

Business Process Management

Caring Pharmacy Project

MSc. Data Science and Advanced Analytics

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How we work

Understand
and identify
the Process

Identify issues
and problems

Simulate
possible
solutions

Choose the
best solution
for the issues
found

How our team developed the
project



Issues and Problems

Problems

- Rates of utilization are really low
- Many information transfers between technicians and pharmacists
- High total time

Issues

- Wrong Medicine
- Doctor does not answer the call
- Medicine not available in stock
- No alternative Medicines
- A lot of manual tasks
- Slow process

Scenarios

Scenario 1

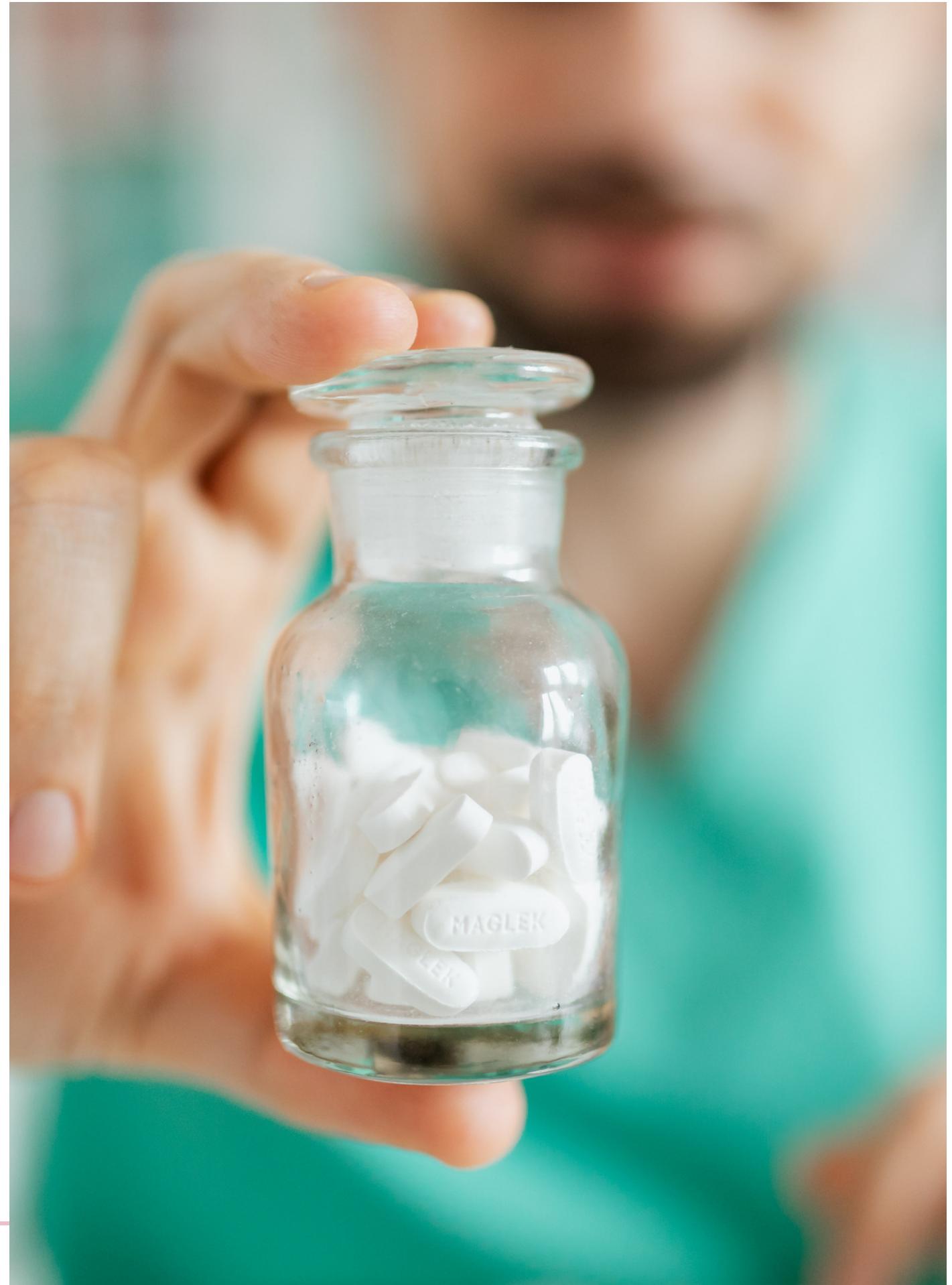
Change the resources

Changes:

