TERADATA

EXECUTIVE BRIEF
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RECIPE FOR REVENUE

SMART ANALYSIS OF BIG DATA HELPS FOOD SERVICE COMPANIES IMPROVE OPERATIONS, ENHANCE CUSTOMER EXPERIENCE, AND BOOST THE BOTTOM LINE

EXECUTIVE SUMMARY

The complexity of data in the food service industry has been supersized in recent years. This data comes in various forms—traditional (or structured data) such as transactions, guest scores and labor hours, to more complex and harder to analyze unstructured or multi-structured data such as social media, web logs and smart equipment.

To make sense of all this information, companies can choose from an array of technologies that enable them to combine their structured and unstructured data and gain new insights into their customers and operations. Tools such as a data analytics platform allow business analysts to manipulate and learn from large volumes of data to streamline operations, gain deeper insights from transactional data, improve customer service, and drive growth.

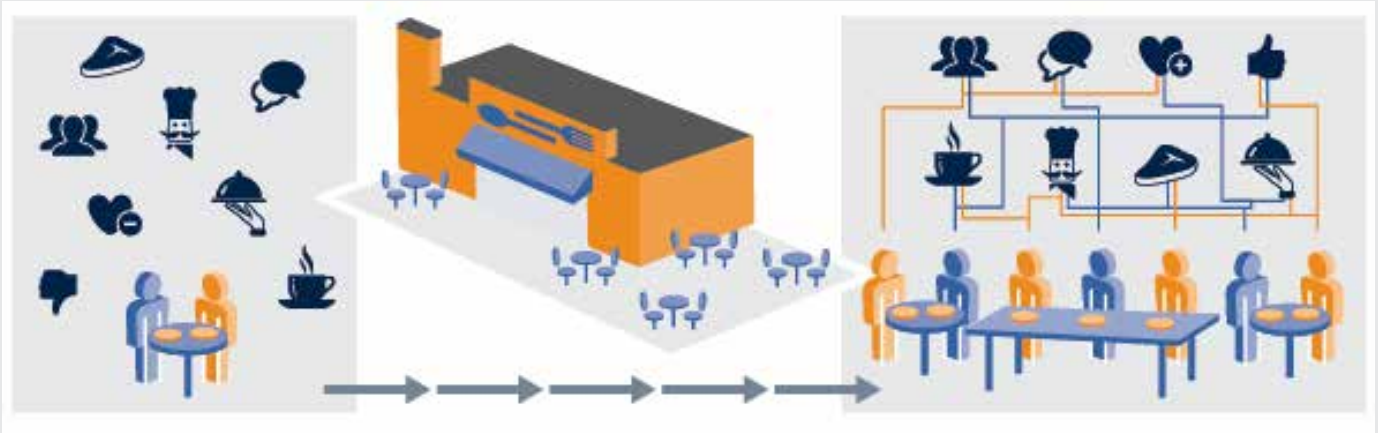
This big data technology—the storage and analytics tools that help organizations make sense of *all* their structured and unstructured data—is evolving quickly, and leading food service companies are evolving along with it. They recognize that old-fashioned data management is no longer sufficient to support the evolving business environment. Smart restaurant operators know they need the power and flexibility to analyze data from multiple sources in multiple formats to get a unified and useful view of their customers, products, and business operations.

BIG DATA ANALYSIS CUTS THROUGH ECONOMIC HEADWINDS

The economic slowdown of the past few years has pushed businesses across all retail channels to improve operations and enhance the customer experience. Companies in the food service industry, where costs absorb a large portion of revenue, are among the most hard pressed to run more efficiently. Typical labor costs run in the 18-30% range, and cost of goods sold (food and paper) typically run in the 25-40% range.

Clearly, cutting costs is a priority, and one of the best ways to do it is through better use of data. Research by the Economist Intelligence Unit shows that companies that identify themselves as "strategic data managers" (i.e., those that have a well-organized data-management strategy) financially outperform their competition. Restaurants that manage big data strategically know their business better and use that knowledge to drive revenue and profitably manage operations.

They know the key characteristics and behavioral drivers of their top-performing workers (who's efficient at what and who's not), so they're able to put the right people in the right place at the right time to serve customers more efficiently. They know their inventory better, so they can manage it the best way to eliminate waste. And they



Data driven insight from your business helps you make better decisions to grow and optimize your business.

know their customers better (who orders what and how often) so they can drive repeat visits.

Collecting the correct data and analyzing it with the proper tools, they can combine the unstructured, such as sentiment from social media sites such as Yelp, Facebook, Instagram, and Twitter, with the structured, such as what a guest ordered and who served it, to drive efficiency and customer satisfaction.

It's a lot to do. But this is the new world of data-driven marketing, and the companies that embrace it are the ones that are meeting their economic challenges and driving their profits higher.

SMART APPROACH SOLVES DATA OVERLOAD

There is an almost bewildering array of traditional data sources associated with a restaurant. There is point-of-sale data, customer data, and inventory data, to name just a few. Faced with this volume, many restaurants are seriously challenged by the cost of storing data and the complexity of analyzing trends. Some decide it's just too hard to make sense of all their data and extract knowledge from it, so they resort to summary or aggregated extracts or offload it to third-party providers. But they're missing out on the valuable nuggets of information they can glean by cost-effectively storing their own data and enabling their own business analysts to "ask the next question" and gain greater insights.

Increasingly, these companies are struggling with the complexity of unstructured data. It's tempting to ignore it, but companies that do could put themselves at a competitive disadvantage.

