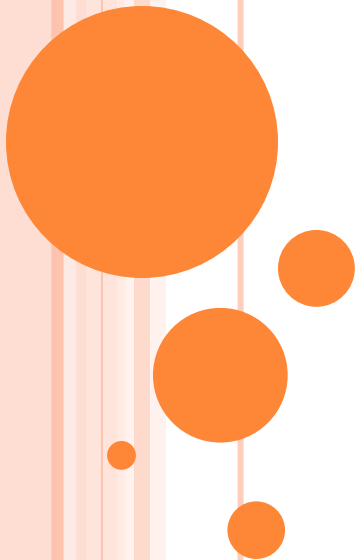# A FRAMEWORK OF REVIEW ANALYSIS FOR ENHANCEMENT OF BUSINESS DECISION MAKING

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OUTLINE

- Introduction
- Motivation
- Problem statement
- Research objectives
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- Results
- Future work

INTRODUCTION

- Opinion mining (OM), is a type of natural language processing that can be used to track the mood of the public regarding a particular product or service.

- Sentiments, comprising opinions, attitudes, thoughts, judgments and emotions, are private states of individuals.

- There are number of ways to analyze the sentiments for example classification approaches such as supervised learning and unsupervised machine learning.

INTRODUCTION

- OM has rapidly developed as a useful tool, perhaps due to largely free availability of opinions that help users and manufacturers in their critical decision making.

- The goal of OM is to extract opinions about entities (such as products or services) in order to attain useful information.

- Provide summary, generally based on the concept of simple polarity of opinion, explains how many opinions hold positive, negative and neutral sentiments.

INTRODUCTION

- There are two types of opinions are discussed so far in research, (1) Regular (2) comparative.

- Regular opinions pertain to a single entity only, and comparative opinions, which juxtapose two or more entities.

- The review types are differentiated based on language constructs that express different type of information (Jindal & Liu, 2006a).

MOTIVATION

- As opinion mining is recent discipline of research that has a lot to investigate.

- In terms of enhanced decision making skills and boost business intelligence for a successful present and future business, there is need to predict useful opinion types from users generated content.

- How to grab the more users towards online review system.

- The domain configuration will enhance managerial and customer decision-making process.

