

TABBLE OF CONTENTS

AUTHENTICITY STATEMENT	iii
PREFACE.....	v
ACKNOWLEDGEMENT.....	vi
TABBLE OF CONTENTS	viii
LIST OF FIGURES	xii
LIST OF TABLES	xiii
INTISARI	xiv
ABSTRACT	xv
CHAPTER I INTRODUCTION.....	1
1.1 Background	1
1.2 Problem Formulations	5
1.3 Assumptions and Scopes of Research	5
1.3.1 Assumptions.....	5
1.3.2 Scopes	5
1.4 Objectives of Research	5
1.5 Benefits of Research.....	6
CHAPTER II LITERATURE REVIEW	10
2.1 Related Works	10
2.2 Reference Matrix	16
CHAPTER III THEORETICAL BASIS	17
3. 1 Covid-19.....	17
3.2 Risk Communication and Community Engagement (RCCE)	18
3.3 Risk Perception.....	19

3.4 Risk Communication	21
3.4.1 Issues Management Communication	22
3.4.2 Crisis and Emergency Risk Communication	22
3.5 Dynamic Complexity	23
3.5.1 System Dynamics	26
3.6 Conceptual Model	27
3.6.1 Causal Loop Diagram	28
3.6.2 Endogenous and Exogenous Explanation	29
3.6.3 Soft and Hard Variables	29
3.7 Model Testing	31
3.7.1 Subject Matter Expert	37
3.8 Pilot Study	37
3.9 Data Adequacy	37
3.9.1 Standard Deviation	38
3.10 Vensim PLE	38
3.11 Thematic Analysis	39
3.12 Participatory Modelling	39
3.13 Focus Group Discussion	40
CHAPTER IV RESEARCH METHOD	42
4.1 Introduction	42
4.2 Research Method Justification	42
4.2.1 System Dynamic and Causal Loop Diagram	42
4.2.2 Research Design	44
4.2.3 Research Methods	45
4.2.4 Research Tools	45

4.2.5 Data Collection Sources.....	46
4.3 Model Development Process.....	47
4.3.1 Literature Reviews.....	47
4.3.2 Research Gap Identification.....	47
4.3.3 Initial Model Development.....	47
4.3.4 Model Testing Preparation.....	68
4.3.5 Model Testing.....	68
FGD Location and Timing.....	75
FGD Protocol.....	75
4.3.6 Result Analysis and Recommendation.....	77
4.3.7 Conclusions.....	78
CHAPTER V RESULT AND DISCUSSION	80
5.1 Profile of Participants.....	80
5.1.1 Level of Expertise.....	80
5.1.2 Education Level.....	80
5.1.3 Age.....	80
5.1.4 Covid-19 Survivor and Susceptible people History	81
5.1.5 Gender.....	81
5.1.6 Daily Activity	81
5.2 Initial Causal Loop Diagram	81
5.3 Current Perception of Covid-19 Survivor and Susceptible people in Response to Covid-19 Pandemic	88
5.3.3 The Combined Model of Covid-19 Survivor and Susceptible people Before and After Model Testing	96
5.4 The Difference and Similarity of Survivor of Covid-19 and Non-Covid-19 in Terms of Their Response to Covid-19 Pandemic	111

5.5 Suggestion to The Government in Formulating Policies Related to Covid-19	120
5.6 Practical Implication.....	128
5.7 Limitations.....	128
CHAPTER VI CONCLUSION.....	130
6.1 Conclusion.....	130
6.2 Future Research Consideration.....	131
REFERENCES.....	133
APPENDIX	139

LIST OF FIGURES

Figure 3. 1 Basic CLD relationship.....	29
Figure 3. 2 Vensim PLE Interface.....	39
Figure 4. 1 Research Design	45
Figure 4. 2 Diagram.net Interface	46
Figure 4. 3 The Main CLD of Covid-19 Cases from Bradley (2020).....	49
Figure 4. 4 Government–Expert–Public Risk Communication model	51
Figure 4. 5 The structure of oscillation behavior	52
Figure 4. 6 Time Horizon base on Yogyakarta Active Case Trends	52
Figure 4. 7 An Example Causal Loop Diagram Illustrating some of the Interacting Components in a Society Responding to the Threat of Covid-19.....	53
Figure 4. 8 Preliminary Causal Loop Diagram Demonstrating the Complexity of the Covid-19 Pandemic Environmental–health–socio–economic system	54
Figure 4. 9 System Archetype of Shifting the Burden	56
Figure 4. 10 Model from Bradley (2020).....	57
Figure 4. 11 Model from Sahin (2020)	57
Figure 4. 12 First Iteration of CLD	62
Figure 4. 13 Second Iterations of CLD	63
Figure 4. 14 The Initial Model	66
Figure 4. 15 Mental Process of Risk Communication	69
Figure 4. 16 Model Testing Process through FGD	74
Figure 4. 17 Research Flowchart	79
Figure 5. 1 Result from Group A’s FGD	88
Figure 5. 2 Result from Group B’s FGD	92
Figure 5. 3 Result for Combined Model	101
Figure 5. 4 Result for Combined Model After Model Testing	102
Figure 5. 5 Causes Tree of Number of Cases Detected	121
Figure 5. 6 Causes Tree of Public Outrage	123

LIST OF TABLES

Table 2. 1 Reference Matrix.....	16
Table 3. 1 Simple Clinical Classification of Covid-19 Patients.....	17
Table 4. 1 Model Boundary Chart for Risk Perception-Risk Communication for Covid-19.....	58
Table 4. 2 First Iteration Variables	60
Table 4. 3 Second Iteration Variables	63
Table 4. 4 Third Iteration Variables	64
Table 4. 5 Different Level of Expertise	72
Table 5. 1 The Comparison Between Initial Model and References Model.....	84
Table 5. 2 The Differences Initial Model and Covid-19 Survivor Suggestions....	89
Table 5. 3 The Differences Initial Model and Covid-19 Susceptible people Suggestions	93
Table 5. 4 Combined Model of Survivor and Susceptible people of Covid-19....	98
Table 5. 5 Variables Description in Causal Loop Diagram	104
Table 5. 6 Brief differences between combined before and after model testing.	109
Table 5. 7 The Differences Perception of Survivor and Susceptible people of Covid-19 in Causal Loop Model.....	112
Table 5. 8 The Similarity of Covid-19 Survivor and Susceptible people in Response to Covid-19 Pandemic in Causal Loop Diagram	114
Table 5. 9 Problem Related to Public Outrage and Number of Cases Detected Factors	123
Table 5. 10 System Archetype Analyzes	125
Table 5. 11 Summary of research results and comparison.....	127