This report was created for, and to address the concerns of, the CEO of BIA Incorporated. The purpose of the report is to provide insight into the methodology employed by our team in our analysis and logical reasoning for making the recommendations listed through the document and in the presentation. Citing declining sales of certain items in recent years and the fact that the company is currently operating at a financial loss, our team understood the need to reduce costs to ensure the longevity of the company as a whole. To achieve this, we used tools and frameworks including SQL Server Management Studio (SSMS), PowerBI, SQL and C# scripts. To ensure this longevity is sustained, the team first considered the sales data set provided by the company and the slightly modified business rules, when compared to our last joint project with the company. We created scripts and programmed solutions to deal with instances of broken data and to ensure that as the data is loaded into our database model, it adheres to the rules provided by the business. We considered specifically the changed discount rate which was different to the rate in use by the company at the time of our last project.

After the data had been correctly loaded, we could begin the analysis. The findings of this process suggested that, based on revenue, the highest performing store was Wagga Wagga with $1,807,157.30 in revenue, whereas the store which performed the worst was Wollongong with $891,871.68 in revenue, $42,395.79 behind the second worst performing store, Dubbo. This analysis was performed after discounts were applied to better reflect the actual monetary value gained by the company. Overall, we found that customers are not loyal to any particular store. With the store with the highest amount of unique customers, Wagga Wagga with 600 only 44 ahead of Wollongong, the store with the lowest amount of unique customers with 556. For each store, we considered the best and worst performing items overall. The findings of this can be outlined in the report. We found that there is no significant discrepancy of any specific item across the company as a whole. The ‘Drill Bit (6mm)’ had an item sales count of19,481, the second worse performing item was the ‘Ruler’ with 19,613 sales.

Next we considered total number of sales and total items sold by individual employees to find whether individual stores had either more sales or higher performing employees. We found that the highest performing employee was Mr. Samuel Anderson, who is located at the Sydney store. Mr. Anderson achieved a sales count of 645 overall sales and 4005 items sold. The second placed employee was Mr. Devin Brown who achieve 628 overall sales with3796 items sold. Our next consideration was the discounted sales rate per employee. We found that the employees with the most discounted sales were situated at the Dubbo store, one of the lowest performing locations overall. MS. Haley Taylor had 263 discounted sales compared to 91 standard sales meaning approximately 74% of MS. Taylor’s overall sales were discounted. The employee with the second highest amount of discounted sales was Mr. Jason Wood, also from the Dubbo store. Mr. Wood had 273 discounted sales and 117 standard sales meaning approximately 70% of Mr. Wood’s sales were discounted. The next metric was the total sales value per staff member. Collectively, we decided that it was important to present the findings of which staff members generate value for the company. We found that Ms. Savannah Jones of the Wollongong store topped the list with $77,152.49 sales value in total. Although the Wollongong store is the worst performing store overall, Ms. Jones outperforms all other staff members in total sale value, even when considering the discounted rate which was applied in this analysis. In addition to this, Ms. Jones placed second in average value per sales, approximately $4.00 behind first place, Ms. Nicole Hernandez from the Broken Hill store with an average sale of $138.40.

After carefully considering the aforementioned key metrics and reviewing the results, we can conclude that out of the 10 offices that are under observation the results point to us closing down the Wollongong branch. This result was not taken lightly as a lot of collaboration within the analytics team reviewing the data to provide accuracy. The Wollongong office was the worst performer $891,871.68 in revenue, $42,395.79 behind the second worst performing store. The 2018 predictions were also taken in to consideration when trying to come to a conclusion and it could be seen that even when Wollongong was predicted to make an improvement in sales in 2018 over 2017 it was still lower than the predicted sales data of the second worst store Dubbo. Upon this decision we believe that if the Wollongong office was to be closed then we would recommend that BIA Incorporated would offer Ms. Savannah Jones a position at one of the other offices close by (e.g. Sydney). This is because we believe that Ms. Savannah Jones is a valuable staff member here at BIA Incorporated and in 2017 was the staff member who made the most revenue for the company as a whole.

Limitations of the report

We cannot provide any information on profit as there is no expenditure data given.

We were only given 1 years’ worth of data to predict the next year’s sales values per store. We were also only given 1 years’ worth of data as a basis to recommend shutting down an office. We do not know if Wollongong’s poor performance is due to it only being a new store that opened at the beginning of the 2017 or some other factor.

We cannot provide information on cost per employee/the revenue they made to see if they are worth keeping, due to a lack of staff expenditure data.

We cannot provide recommendations on which item to remove or market harder based on profit margin as we have no initial cost of the items.