"A revolution is going to happen," Chris Diener, vice president of analytics at AbsolutData, told QSR Magazine. "We can't say when, but we're already seeing the start of it, and it's going to change the way businesses operate forever. The quick serve that masters big data first will have a huge edge on its competition. It will be flying over the marketplace while everyone else is on a bicycle."

For instance, if customers complain about a certain outlet or product, the business needs to be aware of that information and take action. If a customer is in a certain location, restaurants can use that information to push offers that may drive an impulse purchase.

Smart restaurants can also use sensor data from their equipment, determine its impact on operations, and take appropriate action. They can understand trends from this sensor data and correlate it to equipment downtime, potential food-safety issues, and the impact on customer service, and also take action to cut waste, reduce guest complaints, and improve restaurant operations.

Savvy restaurant operators are not intimidated by big data. They recognize its value, collect it, and analyze it to operate better.

THE RIGHT TOOL FIXES DATA CHALLENGES

Companies now have cost-effective technologies to store and use data from across the enterprise in any form. Open-source, low-cost storage platforms such as Apache Hadoop make it easier for organizations to deploy big data initiatives, enabling them to store massive amounts of data effectively for years.

Then by using analytical software applications such as Teradata® Aster® Discovery Platform, business analysts gain a discovery environment in which to easily analyze and operationalize raw multistructured data to identify behaviors, patterns, trends, and affinities. They can quickly scan large amounts of historical data from a Hadoop node, pull out the key nuggets, then perform analytics on the subset of data that has been deemed important.

And they can get granular—all the way down to keystroke data. The analytics from the discovery platform can be integrated with information from the more traditional, structured relational data to gain better understanding of their customers, drive efficiency of their operations, and cross-functionally analyze their business.

This ability to easily integrate data across the enterprise in any format can be used to develop a more effective marketing promotion based on a customer's current purchase behavior to drive the upselling of other products that have a high affinity for that customer.

Traditionally, data has required significant cleansing before it can be queried in a productive way. Businesses have spent time and effort scrubbing data, summarizing it, and moving it into a data warehouse where it could be accessed. Teradata Aster Discovery Platform helps solve this problem. It enables a business to take structured and unstructured data and quickly analyze it. Instead of dedicating time to writing code to convert unstructured data to a structured format that its systems can understand, a restaurant can now look at data in its raw form and automatically pull out the nuggets it needs to solve a problem.

For example, pattern analysis can tell a food service business what leads to satisfied customers. It enables a restaurant with thousands of locations in its chain to learn what similarities are shared by its top ten stores. What's their technique? What attributes do the best-performing restaurants possess that other restaurants do not? And how can those attributes be instilled in other stores? Analytics can show patterns and behaviors of best performers. And it can do that analysis quickly.

Here's another example: Big data technology can take a comment from a social network, such as a complaint about an entree, and trace it to a structured event such as a sales transaction, enabling the manager to identify operational deficiencies that are causing the problem and mitigate the damage.

Restaurants can also analyze the performance of employees on particular shifts. And they can forecast demand to enable more precise ordering of supplies. If they get a new shipment of meat, they can record unstructured data such as temperature, color, smell, and taste and enter it into a data platform. If there are issues—for example, if the data doesn't match the pattern of information gathered from previous shipments—they can alert the supplier and other stores in the chain to a potential problem.

The advantages don't stop there. A common challenge is staffing to meet anticipated demand. By understanding operational bottlenecks, managers can ensure their locations are properly staffed, with the most effective workers in their respective positions, to meet customer demand.

To achieve all of this, restaurants need access to the raw data that is captured but not traditionally deemed a priority for storage in the data warehouse. They need the tools to analyze that raw data into meaningful data sets and the ability to connect and integrate it with data residing in the data warehouse. Finally, to make their conclusions useful in field operations, they need tools to humanize and visualize their results and enable nontechnical workers to take action.

TOP-PERFORMING RESTAURANTS MAXIMIZE BIG DATA

Just a few years ago, most large chains discounted the notion of big data and advanced analytics. Few operators in the restaurant industry were doing sophisticated analytics. And even now, despite more effective point-of-sale systems and increased use of mobile technologies, most restaurants have only scratched the surface of how to best use big data. It's still a novel concept, and many are concerned that they don't have the people needed to do it in-house. While those restaurants that do take on big data often offload it to third-party companies for analysis, it's not the most efficient approach.

To get great analysis, they have to bring big data in-house. They have to provide their own people with data and tools at their fingertips so they can solve business problems better and faster. To do that, restaurants can use tools such as Teradata Aster Discovery Platform, which enables a typical business analyst to gain insight from the volumes of data available in the food service trade. Teradata Aster Discovery Platform gives companies the capability to quickly and easily capture, refine, and analyze the many types of data available to them.

Tapping into the power of both a data storage platform such as Hadoop and a data analytics tool such as Teradata Aster Discovery Platform, restaurants can extract value from their multistructured data and apply new analytics techniques to discover business insights. With industry-leading data warehousing, data discovery, and data-staging capabilities, food service organizations can capture a unified view of customers and establish a new data-driven approach to their operations.

HOW TO GET STARTED WITH TERADATA

It sounds difficult but, in fact, it's easy to get started with big data analytics. Teradata has experts who will help your company take the first steps. We will connect the data assets you have with the business problems you need to solve. If you don't know what those problems are, our experts will help you identify key areas for improvement, working with you to line up your business challenges with the data sets that can solve them. From there, they'll create a low-risk, low-barrier-to-entry roadmap to start you on your way to better operations, a stronger bottom line, and happier customers.

Learn how Teradata solutions for the food service industry can help your restaurant efficiently respond to your most challenging business questions and improve your bottom line. Contact your Teradata representative or visit: **www.teradata.com/industry-expertise/gaming**.

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