

**case 5-071-980**  
**January 5, 2024**

M.S. Krishnan

## **Drishti Technologies Inc.: Managing Operations through Computer Vision, AI, and Video Analytics**

In the early 2020s, digital technologies were transforming businesses across industries. Business process automation and embedded intelligence through cognitive computing, as well as decisions based on insights from real-time data analytics, emerged as major advancements. For example, in retail, online shoppers saw personalized suggestions resulting from analysis of millions of customer purchases and real-time engagements. In the financial sector, billions of transactions were checked by artificial intelligence (AI) algorithms to identify potentially fraudulent activity. In healthcare, the entire sequenced human genome was used to predict effective therapies and treatments. Lastly, in marketing, advertisements were personalized to drive consumers' purchasing decisions. In general, big data and AI were leveraged to build predictive algorithms to improve the efficiency and effectiveness of the business processes.

Traditionally, a prevailing belief had been that business processes are most efficient when machines replace humans. This approach aimed to eliminate the variability that human involvement could introduce to the processes. Consequently, significant investments were made in process automation, including the deployment of robots to perform intricate tasks. However, both the traditional approach to shopfloor process improvement and the introduction of robots had their limitations.

With innovations, Drishti Technologies Inc. inserted itself into the dilemma, positing that in some hard-to-automate areas the best solutions and performance could be achieved by marrying the skills of human and machine.

### **Manufacturing Process Monitoring**

#### **Limitations of Traditional Operating Line Process Evaluation**

In a typical factory or assembly line, hundreds of employees worked at different shop-floor stations to build a product. Often, production rates, quality, and safety-related data were depicted on hand-generated charts and dashboards. Key business metrics in many of these production settings included process efficiency, product quality, worker safety, productivity, rework, and overall throughput. Manufacturing

*Published by WDI Publishing, a division of the William Davidson Institute (WDI) at the University of Michigan.*

©2023 M.S. Krishnan. This case was developed by Don Borschel, Gilbert Pasquale, Yuning Ye, and Maria VanDieren, under the supervision of M.S. Krishnan, Accenture Professor of Computer Information Systems at the University of Michigan's Ross School of Business. The case was prepared as the basis for class discussion rather than to illustrate either effective or ineffective handling of a situation. The case should not be considered criticism or endorsement and should not be used as a source of primary data. A representative from Drishti reviewed and approved the case before publication.