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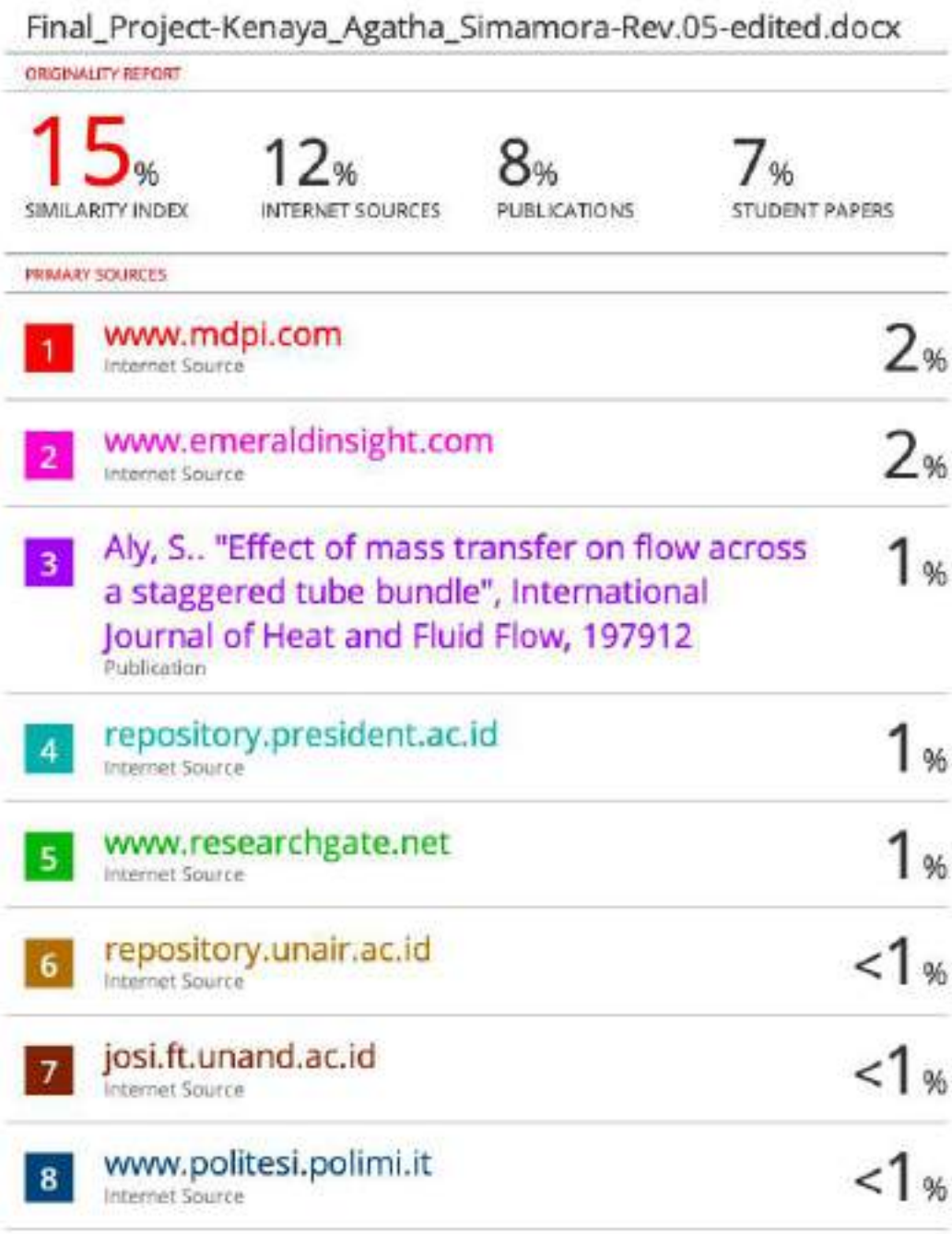
UNDERGRADUATE FINAL PROJECT

Submitted as one of the requirements to obtain Sarjana Teknik (S.T.)

