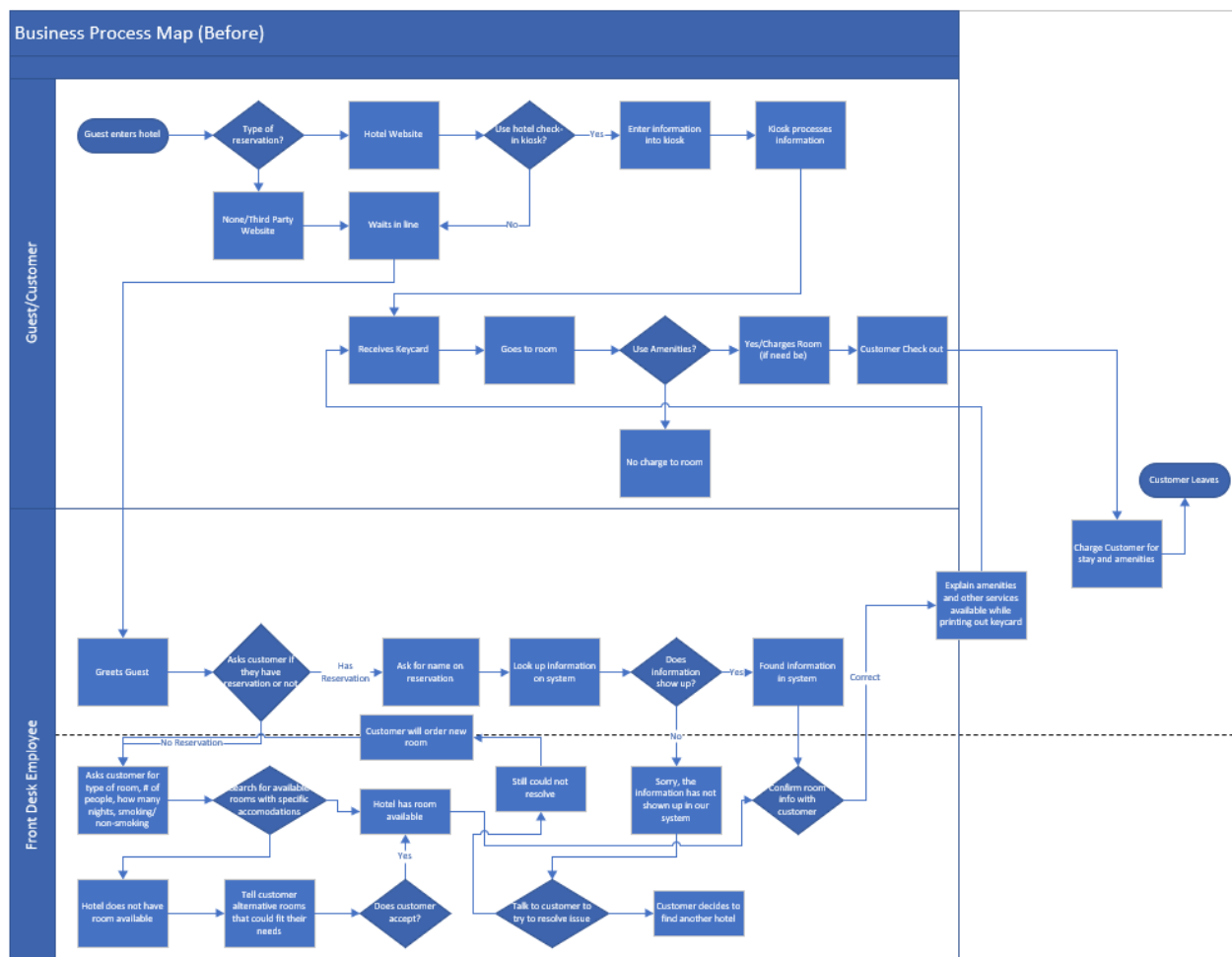


1. The best way to optimize the process would be by having most of the consumer-base download the app. The app would be protected via authorization code (in-app, similar to how Okta works). The app would also allow for payment in-app, or can scan a personalized QR code to the kiosk to streamline efficiency of checking in/out. This way, the check-in process can be less focused on the hotel receptionists and more focused on the kiosks. Without having the physically input data, this can save time (like how the scanner guns saved time for the sushi restaurants) through just data-inputs by the kiosk. If the hotel customer has the app, the checking-in process will be a lot faster as well (maybe in the future, there won't be a need for kiosks if everyone has the app, and can be checked in through the phone).
2. For this, the definition will start, then the business – operational – and finally technical.
  - a. Business Definitions:
    - i. Hilton App Adoption Rate: Percentage of customers who end up using the app to reserve bookings before coming to the hotel.
    - ii. Customer Experience: Customers' overall review of using the Hilton Hotel, its kiosks, and their user ratings of using any service provided by the hotel.
    - iii. Data Efficiency: How streamline the data is being input into the kiosks or hotel systems, and how accurate the information is on customer requests.
  - b. Operational Definitions:
    - i. Kiosk Efficiency Rate: Amount of time and money being saved by customers using kiosks.
    - ii. Kiosk Turnover: Amount of customers who decide not to use the kiosk, and reasons why (if provided). This should also be used as a review and guideline on how to bring more customers to use the kiosk.
    - iii. Hilton App Usage Rate: Percentage of customers using the app for services provided by the Hilton Hotel (room service, mini bar orders, etc).
  - c. Technical Definitions:
    - i. Kiosk Update Frequency: How often the kiosks are updated (time efficiency, accuracy, and removal of bugs) by engineers of the Hilton Hotel.
    - ii. Customer Data Accuracy: The accuracy percentage of prior Hilton customers when showing recommendations of rooms they have used before, and what rooms they might want for future bookings.
    - iii. Hilton App Update Frequency: Amount of time it takes to update the Hilton app via Hilton engineers, improving efficiency and removing bugs and errors.
3. The reporting data should be a method of the sustaining reporting (not ad hoc), with data that shows: number of occupants who used the Hilton Hotel, number of amenities used, amount of money made each day by the hotel, times stamps of number of occupants who checked in and out during what

time, times of when the rooms were cleaned, and how many people used the front desk vs. the kiosk. This data should be shown via different types of charts depending on the best visual for the data shown. Since this data will be shown to stakeholders, it should be clean and easy to read.

