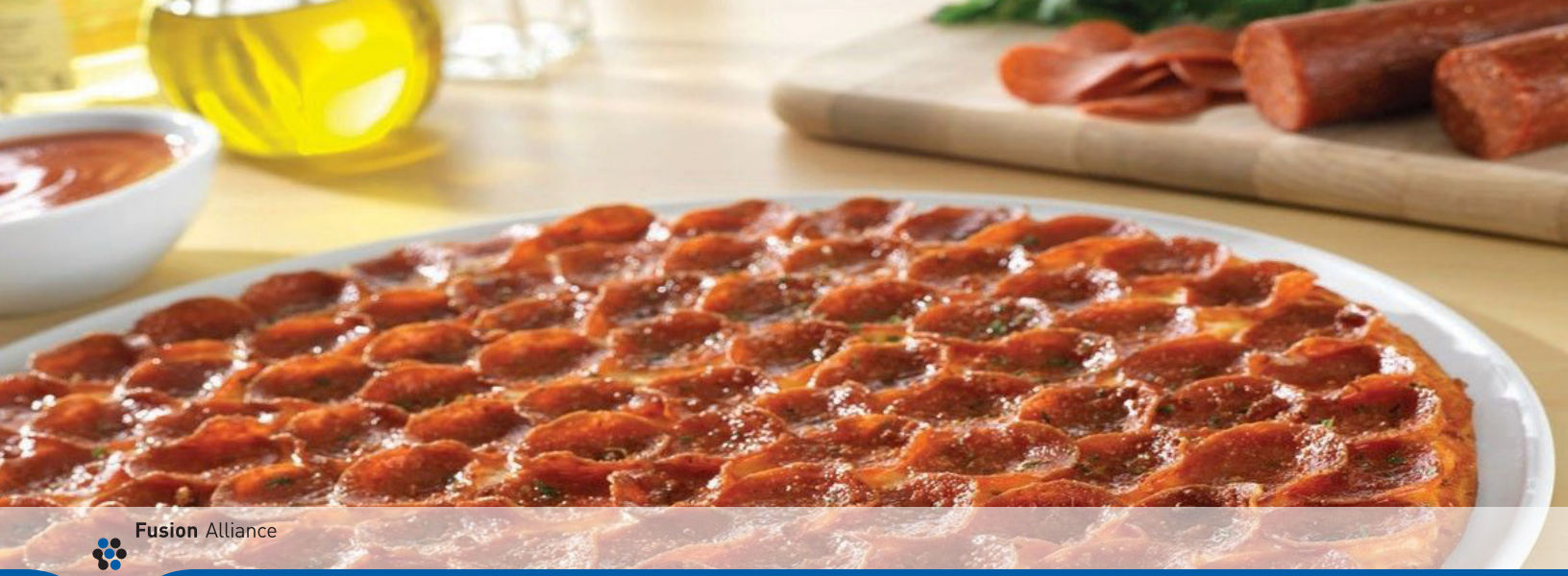

Fusion Alliance

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CASE STUDY: HOW DONATOS USES MACHINE LEARNING TO RETAIN CUSTOMERS

Overview

Disruptive technologies help companies differentiate themselves from competitors. But when you're not an Amazon or a Netflix, how do you leverage data to drive business decisions and set your company apart?

If you're like most companies, you possess a vast quantity of historic data about your customers. How well you can gain insights from that data to benefit your organization is what will differentiate you.

Donatos' story serves as an excellent example of how an organization early in its exploration of machine learning can successfully and rapidly drive business results using cloud predictive analytics.

Why Machine Learning

Machine learning is an advanced analytics tool that allows computers to analyze enormous amounts of data, learn on their own, and identify patterns that provide predictive insights. These insights help answer specific business questions, such as: whether a customer will return, whether sales will increase by a specific percent within a specific time, whether a customer would be a good loan risk, which transaction is fraudulent, what will our expected revenue be next quarter, or will this new record go gold, platinum or none of the above . . . answers that are invaluable to defining a business' next move.

Business Opportunity

Founded by a 19-year-old Ohioan in 1963, family-owned Donatos Pizza has grown to 160+ franchise locations. Donatos engaged Fusion to help solve a business problem. They wanted to retain more customers by identifying those at risk of leaving so they could take an action to bring them back into the fold.

