Crystal Flash Transforms Business With Data Science

Crystal Flash, a nearly 90-year-old fuel and propane distribution company, has a rich history of being customer-centric. In the fuel distribution industry, this means safe, timely delivery of fuel at a competitive price. The Crystal Flash leadership team knows that the ability to leverage data is critical to differentiate and compete in an increasingly demanding market. Still, past data and analytics efforts fell short of expectations. Predictive Partner collaborated with the Crystal Flash team, gaining a deep understanding of their business and delivering actionable data science algorithms and a better decision-making framework. In addition to these tangible results, Predictive Partner serves an integral role in a broader business transformation process within Crystal Flash that focuses on prioritizing data-driven strategies and decision making.

The Need: Profit Maximization and Market Differentiation

The ability for Crystal Flash to deliver fuel safely, at a competitive price and meet exacting customer timelines is driven primarily by optimizing logistics. For their business, the highest cost (beyond the fuel itself) is the delivery. Crystal Flash was looking to decrease delivery costs by lowering its labor and equipment costs. By reducing the costs and increasing the efficiency of their current workforce and fleet, the business also gains capacity for customer growth without additional labor or equipment expenses.

The Challenge: Business Transformation & Alignment

There was a clearly defined internal goal to drive delivery efficiency. However, the lack of alignment over how to reach this goal and skepticism of success remained. The Crystal Flash team previously implemented both out of the box software and logistics solutions, lean, and internally developed data analysis with limited success.

Charles Kroll, Chief Financial Officer of Crystal Flash, candidly shared, "Crystal Flash has long struggled with how to appropriately use the information that is generated in the most beneficial way. There was a lot of guessing and assuming of answers, and data was "analyzed" to help justify a desired/preconceived outcome." Charles continued, "We spent countless hours and resources trying to come up with a better "mousetrap", and in many cases the solution that was implemented actually harmed business because of false assumptions and/or wrong analysis of data."

The Solution: Predictive Partner

It was clear that the internal adoption and implementation of algorithms would be equally as important as the actual algorithms. Morgan Llewellyn, Chief Executive Officer of Predictive Partner, took a lead role in building the trust and partnership needed to fulfill this undertaking. Morgan helped the Crystal Flash team realize the role and possibilities of data and analytics in solving their problems.

Marc Foerster, Vice President of Residential Business at Crystal Flash, explained, "We needed a credible big thinker to help sell internally. Morgan and the Predictive Partner team gave us the horsepower to help bring others on board."

Charles added, "It really came down to not knowing what we did not know, and Morgan and his team being able to open our eyes to the art of the possible when it came to using the data that we already produced in a way that truly benefits the company."

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The solution delivered transformed the business through the application of machine learning and artificial intelligence. Leveraging the rich data assets and databases Crystal Flash had diligently built, Predictive Partner was able to develop and deploy advanced statistical algorithms to improve and replace complex, time-intensive human decisions at the heart of any logistics operation; ultimately resulting in greater operational efficiency.

As part of this project and the on-going commitment that Crystal Flash has to leveraging data, Predictive Partner provides a complete stack of experienced analytics professionals that include: Chief Data Officer, Data Analysts, Data Scientist, Jr. Data Scientist, and a Software Engineer who is experienced in developing and deploying data science algorithms. This team approach ensures the proper experience-level and resources are deployed at each step of data strategy, algorithm development, and algorithm deployment, and integration.

The Results: Improved Efficiencies

Within 90 days of engaging with Crystal Flash, Predictive Partner successfully leveraged the power of a graphical database, predictive analytics, and artificial intelligence to modernize their data analytics and optimize operations. The recommendations produced were initially implemented for a single business unit. This pilot business unit saw a meaningful increase in delivery efficiency, as well as exposing an improved set of key performance indicators (KPI's) that are now being used across the organization.

This early win allowed the Crystal Flash team to prove the validity of leveraging data science and the need to change processes. In the coming months, Crystal Flash is expanding the pilot throughout all business units.

At a higher level, Predictive Partner transformed the Crystal Flash business mindset by providing better, more accurate decisions based on information from supply, human resources, sales, and logistics. In the before-state of Crystal Flash, the company was data rich and information poor as vital information was spread over a large number of systems and people. This is a common scenario in successful businesses, siloed challenges can be solved, but the more complex problems that are central to optimizing and differentiating businesses are an on-going struggle. Standard reporting and analytics or software alone fall short when compared to well-researched, executed and deployed data science solutions.

Conclusion

The successful partnership of Crystal Flash and Predictive Partner is driven by thought leadership, trust, early successes, and hunger by the business to differentiate themselves. Morgan shared, "I am thrilled by our team's ability to drive transformation in a legacy industry that has been doing something the same way for decades and get people excited about the change. We are now rolling out the solution for the entire company -- which will drive cost reduction (and subsequent profit margin improvement) the Crystal Flash team has been desiring for years. Ultimately, our team at Predictive Partner loves to share our passion for data with others, and the Crystal Flash team has been receptive and shared in the excitement for the power of data."

In addition to further implementation of the current logistics-optimization pilot, Crystal Flash plans to engage Predictive Partner in additional projects, including customer scoring and automating a considerable amount of their data analytics.

"Predictive Partner has done a great job of helping us ask the right questions and analyze the data we have objectively. The Predictive Partner team is consistently providing us value. We honestly cannot get enough of the team and their time."
-Charles Kroll, Chief Financial Officer, Crystal Flash

About Predictive Partner

Predictive Partner is a leading data science firm that solves critical business problems. Leveraging predictive analytics, data science, machine learning, and artificial intelligence, Predictive Partner achieves transformational business results for its clients. A team-based model with experienced Ph.D. data scientists allows clients to deploy and scale their data strategies with low risk and high dependability.

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