

Universiti Teknologi MARA

**Customer Satisfaction on Ride-Sharing
Services in UiTM Perlis: Fuzzy Set Theory
Approach**

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STUDENT'S DECLARATION

I certify that this report and the research to which it refers are the product of my own work and that any ideas or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.



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ABSTRACT

This study focuses on the comparison of UiTM Perlis transportation services which is normal taxi and Grab services. Grab and normal taxi are chosen because both transports are one of the largest services offered by UiTM Perlis. The main objective of this paper is to evaluate the customer's satisfaction levels across several services dimensions by using fuzzy set theory. Comparing two different services without any applied technique, cannot give the desired level of accuracy, while doing it with the use of soft computing techniques may prove to be beneficial. A suitable fuzzy equation was being applied in this project. It introduced the principles behind fuzzy set theory and illustrated how these principles could be used by transportation services company to compare their services towards others. When the results were evaluated using arithmetic fuzzy set equation and the 'center of area' method, a gap or difference in outcomes was seen between normal taxi and Grab services. According to the findings, Grab performs significantly higher than the normal taxi companies with the respect in all service dimensions. By analyzing the outcomes from a managerial viewpoint, recommendations are established for Grab and similar economy-based sharing firms, and for the normal firms that want to compete with these new business models. After completing this study, it can be recommended that Fuzzy Set Theory can be used not only for comparison on customer satisfaction levels between normal taxi and Grab, but it can be used for any other services to compare the value.

Keywords: Ride-sharing economy, Customer satisfaction, Fuzzy set theory, Arithmetic Fuzzy Set Theory, Grab Company, Normal Taxi Company

TABLE OF CONTENTS

CONTENTS	PAGE
SUPERVISOR’S APPROVAL	ii
DECLARATION	iii
ACKNOWLEDGEMENT	iv
ABSTRACT	v
TABLE OF CONTENTS	vi
LIST OF FIGURES	viii
LIST OF TABLES	ix

CHAPTER ONE: INTRODUCTION

1.1	Background of the Study	1
1.2	Problem Statement	3
1.3	Objective of the Study	4
1.4	Scope of the Study	4
1.5	Significance of the Study	5

CHAPTER TWO: LITERATURE REVIEW

2.1	Ride-Sharing Economy	6
2.2	Customer’s Satisfaction	7
2.3	Fuzzy Set Theory	9

CHAPTER THREE: RESEARCH METHODOLOGY

3.1	Method of Data Collection	12
3.2	Method of Data Analysis	13
3.2.1	Data Collection	14
3.2.2	Fuzzification	14
3.2.3	Defuzzification	14
3.2.4	Result	14

CHAPTER FOUR: RESULTS AND DISCUSSIONS

4.1	Results of Demographic Profile	18
4.2	Results of Customer's Satisfaction Levels by Using Normal Taxis and Grab Services	20

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5.1	Conclusions	27
5.2	Recommendations	28

REFERENCES	29
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APPENDICES

APPENDIX A: QUESTIONNAIRE	32
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APPENDIX B: SPSS RESULTS	44
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APPENDIX C: CALCULATION ON EACH DIMENSION OF THE SERVICE QUALITY	52
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