

Aeroporti di Roma sees customer satisfaction soar with digital transformation

Complete data integration, correlation, and visibility on customer behaviors

BEST
AIRPORT IN EUROPE
(AIRPORTS COUNCIL
INTERNATIONAL)

Airports are increasingly considered more than just stepping stones in the travel journey. With amenities such as shopping, fine dining, entertainment, business centers, and other services, many airports are considered destinations in their own right. In fact, today's airports resemble small cities with municipal-level utilities, post offices, financial services, medical facilities, security outposts, sanitation services, and more.

All these services add a logistic challenge to an already dynamic environment. To improve the entire passenger experience, airports need to connect every element of their operations into a single view—no easy feat, but one with innumerable rewards. Airports around the world are seeking ways to accomplish this, with the end goal of increasing revenue, attracting new carriers, and positioning themselves as favored stops in the travel journey.

Aeroporti di Roma, the organization that manages the two major airports in Rome, rose to meet this challenge. By successfully connecting the complete traveler experience across the airport ecosystem, it shifted from reactive to proactive operations. Using its innovative platform, it continuously met success, creating revenue-generating opportunities and airport expansions.

All roads, and airlines, lead to Rome

Today, most airlines—and all Rome-bound passengers—pass through Aeroporti di Roma's gates.

Italy's largest airport management company, Aeroporti di Roma, oversees the capital city's Leonardo Da Vinci airport (Fiumicino/FCO) and the smaller Giovan Battista Pastine airport (Ciampino/CIA), encompassing more than 40,000 employees including handlers, police, retail employees, and more. Each year, 140 airlines carrying nearly 50 million passengers, fly in and out of Roma's airports. The company also manages parking and operates airport retail stores, giving itself broad responsibilities in the end-to-end travel experience.

"We are focusing on passenger flow analysis to better understand customer needs, and how to improve the time they spend in various areas. We use Spotfire to develop passenger heat maps and bubble maps that show volume and density, as well as typical passenger flow paths."

— Floriana Chiarello, Head of Demand Management

Catalysts for transformation

Despite geographical boundaries, the airport industry remains intensely competitive. Airport satisfaction rankings and surveys are a top priority. Research shows passengers satisfied with their airport experience are more likely to travel with greater frequency and spend more money on shopping, dining, and other revenue-generating services.

Conversely, customers with poor airport experiences often make their voices heard on social media channels and review websites. They hold airlines accountable for the faults of the airport (and vice versa) which can cause friction between airlines and their hosts. In particular, flight delays and cancellations can spoil a trip before it's even started. Flight disruptions not only fuel customers' negative experiences, they create a major financial impact on airlines due to insurance penalties and the time needed to accommodate stranded passengers.

Improving customers' experience requires facilitating a smooth travel journey with streamlined airport operations. The longer a passenger has to wait in the security line, the more disgruntled they may become, and the less time they have to dine or shop before boarding their flight. Optimizing the airport experience has a snowball effect on business opportunities, passenger satisfaction, airport expansion, and more.

However, in the mid-2010s passenger satisfaction at Aeroporti di Roma airports was declining. According to a 2013 report by independent airport consulting group Airports Council International, Aeroporti di Roma ranked 3.31 out of 5, putting it below the quality of experience that competing airports were delivering. Third party rankings are influential in attracting new airline and retail business, serving as key indicators that Aeroporti di Roma needed a strategy to transform its end-to-end traveler experience.

The complexity of real-time data

Many people underestimate how abundant, dynamic, real-time data permeates every aspect of airport operations and the traveler journey. Flights, gates, schedules, and gate agents must be coordinated; security staff managed; the influx of passengers and general facility access for business operations must be organized; weather disruptions dealt with;

parking facilities and intra-airport transportation systems run smoothly; check-in staff, logistics, baggage, and security services synchronized. It takes thousands of employees and insight into real-time data gathered throughout the traveler journey to pull it all off with as little delay as possible.