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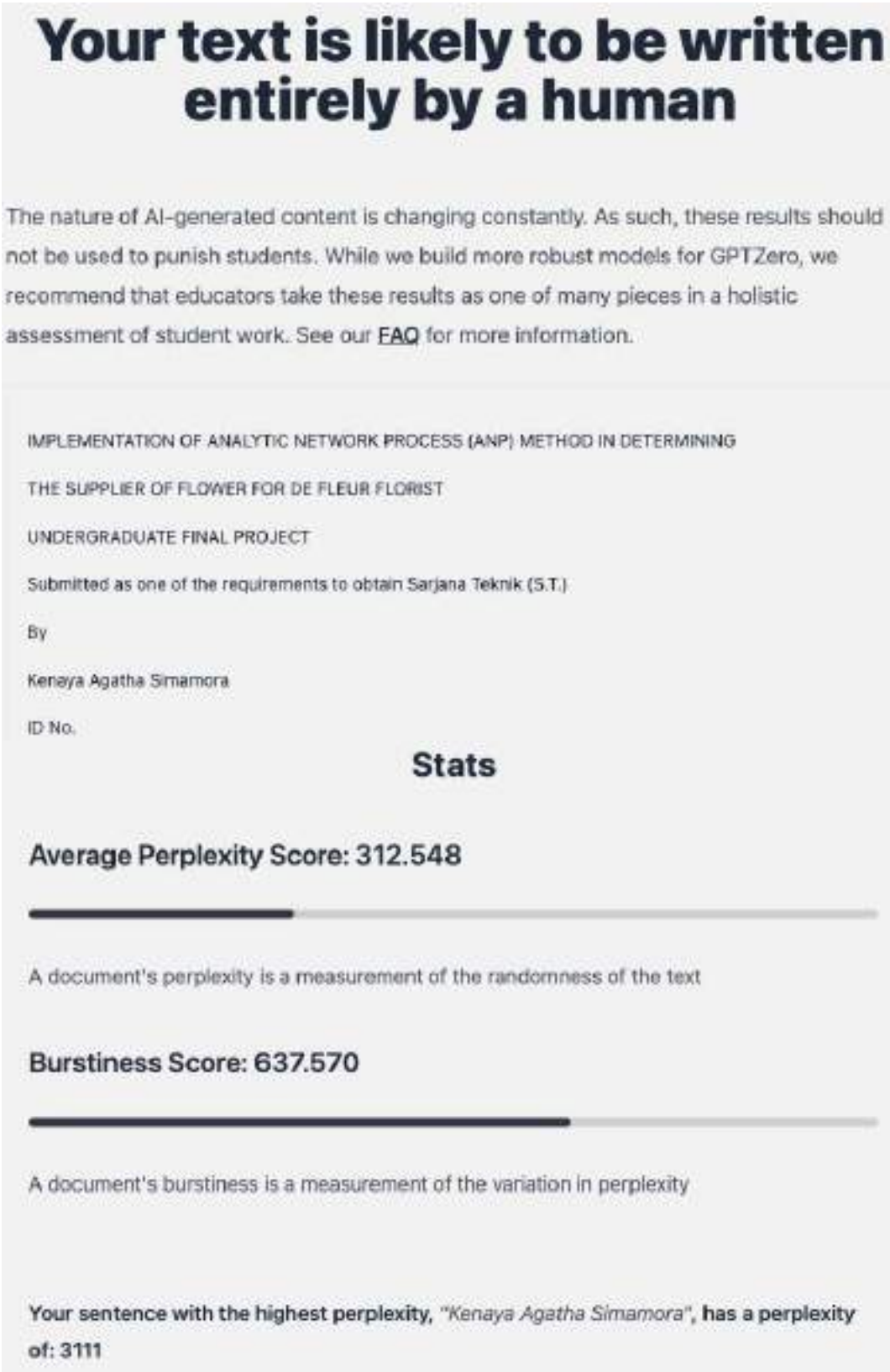
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IMPLEMENTATION OF ANALYTIC NETWORK PROCESS (ANP) METHOD IN DETERMINING

