Personalize service, enhance customer experience with ‘choose your own room’ (CYOR) concept
Abstract

Various industries have been enhancing customer experience by offering the flexibility to choose and customize products. The retail industry allows mix-and-match of colors, sizes, or materials; the automobile industry provides a choice of materials for interiors and addons for safety, besides colors. Hospitality, too, has been thinking of ways to let guests choose their own rooms and accompanying ancillaries. But for business or transit hotels with a large inventory of rooms and an average daily occupancy of over 75%, the functional and operational challenges in room allocation are plenty.

Hotels can leverage the human-machine interplay to overcome these challenges within the existing mechanics of the check-in process and provide a differentiated experience by letting customers choose their own rooms.

Front-desk operations are getting digitally augmented

Essential hotel processes such as ‘check-in’ demand high hygiene but don’t add much value for guests. And given the preference of guests for contactless processes, the front desk, with its primary functions of guest identification and room allocation, is likely to become digitally augmented.

Automated guest identification is a reality now in many industries. Airports, for example, are doing away with manual immigration and passport controls and moving to digital platforms like Global Entry® that facilitate quick movement of passengers, thus enhancing customer experience. Hotels in many countries, too, have automated identification of domestic guests by integrating with government agencies issuing identification documentations for citizens. In Germany’s Berlin, for instance, business travelers can check in to about 50 hotels using a new wallet ID integrated with national identity cards. The concept can be extended for international guest identification by collaborating with entities like Global Entry®, or through interfaces with adjoining industries like airports, railways or car rentals.

While hospitality is exploring digitalization of guest identification, it is yet to embark on a journey to automate room allocation during self-check-in given operational challenges. However, the challenges can be overcome by introducing the concept of ‘CYOR’ (choose your own room). Powered by artificial intelligence and high-performance computing, it enables hotel guests to choose the room of their choice.

Customer expectations are rising

Businesses are enhancing digital capabilities to understand customers and allow them to choose and customize products and services. Airlines, for example, allow customers to choose seats and meals.

The travel and hospitality segment has also started treading the same path, as customers expect choices in room selection and ancillary services. However, the segment is not able to keep up with expectations due to operational challenges not faced by sectors such as airlines. With airlines, all
passengers on a flight embark and disembark at the same time. At hotels, guests, can check in and check out on any day and even request early check-in or late check-out, giving rise to operational difficulties. Such day-to-day operational challenges faced by hotels are not known to the guests and shouldn’t come in the way of them being able to choose the rooms of their choice.

Baby steps towards self-check-in

A few large hotel chains have introduced ‘self-check-in’ either on their mobility platform or through a kiosk. This, however, allows guests to only pick a room from a pool of available ones without guaranteeing guest preferences or upgrades. The hotel chains are yet to iron out the operational challenges in offering such features, resulting in unsatisfied guests.

In a recent survey[1], only 5% of respondents were able to check into rooms with their preferences; the remaining 95% said they only got generic room (Figure 1).

Self check-in as per guest preferences

Dissatisfied top-tier loyalty guests

Only 5% of respondents are actually able to check into rooms with their preferences; the remaining 95% said they only got generic room types

Nearly 20% of respondents never received their status-based complimentary upgrade from brands to which they are loyal.

Guests who never found their room ready on arrival

Guests who seldom found their room ready on arrival

23% of travelers using mobile check-in solution "never" found their room free and ready on arrival, and 54% said the room was only "sometimes" ready.

Figure 1: Flaws in hotel check-in process

Why CYOR has not been efficient

CYOR should go beyond self-check-in, allowing guests to choose a room of their preference, facilitating personalization, incorporating eligible upgrades, and enabling upselling by hotels. When hotels tried to adopt CYOR, they faced inherent challenges such as:

1. Fluctuating room availability:

   Some key reasons that influence room availability are:

   a. The reluctance of hotel operations to strictly enforce check-in and check-out timing as they strive to be flexible to the demands of guests to ensure delighted customer experience. Such

flexibility causes volatility in room availability, requiring human mind to consistently plan for optimized allocation of rooms throughout the day. (Figure 2)

