UNIVERSITI TEKNOLOGI MARA TECHNICAL REPORT

THE FUZZY DEMATEL APPROACH TO ANALYZE FACTORS INFLUENCE THE PERFORMANCE OF STUDENTS DURING ODL

MUHAMMAD NASHARUDDIN BIN ISMAIL (2020854044)
MUHAMAD IMRAN BIN MOHAMED SULAIMAN (2020859678)
AHMAD NUR IRFAN BIN AHMAD HAMIDI (2020878916)
(P53S22)

SUPERVISOR: NORAINI BINTI AHMAD

Report submitted in partial fulfilment of the requirement for the degree of Bachelor of Science (Hons.) (Mathematics) Faculty of Computer and Mathematical Sciences

FEBRUARY 2023

ACKNOWLEDGEMENTS

IN THE NAME OF ALLAH, THE MOST GRACIOUS, THE MOST MERCIFUL

Firstly, we are grateful to Allah S.W.T for giving me the strength to complete this project successfully.

We would like to express my gratitude for the people that helped this project succeed, especially for our supervisor, Madam Noraini binti Ahmad, who guided us from the beginning until the end of this project. We also want to thank our family and friends that supported us to succeed this project.

Next, our sincere apologies go to all the students from FSKM faculties of UiTM Seremban 3 that give their commitment and help us completing the study. We also would like to thank UiTM for giving us the opportunity to pursue our study. We owe a great deal to everyone that involve in this research that enable us to achieve our aspiration.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	2
TABLE OF CONTENTS	3
LIST OF TABLES	5
LIST OF FIGURES	6
ABSTRACT	7
CHAPTER 1	8
INTRODUCTION	8
1.1 Motivation	8
1.2 Problem Statement	8
1.3 Objectives	9
1.4 Significant and Benefit of Study	10
1.5 Scope and Limitation of Study	10
1.6 Definition of Terms	10
CHAPTER 2	12
BACKGROUND THEORY AND LITERATURE REVIEW	12
2.1 Introduction	12
2.2 DEMATEL	12
2.3 Fuzzy DEMATEL	13
2.4 Online Distance Learning (ODL)	14
CHAPTER 3	15
METHODOLOGY	15
3.1 Introduction	15
3.2 Fundamental of Research	15
3.2.1 Basic Concept Fuzzy Set Theory	15
3.2.2 Linguistic Variables	17
3.3 Research Steps	18

CHAPTER 4	<i>L</i> 2
IMPLEMENTATION	22
4.1 Introduction	22
4.2 Data Analysis	22
CHAPTER 5	28
RESULT AND DISCUSSION	28
5.1 Introduction	28
5.2 Result and Discussion	28
CHAPTER 6	30
CONCLUSION AND RECOMMENDATION	32
6.1 Introduction	32
6.2 Conclusion and Recommendation	32
REFERENCES	34

ABSTRACT

Covid 19 is a dangerous virus and anyone who is infected with Covid 19 can spread it to other people, even if the infected person does not have symptoms. The virus spread so fast, and people were forced to stay at home. The pandemic makes students study online because all universities are closed. For students, it is really hard to study online because the environment is not the same when studying face to face and they are not familiar with the system yet. This study investigated the variables influencing students' performance in online distant learning (ODL). The study was conducted by selecting students from the Faculty of Computer and Mathematical Sciences, UiTM (Seremban Campus) that have knowledge, and experience ODL that willingly answer the questionnaire. Data were collected by using questionnaires and distributed to the students through Google forms. This study utilized five factors: Ease of learning, Family, Friend, Students Attitude and Lecturer using fuzzy DEMATEL method. The results from this study shows the cause and effect of the factors influence the performance of students during ODL. Factor student's attitude is the most important factor that influence the performance of a student during ODL follow by ease of learning, friend, lecturer and family.