- One more Technician (5 in total)
- One less Pharmacist (2 in total)

Results:

- Bigger Utilization Rates for pharmacists
- Less Utilization Rates for Technician
- Increase of Total and waiting time



Scenario 2

Automation



Changes:

- Change resources
- Automate the *Prescription review* and *Go and Get it*

Results:

- Utilization increase for pharmacist and decreases for technician
- Total Time decreases but total waiting time increases

Scenario 3

Task elimination and Resource optimization

Changes:

- Resource optimization
- Eliminate unnecessary task

Results:

- Total and waiting time decreased



Scenario 4

Task elimination, change resources and Automation

Changes:

- Resource optimization
- Eliminate unnecessary tasks
- Automation
- Three less Technician (2 in total)



Results:

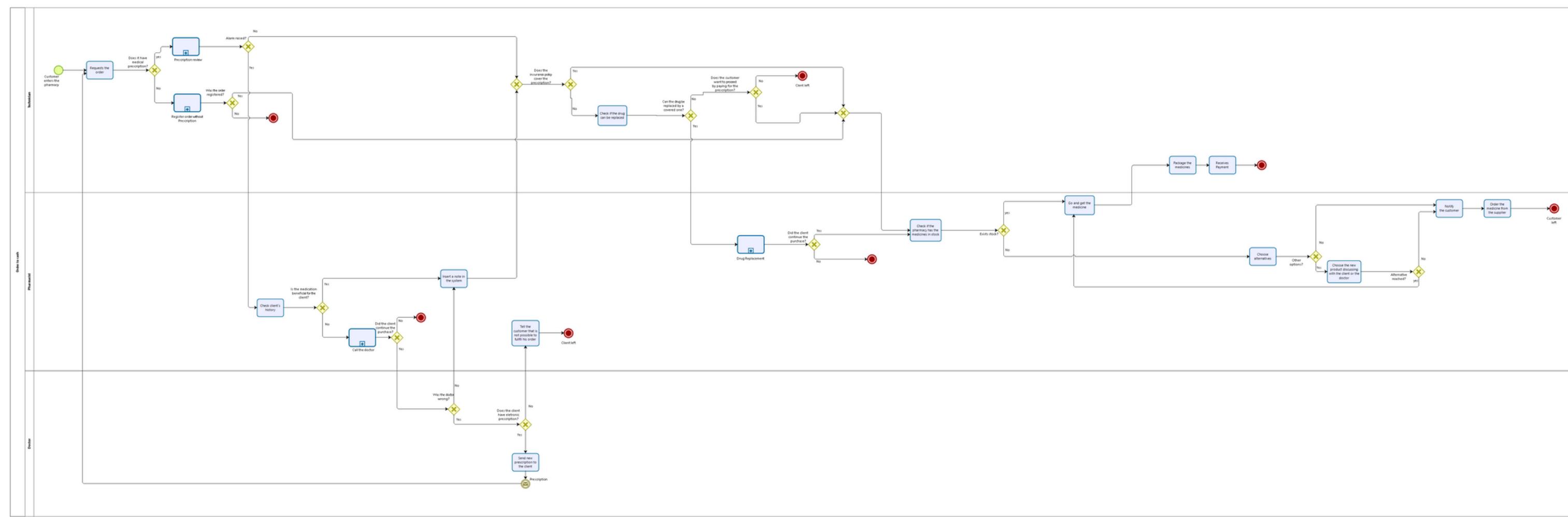
- Total time decrease (around 3 hours)
- Pharmacist utilization increase

What is the best
Scenario?



To-Be model

Scenario 4 - Task elimination, change resources and Automation



To-Be Model



Reduced Total Time

Reduce turnaround times
1114 min -> 809 min

Reduced Average Time by client

Reduce the Service time
5,57 min -> 3,63 min

Long-term cost savings

Cut costs with employees

Advantages

Time saver

Decrease in Employees – Less Costs

Decreased risk of error

Increase capacity



Disadvantages

Investment in
software/machines

Conclusions

Limitations

About Bizagi:

- Doesn't describe period of day with higher demand
- Doesn't allocate resources according to higher peaks

About process description:

- Assumptions
- Not well described activities/task

Future Work

- Celonis
- Document the implementation process
- Monitoring and Controlling

Final Conclusion

- Four different models proposed
- Model TO BE will increase costs in the implementation phase
- Increase profits
- Improve time process
- Reduce errors
- Eliminate reworks

Questions

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