- we intend to apply the concept level sentiment analysis introduced by (Cambria and Hussain 2012)to obtain more reliable results for identified type "C" of reviews.
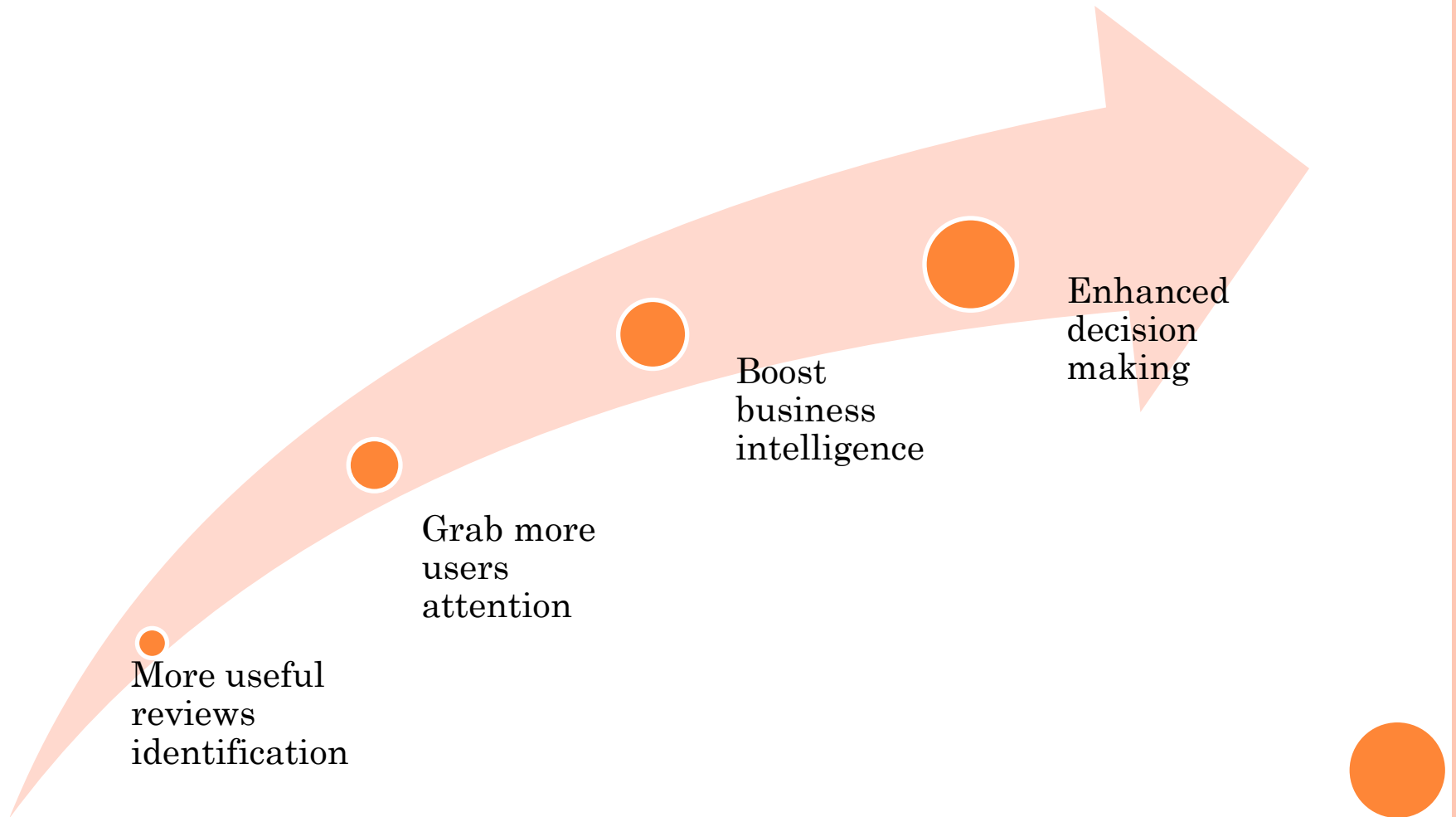
PROBLEM STATEMENT

- A step-by-step procedure is required to explore the users opinion.

- There is immense need to find more significant reviews other than (a) regular and (b) comparative that not only helpful for buyers but are important for designers.

