## Online review

As performance measurement - Restaurants



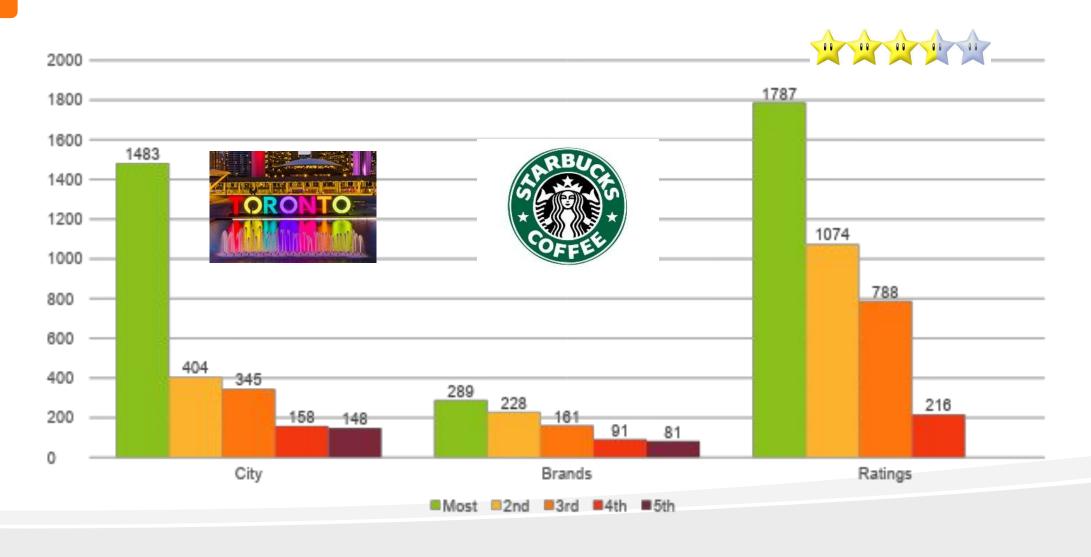


# Can we enhance small chains decision making using public information?

- Benchmark franchise / store performance
- Enhance location selection



## Summary Statistics (n=3,865; 13 fields)

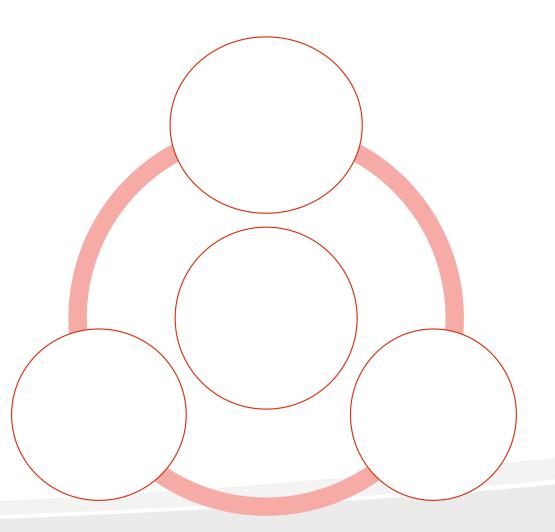




#### Data issues

Issues out-of-scope:

- Survival bias
- Fraud
- Missing Data Fix / Inference



### Tools result

- More reviews = success
- Need greater than 6 reviews per location
- Review bias
- ¹Significant defined as

Method	Insight	Sign. <sup>1</sup>
Assoc. Rule	No rules	NA
Decision Tree	# of reviews, brands	~32%
Linear Regression -Rating	# of reviews, brands	$R^2 = 33\%$
Logistic Regression - Survival	Limited	R <sup>2</sup> =30%



#### Lesson Learned

#### Team

- Leverage online community to understand context of data
- Test hypothesis with different modelling tools to understand the differences
- "All publicity is good publicity"

#### • Data

- Use sentiment analysis to validate the ratings
- Use postal code to better define a geographical view
- Business/Economical modelling
- Correct missing attribute data using Google search Application Programming Interface (API)