Further, passengers today demand a digitally connected travel experience, meaning booking, ticketing, check-in, flight status notifications, gate change alerts, baggage tracking, and guidance on various airport amenities accessible all on a mobile phone. The ability to see, manage, and optimize all these events presents complex and interdependent data integration, unification, and analytic challenges. Airports and airlines must work together to harness the value of all the available data to proactively manage the passenger experience and make travel less of a burden and more of a delightful adventure that translates into increased revenue.

35%

INCREASE IN
SERVICE QUALITY
OVER 6 YEARS



Transforming to a smart city

Aeroporto di Roma needed to gain control of its expansive data universe with a system of insight, through which it would align technologies, business processes, and people to deliver innovative, efficient, high-quality services throughout its ecosystem. Spotfire and TIBCO were selected to make this transformation possible.

Company leaders knew that selecting Spotfire and TIBCO meant they would not only have a solution to their most pressing needs today, but an extensible platform that could adapt and grow with the airport as new goals and challenges emerged.

With Spotfire and TIBCO at its core, Aeroporto di Roma launched its Airport Operations Plan to centralize operational data and provide awareness of everything happening throughout its ecosystem. With backend systems integrated, the power of real-time data is maximized through interactive visual analytic dashboards, allowing all relevant stakeholders to make faster, better decisions.

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STAR COVID-19
SAFETY RATING

Predictive KPIs further help the airport determine future trends based on current performance. Connecting thousands of data sources and unlocking the value of real-time data was revolutionary for the group.

"We are using Spotfire and TIBCO to integrate and correlate all information to understand customer behaviors, manage operational situations, and prevent critical events," said Head of Demand Management Floriana Chiarello. "The plan is the main solution used in the control room and is supported by these platforms. It correlates all information for all stakeholders, including airlines, handlers, security, air traffic control, ground control, facilities, and others to better manage both air-side and land-side processes."

Analyzing traffic flows

The platform helps streamline and automate services throughout the airport. As passengers move about terminals, by collecting and analyzing anonymized data from their WiFi-enabled phones, the airports can improve the flow of people. Deciding where to add new stores, restrooms, water fountains, and more is not just a matter of space; optimal placement of these amenities ensures maximum passenger comfort and seamless transition from the minute they step into the airport to when they board their plane.

"We are focusing on passenger flow analysis to better understand customer needs, and how to improve the time they spend in various areas," explained Chiarello. "We use Spotfire to develop passenger heat maps and bubble maps that show volume and density, as well as typical passenger flow paths."

Equipped with a real-time view into passenger behaviors, Aeroporti di Roma can take steps to alleviate long lines, enable push notifications steering travelers toward nearby shopping and dining options via the airport's complimentary Wi-Fi, and otherwise improve customer conveniences. Passenger movements are analyzed all the way up to the gates so Aeroporti di Roma can correlate passenger flow with flight data, and even compare it to boarding pass information presented in retail shops. "By analyzing correlated data, we can activate predictive analysis and study trends to identify future improvements," said Chiarello.

APIs keep the ecosystem informed

The Airport Operations Plan allows airport staff to act on critical information and third-party airport partners to stay informed on operational status. Using APIs via Spotfire and TIBCO, restaurants, other retail outlets, and other service providers obtain real-time data that may affect their operations.

For example, railway transporter Trenitalia relies heavily on Aeroporti di Roma's real-time flight information. The train system, which delivers travelers from downtown Rome to the airport, publishes real-time flight

updates and other airport information on in-train screens so passengers are informed of changes. Proactively alerting of changes before travelers arrive at the airport helps alleviate frustration and impart a sense of control, as found by correlating these alerts to improved customer satisfaction.

Additionally, passengers can always find a taxi waiting outside the airport, made possible by the airport's partnership with the city's Official Taxis Association. Its mobile application shows how many taxis are available and where they are located. Taxi drivers can see where they are needed, so there is never a passenger waiting. These innovations also extend to trains and limousines so that passengers always have a way to and from the airport.

"Everything has to be measured and so everything is based on data in the end," said Emiliano Sorrenti, CIO of Aeroporti di Roma.

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Soaring customer satisfaction

As a result of its transformation with Spotfire and TIBCO, ADR's customer satisfaction has increased dramatically, and business is accelerating. Supported by its newfound efficiencies, the airport added a huge new boarding area allowing it to handle more than 6 million additional passengers per year. Its innovative boarding and disembarking features accommodate the world's largest aircraft and includes an exclusive shopping gallery with the best Italian and international products and a superb set of restaurants with fine and casual dining options.

