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Connecting Customers to the Travel and Hospitality Industry

Ajay Paul and Sumit Sadhukhan

ISG WHITE PAPER

INTRODUCTION

Some 3.8 billion people traveled by air in 2016, and those numbers are on the rise. Not only are more people taking to the skies, but the nature of travel also is changing. Leisure travel no longer will be exclusively for the privileged few. Millions of middle class and millennial travelers also will seek world-class travel experiences. In addition, trends such as ride-sharing, alternative lodging and smartphone use are reshaping how people interact with and spend money in the Travel and Hospitality (T&H) industry.

Companies today have plenty of levers they can pull to address these challenges, and these levers are becoming more and more powerful with new technology.

The supply side of travel, too, is undergoing a change due to an astonishing influx of funding into the travel-startup ecosystem. In the last 18 months alone, funding for travel startups has nearly matched the funding they received over the course of the prior 11 years.

For a traditional enterprise in the T&H industry, these disruptions pose three major challenges:

- Acquiring new guests and passengers while the industry's customer base experiences large-scale demographic changes
- Retaining existing guests and passengers in the face of greater competition
- Sustainably differentiating to compete against disruptive entrants and travel startups.

The good news is companies today have plenty of levers they can pull to address these challenges, and these levers are becoming more and more powerful with new technology. The difficulty for T&H enterprises is discerning the right technology mix – including Internet of Things (IoT) solutions and analytics. This ISG white paper explores how T&H companies can exploit IoT solutions to meet the challenges they are facing today and seek new opportunities to connect with customers.

Industry Challenges Today

Travel and hospitality customers increasingly expect consistent, high-quality service. And they're all too often disappointed. According to SITA, a multinational company providing IT and telecommunication services to the air transport industry, satisfaction of a typical air traveler continues to decline over the course of a trip.

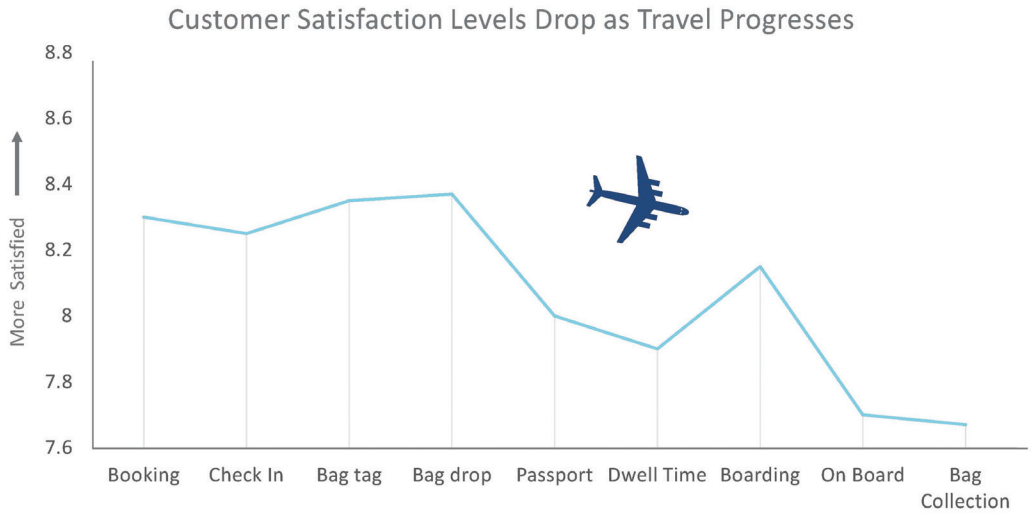

Figure 1 SITA - "Passenger IT trend survey 2017"

Similarly, the experience of a guest checking into a hotel is inconsistent over the course of the guest's stay. The challenge for T&H enterprises is to balance passenger or guest experience with their own efficiency in operations so they can build sustainable and competitive differentiation and generate recurring revenue streams. This can be achieved only by applying the right mix of technology to the right business opportunities.

Imperatives to Satisfying T&H Customers

Industry experts agree that personalization is the cornerstone of a positive and memorable travel experience. A T&H company looking to improve the appeal and reach of its services should consider how it can grow the number of potential touchpoints with a traveler and how those touch points can be personalized and directly responsive to that individual. By using touchpoints that are made more intelligent with the use of IoT, a T&H company can change its relationship with a traveler. Intelligent touchpoints can adapt to customers' needs and orchestrate a richer experience for a traveler, augmenting the traditional services offered by T&H enterprises.

By using touchpoints that are made more intelligent with the use of IoT, a travel and hospitality company can change its relationship with a traveler.

