2024.10.16

Assignment 3 – Process Analysis

1. Consider the following summary of issues reported in a travel agency.

A travel agency has recently lost several medium-sized and large corporate customers due to complaints about poor customer service. The management team of the travel agency decided to appoint a team of analysts to address this problem. The team gathered data by conducting interviews and surveys with current and past corporate customers and by gathering customer feedback data that the travel agency has recorded over time. About 2% of customers complained about errors that had been made in their bookings.

On one occasion, a customer requested a change to a flight booking. The travel agent wrote an email to the customer suggesting that the change had been made and attached a modified travel itinerary. However, it later turned out that the modified booking had not been confirmed in the flight reservation system. As a result, the customer was not allowed to board the flight, and this led to a series of severe inconveniences for the customer. Similar problems had occurred when booking a flight initially: the customer had asked for certain dates, but the flight tickets had been issued for different dates. Additionally, customers complained of the long time it took to get responses to their requests for quotes and itineraries.

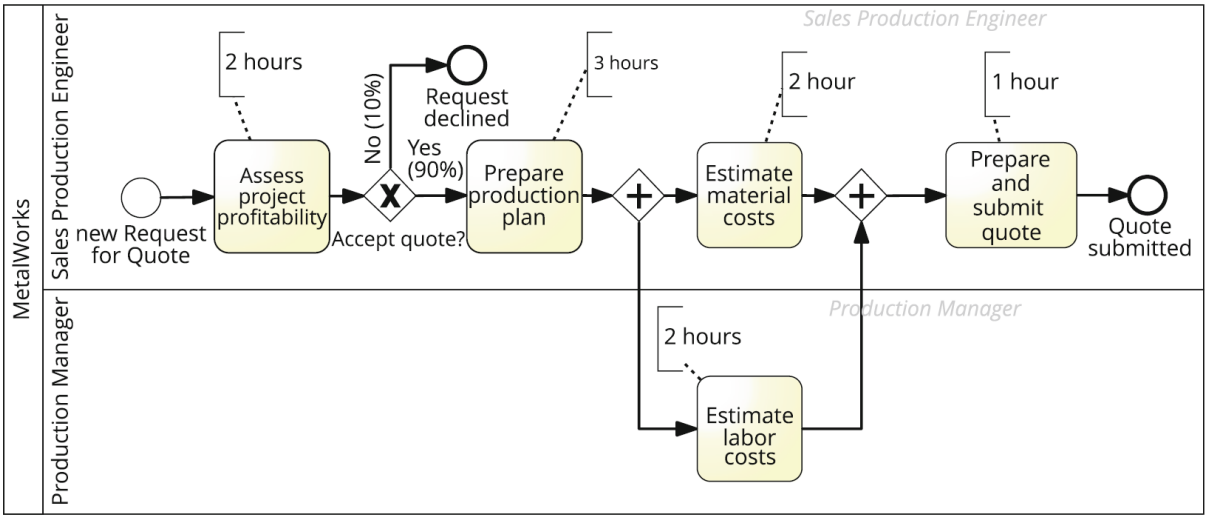
In most cases, employees of the travel agency replied to requests for quotes within 2–4 working hours, but in the case of some complicated itinerary requests (about 10% of the requests), it took them up to 2 days.

Finally, about 5% of customers also complained that the travel agents did not find the best flight connections and prices for them. Several customers reported that they had found better itineraries and prices on the Web by searching by themselves.

A. Document the issues in the form of an issue register. To this end, you may assume that the travel agency receives around 100 itinerary requests per day and that the agency makes 50 bookings per day. Each booking brings a gross profit of $100 to the agency.

B. Analyze the issues described above using root cause analysis techniques (you can choose one technique among the methods we studied in class).

2. Consider the following process model. Each task is annotated with its mean processing time.
   - **A.** Calculate the theoretical cycle time of this process.
   - **B.** Let us assume that the cycle time of this process is 2 business days (16 hours). What is the cycle time efficiency of this process?



3. Calculate the theoretical cycle time of the Admission process, assuming the following.

- The process starts when an online application is submitted online.
- It takes 2 weeks for the documents to arrive at the admissions office by post.
- The check for completeness takes 10 minutes. In 20% of cases, the result is that some documents are missing. If so, an e-mail is sent to the student automatically by the admission management system.
- An admissions officer spends 10 minutes to put the degrees and transcripts in an envelope and send them to the academic recognition agency. The time it takes to send the degrees to the academic recognition agency and to receive a response is 2 weeks.
- About 10 % of applications are rejected after the academic recognition assessment.
- Checking the English language test results takes 1 day on average, but in reality, the officer who performs the check only spends 10 minutes on average per check.
- About 10 % of applications are rejected after the English language test.
- It takes 2 weeks between the time the student service sends the copy of an application to the committee and the moment the committee makes a decision. The committee spends 1 hour examining an application.
- It takes on average 2 days (after the decision is made by the academic committee) for the students' service to record the committee's decision in the University admission system.
- Recording a decision takes 2 minutes. Once a decision is recorded, a notification is automatically sent to the student.