

To: CEO of PizzaCo

From: Esosa Orumwese, Consultant

Subject: **Marketing Advertisement Study Proposal**

I am writing to propose a study design to support the claims focusing on the strengths of PizzaCo, which are customer satisfaction and speed of service. In this memorandum, I will explain in detail how we can conduct the study, what variables we should record, and how we can summarize the data to make comparisons between PizzaCo and its main competitor, CompetitorX.

Research Questions:

To address the claims of customer satisfaction and speed of service, we can ask the following research questions:

- How satisfied are customers with PizzaCo's service and quality compared to CompetitorX?
- How much time does it take for PizzaCo to prepare and deliver a pizza compared to CompetitorX?

Variables:

In order to answer the research questions, we need to record the following variables:

- Customer Satisfaction: We can measure this variable on a scale of 1-10 using a survey where customers rate their satisfaction with PizzaCo and CompetitorX's service and quality.
- Speed of Service: We can measure this variable by recording the time it takes for both companies to prepare and deliver a pizza. We can also record the time customers spend waiting in line or on hold when placing an order.

Data Collection:

To collect the data, we can survey customers who have ordered from both PizzaCo and CompetitorX in the last month. We can use a random sampling method to ensure that the sample is representative of the population. We can also record the time it takes for PizzaCo and CompetitorX to prepare and deliver a pizza by placing test orders at both locations and recording the time it takes to complete the order and

taking note of factors which could affect the service times such as the size of the order, the distance to the customer and the availability of ingredients.

Data Summarization:

- Customer Satisfaction: We can create a bar chart that compares the mean satisfaction rating of both companies. We can also calculate the difference in the mean satisfaction ratings and report the p-value of a t-test to determine whether the difference is significant.
- Speed of Service: We can create a boxplot that shows the distribution of the time it takes for both companies to prepare and deliver a pizza. We can also calculate the mean and standard deviation of the time and report the p-value of a t-test to determine if the difference is significant.
- Additionally, we can conduct a regression analysis to determine what factors have the most significant impact on our variables.

Conclusion:

By conducting a study that measures customer satisfaction and speed of service, we can support claims that focus on the strengths of PizzaCo. We can use the above-mentioned graphical and numerical summaries to compare PizzaCo with CompetitorX and highlight the differences. Additionally, we can identify the factors that have the most significant impact on customer satisfaction and speed of service and use that information to improve PizzaCo's business practices.

Best Regards

Esosa Orumwese