BENHIHANA OF TOKYO SIMULATION

The objective of the simulation was to maximize the profitability of the restaurant, maximize the number of customers served and at the same time, optimize the average utilization.

The maximum profitability depends on various decision-making factor that we need to maximize to increase the profitability which is our goal. The decision-making factor involves the batching decision, bar decisions, dining time decisions and advertising decisions. The best strategy I was available to design while playing the simulation is when the restaurant made a **profit of \$637.90** (exhibit 1) Moving on let's understand how each factor affects the profitability and the overall working of the Benihana restaurant.

1) Batching Decision

Batching is a strategy that helps in maximizing profits. In all the scenarios I kept the batching decision to be the same- which is batching in tables of 8 during all 3 times from 5pm-7pm, 7pm-8pm and 8pm-10:30pm. According to me, batching would allow the restaurant to accommodate more people at the same time which can be served by the same staff members and will result in more resource utilization, which will generate more revenue and increase the profitability.

2) Bar Decision

The purpose of bars at Benihana is usually to keep the customers engaged, increases revenue, and decreases lost customers, hence it directly results in maximizing the profits. Maximum utilization and nightly profit were generated for the combinations of 55-63 bar seats and 13-14 dining table, which says that these bar size and restaurant table would yield a greater number of customers served with a lesser number of lost customers (exhibit 2) and subsequently higher total revenue and higher profit. Additionally, when bar seats were kept at the minimum at 47 seats it resulted in the least profit and average utilization is just 45.83% whereas when bar size is kept at 63 seats, the average utilization is almost 63%.

3) Dining Time Decision

Decreasing the dining time helps in serving more customers faster, the chef controls the number of customers he can entertain at the same time. This helps in reducing the time spent per customer and allows the chef to serve more customers in the same period. After 5 rounds of simulation, it was observed that average dining time from 5pm- 8pm which includes peak time as well does not have a greater impact on the profitability, however changing the dining time during post-peak yields a greater profitability if we provide higher dining time and the restaurant experience to customers.

4) Advertising Decision

When adverting budget kept between 2x-3x, maximum profitability was seen between this. When advertising budget kept below 2 or above 3 then profitability was hampered during this time. For advertising campaign, the simulation provided the highest profitability for the "Happy Hour" as compared to other options, keeping awareness as advertising agenda did not provide significant result, profit went down to \$279 only (exhibit3) whereas happy hours would give restaurant a good reason to attract a lot of customers as happy hour would provide them a lot of incentive to come and visit the restaurant which favors a lot of customer liking.

5) Conclusion

Batching, developing more of complementary service (bar seats) and change in dining time directly or indirectly helps to maximize and increase profits to great extent. We can conclude that selection of best scenario from all the 4-decision making factor does not result into maximum profitability. However, my best strategy would be batching for whole day with dining time 45 mins for pre-peak, 45 mins for peak hours and 68 mins for post peak hours so that restaurant could serve a lot of customers during rush hours and provide full experience during post peak hours to increase revenue particularly during post peak hours. Also, the restaurant must be open by 5pm itself to serve the customers in the maximum capacity. I increased advertisement budget to promote happy hour to attract the greatest number of customers, so I set the marketing budget to 2.3x and this is how I achieved my maximum profit figure of \$637.90 from the rest of the simulation rounds. (exhibit4)

Summary	Financial	Cust.	Lost	Served				
Bar Usag	e	Dir	Dining Room Usage					
Drinks Sol	d	181.1	Din 4 Ser	ners ved	428.6			
Avg. Cust.		6.5	7 Tab	les Serve	ed 53.9			
Max Cust.		40.	Av <u>e</u> 5 Use	g. Tables	in 8.25			
Avg. Wait		7.5	Av <u>o</u> 6 Tim	g. Dining ne	71.36			
Max Wait		30.1	5 Av <u>e</u>	g. Cust.	65.5			
Lost Cust.			5 Ma	x Cust.	104			
Avg. Drink Cust.	s Per	0.6	Avg 3 Util). lization	62.94%			
Revenue	\$	4,557.7	1 Nig	htly Prof	it \$637.90			

<u>Exhibit -1</u>



<u>Exhibit 2</u>

Load Scenario 1 \$279.79 \$3,956.62 \$217.62 \$3,739.00 47 45 45 58 1.7 Awareness 5:00 pm minutes minutes minutes

<u>Exhibit -3</u>

Load	Scenario Name	Nightly Profit	anue	Revenue Dinner	Bar Size	Dining D Time T (Open (to 7pm) 8	Dining D Time T (7pm to (Bpm) 1	Dining Time (8pm to L0:30pm)	Advertising Budget	Advertising Campaign	Restaurant Opening Time	Batching Type (Open to 7pm)	Batching Type (7pm to 8pm)	Batching Type (8pm to 10:30pm)
Load	Scenario 5	\$608.92	0.04	\$4,710.00	63	45 minute	45 es minut	68 tes minut	3.1 es	Happy Hour	5:00 pm	Tables of 8	Tables of 8	Tables of 8
Load	Scenario 4	\$637.90	1.71	\$4,286.00	63	45 minute	45 es minut	68 tes minut	2.3 es	Happy Hour	5:00 pm	Tables of 8	Tables of 8	Tables of 8
Load	Scenario 3	\$545.27	7.04	\$4,111.00	79	45 minute	45 es minut	65 tes minut	2.4 es	Happy Hour	5:00 pm	Tables of 8	Tables of 8	Tables of 4 to 8
Load	Scenario 2	\$629.37	1.41	\$4,361.00	55	45 minute	45 es minut	65 tes minut	2.4 es	Happy Hour	5:00 pm	Tables of 8	Tables of 8	Tables of 4 to 8
Load	Scenario 1	\$279.79	7.62	\$3,739.00	47	45 minute	45 es minut	58 tes minut	1.7 es	Awarene	ss 5:00 pm	Tables of 4 to 8	Tables of 8	Tables of 8

<u>Exhibit – 4</u>