



**NEORIS**  
CPG & retail

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Models and  
Algorithms of  
**AI and Machine  
Learning for  
Increased Sales**



## Context

The beverage industry in Mexico is one of the most important and competitive sectors in the country. According to the Mexican Beverage Association (MexBeb), in 2022, this industry generated a production value of 1.15 billion Mexican pesos in the national economy, equivalent to 3.1% of the total GDP. Despite its economic relevance, companies in this sector face significant challenges in staying at the forefront of technology.



One of the major challenges for one of the main companies producing and distributing carbonated and non-carbonated beverages in this country was the need to optimize their sales and distribution processes. In a highly competitive environment, having a sales team with access to precise information about customer preferences can make a big difference.

Here is where **solutions based on Artificial Intelligence (AI) and Machine Learning** are playing a disruptive role, by allowing the analysis of large volumes of data and generating personalized recommendations that enhance the effectiveness of the sales force.

From NEORIS, we understood what path to take and decided to offer this company a solution where we knew how to capitalize on the benefits of AI and Machine Learning in commercial processes.



## The Challenge

Faced with the challenge of increasing sales volume through its traditional channel, this leading beverage company in the Mexican market —with operations throughout the country, 30 distribution centers, and three manufacturing plants— had the need for a technological solution that would boost the increase in transactions, while driving operational efficiency and processes to strengthen its competitiveness in an increasingly dynamic environment.

Considering the experience in developing solutions for sales and distribution areas of companies from various sectors, the company turned to NEORIS as its technology partner to implement a project that would allow them to achieve their business objectives.

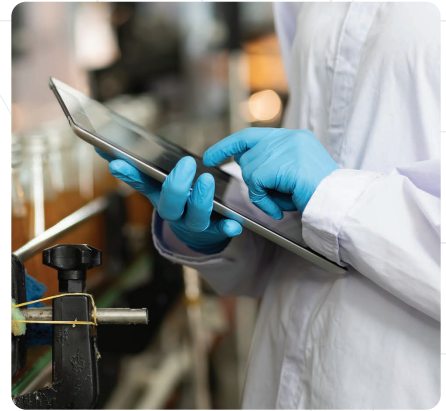
The choice of NEORIS was based on its proven track record in similar projects, as well as its collaborative and customer-centered approach. For this company, beyond achieving an effective solution, ongoing support and strategic guidance were essential factors to ensure that the project was successful in the long term.



## Our Proposal

To address the needs of this beverage company, we proposed a comprehensive action plan that sought to provide salespeople with an innovative tool that would allow them to receive specific product recommendations and offer their customers a wider range of products according to their needs.

Thanks to this, negotiations by the sales team would be facilitated, and the average sales ticket would increase. Thus, the action plan from NEORIS included the following elements:



**Detailed analysis:** An exhaustive analysis of our client's needs and challenges was conducted, as well as a study of the information available to understand the expectations and preferences of their own customers.



**Development of digital solutions:** NEORIS designed and developed a mobile application for salespeople that provides real-time product recommendations. These recommendations are powered by AI and Machine Learning models that consider the customer's purchase history, market trends, geographical location, weather forecasts, and other relevant data. These models enabled salespeople to receive the information they need in order to offer customers the best products.



**Multidisciplinary team:** To deploy this solution, NEORIS assigned a multidisciplinary team of experts in software development, data science and engineering, user experience (UX) design, and business consultancy. This team worked collaboratively with the client to ensure that the solution adapted to their needs and objectives.



**Technical and operational requirements:** The developed solution complied with rigorous technical and operational standards. Data security, platform scalability, and ease of use by the salespeople were prioritized. Additionally, smooth integration with the company's existing systems was ensured, and continuous support was provided for maintenance, application optimization, and retraining of the prediction algorithm (demand prediction and product recommendation model).





## The Solution



The project, carried out by NEORIS Mexico Data Analytics & Artificial Intelligence team, leveraged with Google technology, included an initial phase that covered various business areas with the aim of developing a solution that would adapt to existing processes and tools. **This initial phase focused on the development of Machine Learning models and their integration with the mobile application, aiming to maintain the design of the usual look & feel to facilitate the understanding and adoption of the solution by the sales team.**

The project included the development of three Machine Learning models. The first model focused on segmenting the customers of this company, based on their purchasing behavior. Then, the second model predicted future demand, considering variables such as the purchase history of each customer, their location, the date, holidays, and weather. Finally, the third model generated specific recommendations for each customer, based on the results of the second model, comparisons with similar customers, and additional business rules.