Figure 2

b. Housekeeping teams get data on daily check-out and stay-over rooms. However, this data may not reflect the priority for business fluidity at the front desk. Housekeeping teams build their set of priorities based on generic expectations and historic experience, resulting in a disconnect between guests’ preferences during check-in and availability of rooms in the allocation pool.

c. The core product of the hospitality business—sleeping rooms—is highly perishable. Although a vast majority of rooms is pre-reserved, it is essential to fulfill the requests of walk-in guests also to gain maximum yield. Typically, the most expensive rooms—the highest category—are in the last batch made available for sale. But such rooms when re-assigned to eligible or high value guests will make lower-category rooms available for walk-in guests, providing fluidity to rooms’ availability.

d. For business and transit hotels with an average occupancy of 75%, the pool of available rooms will predominantly be in the higher category. This skewed inventory is not conducive for either self-check-in or even CYOR (Figure 3).

Figure 3: Skewed inventory
2. **Priority in allocation**: Hotels should offer special service to high-net-worth individuals and VIPs, and upgrades for top-tier loyalty guests and, upon their arrival, should also ensure priority allocation of preferred rooms immediately. Tending to this segment of guests is critical, as any deficiency will reflect poorly on the hotel's services and invite criticism, impacting guest arrivals and the room inventory.

3. **Top-tier loyalty upgrades**: Hotel loyalty programs usually offer upgrades to top-tier members after evaluation during check-in, since operations need to ascertain the availability of such rooms for the duration of the guests’ stay. Offering upgrades influences variability in room availability. If an upgrade is denied, it will reflect poorly on the loyalty program and will be construed as ineffective customer service.

4. **Possibility of hoarding**: Hotel chains offering self-check-in are combating room hoarding—guests blocking rooms through advance check-in but arriving late on the check-in day. This denies guests arriving early and physically checking in through the front desk the rooms of their choice.

5. **Fulfilling guest preferences**: Every hotel guest's room preference varies from the others. Some guests, for instance, prefer rooms closer to the elevator, whereas some may avoid them due to noise. The service-oriented hospitality industry strives to assign rooms as per guests’ preferences. However, it is beyond the capabilities of a human mind to work with multiple attributes mapped to each guest’s preferences.

6. **Overbooking**: To maximize yield, the travel and hospitality industry allows overbooking to compensate for the opportunity cost of last-minute cancellations or no-shows. However, a problem arises when consumer demand is more than the inventory available. The human mind thereafter needs to calibrate room allocation and bounce-offs depending on the guest type and channel of business. This limits the possibility of providing guests rooms of their choice.

### Iron out CYOR challenges with cognitive technologies

Hotels can use technologies with human and machine interplay, and cognitive abilities to overcome the challenges that prevent CYOR from becoming a reality. Here is how it can be done:

**1) Predict flow of guests with PMS data**: Check-in and check-out patterns gauged from historical data obtained from property management systems (PMS) spanning multiple years can be leveraged to predict the flow of guests by using machine learning and deep learning.

**2) Amalgamate guest preferences**: Artificial intelligence can help match and amalgamate room attributes against the likes and dislikes of guests. This can be used to create temporary allocation for a fixed number of days by taking into account key attributes such as expected check-out, next anticipated check-in, future check-in, eligible upgrades, important guests, availability of rooms, room assignment priorities defined by the business, and the overbooking factor.

**3) Build soft allocation**: Hotels can use soft allocation to generate heat maps to create temporary allocation for guests for a fixed number of days based on two assignment principles:

a. **Straight line allocation**

   This positions prospective check-in rooms within an empty place holder between expected check-out and next anticipated check-in. The positioning needs to be precise to ensure no gap between check-out, prospective check-in and the next future check-in. Such optimization enables higher yield, especially by facilitating room availability for guests seeking rooms for a longer duration.

b. **Displacement allocation**

   This principle seeks preferential assignment to eligible upgrades or guests with high business
importance. In case of un-availability of the next category room, the AI engine takes cognizance of assignment priorities defined by the business for different room types. This results in specific reservation assignments being displaced to the next room category unsold for the day, in turn accommodating eligible upgrades or special requests from guests (eg, interconnecting or adjoining rooms). Similarly, in cases of extended stay or late checkout by loyalty guests, the AI engine creates a temporary displacement in soft allocation to accommodate such business requirements. Such temporary displacements can be regularized or reversed automatically by the AI engine depending on the dynamically changing business scenarios.