Figure 2 The right technology mix removes friction and boosts the chances of success of multiple, divergent business objectives

In this highly competitive and dynamic market, there is no silver bullet to help enterprises build a sustainable differentiation. The reality is, T&H enterprises should continuously evolve their services over time, integrating physical and digital worlds through mobile devices, social media and sensors to gain richer customer interaction data. IoT-enabled touchpoints can help generate more contextualized customer interaction data that can open up new ways to improve and differentiate travel services.

While aligning to the expectations of today's travelers is important, the enduring purpose of any enterprise is to generate profits. Leaders should create a time-bound payoff for investments in customer experience and new services. IoT and analytics can offer new business models that help enterprises compete in a changing market and do more with less, ultimately impacting their bottom line.

Airlines Focus on the Traveler

A few forward-looking companies and micro-segments in the T&H industry are successfully leveraging IoT to drive results. Increasingly, airlines are seeing the impact of IoT technology across their enterprises. Delta Airlines, for example, recently launched an IoT-enabled global bag-tracking system to help travelers keep track of checked luggage.

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Beacon technology is also playing an important role in transmitting relevant, targeted information and broadcasting useful messages to travelers' smartphones. An aviation hub in Austin, Texas, has launched a beacon pilot program that uses radio frequency identification (RFID) technology that enables travelers to keep tabs on security line wait times.

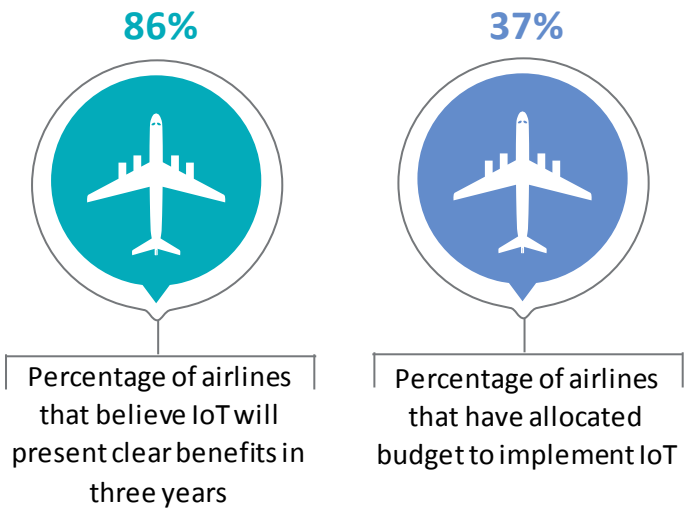

Figure 3 Source: SITA RESEARCH

IoT sensors can help airlines optimize fuel consumption, something Malaysia's AirAsia already is using to reduce costs. And, in back-end operations, intelligent sensors on jet engines and airplane parts can signal to maintenance staff when items need to be repaired or replaced. Airplane seats also have become an interesting focal point for IoT innovations. Students at Delft University of Technology in the Netherlands have been working with KLM Airlines to develop a program called FlightBeat, which empowers flight staff to monitor a passenger's comfort in real time. The seats are embedded with sensors that analyze passenger heart rates and present this data to airline staff via a color-coded seat map. When nervous or agitated passengers display a higher heart rate, flight attendants can respond accordingly.

Percentage of airports planning to deploy beacons for a variety of uses by 2018

Figure 4 Source: **SITA Research**

Airports are not lagging in their experimentation with sensor and IoT technologies. Singapore's Changi airport has introduced automated bag-drop machines at check-in terminals that use facial recognition technology that can eliminate the need for manual checks by staff.

Some airlines and airports are aggressively implementing IoT solutions and asking the important question: How does IoT benefit my end consumer? The chart below delineates the promise of IoT and related technologies for better customer engagement in the airline industry, showing satisfaction levels increase with technology use.