The results of the Machine Learning models were integrated into the client's infrastructure to be accessed by the salespeople on the application they would use on their tablets. **To this application, a button was added for the salespeople to consult the "Suggested Order" for their client, along with an explanation of why it is suggested to sell that product to the customer.**

Additionally, tracking dashboards (Excel tables) were developed for sales managers to monitor how much the salespeople use the "Suggested Order," as well as the percentage of acceptance, modification, or rejection of the suggestions.



# Teams Involved in the Development

This development involved the collaboration of various specialized areas:

## Data Science

This team develops machine learning models to perform customer segmentation, predict demand, and provide product recommendations. These models use advanced data analysis techniques to extract meaningful information from data sets.

## UX/iOS

This team is responsible for redefining the appearance and functionality of the iOS application to include the "Suggested Order" feature, ensuring a smooth and coherent experience for users.

## SQL Backend

Prepares the SQL structure (designed to manage and retrieve information from relational database management systems) to export data from the existing client infrastructure and import the "Suggested Order" data.

## BI

Executive dashboards are created to monitor the use of the "Suggested Order" and demand forecasts. BI tools are used to visualize and analyze data, providing valuable insights for decision-making.

## Data Engineering

Extracts data from the client's SQL server, prepares and transforms the information in a Cloud environment, and then inserts the "Suggested Order" data into the client's SQL server. This team works on the efficient management and processing of large volumes of data.





# The Results



The project's results were significant and translated into substantial company sales and commercial performance improvements.

The implementation of this solution was done in stages to minimize the potential impact on operations and was carried out in 3 phases:

## Phase 1

Initial implementation in 11 delivery routes

In the pilot phase of the project, 11 pre-sale routes from a single distribution center were identified to have a controlled environment. These 11 routes, which were the first to use the "Suggested Order", were called "Group A". The "Group B", or control group, corresponded to another 11 routes, similar in both sales and customers to those of Group A.

Once this phase ended, and after 2 months in operation, the two groups (A and B) were compared with comparable sales volumes. It was determined that the group using the "Suggested Order" solution experienced a 6% increase in sales (measured in boxes) and a 10% increase in net sales (measured in local currency).

## Phase 2

Scaling to 6 distribution centers in different regions

Given the success achieved in Phase 1, it was demonstrated that it was feasible to scale the solution, so 6 distribution centers across the national territory were selected.

As a result of this phase, an increase in the indicators, compared to the previous year, was evident. An 18% increase in net sales (measured in local currency) and a 7% increase in units sold (measured in boxes) were recorded.

## Phase 3

National implementation in all distribution centers

The project's last phase was scaling the solution to all distribution centers in the country. Qualitative and quantitative measurements were made to evaluate the impact of the solution, observing the following results:

**86%** of the distribution centers that used the "Suggested Order" feature registered an increase in sales.

The **10 delivery routes** that most frequently used the "Suggested Order" feature reported double-digit sales increases.

**65%** of the routes that reported a sales increase are using the "Suggested Order" feature.



In summary, the project results showed **the positive impact of the "Suggested Order" feature on the company's commercial performance.** The improvements in sales and the widespread acceptance of the tool reflect its effectiveness and ability to drive growth and efficiency at all stages of the sales process.

## Testimonials

“ There is a direct relationship between the use of the 'Suggested Order' and the increase in sales. The routes that use it the most are the ones that have reported the greatest increase in sales. ”

Client's Project Manager

“ The application helps me offer products that I don't always have in mind or that I don't always offer to customers. ”

Client's user salespeople

“ The use of 'Suggested Order' makes it easier to transition salespeople and helps identify the products customers usually buy. It doesn't rely solely on the salesperson's knowledge of their route. ”

Client's Distribution Center Manager

“ Our innovative solution with AI has proven to boost sales by providing personalized suggested orders to customers, thus enhancing the success of salespeople. ”

Orquídea Castillo, Commercial Director of Manufacturing,  
CPG, and Retail at NEORIS