Just a few months after applying machine learning models in a pilot program, **Donatos was able to retain 45% of the potential customers at risk of leaving, resulting in a 15% improvement in customer retention.** The program was so successful that Donatos recently made it mandatory across all locations to boost sales.

Objectives

- *Define a specific question for machine learning to answer (the defined question would be to predict whether a customer would leave)*
- *Identify at-risk customers on a daily basis to trigger actions that franchise owners can take to change the outcome*

Approach

- *Formulate questions*
- *Evaluate and select data*
- *Format data and develop a training set*
- *Develop predictive models*
- *Iterate over the models to achieve a desired state*

Outcomes

- *After the three-month machine learning pilot program, each of the participating stores reported a 15% improvement in retaining customers*
- *The machine learning program is now being implemented in every Donatos store*
- *This successful proof of concept opens the door to exploring other ways for machine learning to solve Donatos business challenges*

Keys to Success

- *Donatos' robust data practice and understanding of how data can drive business value*
- *Strong partnership and collaboration between Donatos' and Fusion's teams on both the business and technical sides*

Market Reality

In the current restaurant/retail industry, characterized by soft consumer spending, businesses struggle to stand out. Machine learning helps such organizations predict the best strategies to reduce prices, maximize supply-chain effectiveness, optimize stock replenishment and more. The use cases are endless, with benefits such as increased sales, improved customer loyalty, reduced spending and so forth.

Different Approaches

Traditionally, machine learning and predictive analytics initiatives cost millions of dollars, are high risk, and take a long time before you actually see an outcome.

Fusion turns that model upside down. **We are use-case driven, which means we start with a use case, pull in what we need in an iterative approach, and deliver a working solution that demonstrates value to a client in a few months.** Clients then have the option to tune the existing application or move on to new use cases.

This practical machine learning model, called Fusion Practical Analytics, enables rapid iteration of data to determine whether a particular use case is viable and **delivers outcomes faster than the traditional model**.

The Solution

Through a previous statistical analysis, Donatos found that if customers returned within a certain time frame, they would be likely to become long-term customers. Those who didn't come back within that period were unlikely to return at all.

Donatos wanted to find characteristics that impact whether a customer returns and compare them against the characteristics of new customers to predict who would not return. Store managers could take action to prevent high-risk customers from leaving.

Fusion found that Donatos has an abundance of data on its customers, demographic information, what they order, how they pay, time of order, time promised, amount of purchase, complaints and much more. That made it easier to create and implement a machine learning model in the pilot program of selected stores across the country. The pilot program also included a control group for comparison purposes.

Fusion brought in Donatos' data, put it on a cloud platform as an accelerator, then loaded and landed the data to let the machine learning algorithms do their job.

We evaluated and selected the data most capable of providing accurate answers. This iterative process included pulling in the source data, aggregating it and then filtering it for aberrations, such as orders expected not to repeat (e.g., an out-of-town business person at a hotel). Next, we assessed the quality and quantity of the data, then cleansed it, which resulted in a data set that we could use as a training data set.

We used the training data set to identify which algorithm would produce the most accurate model to predict who would stay or leave. Each day, we would run the previous day's sales against this model to produce a list of customers whose probability of leaving was over a certain percentage. Store managers then offered those customers an incentive to return, which proved to be highly effective.

Fusion predicted that at the end of a three-month trial period, the control group would retain 30% of the identified at-risk customers, which they did.

However, stores leveraging machine learning retained 45% of the at-risk customers they contacted, improving customer retention by 15% per store.

Relevant Takeaways

- Advanced analytics have a lower barrier to entry than expected, which makes machine learning a viable option for any size company
- The data must tell the story with machine learning. Introducing bias will provide skewed predictions, so the predictions are only as good as the quality of data
- Machine learning is most suitable when there is a specific, defined problem to be solved

DONATOS
Every piece is important.

About Donatos Pizza

Donatos is a family-owned pizza company founded in 1963 and headquartered in Columbus, Ohio. The company opened its first francise in 1991 and now has more than 150 locations in nine states.

Fusion Alliance

About Fusion

Fusion Alliance delivers actionable insights, customer experiences and human-driven technologies that transform the way our clients envision and shape their businesses.

That's why businesses across multiple industries have relied n Fusion's expertise and partnership for over 25 years. Fusion Alliance is the catalyst that moves your ideas to execution.

For more information

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