1 Introduction

1.1 Problem Background

While online marketplace is becoming more and more popular, the vast majority of people like shopping online. As the same time, everyone can give some text-messages(review) and star rating(1~5) for products they buy, these can provide some useful informations for potential customers. If this review provide unuseful information for potential customers, he/she can star rating for this review(helpfulness rating), these information is the most important part for online marketplace.

Sunshine Company plan to introduce three new products in the online marketplace, and he wants to know about the above three indicators of microwave oven, a baby pacfier, and a hair dryer.

1.2 Restatements of the Problem

Considering the background information and restricted conditions identified in the problems statement, we need to solve the following problems.

1. According to the three product data set provieded, give the

2. According the analysis result of item **??**, you should solve these problems:

   (a) Identify data measures based on ratings and reviews that are most informative for Sunshine Company to track.

   (b) Identify and discuss time-based measures and patterns within each data set that might suggest that a product's reputation is increasing or decreasing in the online marketplace.

   (c) Determine combinations of text-based measure(s) and ratings-based measures that best indicate a potentially successful or failing product.

   (d) Do specific star ratings incite more reviews? For example, are customers more likely to write some type of review after seeing a series of low star ratings?

   (e) Are specific quality descriptors of text-based reviews such as 'enthusiastic', 'disappointed', and others, strongly associated with rating levels?

1.3 Our Work