**Group Members:** My Pham, Janie Le, Maxwell Xu, Cody Goforth (11:30-12:45)

**LIQUIDITY MANAGEMENT FINAL REPORT**

**1. Transaction Management**

Outliers and abnormal amounts:

* 79 transactions are negative amounts ranging from -$2.14 to -$1106.44 (Electric parts and equipment)
  + 13 of them are hardware stores transactions
  + Are these transactions discounts or returns? Why were they returned?
* Grocery stores category accounts for the highest amount with $53K (together with Eating places, Fast food restaurants, Electric parts and equipment, and Hardware stores)
  + In this category, some transactions range from $100 to $900 mostly in Peoria → seem unreasonable, what occasions were they spent on?
  + There are some large transactions during Christmas time. People tend to spend more money at grocery stores during that time.
* During Thanksgiving and Black Friday, there are always electronic sales. A few large purchases were made in Crescent Electric.
* 1,144 transactions came out to be even amounts
  + Possibility of using gift cards or payment for entertainment/personal purposes
  + Amounted up to $47,110

**2. Employee Management**

**General Analysis:**

* Peoria has the most transactions among 4 cities, while Pekin has the least.
* Peoria also spends the most money, while Pekin spends the least.
* However, the average amounts per transaction in East Peoria and Pekin are the highest → need to consider why these cities spend significantly more money on each transaction than the others.
* May and August have the most amounts spent, followed by February and October.
* June has the least amount spent.

**Merchant Transactions:**

* Top merchants that have the most transactions include: Hy Vee 1549, Crescent Electric 003, Trachtenbarg Co, Handy True Value Hardware
  + Food and utilities categories seem to have significantly higher amounts than the others → need to look into these categories
* Merchants that have the most negative amounts include: Electrical parts and equipment, Electronic sales, Colleges, univ, pro-schools, junior colleges, and Home supply warehouse stores
* Food category:
  + Hy Vee 1549 has an unusual amount that is considerably higher than the rest in August 2017.
  + 21 transactions are higher than or equal to $500 → seem very high, need to see the purpose of these transactions
  + Hy Vee 1549 (highest amount):
    - May and August have the highest amounts among all months → Why do they need to spend more money on food in these two months? On what occasions?
* Equipment and Utilities category:
  + June has the highest number of transactions (84) by Handy True Value Hardware
  + Crescent Electric 003 has the most amount of money compared to other merchants → this may be the area that contains abnormal amounts
  + 20 transactions are between $1,000 and $3,000 → what exactly did they purchase at such high costs?
  + Crescent Electric 003 (highest amount):
    - June, May and March have the highest amounts throughout the fiscal year → why did they spend more in these months?
    - Spends $1,000-$3,500 every month compared to East Peoria Electric M and Republic Companies who only spend below $1,000 for one month of the year.

**3. Merchant Management**

* An approximate of $800,000 was spent on merchants based on our findings. Most of the expenditure over $20,000 is spent for Hyvee, Crescent Electric, Menards, Trachtenbarg Co., and Radisson.
* Local merchants (Peoria, Peoria Heights, East Peoria, and Pekin):
  + According to the data, Hyvee was ranked first with nearly $40,000 → Spend most at Hyvee
  + Transactions of more than $20,000 in sum should be looked at carefully
  + Some transactions might be accounted for personal transactions (small amounts spent on local restaurants/coffee shops/etc.) → Specify the reasons for those transactions
* Paypal merchants:
  + Regardless of the amounts, no PayPal payments found for local required areas (Peoria, East Peoria, Peoria Heights, and Pekin).
* Amazon merchants:
  + There are nearly 2000 transactions of Amazon in general and the majority of the transactions are made for books and marketing. The two highest amounts spent on Amazon are both for book (about $82,000 is spent on Amazon Marketplace and about $63,000 is spent on Amazon.com). However, these transactions are not in the required areas.
* Ebay merchants:
  + There is only one Ebay merchant, and it is out of the required area. The amount seems reasonable.
* Why are some transactions less than $10?
  + Transactions less than $10 are suspected for personal expenses since the amounts are abnormal.
* Why are there negative transactions?
  + Transactions could be made when there were returns, withdrawals, etc.

**4. Category Management**

Categories that they spent the most on have more negotiable power than the others as they could negotiate to get a better price for those categories in the future. They could also adopt bidding procedure to get the most benefit deal from the suppliers.

* Categories that have the highest amounts: Grocery stores and supermarkets, Eating places and restaurants, Fast food restaurants, Electrical parts and equipment, Hardware stores
  + In general, we spent money on restaurants, groceries, and electrical supplies.
  + Within Food category, Hy Vee 1549 has the most negotiable power
* Merchants that have most negotiable power: Hy Vee 1549, Crescent electric 003

**5. Tax**

* The non-profit company is not required to pay sales tax, but the data shows that there are many transactions with sales tax expense at retail stores such as Auto Parts, Hyvee, etc.
* Abnormal tax rates:
  + 146 transactions have tax rates higher than 7% and appear to be sales tax → seem unreasonable since these are supposed to be tax exempt.
  + 2 merchants have tax rates higher than 50%: US & African food (100%) and Heartland fire & security (57.6%) → these could be errors or mischarged.
* 6 transactions have negative tax amounts (mostly equipment and electronic supplies) → need to check whether these are returns of items.