The industry has taken notice: Aeroporti di Roma is now the leading airport in its class. It was named the best airport in Europe for the last four consecutive years by Airports Council International (an accolade never before bestowed upon a single airport over such a span of time), and rose from a 3.31 to 4.47 out of 5 in the group's "Airport Service Quality" index, a massive 35 percent increase in the coveted rankings. Industry group Skytrax also named Aeroporti di Roma a 4-star airport for the last two consecutive years.

Aeroporti di Roma receives high rankings because its staff understands airports are not just a means of travel, but a part of the very journey. Optimized operations provide a foundation for new and unique customer experiences. According to Sorrenti, “Every time you go to the airport, you should have something that reminds you of your experiences. Passengers are the light that drives our journey here, so we try to give small gifts to passengers by way of experiences like shopping, nice restaurants, the highest level of care, and unique touches like musicians from the Academy of Santa Cecilia or Maestro Pappano—a very famous piano player. We’ve also had a partnership with the historical museums in Rome to feature statues and mosaics.”

The airport measures customer satisfaction everywhere to ensure experiences and touchpoints are meaningful and working. “We always go back to data and integration to make sure things are going well or to identify what is not going well so we can fix it within a reasonable timeframe,” Sorrenti added.

The airport of the future

Aeroporti di Roma’s data-driven operations became even more vital during the COVID-19 pandemic as travel slowed dramatically. As the airport shifts focus to making it one of the safest places to be, it still keeps customer needs for seamless and hassle-free travel in mind. According to Sorrenti, “We use sensors that were once used to maximize the capacity of certain areas to monitor social distancing. We also have thermal scanners in helmets, so staff can walk around the airport and check temperatures.”

Thanks in part to these efforts, no new COVID cases have been reported. Passengers are pleased, and so too are industry groups like Skytrax who awarded the airport a 5-star COVID-19 safety rating, the first airport to ever receive such recognition globally.

Like many other businesses managing the economic impact of the pandemic, cutting costs is top of mind for driving profitability. With Spotfire, the airport was able to analyze which areas of the airport should stay open and which should close for maximum safety, customer satisfaction, and operating efficiency. These analyses led to Aeroporti di Roma to reduce nearly 40 percent of its day-to-day operating costs while continuing to provide a high-quality passenger experience.

In addition to weathering the pandemic, the United Nations recently recognized the airport for its sustainability efforts. The airport is building new infrastructure in accordance with the L.E.E.D. Gold certification, one of the highest levels of environmentally friendly building practices worldwide. Sorrenti stated: “The number of initiatives in our new building phase helps us position Aeroporti di Roma as an airport that is sustainable and eco-friendly.”

40%

REDUCTION IN
OPERATING COSTS
DURING THE
PANDEMIC



Aeroporti di Roma operates Rome's Leonardo da Vinci-Fiumicino and Rome Ciampino airports serving more than 50 million passengers every year.

Made possible by Spotfire & TIBCO

Delivering superior performance is no accident. Continuous, sustainable innovation in the pursuit of perfection, made possible by Spotfire and TIBCO, is the key to Aeroporti di Roma's success. Equipped with a more complete understanding of the travel ecosystem, the airport has plans to innovate as travel begins to pick up in the coming years.

"We want to use digital instruments to personalize the travel experience and increase results. We also want to invest in digital backend projects to improve services for airport ecosystems, increase efficiency, and continue to reduce operational costs," Chiarello shared.

Sorrenti added, "My personal hope is that the airport will be able to create new levels of intimacy with passengers as we keep the highest levels of safety."

With a focus on customer intimacy and operational excellence, innovating with Spotfire has given Aeroporti di Roma the ability to continue raising the bar of travel experience. As an increasing number of passengers fly in and out of Rome in the years to come, they will surely continue to be delighted by their journey.

Ready to get smarter with Spotfire visual data science? Talk to an expert today at spotfire.com/contact-us.



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16Aug2024