Text Mining Research: Customer Review Consistency

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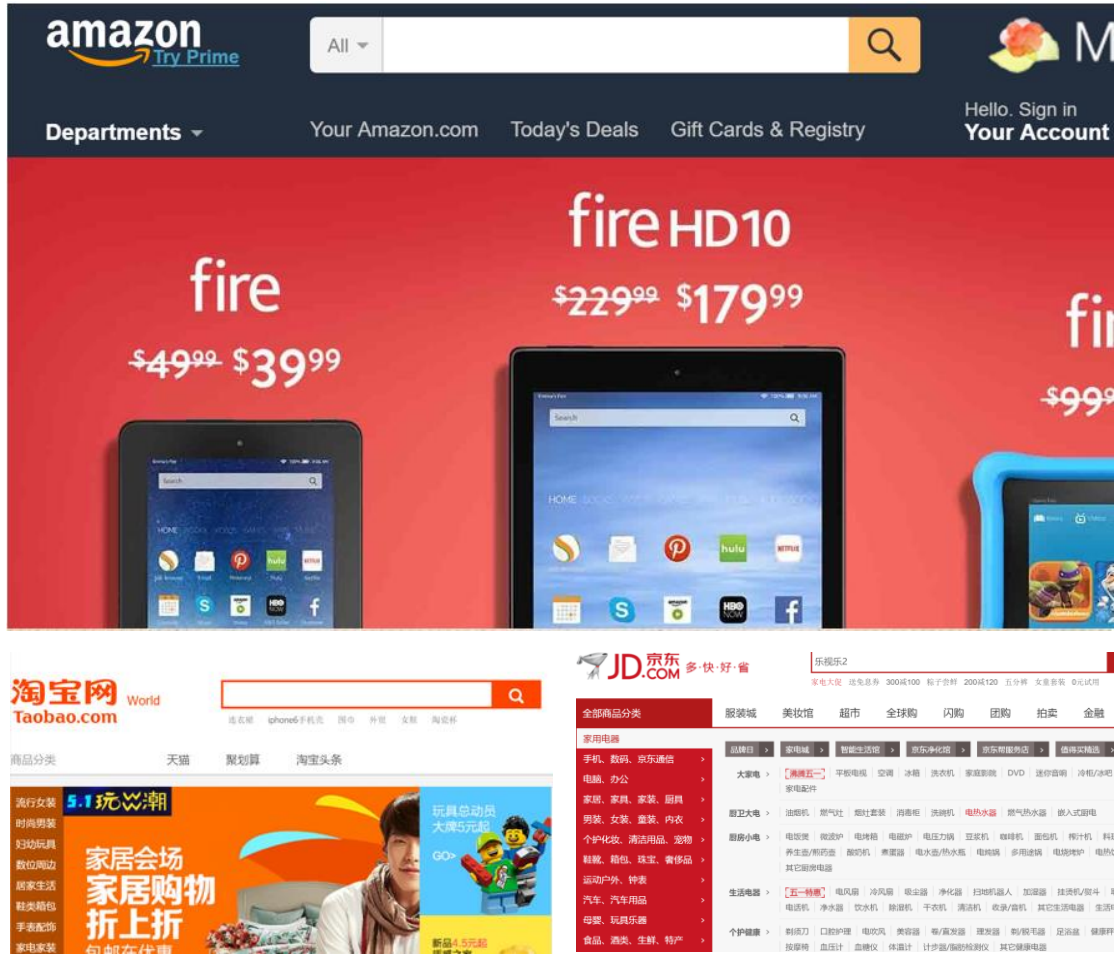
Introduction

- Reviews regarding a product may be inconsistent on different websites
- Make it difficult to find customers' true feelings towards the product

To investigate the consistency of the comments which are distributed among different websites

- For entrepreneurs: adjust their selling strategies flexibly
- For customers: Help them find whether the product they would like to buy is what they want



Background and Motivation

Much of the prior research mainly focuses on the analysis of all the reviews regarding a product on a single shopping website

Limitations: the reviews can only reflect the viewpoints of the users of this website

