Futuristic Automated Application for Travel & Hospitality Managed Operation

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Abstract

Through the tech-friendly travellers at the vanguard of all tactical decision making, hospitality and travel are moderately amending the way of business. The contenders are deeming to personify customer experience, elevate direct booking, automatic operations, attaining a overall view of the customer and path them to a targeted effective approach.

Automation can be termed as board which can have multifarious application beyond the travel interconnected system – ranging from automated e-mail corroboration of booking to have robots for customer support and marketing. The industry contenders in their direction to revamp customer services, working efficiency and stay leading in competition through technologies.

Some applications of automating operations are automated room booking and confirmation through e-mail, automated roster check and keeping the track on housekeeping jobs, optimising the energy consumption through IoT tactic and with required sensors, coupling the robotics with Artificial Intelligence (AI) for automatic customer bear and service and smartphones for automated self-check-in, in-room dining, room temperature, lighting etc.

Keywords: Artificial Intelligence (AI), IoT, Sensor, Smartphone, Robotics.

Introduction

Automation permits end to end application over booking, customer utility and even operational facet of travel and hospitality business. However, in the hospitality sectors the human-thorough is high and would pursue to be a pre-eminent driven by guided manual processes.

Automation offers wide benefits for today's widest digital challenges. Merely put, today's travel marketers are immersing in data. An emerging range of information produced

by escalation range of channels, devices, website, data analysis, field models and audience fragmentation method and intimate to overwhelm travel and hospitality chief's decision abilities. One of the greatest challenges that we have is annoying to make sure we have a coherency view of the customer as we gather data through variegated system. Bringing all them together is a ceaseless battle. The biggest digital challenge for travel and hospitality organization will be evaluating how to extract the significant data and take action on them. In fact, the number of growing travel marketers identify the need for better harmonize with their customer engagement and data-assembly activity among channels, operational devices and its environment with minimal conflict. Customer experience is a leading tool to embrace for more travel brands, which permits them to easily automate and organize them with different aspects of their experience, customer interaction and data collection.

Automation will alter the nature of some travel and hospitality related jobs and suppress others altogether. However, digital enables the growth towards new employment opportunities that could exceed the automation existing roles, mainly growth for the industries. The recent trends and expeditious evolution of automation beyond routine slog and its growth combining with artificial intelligence (AI) into machine learning, robotics and smartphones having opportunities on new business in many industries. Digital transportation in today's economy demands, a different set of skills from workers and will generate new types of jobs. Challenges such as stabilizing automation, reskilling the workers and human factors for digital economy which needs to be deal with collaboratively by policy-makers, regulation and industry.

Automation will also have influence on employment level, characteristics of jobs and the customer experience. Some determined jobs may be completely or partially replaced by automation but the rapid growth on digital technology has the prospective to create new digital jobs. At the meanwhile a more flexibility workforce will transpire, which could be providing services for numerous employers in parallel. In automated operations, they need to be interconnected with both in terms of management, flexibility in workforce and technologies.

Intelligent automation such as robotics, 3D painting, Internet of Things (IoT) and Artificial Intelligence will arise in high-level quality services and products with a low-level environment footprint and with reduced costs. Competency with AI to the next level of solutions will accumulate unprecedented amount of data from different systems through numerous touchpoints the traveller has with providers.

Automating Operations
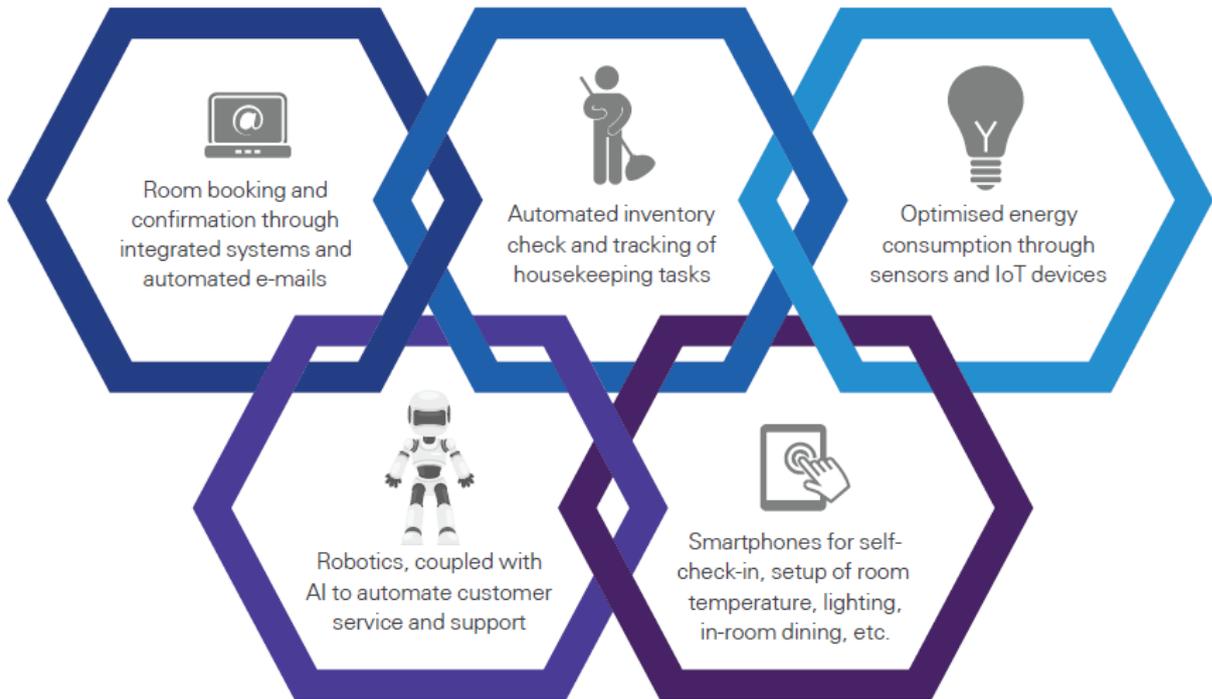
Room booking with confirmation through integration systems and automated Emails:

