

# The District Company

## Status Report: 1

Megan Mortensen

`mortensenm0704@my.uwstout.edu`

Connor Phu

`phuk0784.my.uwstout.edu`

Brian Dassow

`dassowb0941@my.uwstout.edu`

Bella Nordahl

`nordahli0985@my.uwstout.edu`

Advisor: Keith Wojciechowski

`wojciechowskik@uwstout.edu`

AMCS Program  
University of Wisconsin, Stout

Submitted: 2/4/16; Accepted: 2/4/16;

## **Team Structure**

## **Problem Statement**

The problem presented by The District Company is to use data analytics to inform their marketing strategies.

### **What is the Problem?**

Our client, The District Company, has asked us to use data analytics to explore their event data. We are going to use this information to determine if the events they are holding bring in extra business and revenue to their company. We specifically want to analyze the correlation between their events and concession sales.

The client would like us to look at the data they send us and create surveys to answer some of their questions. They would like to know what events are making money. They need to know what food and drinks are selling and when they are being sold. It would also be important to figure out what times are best for different events and which people they should target for their events. They want to decide if any changes they have recently made have increased or decreased their profits.

Also, they are considering eliminating some of the computers in the building to create more desk space for card and board games. They want to know if people would show up to tournaments and different events that use the computers. If customers would like to see this they would keep the computers and try to incorporate new events. If there is not enough interest they would like to get rid of them so that they can have more space for other games.

### **Why is the Problem Important to the Client?**

This is an important problem to the company because it will allow them to make important business decisions based on the data. They will know which events and games bring in the most profit in concession sales and which events do exceptionally well and which ones might not. The information we provide will help them to become better informed about what their customers are looking for and what the company can do to meet their needs.

### **How we plan to solve this.**

For our problem we are looking at many different approaches to get the most information possible. So far we have been looking at different ways to manipulate the data we have and make meaningful graphs out of what we have found. We are also working on survey questions to help us get more information. There are a few questions that we do not have answers or plans for yet.

One of our first approaches is just combing through the data and looking for where the most revenue is coming in. We have looked for what items get the most revenue. We want to see if there have been spikes in revenue that correlate to particular events. We hope to be able to explain why some things sell better at certain times. We are also trying to figure out what counts as a good sales day for the company.

The data we were given shows daily revenue, which gives us a lot of information, but many zeros. So we are going to try looking at the data as consolidated months or weeks. We are

also going to compare the days of the week (like Mondays versus Wednesdays) since they have weekly events. We are going to try to use this information to see what days are the best for the customers. We have found a few interesting relationships so far, but there is still many things we have not looked at yet.

We should be getting some more detailed data soon that we will analyze in similar ways. This data should give us some idea of how more specific items sell. This will be especially important in the Magic the Gathering category since that category makes up almost thirty percent of The Districts revenue.

We have made surveys that we are going to put on Facebook and in the store. We have looked at the current reviews of the company on Facebook. We have made a Python program to parse through surveys. We tested this program on the current reviews we have found. We plan to use the surveys to classify different groups of customers by their age ranges, what time they go to The District Company, and what they go there for.

This survey will hopefully be in the store and online for a few weeks. We have asked to use an incentive in the store to get customers to take the survey. We want to get the survey out as soon as possible so that we can look at the data it gives us and see if there are any meaningful relationships in it.

### **Risks we may run into.**

We are worried about not having our methods show interesting or important results. We might not have good enough relationships to make decisions from. We also could have a problem if we do not have a useful response on time.