



Case Study



Accelerating the automotive industry with data

Overview

Industry

Automotive

Profile

The client is a carmaker with a thirty-year history in manufacturing, assembling, and selling motor vehicles, parts and accessories. With over 10,000 employees, the company serves markets such as the United Kingdom, Australia, Singapore, Thailand, and Germany.

An Asian carmaker that rolled out its first vehicle more than 30 years ago has since grown through technology transfers, strategic partnerships, and technical collaborations. The client now utilizes Fusionex Big Data solutions to hoist its organization into the Data Age.

Introduction

The client is an automobile manufacturer that manufactures, assembles, and sells motor vehicles to markets all over the globe, such as the United Kingdom, Australia, Singapore, Thailand, Germany, China, and Chile. The client also had a presence in motorsports including rally car competitions. To capture a wider market and elevate its business processes, the client sought a solution that could improve and modernize its manufacturing arm and boost the effectiveness of its retail and marketing activities.

The Challenge

As the client maintains a presence in multiple countries across different continents, the ability to determine the preferences of such varied customers would definitely be an advantageous asset to have. However, the client was unable to obtain in-depth knowledge their customer's behaviors. As a majority of people spend lots of time online nowadays, the client needed a way to seek out potential customers over the Internet and find out what their desires were when it came to automobiles.

Insight into what car owners want would give the company an edge in manufacturing automobiles to meet the specific demands that specific markets are clamoring for. If answered, questions such as which cars would do better in which countries would vastly improve the client's chances of formulating more precise strategies when entering the markets of certain countries.

As an automobile manufacturer, the client operated several plants that build components such as engine cylinder blocks, crankshafts, and camshafts. The combined annual production capacity of these plants amounts to almost 400,000 vehicles. Even with these impressive numbers, they were nevertheless still seeking ways to improve their manufacturing processes.

During the manufacturing process, a great part of production loss was due to machine downtime. As such, the company needed to optimize uptimes without sacrificing productivity during times when maintenance or replacement works were carried out. Energy optimization was also on the cards as the client wanted to keep manufacturing costs low to stay competitive in a borderless world.

The Solution

Through the use of data collection and analysis, the company was able to keep an eye on online chatter regarding automobiles and mentions of their brand. Fusionex Big Data Analytics was able to offer an end-to-end solution that taps into various social media networks and platforms, extract information, and cleanse the data of inaccuracies, irrelevancies, and duplicates, then displayed to the client in the form of user-friendly visualizations.

As the intelligent BDA platform could help identify trends that would impact the future of the automotive industry, this gave the client the ability to not only determine the current state of the market but also allowed its decision makers to peer into the future and garner insights to formulate its corporate strategies and actions.

Fusionex BDA was also beneficial when deployed together with Internet of Things devices that allowed for the monitoring of machines at the client's plants. Factors such as temperature, vibrations, pressure, and many other variables could be recorded over time and maintenance and replacement schedules could be further fine-tuned to minimize machine downtimes.

This gave the client an invaluable ability to forecast ahead of time as to when a machine would likely begin experiencing wear and tear or malfunction. By adjusting when to replace industrial parts or remove a machine from the assembly line before it breaks down, the client was able to maintain a fully efficient shop floor and greatly minimize the chances of accidents occurring due to machine malfunction.

The Benefits

By utilizing Fusionex Big Data Analytics, the client could now better understand market sentiments, improve its production efficiency, and greatly reduce production costs.

Better targeted products and giving customers what they want. Following through on the insights derived from gathering online data, the client could identify which specific features a greater number of their customers wanted and possibly implement these features in their next product. Some of these features include a one-push engine start button, better handbrakes, and safety functions. By going through their customer data, the client found that white was the favorite car color of their buyers. They could also determine which outlets should carry more family cars and which should stock more cars geared towards working professionals.

More interactive marketing efforts: The client could leverage social media and other online platforms to engage in campaign analytics where markets could be tested before releasing a product to gauge the level of feedback from customers. In identifying which products were more suited to which markets, it also helped prevent the overstocking of unpopular car models in a certain countries or distribution centers. As a result of these targeted promotions, sales success rates increased by 35%.

Reduce costs at manufacturing plants to increase cost competitiveness: From collating an immense amount of data regarding its shop floor operations, the client was able to engage in optimizing its manufacturing process and keep the cost of raw materials and utilities were low. As they could more accurately ascertain the levels of wear and tear of their machines, preventative measures could be carried out before breakdowns occurred. Thanks to data analytics, cost wastage at the client's plants was reduced by 70%.

Summary

Following the deployment of Fusionex Big Data Analytics, the client succeeded in better understanding what its customers truly wanted and tailor its offerings to cater to match its diverse customer base. This led to an increase in the number of sales as well as satisfied car owners. With their revenue boosted and costs kept low thanks to more efficiently run production facilities, the client could gear up for the competitiveness ahead as it enters new markets and gain a leg up on other less data-adept carmakers.

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e info@adv-fusionex.com w www.fusionex-international.com

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