



White Paper: How ExxonMobil Utilizes Pattern of Life Analytics to Reduce Costs and Increase Safety Across Its Upstream, Downstream, Distribution, and Retail Operations

Introduction

Pattern of Life Analysis (POLA) is a technique for identifying and analyzing patterns in behavior. POLA can be used to understand the current state of an entity, detect anomalies, and predict future behavior. ExxonMobil uses POLA in a variety of ways to reduce costs and increase safety across its upstream, downstream, distribution, and retail operations.

Use Cases

Here are some specific use cases for POLA at ExxonMobil:

- Upstream: POLA can be used to predict equipment failures, identify safety risks, and optimize production processes. For example, ExxonMobil uses POLA to predict when oil and gas wells are likely to need maintenance, which can help to avoid costly downtime.
- Downstream: POLA can be used to optimize refining and petrochemical processes, improve product quality, and reduce emissions. For example, ExxonMobil uses POLA to optimize the blending of different types of crude oil to produce the desired grades of gasoline and diesel fuel.
- Distribution: POLA can be used to optimize transportation routes, reduce fuel consumption, and improve safety. For example, ExxonMobil uses POLA to plan the most efficient routes for its tanker trucks, which can help to reduce fuel costs and emissions.
- Retail: POLA can be used to personalize the customer experience, target marketing campaigns, and reduce fraud. For example, ExxonMobil uses POLA to recommend products to customers based on their past purchase history and to send them targeted coupons and promotions.



Financial Benefits

POLA can help ExxonMobil to reduce costs and increase safety in a number of ways. For example, POLA can help to:

- Reduce downtime and maintenance costs by predicting equipment failures
- Improve product quality and reduce emissions by optimizing refining and petrochemical processes
- Reduce fuel costs and emissions by optimizing transportation routes
- Increase sales and reduce fraud by personalizing the customer experience and targeting marketing campaigns

ExxonMobil has not publicly disclosed the specific financial benefits of using POLA, but it is clear that POLA is a valuable tool for the company. POLA helps ExxonMobil to operate more efficiently and safely, which can lead to significant cost savings and revenue increases.

Conclusion

ExxonMobil is a leader in the use of POLA to reduce costs and increase safety across its upstream, downstream, distribution, and retail operations. POLA is a powerful tool that can help businesses in a variety of industries to improve their performance.



Recommendations

Here are some recommendations for businesses that are considering implementing POLA:

- Start with a clear understanding of your goals. What do you hope to achieve by using POLA? Once you have a clear understanding of your goals, you can start to develop a POLA strategy that is tailored to your specific needs.
- Invest in a robust data collection and analytics platform. A good POLA platform will be able to collect and analyze data from a variety of sources, including operational data, financial data, and customer data.
- Implement appropriate privacy safeguards. It is important to implement appropriate privacy safeguards to protect the privacy of your employees and customers. This includes obtaining consent before collecting data and limiting the use of data to the purposes for which it was collected.
- Be transparent about the use of POLA. It is important to be transparent about the use of POLA systems. This includes informing employees and customers about how the systems work and what data is collected.

By following these recommendations, businesses can use POLA to improve their performance and remain competitive in the coming years.