THE SUPPLIER OF FLOWER FOR DE FLEUR FLORIST

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ABSTRACT

The development of a business's competitive edge is affected by a number of strategic choices made in the supply chain management process, including the selection of suppliers. De Fleur is a florist company, it has four flower vendors that they currently chosen randomly that leads to several problem such as some product prices are much more expensive than others, late delivery, unresponsive supplier, and low-quality product. Thus, standard criteria must be used to identify suppliers that meet the demands of the business, to find vendors that are capable of providing appropriate items in high quality, as well as optimal services. Therefore, the goal of this research is to identify the most significant criteria and the best alternative order of may take into consideration in determining their suppliers using Analytical Network Process (ANP) method. The criteria's relative importance and weight are also meant to emphasize any interdependencies between them. Through a questionnaire survey, it was found that the main priority of criteria in the business' supplier selection decision are price, service, delivery, and quality. Assuming the current use of vendors, there are in total of four suppliers. The suggested supplier order is then obtained following the calculations using the ANP method with the assistance of the *Super Decisions* software, resulting the highest ideal value of 0.491996, making Neyrustic the first preference that the business can go to for purchasing their flower material.

Keywords: MCDM, Criteria, Supplier Selection, ANP, Consistency Ratio

TABLE OF CONTENTS

PANEL OF EXAMINER APPROVAL 2
THESIS ADVISOR RECOMMENDATION LETTER 3
STATEMENT OF ORIGINALITY 4
SCIENTIFIC PUBLICATION APPROVAL FOR ACADEMIC INTEREST 5
ADVISOR APPROVAL FOR JOURNAL/INSTITUTION'S REPOSITORY 6
SIMILARITY CHECKING RESULT 8
AI BASED PLAGIARISM CHECKING RESULT 9
ABSTRACT 10
ACKNOWLEDGEMENT 11
TABLE OF CONTENTS 13
LIST OF TABLES 16
LIST OF FIGURES 17
LIST OF TERMINOLOGIES 18
CHAPTER I INTRODUCTION 1
1.1 Problem Background 1
1.2 Problem Statement 2
1.3 Objectives 3
1.4 Scopes 3
1.5 Assumptions 3
1.6 Research Outline 3
CHAPTER II LITERATURE STUDY 5
2.1 Decision Making 5

2.1.1 Multi-Criteria Decision Making 7
2.1.2 ANP 7
2.1.3 Weighting 10
2.2 Supplier Selection 11
2.2.1 Supplier Selection Criteria 12
2.3 Super Decisions Software 14
CHAPTER III RESEARCH METHODOLOGY 15
3.1 Research Methodology 15
3.1.1 Problem Identification 16
3.1.2 Literature Study 16
3.1.3 Data Collection 16
3.1.4 Data Analysis 17
3.1.5 Conclusion and Recommendation 17
3.2 Research Framework 17
CHAPTER IV DATA ANALYSIS 19
4.1 Current Condition 19
4.2 Criteria and Sub-Criteria Identification 19
4.3 ANP Structure 23
4.4 Inter-Criteria Relations 23
4.4.1 Discount Affects Product Price 24
4.4.2 Lead Time Packing Affects Timeliness of Delivery 25
4.5 Rubric Assessment 26
4.5.1 Botanical Decor Assessment Result 31
4.5.2 Yunnan Dianfeng Assessment Result 32
4.5.3 Bunga Hanika Assessment Result 33
4.5.4 Neyrustic Assessment Result 33
4.6 Consistency Test 34
4.7 Weighting 37
4.7.1 Unweighted Super Matrix 37

