

Transcribed notes by Gary Gregg.

On Wednesday, February 7, 2018 at approximately 7:50 PM, a standup meeting was held at 164 Savary Hall at the University of Washington. Present were Megan Hazen, Gary Gregg, Jahnavi Jasti, and Abhishek Varma. The meeting lasted approximately 25 minutes. The following topics, or points were discussed:

- **Important:** If the team is **not** going to produce a pricing model for our sponsor, Megan asks that the team do a deeper dive into the data analysis to produce more actionable insights in our report. The team's current trajectory for data analysis and/or a model appears to be insufficient for a final delivery for the capstone.
- Megan recommends that a good area of actionable research is customer behavior. Gary was thinking along these same lines. For example, we still have the open question as to why average balance-due totals do not keep pace with inflation, while the average price of items from the store exceed inflation. The suggested answers include: 1) Customers are buying fewer items per transaction, and; 2) The behavior of consignor partners is different than general customers. Either way, it would be good for *Kids on 45<sup>th</sup>* to know.
- Gary noted that he will probably need to join tables from the *Custdata* and *Sales* databases to learn specifics of customer behavior.
- We learned that in the legacy sales data the consignor ID **600** applies to sales activity by the store itself, and that the consignor ID **999** applies to new items. See the sponsor meeting minutes from 26 January 2018. We debated the important question about whether rows with these consignor IDs should be separated for analysis in both the *Custdata* and *Sales* databases. **Please be aware that rows with these characteristics may be different than sales for consignor items bought by real customers.**
- As an example of how the results of this data research might be applied, Megan believes a recommendation of "buy 2 get one free," (or similar) might be appropriate for our report.
- Abhishek made the good suggestion for a recommendation of awarding consignor credit not just for having items sold in the store. Abhishek recommends we suggest awarding consignor credit for customers buying "X" dollars of merchandise from the store.
- Megan again suggested that the team make recommendations in their report to *Kids on 45<sup>th</sup>* about what kinds of data to retain in the future, and how that data retention would benefit future analysis. For example, a future team from the M.S. in Data Science program might use these data to develop more actionable insights.

- Gary presented his R-based adjustment script for prices in the *Sales* database. He discussed how Consumer Price Index (CPI) data was obtained from the City of Seattle from 1997 to June, 2017, and that the index is based on a 1982/84 value of 100. He discussed how his R script mapped bi-monthly dates from the Seattle CPI data to the CPI data itself, and how he used the *splinefun* function in R to create a smooth interpolative curve between the data points. A normalized sale amount for June 2017 dollars can then be obtained by taking the original sale amount, multiplying by the CPI adjustment for June 2017, then dividing by the CPI adjustment for the date of the sale. The function obtained by *splinefun* supplies the CPI values.
- We talked about time series as applicable to inflation. Does inflation have a seasonality to it? Can this be used by the store to know when during the year they might more aggressively apply price increases?
- We discussed a prospective model for *Kids on 45<sup>th</sup>*. In particular, we debated the granularity of the model. For example, is "size" a usable parameter for a t-shirt?
- Another model granularity question: Should default values for item condition be dropped?
- There was a discussion about the seasonality of certain items sold in the store, such as rain jackets or ski wear. Can actionable findings results be obtained from data analysis with an eye to seasonality?
- There was more interesting small talk than usual at this meeting. Among the items discussed were the following:
  - The reasons for the current stock market correction
  - Abhishek mentioned that he had learned that 75% of PhD dissertations are never read again after they have been defended
  - We discussed the content and nutritional value of Girl Scout Cookies and how this information may be obtained