**Executive Summary**

Tim Horton has data collected from 2012 containing reviews by current and former employees. They want to understand more about the data they have but they don’t know what value they can derive from it. The objective is to garner business value from the given information and pose the findings to the client. Understanding an individual employee's behaviour can help to develop those methodologies that matter to the business. In this project, the meaningful review segmentations are derived. The Natural Language Processing (NLP) is used to interpret the employee’s comments. We explore those features that affect employees comment especially former employees. The idea behind it is the high ranking group are not problematic and does not give significant business idea while those employees that have some complains can be studied. The reasons of low rating could be categorized by their feature importance and the client could focus on solutions and decision makings by those key factors.

The following information was derived from statistical and NLP analysis:

1. All the ratings from 2012 to 2019 are slightly declined for current and former employees.
2. Although the lowest average rating belongs to salary and benefit, it has low impact on the final rating. It indicates that the majority of employees in Tim Horton believe the compensation is low but they do not consider low income as a main complain factor
3. The rate of decline for Management and job security seems to be more than others. It is recommended to review the management instruction since 2012 to explore the reason for the decline. On the other hand, job security could have many external factors but the company needs to review the recent employee's contract and the data related to the length of employment of individuals
4. For all former employees, life balance and job culture have the highest role in determining the final rating.
5. 14% of former employees that provided a lower final rating (1 or 2) have more concern about management and life balance. Salary and job security do not have a significant impact on their final rating.
6. NLP analysis indicates that two features, fast-paced work environment and poor management, are the main complains for former employees
7. The job title was not stored in the proper format. For example, French and English are mixed. Our suggestion is to improve the integrity of the dataset, apply multiple choice questions for the job title.