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Knowledge@Wharton – Wipro
CIO Series

Travel Industry Taps Technology to Win Over Customers



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Technology is opening new ways for companies in the travel and hospitality industries to engage with customers, raise revenues and streamline processes. Experts from Royal Caribbean Cruises Ltd., Wipro Technologies and Wharton discuss the best approaches in this CIO Series article, produced by Knowledge@Wharton and sponsored by Wipro.

For Bill Martin, the chief information officer (CIO) of Royal Caribbean Cruises Ltd., his two teenage daughters provided the best corporate strategy lessons. In 2012, when he and his family went on a cruise, everybody turned off their phones and put them in an onboard safe.

Then last summer, on a California coast drive, his daughters kept taking photos on their cell phones and sharing them with friends using apps like Instagram and Snapchat. The big question he gets when choosing a family vacation spot is: "Will I have Internet there?" It's clear — no vacation is complete without Internet access.

Martin took that message to Royal Caribbean's top management. He explained that today's younger generation — a growing market segment for cruise lines — wants to share vacation experiences in real time. What followed is hoped to be a game changer for the \$8 billion (2013 revenues) company, which runs 41 cruise ships calling on 490 destinations across seven continents.

Starting in late 2014, the investments Royal Caribbean began making two years ago to boost onboard Internet connectivity will come to fruition. Its newest ships — *Allure of the Seas* and *Oasis of the Seas* — will have Internet bandwidth and speeds equal to onshore hotel locations, says Martin.

The Internet project is just one among several technology programs at Royal Caribbean. Another aims to employ data analytics to better understand customer preferences and extract more operational efficiencies. Its recently revamped website, for example, enables easier mobile phone access for browsing and reservations, with continual upgrades planned. A major overhaul of its reservations and pricing systems completed last year is enabling new combination packages and pricing options.

To roll out the updated Internet, Royal Caribbean in 2012 tapped Harris CapRock, a connectivity specialist for remote environments, which collaborated with O3b, a provider of high-bandwidth satellite

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connectivity to “give our guests shore-like connectivity at fiber-like speeds,” notes Martin. He sees it as a big competitive advantage even over other land-based resorts.

Tapping Analytics

The enhanced Internet connectivity will help Royal Caribbean find new ways to use analytics on customer preferences. For example, a new call center program supplies agents with key customer information, such as cruise trip frequency, room class and dining preferences, onboard spending patterns and the like.

“In a cruise line there could be hundreds of customer touch points, and you have to think about whether or not you have good data on those,” says [Elea McDonnell Feit](#), a lecturer at Wharton. She is also executive director of the [Wharton Customer Analytics Initiative](#) (WCAI), which helps companies leverage customer analytics.

Feit gets companies started by mapping their customer engagement process on storyboards, which helps them identify customer touch points, gather data around them, and use the business intelligence gleaned to improve customer offerings.

Taking a leaf from the casino industry, Feit says the first step there is to track customers each time they play, using their “rewards cards.” The next step is to measure the data with appropriate systems. The third is to understand customer behavior patterns with analytics, and the fourth stage is to plan “interventions that could change the customer’s path.”

Feit notes that cruise lines could continue to get data from their customers by

engaging them even after they get off the ship. For example, they might offer each customer a free “My Vacation” page on their website. Here, customers could share vacation photos with friends and family and the company could then track the visitors. Deviprasad Rambhatla, head of the travel, transportation and hospitality services unit at Wipro Technologies, says such “social sensing” could provide useful analytics. Social sensing tracks customer behavior through social media platforms like Facebook, cell phones, online gaming consoles, and smart meters or GPS navigation tools in their cars.

In the travel and hospitality industries, roughly 45% of online customer visits are abandoned midway. Using analytics to understand behaviors more clearly, companies could better engage with customers and potentially convert 15%-20% of the abandoned transactions into sales, Deviprasad says.

Revamped Online Presence

Earlier this year, Royal Caribbean unveiled a website that makes it easier for prospective customers to navigate its offerings, especially on mobile platforms like smartphones and tablets. “That’s how you reach my kids,” says Martin, explaining that the younger generation prefers mobile devices to computers. In social media, the company has introduced features that allow customers to enter ratings for different itineraries and pre-book onboard activities.

Royal Caribbean also wanted to price services more efficiently. One solution: a “pricing promotions” tool, unveiled in October 2013, which replaced a 20-year-old reservation system. Martin says the new

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system allows greater flexibility in targeting customers with combined offerings. He is also working on a new reservations interface for travel agents."

Technology Guideposts

As Royal Caribbean goes about its technology programs, Feit offers some words of caution, while Deviprasad points out new possibilities.

In data analytics, it is vital for the CIO and the chief marketing officer (CMO) to collaborate, says Feit. "The CIO collects the data that helps the CMO see where there is a problem, but you can't fix the problem without the CMO's creativity in how to address the customer's challenge."

Companies tracking customer data must also decide whether they want to use "passive or active" methods, says Feit. A typical passive method would be to track customers' cell phone usage, usually without their knowledge. Feit advises companies to use active methods to gather data, say, by requiring customers to swipe their card on a machine to get their free towels on a ship deck. "You can run into privacy issues when it is not completely transparent to the customer that you are

tracking them," she says. Deviprasad agrees, and says most companies typically obtain customers' consent on service agreements.

With processes set to prevent privacy violations, mobility can help boost satisfaction scores by supplying crewmembers with data on customer preferences. "You can see the customer's delight when a crew member walks up to with a tablet and recommends his or her favorite drink," Deviprasad says, drawing from an airline client's experience with analytics and mobility.

He also sees opportunities for hospitality companies to use broadband connectivity to power infrastructure management. For example, a cruise liner could use remotely managed services to run onboard network equipment, computers and even non-computing devices like air conditioners, generators and turbines.

With new speeds for surfing the Internet on the way, Martin now is keeping his "eyes and ears open for new ways of doing things." He recently acquired Samsung's latest Gear brand of "wearables" — watches — and is testing ways that will allow cruisers to broadcast their experiences in real-time.

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