
QUESADA BURRITOS & TACOS

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OVERVIEW

In November 2019, Fred Valdez, the store manager of Central London Quesada, was finalizing the operation report he had made to develop a better understanding of the store's operations. Located in the central London area, Valdez' Quesada usually experienced high customer demand compared to other franchised stores located in London. A few days ago, Valdez was alarmed to read negative reviews of his franchise, criticizing the queue times. By comparing his store to other Quesadas operating in London, Valdez deduced that his business had higher overall demand, yet had lower revenue and profit margins. Valdez wondered if this was due to low-cost efficiency, or an issue with queue times, and asked Kya Barrow, a professional in operations management, for consultancy advice as to why this was the case.

COMPANY BACKGROUND

Quesada Burritos & Tacos is the number one fastest-growing Mexican franchise with 93 restaurants in Canada. It aims to create a positive and pleasurable experience for customers by offering fresh, healthy, and delicious burritos & tacos. Founded in 2004 by Steve Gill, Quesada launched aggressive expansion and developed an intensive franchise chain that currently operates over 100 restaurants nationally. The brand has won many awards from the Canadian Franchisee Association.

BUSINESS OPERATIONS

For the Central London Quesada, a business day starts at 9 am with preparing all the ingredients required for the opening of the restaurant, including preparation of hand-mashed guacamole and house-made salsa which takes 2 hours of chopping, roasting, and blending. During operational hours (Daily, 11:00 am to 9:00 pm), employees are responsible for preparing custom-made burritos according to customers' preferences and managing cash and sales transactions. The ordering process consists of 6 steps. Each customer must pass all 6

steps and can only proceed to the next step once the previous customer has moved forward (Exhibit 1). Each process requires a different handling time (Exhibit 2). Although the

time for the whole ordering process is quite consistent amongst customers, there is some variability depending on what the customer has ordered, the payment method, and the time of visiting the restaurant. For example, 20% of the customers pay by cash, which requires a longer handling time at the payment stage than payment through debit card. On the other hand, rather than affecting the processing time, the arrival times of customers affects how long they have to wait in line to order. During the peak hours for lunch (11:00am - 2:00pm) and dinner (5:00pm - 9:00pm), customers have to wait longer to order their food. However, if customers visit the restaurant during non-peak hours, they usually do not have to wait longer than 30 seconds. Operational hours can be separated into 3-time slots, each with a different customer arrival rate (Exhibit 3).

Recently, some customers have complained about the long queuing time and efficiency of employees. Fred Valdez would like to understand how long customers currently have to wait to order food and see if this has any relationship with the lower revenue levels.