Customer Reviews

760

4.6 out of 5 stars

5 star	71%
4 star	10%
3 star	4%
2 star	3%
1 star	12%

Apple MacBook Pro MJLT2LL/A 15.4-Inch Laptop

by Apple

Style: 15.4-Inch | Capacity: 512 GB | Change

Price: $2,449.00 + Free shipping

Rate this item

Write a review

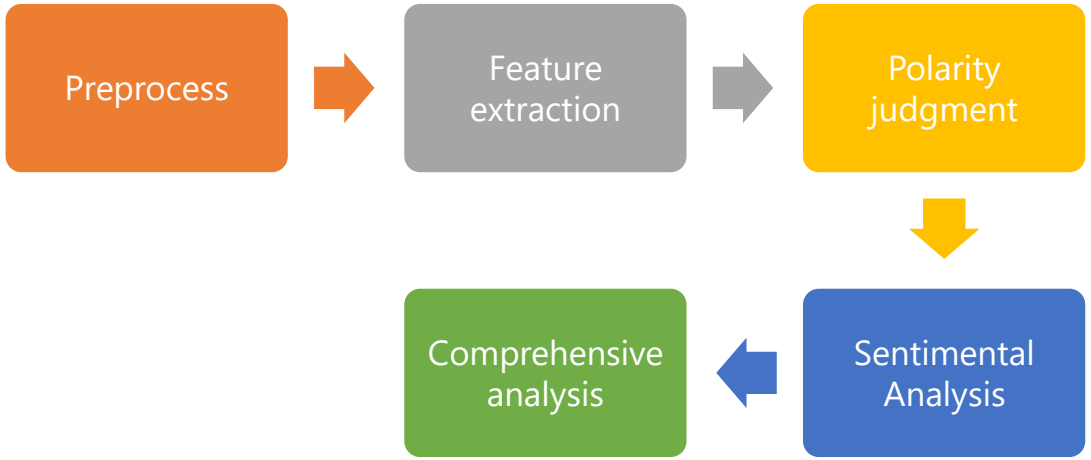
Experimental Design

Come up with a method to analyze the reviews regarding a product on multiple websites

- This method can analyze both the content of these reviews and the relationships among these reviews

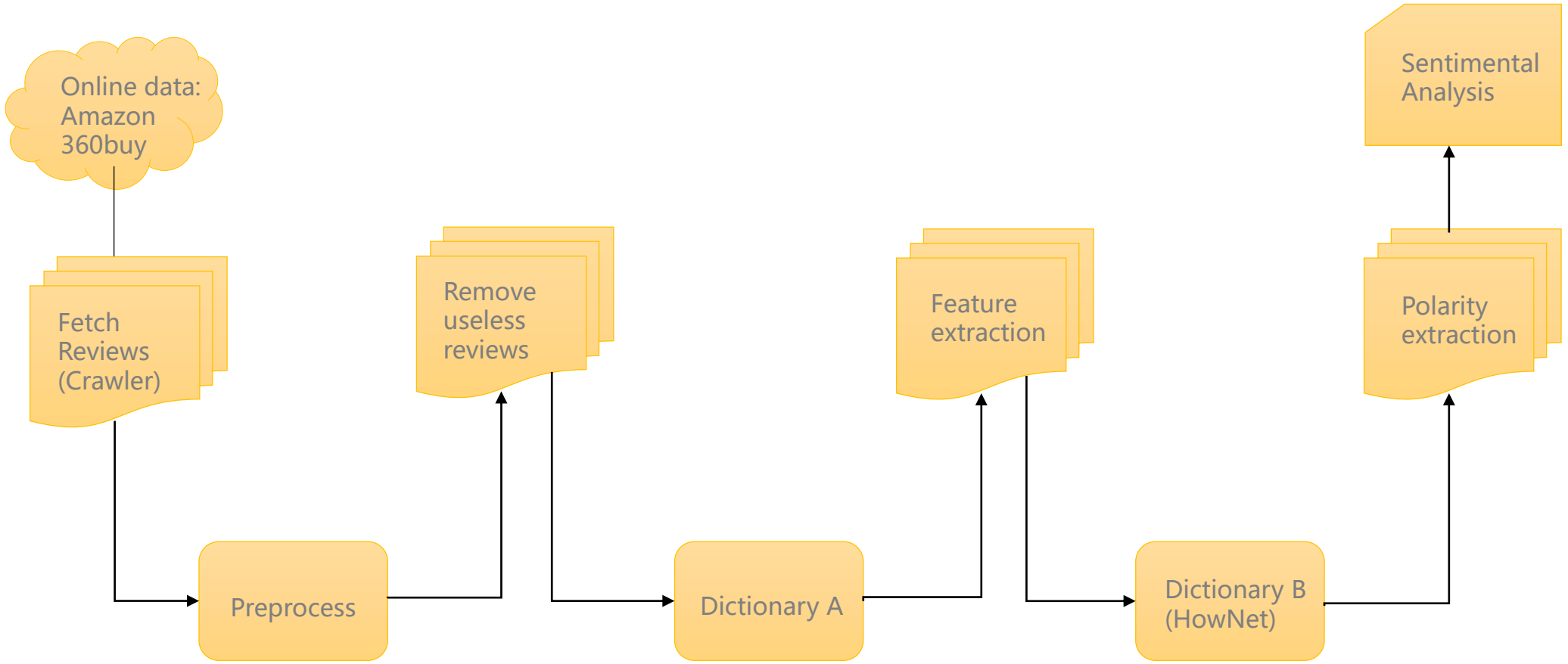
- **R(Pa)** $= \frac{\text{Ra\_WA}}{\text{Ra\_WB}}$: The numerator and the denominator separately represent the ratio of positive reviews regarding the "feature a" of the "product P" on website A and B. If the R(Pa) is bigger than 0.8, then we can conclude that the reviews regarding the "product P feature a" are consistent on website A and site B

