

MAN 3520: Six Sigma Final Project Fall 2021

This final project will gain you the practice of the application of six sigma tools you have learnt so far along with some project management techniques to manage a small business improvement project.

Background

The general manager (GM) of the historic Ritz Theater in downtown Winter Haven, Florida was so impressed with your empty seats assessment, she has hired your teams to assess a more extensive business process improvement project. Due to the historic value and iconic status of the Ritz, she has also invited the mayor of Winter Haven, and a representative from the Winter Haven Chamber of Commerce to be aware of your project and to learn about your findings. The owner of the Ritz has authorized this project and assumes responsibility for the project outcome.

The GM is aware of Six Sigma and project management methodologies. However, the Ritz owner has authorized the expense of outsourcing this project to an outside group of experts (your teams) so that the GM can focus on daily operations of the theater.

Problem

Assume your class team is the group of professionals hired by the Ritz Theater GM. You have just met with the GM to discuss her business process improvement objectives for 2018 and beyond. She has compiled a data set based on 2017 operations and presented the data to you. You are tasked with developing an analysis, summary, and recommended next steps to be presented to the owner, GM, mayor, and Chamber of Commerce representative. The expectation is that this study will provide a foundation for the "current state" of some of the operations metrics and help initiate improvements to ensure sustainability of this historic venue.

Deliverables

1. Presentation: Each team will present their findings in class on Dec 2 and Dec 7 (12 minutes presentation and 2 minutes for questions).
2. Professional report: Each team will present a professional report that includes data analysis, summary and recommendations for next steps based on fulfilling the following requirements:
 - a) To ensure sound project management practices, the GM is requesting a project charter, stakeholder analysis, and communication plan.
 - b) Is there a statistically significant difference between the daily averages for popcorn revenue and beverage revenue?
 - c) Which key variables should the GM focus on as effective predictors of total revenue? The GM wants to use a minimum number of variables to monitor total revenue and still be able to confidently predict total revenue.
 - d) If the GM has a minimum daily total revenue target of \$5,800, what was the Sigma Level of the process in 2017?
 - e) In examining ticket revenue in 2017, how stable was this process by month? Were there any periods of possible changes in the process?

- f) The GM is trying to determine whether to focus on having live performances or films at the theater. Does ticket revenue and/or ticket sales method have a statistically significant effect on show type? If yes, explain the relationship to show type.
- g) The GM had a goal of achieving a statistically significant increase in the daily average for total revenue in 2017. If average daily total revenue was \$6,550 in 2016, did the GM achieve her goal in 2017?
- h) Briefly summarize your suggested next steps as an improvement plan.

Data

Required data and supporting project management tools are provided.

Due Dates

Assignment	Due Date
Requirement 1	November 10
Requirements 2 - 8	November 18
Project Presentations	December 1, 5 PM
In Class Presentations	December 2 & 7
Final Report	December 7, 11:59 PM

Please submit a professional report (PDF version only) on CANVAS. Please ensure to follow these guidelines:

1. Your report should look professional and at least include an introduction, methodology, analysis and conclusion sections.
2. The outputs (tables and graphs) from utilizing the statistical software should be cleaned up for improved legibility and comprehension.
3. When submitting any work, your objective is to communicate information to the reader (in this case, your instructor) in a Clear, Concise, Complete, Careful, and Courteous manner (5 C's of good writing). If your work does not possess the "5C" qualities and/or does not adhere to the guidelines specified below, you will definitely lose A LOT OF credit even though you may have the correct answer(s).

The project report is due on the last day of classes, **December 7, 2021 by 11:59 PM.**