

KEYLESS HOTEL DOORS AND SMART CHECK-INS : USE OF NEW TECHNOLOGY IN HOTELS

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ABSTRACT : *These days, with the advancement in technology, smart and mobile-based check-ins are in use by the guests instead of a key. The largest hotels in the world are using this technology to open the doors of rooms for guests, upon arrival. Digital keyless doors have various forms like pin pads, keycards, and electromagnetic fobs. They have made life easier by eliminating the need to carry the key everywhere. There are various uses of these smart check-ins like they are prone to theft, hacking and demagnetizing. There is no need for duplicate keys now. This technology saves the hotel management from having so many keys for the rooms. They come with special features like the room key is encrypted to a guest's mobile app. The room key is registered with the guest's number which means that the key can't be transferred to another device or key. For enabling security, the key is active during the time, the room is booked. It is true that this technology is expensive and costs a lot. Some hotels have installed them in stages like common doors have a keyless entry but traditional locks are installed at individual unit doors. This paper will explain the detailed features of this technology along with technological implementation & guest experience. The discussion will be carried out on the key players of this technology, its pros and cons, and future trends.*

KEY WORD : *Keyless hotel doors, Smart Check-in, Mobile Apps based check-in*

1. INTRODUCTION

Today, it seems impossible for people to live without smart gadgets and technology. In fact, Technology runs our lives these days. Youngsters are especially affected by this advancement of technology and they cannot imagine a life without their smartphones, tablets, and computers. It is true that technologies are born out of purpose. Taking the example of a search engine, there was a need to sort out and deal with a massive amount of online data. It is understood that nothing is static, so technology also evolved with the passage of time. The new technology created something better than what was previously used before. It is impossible to write about all the innovations in a single paper as technology's expanse is huge. It is interesting to know that it all started when the world meets the internet. Social media networks changed the way people interact with one another. Various companies are also affected by this evolution of technology. The hotel companies, for example, used technology to bring innovations in their business (Lamey, 2018). One of them is the use of smart check-ins and mobile-based check-in instead of using a key. The largest hotels in the world are using this technology to open the doors of rooms, upon arrival. Digital keyless doors have various forms like pin pads, keycards, and electromagnetic fobs.

Vice president of digital product innovation, Joshua Sloser stated at Hilton Worldwide that it is indeed revolutionary to have a digital key. It improves the stay of guests and their arrivals.



Figure 1- Concept of a keyless door

2. FEATURES

No doubt, keyless hotel doors, smart check-in, mobile apps based check-in have made life easier by eliminating the need to carry the key around (Lim et al., 2018). Keyless entry system can easily be installed by the user itself from the mobile app. They are prone to theft, hacking and demagnetizing. There is no need for duplicate keys now. It saves the hotel management from having so many keys for the rooms. Let's look at a few features this technology have:

- These smart locks on keyless doors meet international standards for safety and security.
- The lock that we use today can get old and rusty. Keys may get lost while staying at hotels, hence making it easy for the thieves to break. Keyless doors and locks are carefully crafted with durable metal material to avoid rust.
- They are equipped with RFID readers. This would help with the use of 13.56 MHz contactless cards. The cards are programmed in such a way that they can get access to specific areas.
- Another feature is that the card of the guests will be terminated after the departure of the guests. These cards are installed with a real-time clock which is built in.
- These smart locks have the capacity to memorize at least 200 entries. These entries can be checked and staff can take a print with the help of appropriate software.

3. BENEFITS

Before discussing the benefits of this technology, let's discuss why there was a need to introduce smart app based check-ins when keys were serving the purpose. Use of keyless doors and smart apps based check-ins are widely used these days. Keyless doors (for example plastic key cards) are comparatively cheap and reliable. Moreover, they are prone to theft, hacking and demagnetizing. Some big hotel chains (Hilton and Marriott), started Bluetooth enabled keyless entry and it proved to be a huge success. After this, a trend was set by the bigger hotel chains worldwide to use the keyless entry for their guests. Following points will explain about additional benefits of using keyless hotel doors, smart check-in, mobile apps based check-in:

- This technology helps to save time and money
- This technology also provides the facility of mobile check-ins, hence saving time for guests and staff.
- In a hotel booking app, keyless entry systems are embedded. These apps are easily downloaded by the guests from the hotel website and make the process of rebooking easier.

Another benefit in this regard is security. The room key is encrypted to a guest's mobile app. The room key is registered with the guest's mobile number which means that the key can't be transferred to another device or key. For enabling security, the key is active during the time when the room is booked (Gandy, 2018).

4. TECHNOLOGICAL IMPLEMENTATION & GUEST EXPERIENCE

The largest hotels in the world are using this technology which allows their guests to use smart phones. It was after the realization that keys are no longer the key to the satisfaction of the customers.

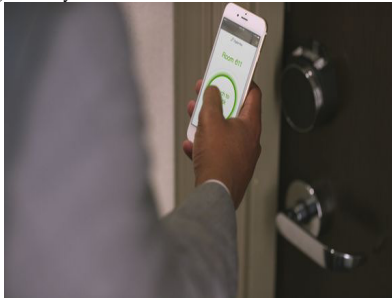


Figure: the keyless entry program of Hilton Hotel

Many hotels in the world are using mobile check-ins. The guests in these hotels become a member of the loyalty programs for using keyless entry. Hilton celebrated one year anniversary of digital key last year. The hotel management announced the program that will go global for the feasibility of their guests. It would start from Singapore and expansion will be to other countries in the world. Hilton hotel will be able to open 2 million doors at 400 hotels in the U.S. alone (Trejos, 2016).