- These reviews may help potential customers in making decision about products. Such reviews also help designers to improve the quality of their products.
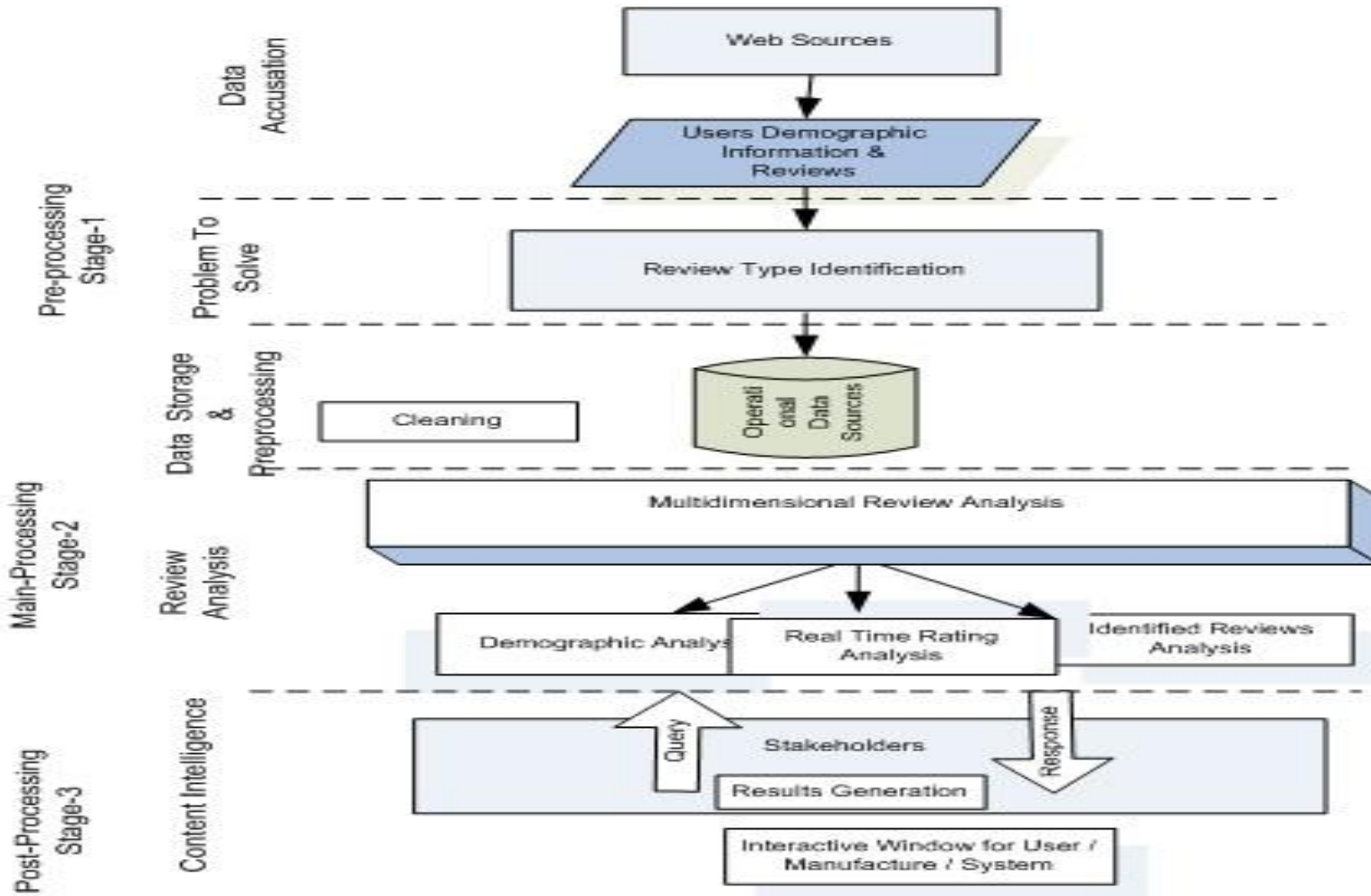
WHY A FRAMEWORK

More useful reviews identification

Grab more users attention

Boost business intelligence

Enhanced decision making

PROPOSED FRAMEWORK

RESEARCH OBJECTIVES

- To find the innovative review types.

- To find the users perception about identified review types.

- To classify the reviews into multiple classes.

- To find the concept level sentiment analysis of the "C" innovative review type.

RESEARCH METHODOLOGY

Data Collection

- The respondents will be given questionnaires distributed among 500 individuals
- The review data is also gathered from self deployed website and Amzon the other ecommernce sites

Review types Identification

- Based on previous studies and our research study we have identified the review type C, the innovate review type that is not A nor B but have a different linguistic construct

Find the significant review types

- Based on statistical measures , we examine users' perceptions and the effects of review types on behaviour intention towards using an online review system

RESULTS

- We have conducted a pre-study, designed a survey based on the customer decision process model.

- Three detailed measures of analyzing the gathered data were developed in our survey study: (a) descriptive statistics of the demographic data, (b) descriptive statistics of ratings on different review types and (c) data mining of reviews.

RESULTS

- Demographic data has a distribution closer to the theoretical one, thus it can be used to study the entire population as well as for further detail analysis.

- We have investigated and classified the reviews into multiple classes such as A, B and C.

- It is noted that C have entirely different linguistic construct other than regular and comparative.

FUTURE WORK

- We aim to perform a comprehensive review analysis under the proposed framework and provide a helpfulness model capable of predicting review helpfulness from the viewpoints of business intelligence, product enhancement, design, satisfaction and success.

- In future work we intend to apply the same significant review types "C" for concept level sentiment analysis.

Thanks