The Service Analysis, Prediction and Comparison of Customer Review Rating using Opinion Mining

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Abstract:

The customer review is significant to enhance service for company, which includes both close opinion and open opinion. The open opinion means the comment as text which shows sentiment and comment directly from customer. However, the organization has various contents or group to asses themselves by rating and total rating for a type ofservices which there are many customers who needs to survey. The complication is some consumers given ranking variance with their comments. The other commentator shall read many reviews and complete the comments that are vary from the rating. Therefore, this paper proposes the analysis and prediction rating from customer survey who commented as open opinion using probability's classifier model. The classifier models are used case study of customer review's hotel in open comments for training data to classify comments as positive or negative called opinion mining. In addition, this model which is a classifier has calculated probability that shows value of trend to give the rating using naive bayes techniques, which gives correctly classifier to 94.37% compared with decision tree Techniques.

Keywords: Pre Opinion, Post Opinions, Opinion Mining, Rating

I INTRODUCTION

Customer survey plays major role for the Organization or Company in order to success in business service.Company includes different kinds of services and products in which the ratings should be given individually for each product services to increase the customer fulfillment.Many customers will read comments arbitrary which is tough to read all comments and make decision the services or products. If customer reads a few reviews, customer might get opinion review to be bias. Therefore, opinion mining is a technique of field area of information extraction from text processing, which is benefit and many opportunities to improve or develop factor to business work by this analysis. The problem is the comments from customer review about products or services, which are contrast with comments.

II RELATED WORKS

There is lot of research done in this field. In this section the the papers are discussed in brief.

Wararat Songpan in"The Analysis and Prediction of Customer Review Rating using Opinion Mining" [1] directed the Opinion mining is done with Analyzing and Predicting Customer Review.

The customer takes decision from Biased reviews from various Blogs, websites, Forums and Social Media. The naïve bayes Classifier model is used to analyze and predicting the Customer review.

T. Chumwatana in his research paper"Using sentiment analysis technique for analyzing Thai customer satisfaction from social media" [2] addressed the Thai Customer satisfaction by analyzing social media data.In that the Thai words are extracted and from the social media data by using web crawling the Thai customer's reviews, and that data are used to analyze the sentiment analysis of Thai costumers.

J. Fiaidhi, O. Mohammed, S. Mohammed, S. Fong, and T.H, Kim, in their "Opinion Mining over twitterspace: Classifying tweets programmatically using the R approach"[3], did the opinion mining. The used R programming to classify the tweets. The used the R programming for testing various sentiment words.

S.Atia and K. Shaalan in "Increasing the accuracy of opinion mining in Arabic" dealt with the Machine learning Classifier.Because of the Translation accuracy of the words are difficult to analyze. The Arabic translation is very difficult to analyze than English.

"Opinion mining and sentiment analysis in social networks: A Retweeting structure-aware approach" is proposed by Lin, 1. Li, R. Zhang, W. Yu and C. Sun.

"Opinion mining and sentiment analysis in social networks: A Retweeting structure-aware approach"[5] is proposed by Lin, 1. Li, R. Zhang, W. Yu and C. Sun. This system mainly focus on discovering what people are talking about an issues and so find the opinion targets is an important task.

M. Hu and B. Liu, in "Mining and summarizing customer reviews," developed a system in which The system performs the summarization in three main steps :

(1) Mining product features that have been commented on by customers.

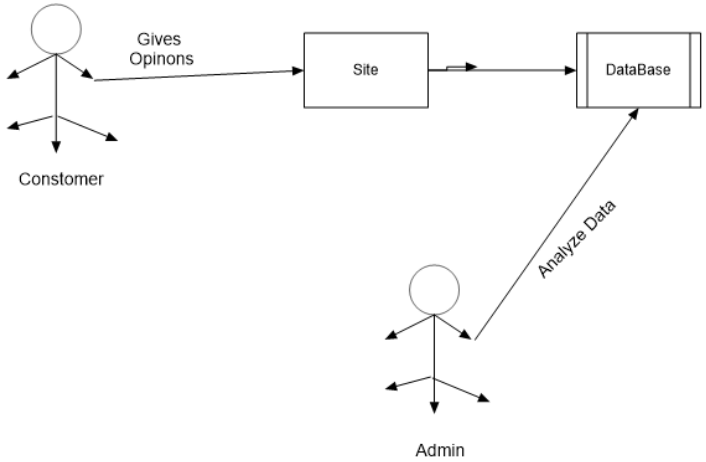
(2) Classifies whether the opinion sentence is positive or negarive by identifying the opinion sentences which are given in the reviews.

