

**NOTE: This document contains hyperlinks that can be used when downloading the PDF. Thank you!**

## ## Summary

---

I utilized SQL to standardize the date column format, pandas for in-depth data analysis, and Tableau for visualization to compare survey responses collected before and after a crisis management event to assess whether the event had an adverse impact on customer opinion.

## ### Project Introduction

---

On March 16, 2024, Knight's Subs faced a significant challenge when a video went viral, showing a staff member engaging in unsanitary practices while preparing food. This incident sparked a social media crisis that required swift and effective management. Remarkably, within a week, many media outlets and industry leaders praised Knight's for their handling of the situation.

To ensure that this incident did not negatively impact their long-term customer satisfaction, Knight's Subs partnered with Analytics with Tasbih. Our goal is to analyze customer feedback collected through surveys conducted three months before and three months after the incident. By comparing these surveys, we aim to provide insights into customer perceptions and experiences, helping Knight's understand the true impact of the crisis and guide their future efforts in maintaining customer trust.

---

## ##Process

Data Integrity – The data used in this project was unique. The customer IDs, dates and answers to each question were generated using Microsoft VBA

### [Crisis Survey.bas](#)

SQL was used at first to correct the date column, so that it may be used in queries (it turned out it was not used in the project).

Files:

[add s Date col.sql](#)

[clean date.sql](#)

Pandas was used to create a pivot table that would show the differences between the average responses for each question.

File:

[CrisisSurvey.ipynb](#)

Tableau was used to visualize the differences between the survey questions, before and after the event.

### [Crisis Management Project | Tableau Public](#)

Data Files:

[survey 1.csv](#)

[survey 2.csv](#)

[surveyDA.csv](#)

---

## ## Key Information

### **The survey questions (sourced from an actual restaurant):**

The choices unless specified:

1. Very Likely
2. Likely
3. Not Sure
4. Not Likely
5. Not Very Likely

1. How likely are you to recommend Knight's to a friend?

2. How often do you dine at Knight's?

1. 1 - "This was my first time," 2 - "I visit you evry 6 months," 3 - "I visit you evry 3 months," 4- "I come by at least once a month," or 5 - "I dine with you weekly."

2. How satisfied are you with the ambiance?

3. How satisfied are you with the taste consistency?

4. How satisfied are you with the pricing?

5. How satisfied are you with the promotions?

6. How satisfied are you with the dining experience?

7. How satisfied are you with the home delivery times?

8. How satisfied are you with the ordering process?

9. Age

1. 1 – 18, 2 -18 to 30, 3-31 to 40, 4 - 41 to 55, 5 - over 55
-

## **## Conclusion**

---

The data showed a small increase in positive answers for Question 1, and a small decrease in positive answers for Question 2. Considering the increase with the decrease, and the small difference between the answers from the first and second survey, it can be concluded that that Knight's was successful in managing the crisis and it did not have a negative impact on public opinion.

## **## Project Lessons**

---

The survey data was randomly generated, but produced "even" results. In a real survey the data would be more spontaneous. Additionally, the questions 3 – 8, where not properly weighted with the answers to questions 1 and 2. If a customer would recommend the restaurant to a friend and frequents the establishment, they should have favorable answers for questions 3-8, or would be more likely to have favorable answers.