4) Perform dynamic calibration of inventory based on check-in/check-out fluidity at front desk:
Every day, hotels are subject to multiple, unexpected, dynamically changing scenarios, including late check-outs, early check-ins, and walk-ins. Hence, soft allocation should not be a strict template to be followed for check-ins. Rather, the AI engine must re-calibrate itself instantly to incorporate dynamic disruptions. In addition, it needs to take cognizance of the overbooking factor to either upgrade based on house availability, recommend a list of reservations (guests) for a cross-sell proposition, or bounce to another hotel.

5) Flexible business rules: Specific business offerings like upgrades for top-tier loyalty members need to be prioritized to enhance guest satisfaction. Dynamic market demands and sales offerings will mandate specific room offerings to garner higher business volume. Under such circumstances, the engine needs to be flexible to incorporate specific rules as dictated by the business. This enables sales and guest interaction teams to guarantee offerings as part of their loyalty programs or promotions. For example, when the business wants to enable the capability to offer guaranteed upgrades to top-tier guests whenever they check-in, the engine must be able to facilitate that. Such needs may compel a re-calibration of prospective allocation recommended by the engine. Hence, a human override for such specific instance is necessary to trigger the engine to accommodate specific business requests and self-execute a re-calibration cycle. This helps maintain a balance between business needs and automation.

CYOR offers many advantages

This approach will help optimize yield of rooms as per business priorities such that hotels can:

1. Free up and add more rooms to the pool for guests to choose during digital check-in
2. Match guests’ preferences with room attributes on a large scale so that guests can be provided their preferred room and ancillaries
3. Optimize unoccupied rooms during lean period through the capability to create linear assignment of rooms based on length of stay to ensure that specific floors are completely closed off, thereby trimming overhead costs.
4. Efficiently generate room assignment to housekeeping daily based on business priorities and predicted number of check-ins and check-outs by the hour
5. Ensure accommodation of specific entitlement guarantees such as complimentary upgrades, and additional room benefits for loyalty program members
6. Enable upselling of ancillaries: AI understands the purchase pattern and spend potential of guests checking in. This enables machine-driven, customer-focused, pre-check-in upsell strategy. Upselling on the same day and prior to check-in optimizes available room pool and adds business value.
7. Efficiently handle high occupancy and over-booking to prevent bounce-offs, augment occupancies of other hotels within the same chain or ownership in the same city and achieve guest satisfaction. This is enabled by automatic creation of PoA (plan of action) in a short timeframe and includes housekeeping strategies based on check-in prediction and cross-sell propositions to potential check-ins based on the machine’s understanding of guests’ flexibility to switch to another hotel.
CYOR will transform hospitality business

Multiple attempts in the past to make the CYOR concept a success have been thwarted by inherent operational challenges. The age of digital and artificial intelligence can help transcend the challenges to revolutionize hotel operations and open up profound business opportunities. While hotels are exploring the use of robotics for concierge, check-in, and room services to improve guest experience, a well-thought-out approach to the CYOR concept can enhance the overall customer experience. CYOR can transform the core business by opening doors to newer operational models by eliminating certain processes and functions, and also improve not only the employees’ ways of working but also the bottom line with higher occupancy rates.

About the author

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Premraj Furtado is an industry consultant with over 20 years of experience, leading the strategic initiatives for hospitality in the travel, transport, and hospitality unit. He has worked in senior management roles in core hotel operations and information technology teams of multiple international hotel chains. He creates cutting-edge proprietary solutions to enable hospitality stakeholders to define their digital strategies for transforming customer experiences and improving employee engagement and efficiency.
Awards and accolades

NORTH AMERICA
GLOBE 2020
ASIA MONEY
STEVI 2020
CIO100 WINNERS 2020
FinanceAsia
ASIA'S BEST COMPANIES
2020
HR AWARDS
2020
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