EFFICIENCY OPTIONS

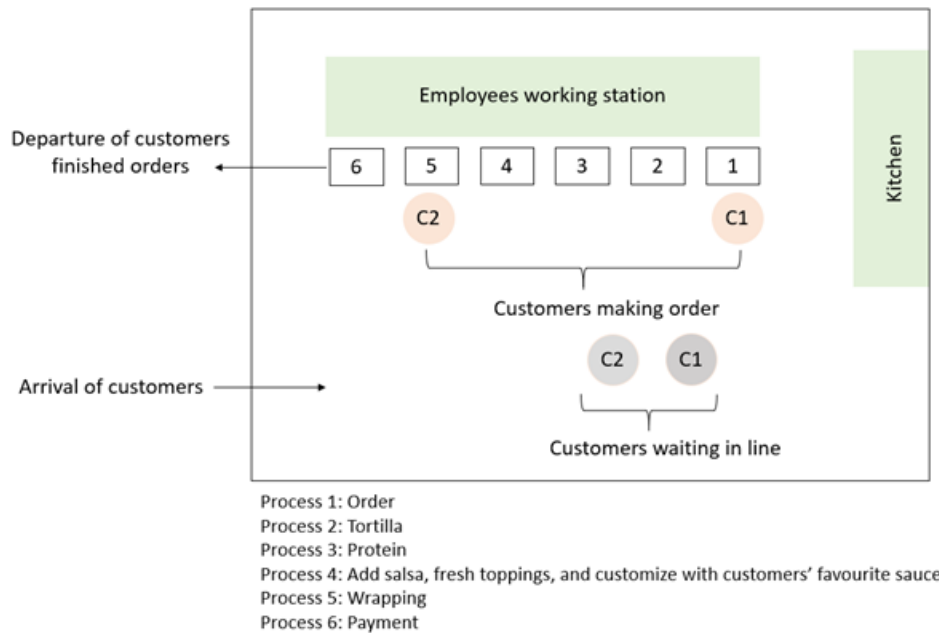
Franchises located in attractive locations usually reach a tipping point with demand increasing beyond the capacity of the restaurant. At such times it is common for restaurants to hire additional workers, especially during peak time periods. Valdez had already done some analysis of his firm's operations and was confident in a few key facts. Every second of average queue time results in one missed order, with orders on average being worth \$5. At the same time, Valdez understood that every second his franchise could decrease their processing time by, it would decrease average queue times by the same amount. In turn, Valdez felt there may be an opportunity to increase revenue and profits by adding additional staff to capture lost demand due to long queue times. However, this additional revenue needed to be balanced against the cost of adding an additional worker---\$12 an hour for 10 hours a day. While these conclusions about demand were valid, Fred understood that capturing the missed demand due to queue times may require some additional marketing or sales tactics.

DEVELOPING A NEW OPERATIONS STRATEGY

With rising customer complaints and declining reviews of the central London Quesada, Kya Barrow sat in her consultancy office and contemplated how she could most effectively solve the problem of under-capacity. Fred's Quesada franchise was profitable as it was, but they both knew declining reviews could have a devastating impact on the appeal of Fred's restaurant. Was it possible to re-shuffle the staff to reduce wait times for customers? Would hiring an additional worker be effective in reducing wait times for customers? How should this new worker be allocated so that it would lead to the greatest return on investment? What would be the profit implications of adding another worker and reducing queue times? Kya started to

look over some data she had asked Fred to collect over the past week and attempted to devise the most profitable plan for Fred moving forward.

EXHIBIT 1: FOOD ORDERING PROCESS



*Note: Order and Payment each must always have a dedicated worker to those stations

EXHIBIT 2: PROCESSING & QUEUE TIME (in seconds)

	Process 1: Order Time (s)	Process 2: Tortilla Time (s)	Process 3: Protein Time (s)	Process 4: Veg Time (s)	Process 5: Wrap Time (s)	Process 6: Pay Time (s):
Min.	10	8	15	20	See below	See below
Max.	30	35	45	50	See below	See below

	Option	Probability	Min. (s)	Max. (s)
Process 5:	Burrito	20%	30	60
	Bowl	60%	20	50
	Quesadilla	20%	40	70
Process 6:	Cash	20%	30	60
	Debit	80%	10	30

EXHIBIT 3: CUSTOMER INTER-ARRIVAL RATE

Time slot	Min. (s)	Max. (s)
11:00am to 2:00 pm	1	240

2:00pm to 5:00pm	60	300
5:00pm to 9:00pm	1	180

EXHIBIT 4: STRUCTURE

Arrival	Queue	Process Start	Process Time (s)	Process Time	Process Finish	Process Method
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*In calculating the queue time, it is important to consider the finishing time of the previous customer, depending on the allocation of workers.

EXHIBIT 5: REVENUE AND COSTS

<i>Average queue time to lose 1 order</i>	<i>Avg. Cost of order</i>	<i># of Customers</i>	<i>Wage</i>	<i># of Hours/staff</i>	<i>Cost of Staff/Day</i>
1 second	\$5	320	\$12/hour	10	\$120

EXHIBIT 6: EXCEL DATA FILE

To be handed in as a separate file.