Sending automated emails for booking confirmations, payment request, follow ups, reminders to keep track on the customer. Room booking confirmation emails automatically generated after they fill out all the booking details. Reminder emails to avoid customer disappointment and no-shows to the customers.

Payment request emails for confirmation for booking the room. Adding attachments to the customer emails like printable receipts, tickets or any liability waiver. Automatically generating emails for their feedback, experience and soon. Email delivery tracking like online booking confirmation, supplier notification or if any gift card.

Automated Roster Check and keeping the track on Housekeeping Jobs:


Automatic roster management provides real-time, accurate level on tackled omni-channel for bills, assemblies, kitting, dashboards and reporting within automated roaster management.

Implementation provides systematic, streamlined and organized control over the business and more visibility on each sector.

In Housekeeping, assigning tasks to the staff effortlessly tracking tasks for timely completion and can avoid work duplication. Avoiding incorrect booking of rooms, which are under maintenance or renovations and may not be available for certain dates or booked for in-house use. Automatically, change the status of the rooms as dirty or clean during the inspection of the room by the audit to reduce efforts on the repetitive tasks and to reduce the errors. Maintaining standard checklists for supervisors and attendants.

Coupling the Robotics with Artificial Intelligence (AI) for automatic customer bear and Service:
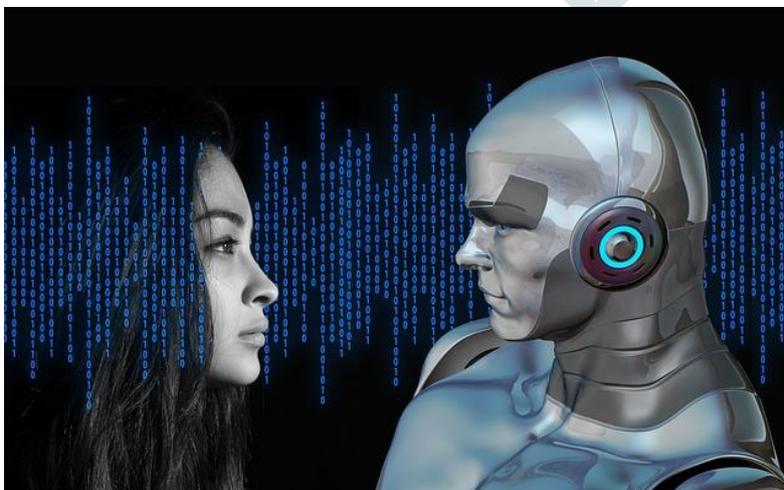
The power of system and machine to learn from apparently structured and unstructured data, to take individual or independent designing and to present actions automatically.

Rule-based automation depicts results from

structured data based on a predefined set of rules and responses with defined datasets to handle repetitive and huge tasks. Intelligent automation use cognitive learning technologies to adjust and draw results from semi-structured and unstructured data from various sources. It can manage complex tasks by imitating the human decision making process and erect new rules to modify with different scenarios. The Rule-based automation derives with immediate cost savings and operational efficiency such as "If x do y" instructions. The Intelligent automation derives with customer value competitiveness, compliance and risk management such as "detecting consumer's voice, analysing historic patterns to trigger actions, estimating repair costs by analysing image and make operational decisions".