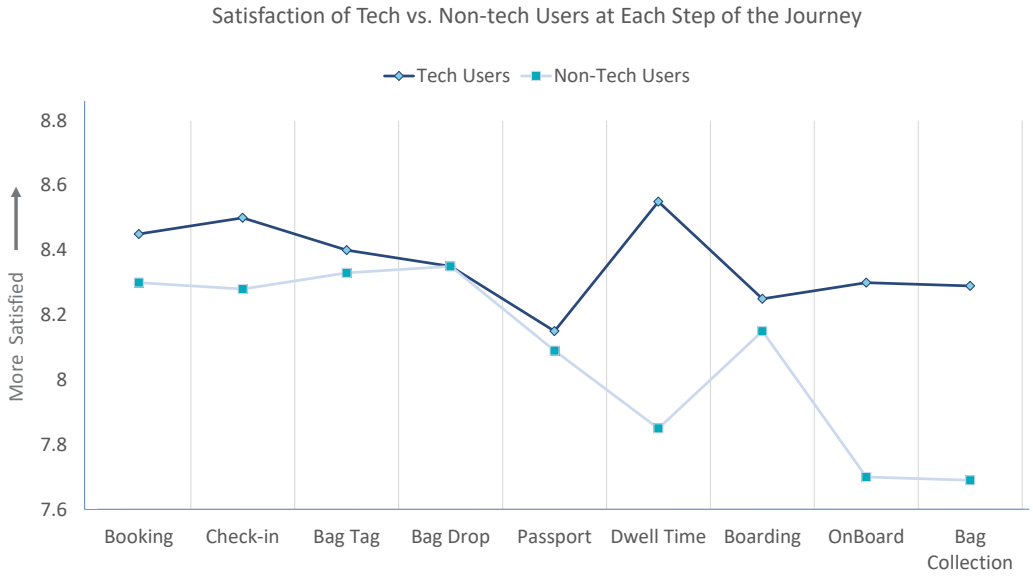

Figure 5 Source: **SITA - "Passenger IT trend survey 2017"**

Hospitality Companies Focus on the Guest

IoT sensors also are playing an important role for hospitality enterprises, helping them customize their guests' experiences. Virgin Hotels, for example, offers an app that allows guests to interface with their room's thermostat or control the TV, so temperature and lights can be set to the guest's preferences upon arrival. In some facilities, a guest's smartphone can communicate with his or her room door to unlock it automatically once the guest is near. Meanwhile, chains like Marriott have been experimenting with real-life "like" buttons that allow guests to provide real-time feedback on property amenities, designs and procedures.

IoT can improve a hotel's operations, too. An IoT-enabled power socket can report electricity consumption to the front desk to alert staff if usage exceeds a preset limit. An IoT-enabled elevator can send an error signal to technicians for immediate repair, without needlessly involving hotel authorities.

Figure 6 Source: FT.com

IoT sensors also serve as an indispensable link between hospitality enterprises and their guests, generating useful insights into guests' habits.

IoT sensors also serve as an indispensable link between hospitality enterprises and their guests, generating useful insights into guests' habits. Paramount in this endeavor will be the enterprise's ability to create clear policies about what information they are collecting and why customers should be confident their personal information is being used responsibly.

Conclusion

T&H industry leaders already have begun investing in the promise of IoT, and its effects will become only more pronounced as adoption increases. Though the temptation to follow the next shiny object is present with any new technology, careful planning, timely investment and flawless execution will help an enterprise harness the true potential of IoT.

An IoT roadmap should be agile and should allow a company to be so as well.

IoT comes with its own set of challenges, the foremost being security: A hacker who gains access to a customer's air conditioner also could gain access to a business's entire network of "things." Security is only one part of the adoption puzzle. Companies implementing IoT also need to be prepared to manage an immense volume of data from the sensors, internet connectivity for those sensors, regular software updates of the devices and much more.

If it's executed well, IoT can be a game-changer. But companies planning to embark on a digital journey leveraging IoT and analytics should have a clear roadmap, starting with a compelling business case followed by an iterative execution plan. An IoT roadmap should be agile and should allow a company to be so as well. Enterprises that resist a traditional waterfall approach and use a more-iterative execution model – in the form of sprints, performance targets and compressed timelines – will see benefits sooner and enhance their time to value.

Typically, enterprises are uncertain about the intersection between the future value of IoT and their long-term business goals. For enterprises who are unsure about how to kickstart the journey, it is important to begin with an industry view of which IoT use cases are creating value and which execution approaches show the best results.

ABOUT THE AUTHORS

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AJAY PAUL

With more than 25 years of IT experience, Ajay Paul has built global delivery organizations for major IT companies so they can utilize the global delivery model to deliver lower costs, higher quality and improved productivity gains. Additionally, Ajay has delivered comprehensive digital transformation engagements that help major US corporations reap the benefits of agility and DevOps in a systematic and thought-out manner. Ajay helps IT leaders think about strategic services at an enterprise level to align with corporate objectives and align target operating models with IT and business strategy.

SUMIT SADHUKHAN

Sumit is a proven leader in strategic consulting and advisory services with more than 15 years of experience. As a consulting manager with ISG's Engineering Services practice, Sumit helps companies seize the opportunities of IoT. Prior to joining ISG, he held senior strategy consulting and engagement management roles in IBM, Tech Mahindra and Wipro Technologies.

ABOUT ISG

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