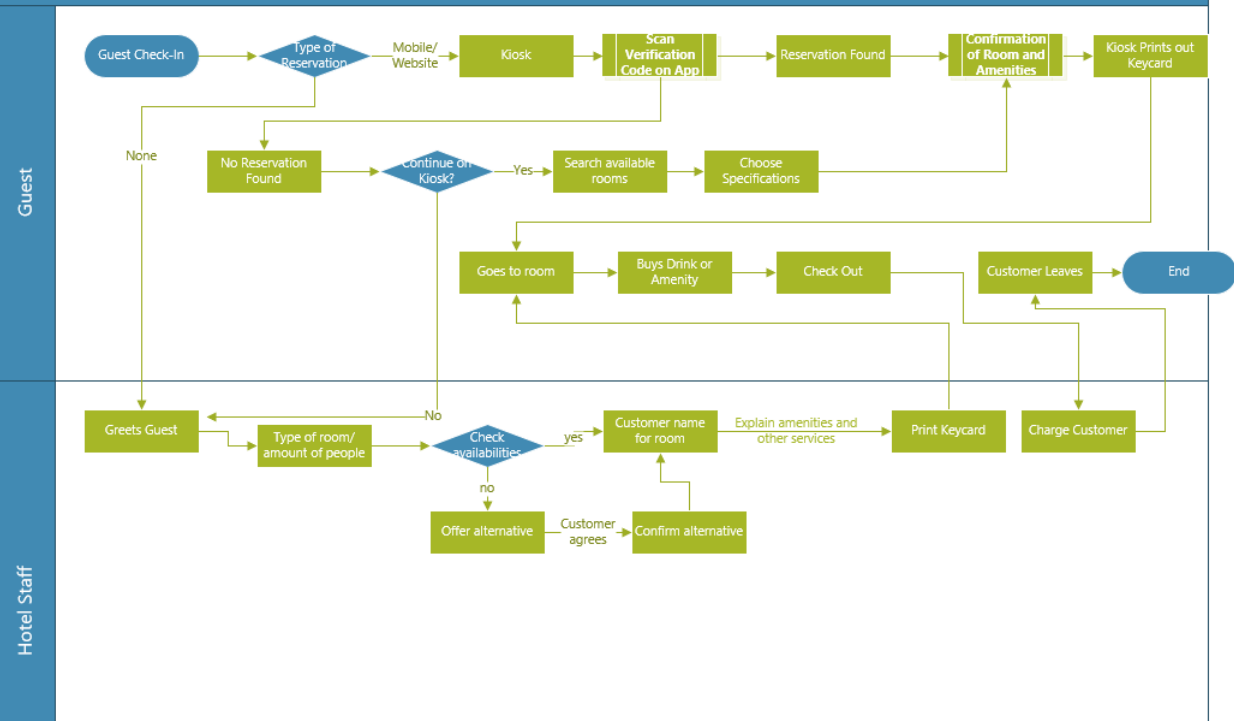
4. The key performance indicators I would establish are: online reviews, the average rate of occupied rooms, average length of stay, which services are most used, and which rooms are most used.
  - a. Online reviews: This is needed because everyone uses review websites nowadays to choose the hotels they want to stay at. No one wants to stay at a 3-star hotel, so it's best to have this as a KPI so that we can stay or grow to five-stars through unmatched customer service.
  - b. Average rate of occupied rooms: This is to see on average how many rooms are occupied per day at the hotel, and depending on what time of the year it is (or if there's a big event nearby), the hotel can change/adjust the price accordingly.
  - c. The average length of stay: This is to see how often customers stay at the hotel. Based on whether or not the average length is long or short, we can adjust prices to bring in more consumers by offering discounts or deals on rooms on the length of the stay.
  - d. Services used most: This is to see which hotel amenities are most often used, and whether or not it should be kept. Do we have bands playing at night in the bar area, is it popular? Do we offer free breakfast to customers, is this popular or is it wasting money? Things like these need to be calculated.
  - e. Which rooms are used the most: This is to see which rooms in the hotel are the most popular. With this, we can determine whether or not the proportion of room types we have are profitable. If the double bed is the most profitable, but we only have 200 in our hotel out of 500 rooms, maybe we should rethink the proportions and instead try to increase that type of room to 300.
5. Opportunities or concerns?
  - a. I think the opportunities for improving this business workflow process is by trying to digitize the hotel instead of having it mostly be persons. This way, the database will get the input much faster if the customer is pressing menu buttons to receive an in-room order, instead of calling the front-desk and ordering the food manually. It helps with not dealing with people and it saves time.
  - b. The concern I have for this is that the digital change amount will be enormous. To have this in every hotel will cost a pretty penny, no doubt. However, I think it's a necessary change in order to be at the top of the hotel industry. Without risks there can be no rewards. The data will have to be managed by a large team as well, with round-the-clock updates and IT teams prepared in case there's a fire. That's already a large cost, but the amount of potential customers for the ease of use will become huge.
6. The justification will come through the forecasts and implementation changes. Even though there will be more people to hire for the data side, the

side for administration can be cut down. The data side will also be mostly digitized, so administration and hotel staff can save time on doing those duties and can instead focus elsewhere. The amount of potential customers that will come in if the change works will be enormous as well, especially if the process is easy for the consumer as well. Companies might end up using Hilton specifically for getaways, business trips; families might choose this place because everything is taken care at the push of a button while they're tired from moving around and traveling. That's my justification.