**Optimising the energy consumption through IoT tactic with required sensors:**
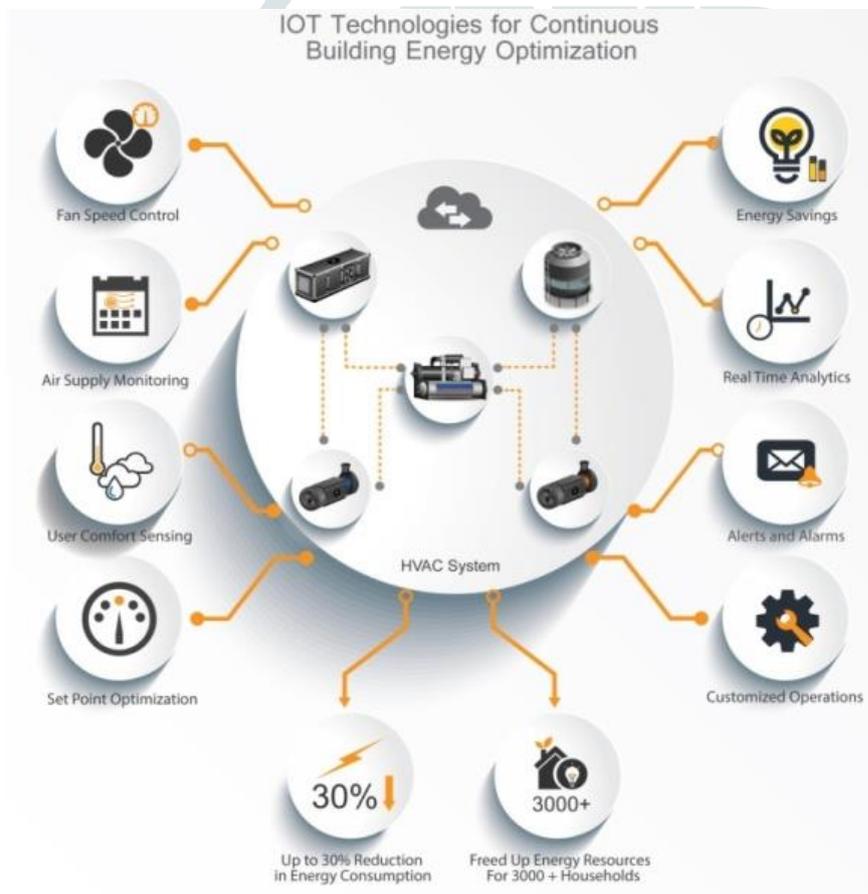
IoT, the real status level of resources and the energy consumption of the data from the process can be easily collected. This processed information will provide an option to magnify the energy efficiency in a real-time production management. By implementing, IoT technology to sense real-time elementary product with data energy consumption and the level of resource status data. By tracing the energy consumption of the system, can discover its off-hours consumption and can gather data to analyse. Base maintenance on data using compressor's usage signals to identify overloading or idling, which can be serviced immediately to reduce the downtime and improve overall performance. Getting real-time alerts and act on them immediately. Using data to instil changes

in the behaviour of the system and be green to save green for optimizing schedule and eliminating energy waste.

Smartphone for automated Self Check-In, In-Room Dining, Room Temperature, Lighting, City Guide.

Self-check-in mechanisms through digital signage. Hotel employees are able to interact with the guest on a more personal level. Self-check-in with special kiosks have at their tablet computer such as ipad or Microsoft surface devices to be undocked from their mounts and can be used as an assisted service device. Self-check-in used to set up print boarding passes, tickets to local venues, attractive places and directions to certain locations. Dwell dining, to order with menu listed, setting up room temperature as required, and control on lights through device and city guidelines to roam with cab facilities.

Conclusion

There are some prerequisites for successful digital transformation. The vital barrier for digital adoption can be a corporate culture, which usually resists revise for organizational structure or functionality. Lucid communication from the corporate leaders on the positive footprints on digitalization can tackle inaction and encourage acceptance of digital transformation. As many travel and tourism companies concentrate on the relationship between their customers and manage their digital investments to websites and mobile interfaces. In a highly synchronized environment it is stifling innovations in products and services. Digital transformation extends many opportunities for extreme competitive companies, but it is clear that maximizing the utility of digitalization for both companies and wider society will rests on the travel and tourism ecosystem's potentiality to work cooperatively.

Reference

- "The 2018 Digital Transformation Report" presented by Skift Report 2017, Industry Strategy & Marketing.travel at Adobe.

- "Mobile Drives Growth of Online Travel Bookings," eMarketer, June 2017.

- "U.S. Experiential Traveler Trends 2018: Annual Survey on Traveller Behaviour, Motivations & Preferences," Skift, October 2017.

- "Upper House Luxury Hotel Experience Aims for Custom Approach to Tech and per-sonalization," Skift, July 2017,

- "FICCI- Expedition Travel and Hospitality gone Digital" Innovations, Challenges and way forward to win the Indian Customer-March 2018 KPMG.com/in.

- World Economic Forum-Digital Transformation Initiative Aviation, Travel and Tourism Industry – In Collaboration with Accenture- January 2017.

- Digital Evolution in India, Business Today, August 2017.

- Regulatory Framework for Digital Economy,GMSA report 2018 .

- "The Millennial – Travel Trends of the Largest Generation," Travel Professional News, July 2017.

- "Video: Adobe and MGM Resorts on the future of personalization and Digital Transformation" Skift October 2017.