APPLIED ANALYTICS AND DATA FOR DECISION MAKING PROJECT

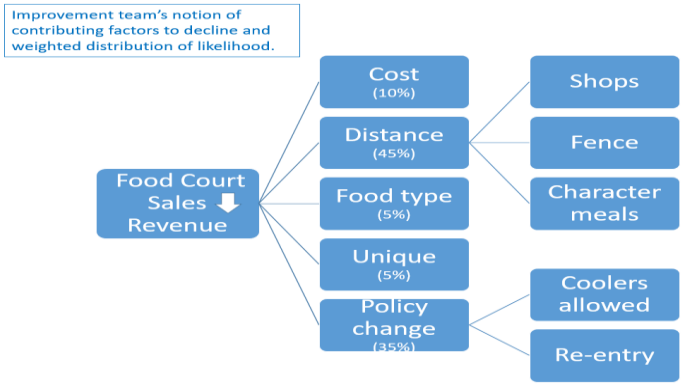
SCENARIO: Recap from phases one and two in the Data-Driven Process Improvement and Data Analysis and Visualization courses respectively:

Phase I Recap: You are the guest service manager of an amusement park. You are able to track each annual pass-holder to determine when they signed up, how many visits they make per year, how much they spend on a trip level and annually, the duration of each trip, and what ride and food vendors they frequent. After five years of seeing a steady annual increase in park revenue, you have recognized a recent drop in guest spending on food vendors at the property. When looking at the number of guests that visited for the year you see the number of unique pass-holders is higher than it has been in five years.

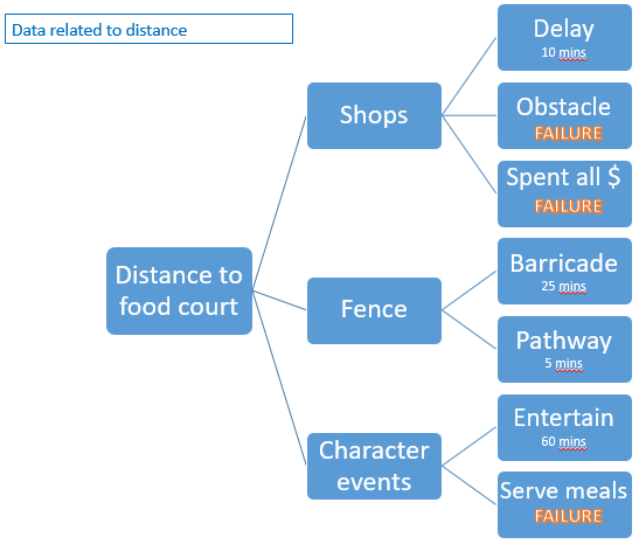
Your corporate strategy includes: providing safe entertainment for guests and employees; flexible and diverse programs; and fun, unique restaurants at an affordable cost.

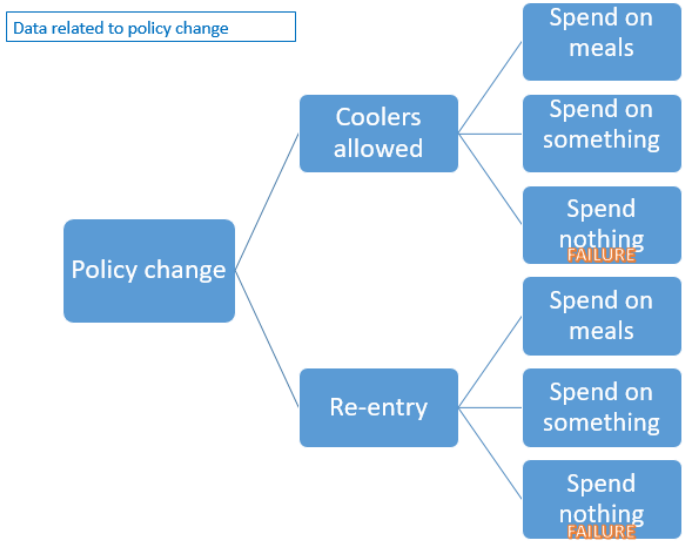
Your process improvement team consists of a concierge manager, business manager, food manager, marketing lead, facility manager, and children's programming manager. Each had a different reaction to the revenue drop in food sales.

