

**Universiti Teknologi MARA**

**Optimization of Food Production in  
Ruzi's Frozen Food Enterprise using Goal  
Programming**

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**Report submitted in fulfillment of the requirements for  
Bachelor of Science (Hons.) Management Mathematics  
Faculty of Computer and Mathematical Sciences**

**November 2018**

## **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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**NOVEMBER 30, 2018**

## **ABSTRACT**

Small and Medium Enterprise (SME) is an emerging industry which contributes one-third to Malaysian economy. In manufacturing, a proper production planning is a crucial condition for a production system success, which considers the real world resource limitations. This study examined the production of frozen food in Ruzi's Frozen Food Enterprise to optimize its monthly production. The two goals considered are maximizing the profits and minimizing the costs. For model development a few constraints and decision variables are set. Seven types of frozen food was used in this study, namely roti goreng with red bean filling, roti goreng with anchovy filling, roti goreng with sardine filling, roti goreng with chocolate filling, roti canai, sardine roll, and doughnut. The data was analyzed using LINGO software version 17. The finding shows that this study has achieved its objective, which is to optimize production in order to maximize profit and minimize cost. Therefore, it is proven that goal programming is an effective tool that can optimize production to solve Ruzi's Frozen Food Enterprise problem.

# TABLE OF CONTENTS

<b>CONTENTS</b>	<b>PAGE</b>
<b>SUPERVISOR’S APPROVAL</b>	ii
<b>STUDENT’S DECLARATION</b>	iii
<b>ACKNOWLEDGEMENT</b>	iv
<b>ABSTRACT</b>	v
<b>TABLE OF CONTENTS</b>	vi
<b>LIST OF TABLES</b>	viii
<b>LIST OF ABBREVIATIONS</b>	ix
 <b>CHAPTER ONE: INTRODUCTION</b>	
1.1 Background of the Study	1
1.1.1 Food and Beverages in Manufacturing Sector	2
1.1.2 Ruzi’s Frozen Food Enterprise	3
1.2 Problem Statement	4
1.3 Objective of the Study	4
1.4 Scope of the Study	4
1.5 Significance of the Study	5
 <b>CHAPTER TWO: LITERATURE REVIEW</b>	
2.1 Goal Programming and Its Application	6
2.2 The Optimization of Production	8
2.3 Optimizing Food Production using Goal Programming	9
2.4 Summary	10

### **CHAPTER THREE: RESEARCH METHODOLOGY**

3.1	Method of Data Collection	11
3.2	Method of Data Analysis	11
3.3	Goal Programming Model	11
3.4	Model Development	13
3.5	LINGO 17 Software	17
3.6	Summary	17

### **CHAPTER FOUR: RESULTS AND DISCUSSION**

4.1	Results and Findings	18
4.2	Discussion	19

### **CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS**

5.1	Conclusion	21
5.1	Recommendations	21

### **REFERENCES 23**

### **APPENDICES**

APPENDIX A: RESULT FROM LINGO 17 SOFTWARE	25
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