# THE IMPACT OF ONLINE REVIEWS ON CUSTOMER BEHAVIOUR AND USAGE PATTERNS

A.N.K. Angulgamuwa

179304X

Degree of Master of Science in Computer Science

Department of Computer Science and Engineering

University of Moratuwa

Sri Lanka

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A.N.K. Angulgamuwa

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#### DECLARATION

I declare that this is my own work and this thesis does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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Name: A.N.K Angulgamuwa

The above candidate has carried out research for the Masters under my supervision.

Signature of the supervisor: .....

Date:....

Name: Dr. Charith Chithraranjan

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#### Abstract

Online review forums and websites are highly popular these days. They enable customers to post online reviews and rate businesses based on their personal experience. These online reviews affect future customer decisions and demands on business. The Influence of the review might be high or low according to its user profile, overall image of the business and the context of the review itself. A well reputed or related user can add more weight to future customer decisions. A business with a popular brand name might not get rejected due to some negative comments. Also these reviews might start a trend on customers visiting that business or leaving that business. The main objective of this research is to predict customer behaviour for a given time period after a certain date using features of previous online reviews. Further to identify trends in customer behaviour and derive trending review topics that persist those trends.

**Keywords:** online reviews, multi class classification, change point detection, trending topics, frequent itemset mining

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## LIST OF ABBREVIATION

AUC	area under the curve
LR	logistic regression
GBDT	gradient boosted decision tree
SVM	support vector machine
CBC	Choice-based conjoint
MSE	mean squared error
RMSE	Root mean squared error
GM	Geometric mean
RUS	Random undersampling

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