(3) Results summarization.

The above steps are done in multiple sub-steps.

III PROPOSED SYSTEM

In this project focused on the opinion mining with enhanced techniques of above and combining analysis.



Proposed System Schematic Diagram

The proposed system is designed using Java and JSP. JSP is used for designing front end. Mysql is used for storing the results. The System is designed using NetBeans IDE.

In the proposed system opinions are taken before availing service that is called as Pre Opinions. The opinions are taken after availing the service this is known as Post Opinions.

MODULES AND ITS DESCRIPTION

In the suggested System consists of three modules those are.

- Pre Opinion Module
- Post Opinion Module
- Comparison Module

Pre Opinion Module

In Pre opinion module the user gives the expected service quality attributes. The user gives the expected rating of the quality attributes. The Service Attributes are Timeliness, Cleanliness, Response, Quality, Accessibility, Comfortless, Tasty, Affordability, Security, Not Delicious, Distance, Dirty, Un comfortable, Expensive, Bad and Improve. The given data is inserted as a record in Pre-opinion Database. Pre Opinion is given before going to use the service.

Post Opinion Module

In Post opinion module the user gives the actual rating for service quality attributes. The Service Attributes are Timeliness, Cleanliness, Response, Quality, Accessibility, Comfortless, Tasty, Affordability, Security, Not Delicious, Distance, Dirty, Un comfortable, Expensive, Bad and Improve. The given data is inserted as a record in Post-opinion Database. Post Opinion is given after using the service.

Comparison Module

In this module the pre opinion and post opinion database data is accessed for the same service and compared both pre opinion data and post opinion data.

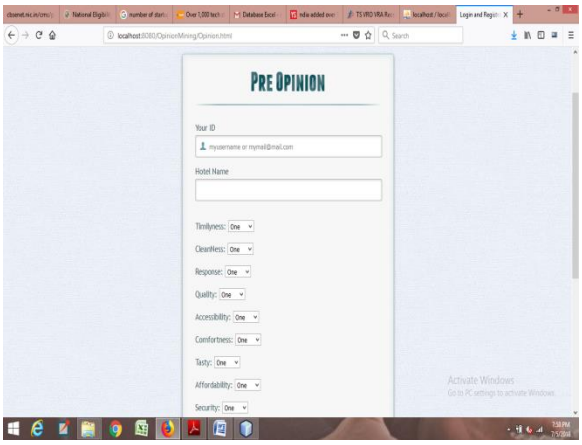
If the comparison gives positive value means the service is not as per the expected rating. The positive values of the corresponding service attributes indicates that the service improvement requirement.

If the comparison gives negative value means the service is reaches or above expected rating. The negative values of the corresponding service attributes indicates that the service is satisfactory or good

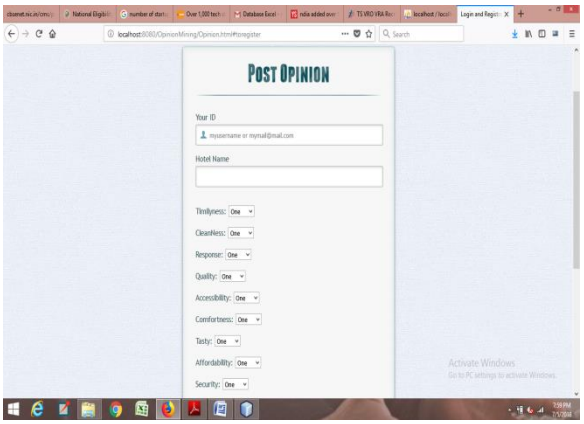
The Pre Opinions and Post Opinions are compared. The pre opinions are subtracted from post opinions if the result is negative then the service is not as expected. If the results are positive the service is matching with expected levels.

Pre Opinions are collected from the customer through a form and stored in database for further use, and the Post Opinions are also collected from the customer and stored using separate form and stored in a database.

While comparing the service opinions the Pre Opinions and post Opinions are fetched from the database and Pre Opinions are subtracted from the Post Opinions.



Pre Opinion Form



Post Opinion Form

IV CONCLUSION

Opinion Mining plays a major role in increasing the quality of services. Contribution of this paper may open new paths in opinion mining.

V REFERENCES:

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