



**Maratha Mandir's
Babasaheb Gawde Institute of Management Studies**

**REPORT
Innovative Teaching & Learning Pedagogy**

Activity Type	Simulation
Faculty	Rushin Vadhani
Day, Date & Time	Wednesday, 27 th March 24
No. of Students Present	50
Class Room No	205
Semester and Batch	II (Batch 2023 – 2025)
Specialization	General
Subject	Operations Research
Objective	Queuing Model & Waiting lines (Practical observation by visit to Stores) Through this simulation students would get to experience <ul style="list-style-type: none">• Service ambience and environment• Challenges in Queuing Models faced by customer & its implication• Queuing Model & waiting line terms
Highlights	Students visited different retail outlets into various segments like Grocery, Essentials, Petrol Pump, Clothing & fashion. They practically observed terminologies of Queuing Model & waiting line & its implications to customer experience & business
Learning Outcome	Students learnt the importance of Operations study in Queuing services. They learnt how to treat customers, from entry point to purchase to billing to exit, learning of Queuing model. Also experienced customer experience impacting brand & business.
Feedback, if any	Students required to extend their studies to Public services like Railway tickets, Queue for buses, Checkin at airports etc.

Prof. Rushin Vadhani



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Innovative Teaching & Learning Pedagogy

Operations Research
Assignment Queuing Model
Visit to Retail stores

Prof.Rushin H Vadhani



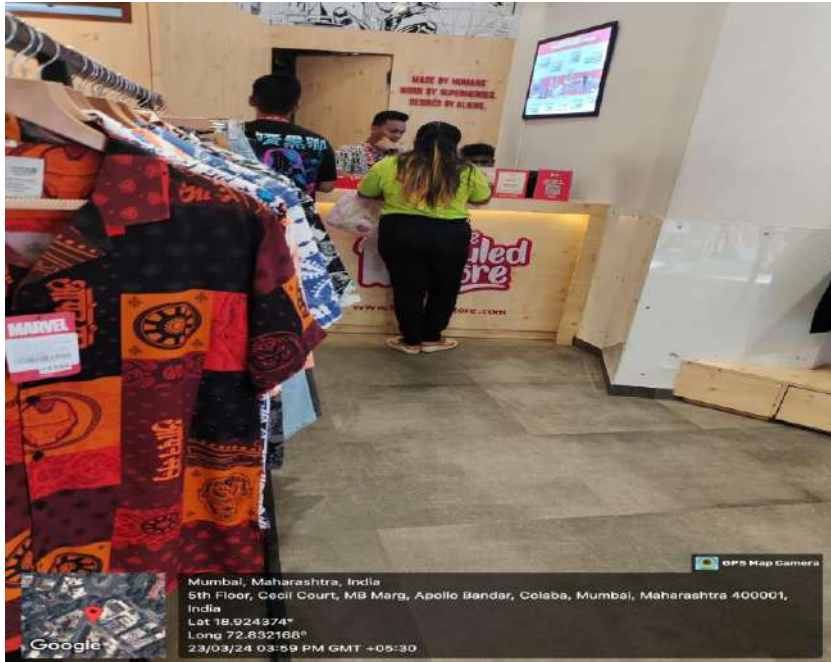
QUEUING MODEL

About The Company:

The Souled Store, founded in 2013 by Harsh Lal, Rohin Samtaney, Aditya Sharma, and Vedang Patel, is an Indian company based in Mumbai. They specialize in officially licensed merchandise from movies, TV shows, cartoons, and comic books, offering a wide range of products such as t-shirts, sweatshirts, hoodies, dresses, pajamas, phone cases, mugs, and more.

My Experience In

● "The Souled Store"



Arrival Process

- Poisson process, random and independent customer arrivals.

Service Time

- Approximately 10-minute wait; Friendly, helpful staff; Single server.

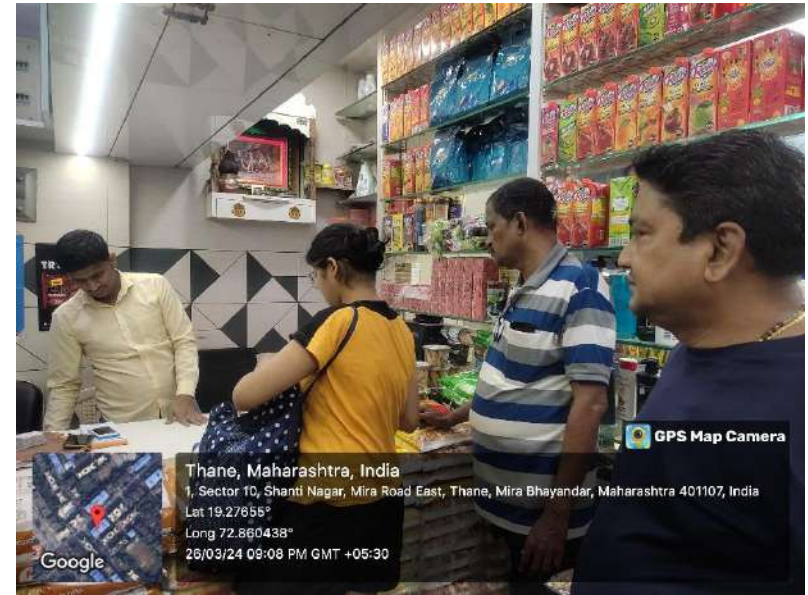
Waiting Time

- Orderly queue; Efficient staff; FCFS model.

Low Customer Traffic

- As there is a competition of street local shops near that store so the customers mostly go with street local shops because they provide them with low price





Observations

- The arrival rate of customers is higher during morning and evening peaks and lower during afternoon and before the shop closes.
- The service rate of the single server is constant throughout the day.
- The average number of customers in the system (both in queue and being served) are 5.
- The average number of customers in the queue are 3.
- The average time a customer spends in the system is 5 to 10 minutes.
- The average time a customer spends waiting in the queue is 1 to 2 minutes.

Analysis

- During peak hours (morning and evening), the arrival rate is high, which leads to longer queues and wait times.
- During moderate footfall (afternoon and before closing), the arrival rate is lower, which results in shorter queues and wait times.
- If the service rate is significantly higher than the arrival rate at all times, the system will be able to handle the footfall efficiently with minimal queuing.
- If arrival rate approaches service rate, the system will become unstable, leading to infinitely long queues and wait times.
- The attitude of the staff, i.e. friendliness and willingness to help, significantly impacts the perception of the supermarket's service.

Experience in D-Mart

- There **20 servers at time** & each of the servers having more than around **10 customers**
- Out of that **2 servers excepting upto 10 quantities**
- **Servers was quick and fast.**
- All **FMCG products** which are used daily are kept on ground floor
- The **First floor** is mainly for apparels/Garments
- Second & Third floor contains all home appliances , sports equipments and gift articles etc.
- Each section has attendants , The floor cleaning activity is outsourced

