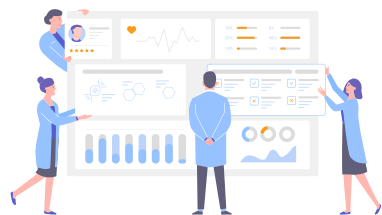
Create high-level views in dashboards based on the KPIs that would be important to stakeholders across the business unit.

Analyze and develop deep views and insights that meet 80% of repetitive requests.

Implement dashboards in a platform for easy access by stakeholders across the business unit.

BUSINESS BENEFITS

- Top-level and in-depth insights:
  - Executive views with filters (primarily for home office users) provide a depth of information that was previously not available.
  - The dashboard also allows deep-dive analysis of data. For example, patient segmentation to understand how the surgical market is changing over the years.
- Self-service platform: Stakeholders can access the dashboard and answer daily business questions independently.
- Faster time to insights: Quicker turnaround from data to insights for executives as the company added new procedural data on a quarterly or yearly basis, releasing the bandwidth of the analytics team to focus on more advanced strategic projects.

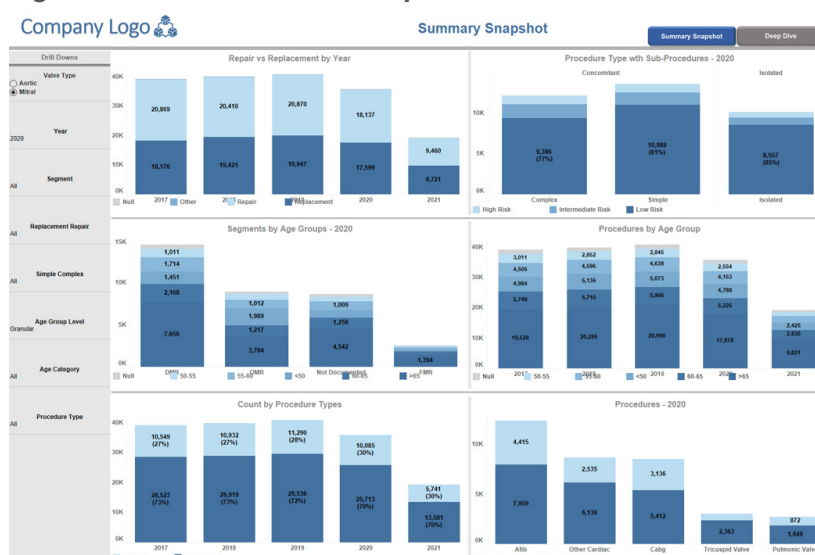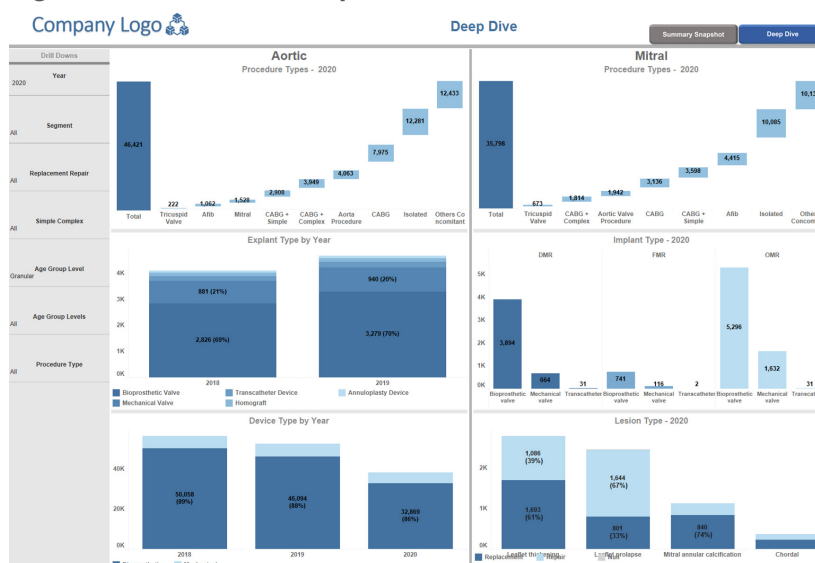**Figure 1: Dashboard – Summary View**

Figure 2: Dashboard – Deep Dive

CONCLUSION

With a highly competitive environment, sophisticated technology innovations, and substantial unmet patient needs, MedTech companies constantly need to be aware of changes in the marketplace. They need to collect and analyze data that provide insights into patient profiles, procedures, competitive environments, market challenges, and the future.

Heterogeneous data with highly variable data types and formats present problems for users who have different needs. Data cleaning and standardization help ensure data quality for reliable analysis. The next step is understanding the key performance indicators (KPIs) and data visualization that provides the most value to business users. Further, the self-service dashboards offer business users like marketing, finance, and strategy teams the ability to access data independently without relying on administrative teams.

Data analytics and management help transform unstructured, raw data into a functional format to drive decisions based on real-time insights. For example, organizations can harness their data to identify new opportunities and risks in scenario planning. That, in turn, leads to smarter business moves, more efficient operations, higher profits, and happier customers.

To learn more about our work in the cardiovascular market, read Axtria's blogs:

- Crucial HEOR Analytics For The Cardiovascular Community
- Estimating Cardiovascular Risk Avoidance With Further Cholesterol Lowering With Alirocumab

Learn more about our MedTech, Medical Devices, and Diagnostics Services

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