- **E = αGa + ßGb + … (Gi = 1 consistent or 0 not consistent)**: The coefficients such as α, ß represent the importance of the "feature i" of the product. E's possible value range are from [0, 1]. 1 represents the reviews on website A and B are exactly same. 0 represents the reviews are totally different.

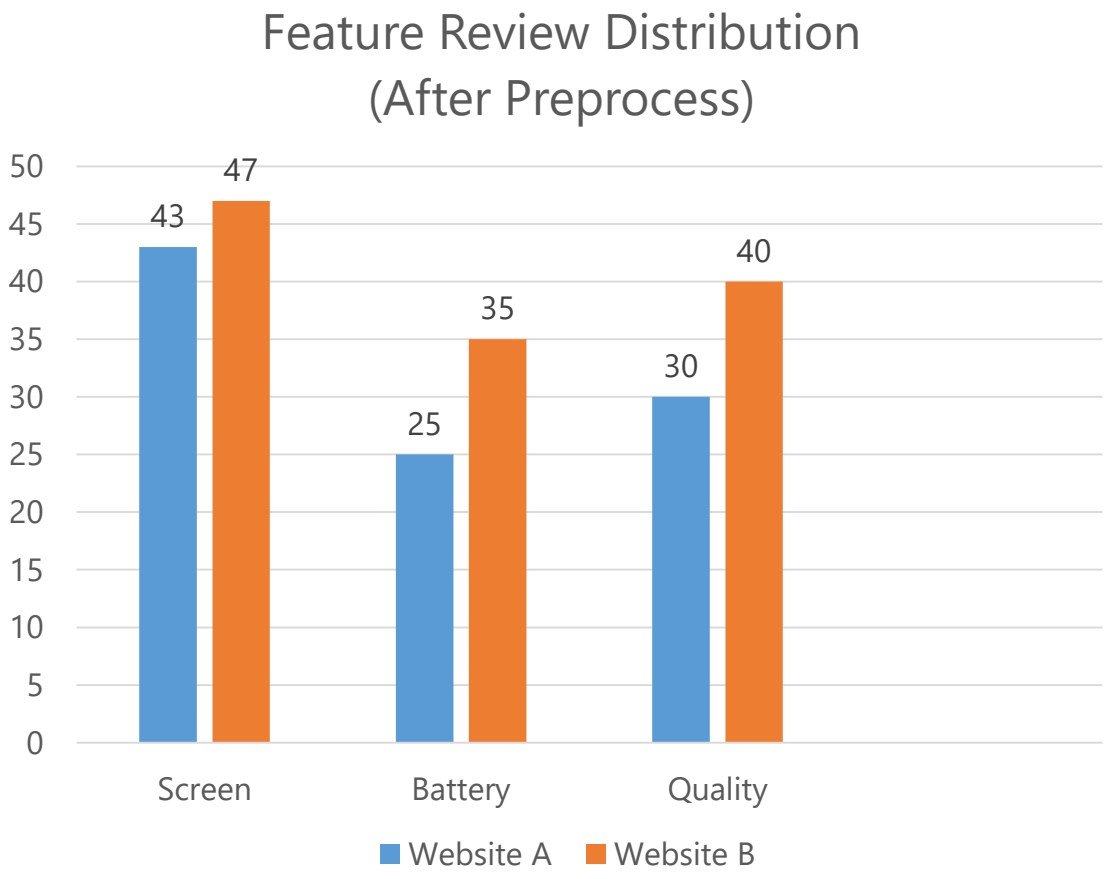


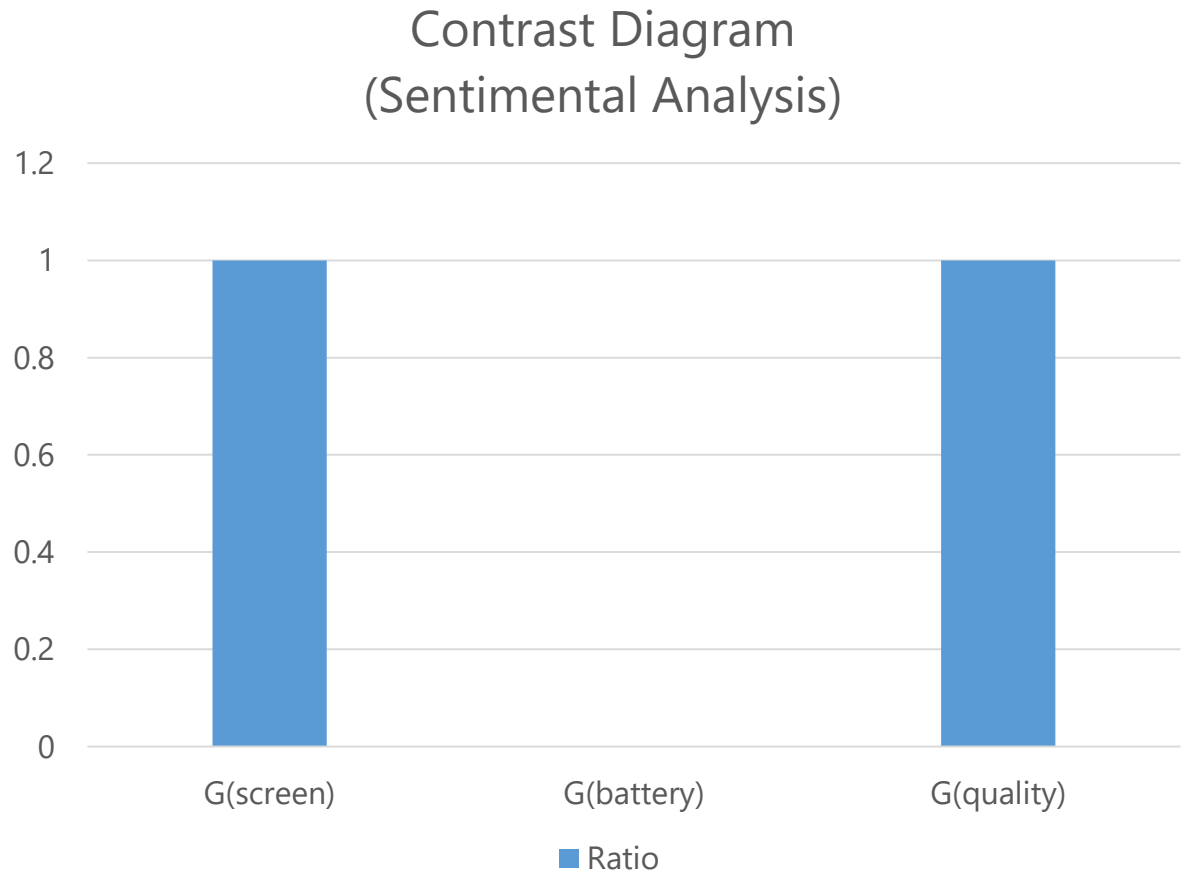
	Feature a	Feature b	…
Feature a	Ga		
Feature b		Gb	
…			…

Methodology



Evaluate Result





Thanks!

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