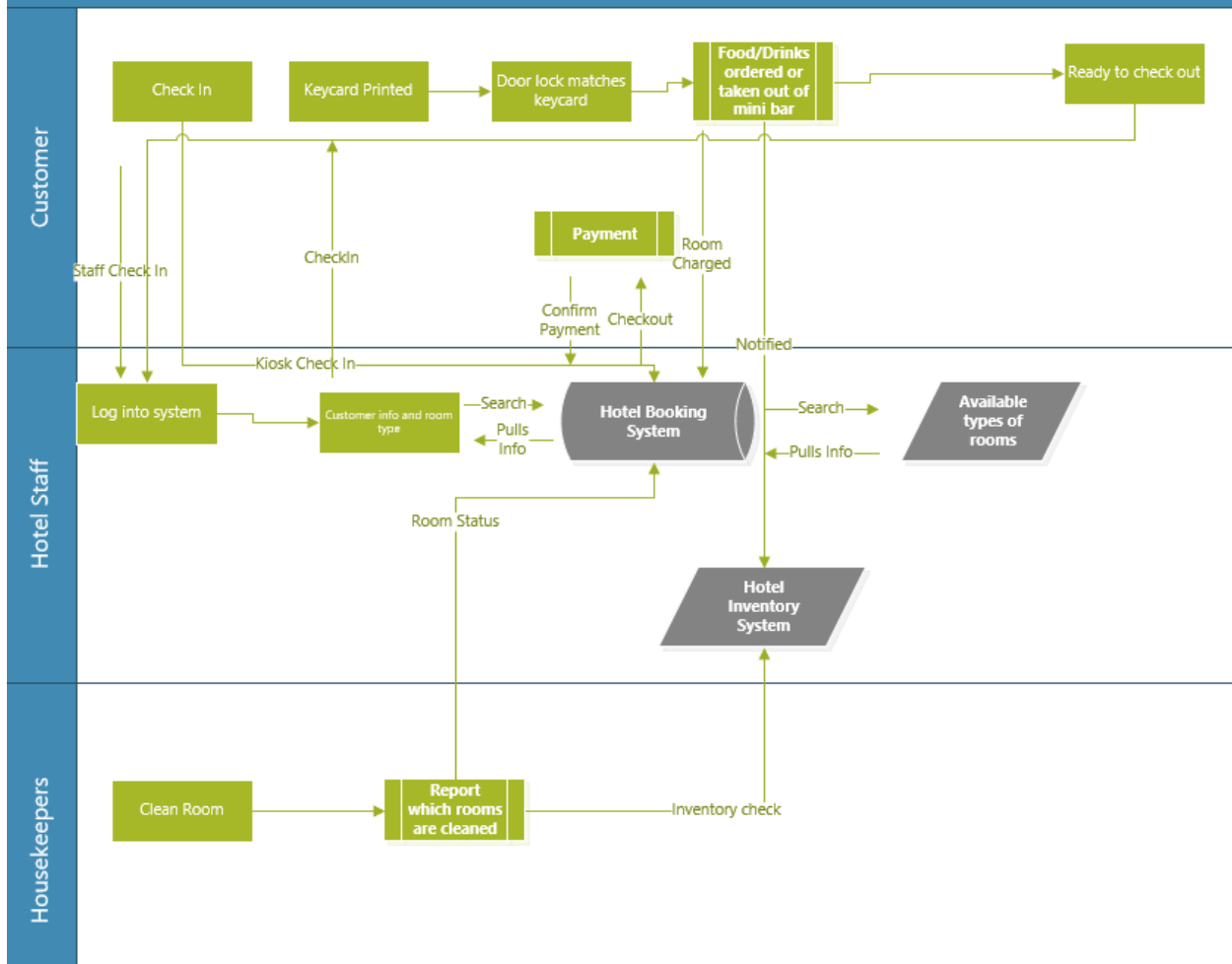


Business Process Map After

Phase



## DFD (Before)



# Hilton DFD After