Starwood has initiated a Starwood's Preferred Guest Loyalty Program (SPG) which announced that there should be an expansion of this program for guests convenience. Starwood stated that New York, Chicago, Atlanta, Dallas, and Miami are those cities that are most popular for this technology. SPG is making things easier for the guests also by providing the opportunity of multiple guests sharing the same room which can only be possible with the help of SPG keyless. There are future plans as well to updates mobile check-ins features while taking help from SPG app in the

coming months. SPG key technology is now available to 160 hotels in 30 different countries. There are almost 350,000 registered members who are using this technology (Ting, 2016). To use SPG keyless, guests need to have an SPG account and should have access to SPG apps in their smart phones. SPG keyless will provide facilities like streamlining the check-in process and avoiding the need of front desk check-ins for the guests. The aim behind using keyless room entry is giving the guests full control over their stays in the hotels.

VP of mobile at Starwood Hotels & Resorts, Alyssa Waxenberg stated that there will be new opportunities for SPG member with the opening of SPG keyless. It will allow Starwood Hotels & Resorts to better engage with the guests. The focus of the hotel associates will now be on guest's stay while providing them better services.

5. KEY PLAYERS

Starwood hotels and resort started the 'keyless doors' concept in 2014 at 10 hotels initially. The program has expanded to 172 properties until now. Approximately 350,000 members have been registered. After this huge success, the company announced that this program will be expanded to Le Meridien, Westin, Sheraton and Four Points properties around the globe (Trejos, 2016). After Starwood, this keyless door concept was adopted by other hotels like Hilton and Marriott (Ting, 2016).

6. PROS

There is no need for duplicate keys now. It saves the hotel management from having so many keys for the rooms. Many advantages of these keyless doors have been discussed in the above section of 'benefits'. These doors are reliable and there are fewer chances of theft. Another benefit in this regard is security. The room key is encrypted to a guest's mobile app. The room key is registered with the guest's mobile number which means that the key can't be transferred to another device or key. For enabling the security, the key is active during the time, the room is booked for that ultimately helps in mobile checkouts (Gandy, 2018).

Marriott International started testing this technology last year. They discovered that guests were comfortable with the use of this technology and now the mobile key is available in 17 Marriott Hotels. Similarly, Choice Hotels is using smart app based check-ins and keyless pilot programs at their suits in Rockville. These examples proved that this technology is adaptive and customers are using it around the globe now (Lim et al., 2018).

7. CONS

The lock that we use today can get old and rusty. Keys may get lost while staying at hotels, hence making it easy for the thieves to break. The lock was invented in 1861 by Linus Yale and it has not changed much. Thanks to the pin tumbler lock system that were preferred in the 19th century that keeps the entry point save for affordable prices. In the following passage, let's discuss the negative aspects associated with the use of keyless hotel doors, smart check-in, mobile apps based check-in (Steenwyk, 2019).

- They are expensive to install like \$ 125 to \$1000 per door. So some hotels have installed them in stages like common doors have a keyless entry but traditional locks are installed at individual unit doors.
- Hackers can use various methods to break the keyless hotel doors so there should be strict security measures for such type of systems.
- There is a need that the keyless entry or security system is compatible with the software managing for the property. For example, deleting a guest from the list should delete them from the entry system until next time, when they come again

Any system that requires wifi and internet access should have a backup source in case of emergency and power outage (Steenwyk, 2019).

8. FUTURE TRENDS IN THIS TECHNOLOGY

No doubt, Keyless hotel doors, Smart Check-in, Mobile Apps based check-in are making life much easier for not only the guests but also for hotel staff. Many advantages are associated with keyless doors like they are comparatively cheap and reliable. They are prone to theft, hacking and demagnetizing (Lim et al., 2018). There is no need for duplicate keys now. It saves the hotel management from having so many keys for the rooms. It is also a fact that technology is continuously evolving so there is a need for better options in the future. It was discussed by Brian Shedd, VP of sales and marketing that an OpenKey concept is important in this regard. The keyless entry might expand to the point where the technology would not be brand-specific. According to him, people will like the concept of OpenKey as it offers a type of skeleton key for the mobile key business. Guests can use this technology at various hotels and resorts. Shedd discussed that customers want fewer apps on their mobile. So they would like one app that can be used across multiple hotels instead of installing nine different apps for nine different hotels (Ting, 2016).

Starwood announced the launch of the new pilot program at Alof's Hotel brand. The guests would get the opportunity to access streaming media with the help of smartphones. They want self-directed experience. Hotel technology is going to evolve more with the passage of time. This will reach the point where smartphones become experimental gateway while the stay in the hotels. It can even help to change TV channels, adjusting the temperature, check-ins, checkouts.

Guests will be able to access that experience with the help of smartphones and their apps (Steenwyk, 2019). This is actually just the beginning, in the future, we will be able to see more technological advancement in the keyless doors.

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