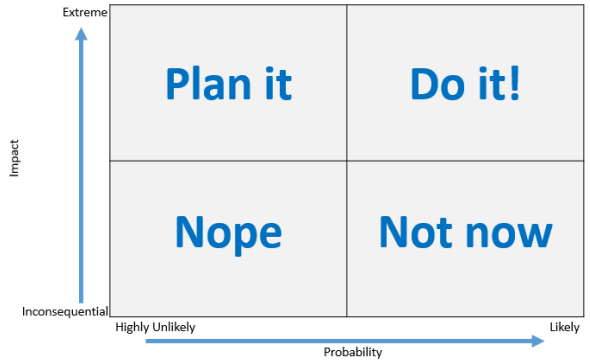
You and your team determined that the most critical data to collect was related to the distance to the food court and policy changes, based on the following figure.



Phase II Recap: You also described logical steps to developing an action plan to address key points discovered during analysis and subsequently, developed an action plan. In addition, you outlined how your plan may affect other situations the following figures were provided.







If you have not completed phases one and two, we highly recommend completing them before attempting this assignment. Detailed instructions are available in the last module of the 1. Data-Driven Process Improvement and 2. Data Analysis and Visualization courses of the Data-Driven Decision Making series respectively.

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Phase III ASSIGNMENT: In this assignment, you are to identify the best solutions to improve the performance of 'x' you chose in phase two, apply the Design of Experiment technique to test the improvement solution, and integrate concepts from lean and six sigma to sustain your improvement. You will submit a maximum 500 word, one-page response, a short PPT or 1-3 min video. Some additional content to assist you follows:

The Design of Experiment definition phase includes: 1. State a practical problem, 2. State an experiment objective, 3. Select output response(s), 4. Choose input factors, and 5. Select input factor levels.

The Execution phase includes: 1. Select the experiment design and sample size, 2. Run the experiment and collect data, 3. Analyze the data, 4. Draw statistical and practical conclusions, and 5. Translate the conclusions into practical terms.

Improvement Selection Matrix
Project:
Date:

		Verified Significant x's (inputs)													
		1	2	3	4	5	6	7	8	9	10	OVERALL IMPACT RATING	COST RATING	RISK RATING	OVERALL RATING
	Significance Rating	0	0	0	0	0	0	0	0	0	0				
	Potential Improvements	Impact Rating	Impact Rating	Impact Rating	Impact Rating	Impact Rating	Impact Rating	Impact Rating	Impact Rating	Impact Rating	Impact Rating				
1		0	0	0	0	0	0	0	0	0	0	0			0
2		0	0	0	0	0	0	0	0	0	0	0			0
3		0	0	0	0	0	0	0	0	0	0	0			0
4		0	0	0	0	0	0	0	0	0	0	0			0
5		0	0	0	0	0	0	0	0	0	0	0			0
6		0	0	0	0	0	0	0	0	0	0	0			0
7		0	0	0	0	0	0	0	0	0	0	0			0
8		0	0	0	0	0	0	0	0	0	0	0			0
9		0	0	0	0	0	0	0	0	0	0	0			0
10		0	0	0	0	0	0	0	0	0	0	0			0
11		0	0	0	0	0	0	0	0	0	0	0			0
12		0	0	0	0	0	0	0	0	0	0	0			0
13		0	0	0	0	0	0	0	0	0	0	0			0
14		0	0	0	0	0	0	0	0	0	0	0			0
15		0	0	0	0	0	0	0	0	0	0	0			0
16		0	0	0	0	0	0	0	0	0	0	0			0
17		0	0	0	0	0	0	0	0	0	0	0			0
18		0	0	0	0	0	0	0	0	0	0	0			0
19		0	0	0	0	0	0	0	0	0	0	0			0
20		0	0	0	0	0	0	0	0	0	0	0			0

Good luck!