4.7.2 Weighted Super Matrix 38
4.7.3 Limiting Super Matrix 39
4.8 ANP Result 40
4.9 Sensitivity Analysis 40
4.10 Comparison 47
4.10.1 Comparison to Sub-Criteria 47
4.10.2 Comparison to Criteria 48
CHAPTER V CONCLUSION AND RECOMMENDATION 50
5.1 Conclusion 50
5.2 Recommendation 50
REFERENCES 51
APPENDIX I 54
APPENDIX II 74

LIST OF TABLES

Table 2.1 RI Value 9
Table 4.1 Criteria and Sub-Criteria 22

Table 4.2 Rubric Assessment for Product Price Sub-Criteria 26
Table 4.3 Rubric Assessment for Discount Sub-Criteria 27
Table 4.4 Rubric Assessment for Payment Method Sub-Criteria 27
Table 4.5 Rubric Assessment for Transportation Cost Sub-Criteria 27
Table 4.6 Rubric Assessment for Responsiveness Sub-Criteria 28
Table 4.7 Rubric Assessment for Warranty and Customer Service Sub-Criteria . 28
Table 4.8 Rubric Assessment for Product Availability Sub-Criteria 29
Table 4.9 Rubric Assessment for Timeliness of Delivery Sub-Criteria 29
Table 4.10 Rubric Assessment for Accuracy of Delivery 29
Table 4.11 Rubric Assessment for Lead Time Packing Sub-Criteria 30
Table 4.12 Rubric Assessment for Product Quality Sub-Criteria 30
Table 4.13 Rubric Assessment for Product Accuracy Sub-Criteria 30
Table 4.14 Rubric Assessment for Low Defect Rate Sub-Criteria 31
Table 4.15 Supplier 1 Assessment Result 31
Table 4.16 Supplier 2 Assessment Result 32
Table 4.17 Supplier 3 Assessment Result 33
Table 4.18 Supplier 4 Assessment Result 33
Table 4.19 Pairwise Comparison of Botanical Decor to Price 34
Table 4.20 Consistency Test Result 35
Table 4.21 Unweighted Super Matrix 37
Table 4.22 Weighted Super Matrix 38
Table 4.23 Limiting Super Matrix 39
Table 4.24 Criteria and Sub-Criteria Weights 41

LIST OF FIGURES

Figure 2.1 Decision Making Process 6
Figure 2.2 Supplier Selection Steps 12

Figure 3.1 Research Methodology 15
Figure 3.2 Research Framework 18

Figure 4.1 ANP Network Structure 23
Figure 4.2 Discount Affects Product Price 24
Figure 4.3 Lead Time Packing Affects Timeliness of Delivery 25
Figure 4.4 ANP Result 40
Figure 4.5 Criteria Weight Percentage 41
Figure 4.6 Sensitivity Analysis of Price Criteria 42
Figure 4.7 Sensitivity Analysis of Delivery Criteria 43
Figure 4.8 Sensitivity Analysis of Quality Criteria 44
Figure 4.9 Sensitivity Analysis of Sevices Criteria 45
Figure 4.10 Comparison between Neyrustic and Bunga Hanika through Sub-Criteria 46
Figure 4.11 Comparison between Botanical Decor and Yunnan Dianfeng through Sub-Criteria 46
Figure 4.12 Comparison between Neyrustic and Bunga Hanika through Criteria 47
Figure 4.13 Comparison between Botanical Decor and Yunnan Dianfeng through Criteria 47

LIST OF TERMINOLOGIES

Consistency Index	: A value to measure the consistency in ANP as deviation or degree of consistency.
Consistency Ratio	: A comparison between Consistency Index and Random Index, that needs to be smaller or equal to 10% for the inconsistency to be acceptable, or else the subjective judgement needs to be revised.
Pairwise Comparison	: A method for allocating weights to each factor in order to perform a side-by-side analysis of a pair of advantages.
Random Index	: A generated random matrices for the computation of the mean of Consistency Index value.