

BNAL 405 Course Project

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Business Analyses Using Excel



The final project for this course will be a product of both analyses and a detailed writing report based on the given dataset “STIHLDelivery.xlsx”.

Stihl Inc is a multinational company that has its U.S. headquarters in Virginia Beach, VA, where it manufactures and coordinates all U.S. and Caribbean product distribution through 11 U.S. distribution centers, called branches. This dataset contains the delivery information of Stihl’s 4 distribution centers (PAS, IMS, MDW, and SNW) in 2019. In the file, the worksheet “PAS” (“IMS”, “MDW”, “SNW”) contains the logistic spending in PAS (IMS, MDW, and SNW) distribution center. The worksheet “Customer Information” includes the information of customers and their locations.

This is group work, and each group is expected to conduct analyses and deliver reports based on the below instructions.

Objectives:

Excel is a powerful tool to conduct business analyses. The objective of the course project is to review what we have learned in BNAL 405 and conduct business analyses step by step using the raw data. It aims to enhance students' understanding of Excel skills and build critical thinking skills of business-related decision-making.

Role and audience

You will conduct this project as if you are a senior business analyst who reports to the logistic manager or CEO. You would like to show the expense analyses and the prediction for the future six months (Jan – Mar 2020) (*for different regions, and detailed analyses based on top customers and top zip codes that have the highest expenses*). These analyses are aimed to provide an understanding of where the most costs come from, so the management team can optimize the logistic resources. Also, based on the cost prediction, the company can reserve a proper level of capital for related spending.

Detailed Requirements

The delivery of this project has two modes:

- A written report.
- Excel files used for the analyses

The analyses and writing report should include the following contents.

1, Data Description and Report Objectives

2, Data Cleaning

You need to combine the different distribution center data with the customer information to conduct detailed customer analysis and location (based on zip code) analysis.

3, Use various Data Visualization to show the relationship between costs and other factors.

4. Description Analysis for the costs across the year.

And explain the data in detail.

5. Predictive Analysis. Forecast the expense for Jan-Mar 2020. And explain the model.
6. Summarize the findings based on the analyses and provide proper managerial suggestions.

Rubric / Evaluation Criteria

Grading of the course project based on the below criteria:

	Evaluation Criteria			
Category	Excellence (100%)	Above Average (85%)	Average (75%)	Below Average (65%)
Writing report	Write logically and flow well	Write logically and flow well, but there are a couple of disconnections	Generally, flow well, have some logic gaps	There are major logic gaps
Project Objectives	Clearly and logically well written	Written well, but not very detail	Written well, but very concise	Poorly written
Descriptive Analyses (including data visualization)	Include various methods to show data visualization and descriptive analyses from different perspectives	Include various methods to show data visualization and descriptive analyses, but only from limited perspectives	Limited methods are used to present the descriptive analyses	Limited methods are used to present the descriptive analyses. And there are mistakes.
Predictive Analyses (regression analyses)	Try several different models and pick up the most suitable prediction model.	Try several different models and pick up the most suitable prediction model. There are minor mistakes.	Use one or two models. And there are minor mistakes.	Use one or two models. And there are major mistakes.
Discussion and conclusion	Connect with the project objectives and draw insightful conclusions.	Connect with the project objectives and the conclusions are clear and thorough.	Discussions and conclusions are in detail, but there are some logical gaps.	Limited discussions and conclusions.

Participation rule

This is group work and each group member should contribute equally. If a group member contributes significantly less than others, the group should report it and the student is subject to a 20% off penalty (based on the group performance). The deducted points will be added evenly to other group members.

For example, if a group has 5 students and there is 1 contribute nothing, assume the group project score is 90, this no contribution student score will be $90 \times 0.8 = 72$, the deducted 18 points will be evenly distributed to other 4 members, so the other 4 grade will be $90 + (18/4) = 96.5$

Submission Guidelines

Please submit the relevant documents through the Blackboard system.

This is group work, so one submission per group.