

DATA ANALYTICS

CUSTOMER STORY

Data analysis energizes urban mobility

Data analysis solutions from Qlik support decisions to optimize public transport service



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“We made great advances in the maturity of our data analysis with the creation of a new business intelligence structure. The use of the Qlik platform is a great differentiator to obtain better results, strategies and controls.”

Renata Faria, Executive Director, Riocard Mais

Modern urban mobility generates complex information

Urban mobility increasingly depends on integrating the different modes of public transport and electronic ticketing systems that benefit the user. Modernization offers operators an opportunity to improve the efficiency and profitability of their business, and agility in accessing and analyzing data is a critical factor.

The Riocard Mais ticketing system has been driving this transformation, leading a digital transformation in the Brazilian transport sector. The transition from paper to electronic tickets began in 2003. At the start, more than 200 companies joined, representing around 20,000 buses at that time. Since then, Riocard Mais has expanded geographically and today it is accepted in 72 cities in the state of Rio de Janeiro and can be used on all modes of transport, including trams, the metro, boats, light rail and minivans. The system has more than 25,000 validators that process more than six million journeys every day.

Riocard Mais is currently the biggest ticketing system in Brazil and Latin America, with more than 2,000 points of sale and more than 100,000 companies that buy travel credits for employees. It offers travel cards for students, senior users and those with mobility impairments as well as an app that allows users to check their balance and reload their Riocard Mais card directly on their mobile phone. It has an anti-fraud facial recognition biometric and comes as a wristband or keyring.

Solution Overview

Customer Name

Riocard Mais Tecnologia da Informação S.A.

Industry

Transportation and Logistics

Geography

Rio de Janeiro, Brazil

Function

Sales, Supply Chain Management

Business Value Driver

Customer Intelligence, Reimagined Processes

Challenges

- To facilitate and simplify access to an increasingly large and complex volume of data
- To analyze user behavior to reduce fraud in the use of travel passes
- To help transport operators optimize resources and reduce costs

Solution

Riocard Mais uses Qlik Sense for data analysis and reporting and alerting. Information can be consulted by Riocard Mais' internal business areas and by transport operators.

Results

- Data is consulted every day by 50 internal users and hundreds of transport companies
- Analysis of user movements and profiles enables rapid action to reduce fraud in the system
- Monitoring the impact of the pandemic enabled a reduction or increase in services, with a positive impact on cost

As Riocard Mais introduced more innovations, data volumes increased and became more complex due to the increased functionalities and technical requirements to respond to the system and understand end user behavior. Each year, the system records two billion operations and 60 million financial transactions.

Independent consultation by clients

At the start of 2017, Riocard Mais finished building a corporate database that replicates the content of the IBM mainframe running Db2 applications to facilitate data consultation by the financial and commercial departments, as well as transport operators.

“Each area of the company used a separate tool. We needed consistency in the information, as well as agility,” says Renata Faria, Executive Director for Riocard Mais.

Consultations had to be done on the mainframe, which generated conflicts between normal credit sales and business area reports, such as the finance report which has a high data volume. “Sometimes I hindered sales from ATMs after asking for a report due to a processing conflict. We couldn’t offer credit on the street because it would freeze the system. My query was scheduled to a timeslot on the weekend because the mainframe was optimized to sell credit during the day and process company payment transactions at night,” says Financial and Human Resources Director André Nolte.

In order to avoid slowing down the systems, the IT department was limited to running in small time slots and a request would take on average 48 hours to fulfil. A tool was needed to give users greater independence.

Facility and simplicity in data access

Riocard Mais’ systems department started a comparative market survey with two other analytics solutions. “Based on a technical evaluation of the available tools, we opted for Qlik Sense because it could process the information very rapidly and present it to the end user in a simple way,” says Marco Albuquerque, Systems Manager at Riocard Mais.

The project studied two main points: reduced fraud in travel card use and analysis of companies’ supply and demand fluctuations over 24 hours. Riocard also implemented Qlik Sense reporting and alerting capabilities to send information from reports automatically to customers.

Swift analysis reduces fraud

Implementing Qlik Sense in Riocard Mais made access to information more dynamic for 50 internal users and transport companies. For example, analyzing travel card history enables identification of illogical behavior that implies fraudulent use of the card. Qlik allows dashboards to be created with the profile of such users, which gives major insights for the anti-fraud team, enabling it to block irregular operations. One result was a 65% reduction in fraud from credit purchased through the mobile phone app. “When we talk about anti-fraud, speed of analysis is essential in taking action,” says Executive Director, Cassiano Rusycki.

Another advantage of Qlik is the chance to find out where there is greater or lower demand each day and optimize bus lines, helping operators with their planning. This tool was crucial in monitoring the Covid-19 pandemic. Over two weeks, the number of public transport passengers in Rio de Janeiro fell by 72%. The information was vital in producing a breakdown of passenger, product, mode and company, and for informing decisions about opening and closing lines and stores, with an impact on costs.

Nolte says that the partnership with Qlik is vital to digital transformation: “With Qlik I have various analyses that I could not get previously with the same level of detail. Information analysis is essential to understanding the customer and corroborating greater agility and response in services.”

The keys to success



6 million daily journeys



65% reduction in fraud

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André Nolte, Financial Director, Riocard Mais



About Qlik

Qlik’s vision is a data-literate world, where everyone can use data and analytics to improve decision-making and solve their most challenging problems. Qlik provides an end-to-end, real-time data integration and analytics cloud platform to close the gaps between data, insights and action. By transforming data into active intelligence, businesses can drive better decisions, improve revenue and profitability, and optimize customer relationships. Qlik does business in more than 100 countries and serves over 50,000 customers around the world.

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