

Case study appendix b

Business



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To carry out the analysis, a statistic summary of the sample data (mean, standard deviation, range, etc.

) was created. A Box plot that could help visualize the skewness, and range of account balances per city and the quartiles was then created. The sample data were divided into tiers. The lowest tier represented customers with the lowest balances, and the upper tier represented customers with the highest balances. Multiple charts and tables with various characteristics were created to visualize and understand patterns among the data.

The results obtained in the statistics summary (Appendix B, Table 1) were then further analyzed. The average account balance of a standard customer is significantly higher in Atlanta, GA than the other 3 cities. While Atlanta, GA boasts an average of \$1,800, Cincinnati, OH, Louisville, KY and Erie, PA average \$1,200 – as per Table 1, Appendix B. Atlanta, GA has the highest percentage of customers holding an account balance higher than \$2,000, namely 33%. Cincinnati, OH has 0%, Louisville, KY 17% and Erie, PA 29%.

The greatest range (the difference between the smallest and largest balance per city) was observed in the cities of Louisville, KY and Erie, PA. On the other hand, the lowest range was observed in Cincinnati, OH and Atlanta, GA. These results are consistent with the respective estimated standard deviation (SD), a common measure of dispersion. The smallest SD was observed in Cincinnati, OH followed by Atlanta, GA. Louisville, KY had the highest dispersion in account balances.

A postbox was used for better visualization of the data characteristics (Appendix B, Graph 4).

In order to better understand whether the account balances were related to particular locations, the data were divided in tiers (Appendix C). The lowest balance was observed in Cincinnati, OH, while Atlanta, GA account balances per customer were relatively high. Cincinnati, OH had the lowest portion of account balances in the per tier. The account balances were spread out relatively equally in all tiers in Erie, PA. In Louisville, KY the account balances per customer were either on the higher or lower side, since only 10 % of account balances were in the middle tier.

Recommendations: Atlanta, GA: It has the lowest variation in account balances and holds the highest average account balance per customer (\$1 , 430). As shown in Appendix A Table 2, there is a high use of Tams and bank services usage by customers. Therefore, the numbers of Tams should be increased, and the bank services should be enhanced. Erie, PA: It has a large range in account balances. Most of the highest account balances belong to customers that use Tams and receive interest. Therefore, the number of Tams and interest paid should be increased.

Cincinnati, OH: It has the lowest percentage of account balances in the upper tier and the highest in the bottom tier. It also has the widest range of distribution. As per the Appendix A, Graph 1, the customers with the highest balances use predominantly the Tams. Therefore, I would suggest an increase in the number of Tams, in order to possibly promote additional deposit of money to the bank. Louisville, KY: It has the highest range and dispersion of account balances per customer. However, this disparity can be explained.

The customers with the highest account balances hold a debit card, and use Tams. Therefore, it is recommended that the number of Tams should be increased and incentives should be given to customers to use a debit card. It was unclear whether the use of debit cards per customer was associated to the frequency of Tams usage, besides in Louisville, KY, since customers that showed high level of Tams activity were not owners of a debit card. Fraud, use of credit card, or data error is a Kelly explanation.