

TABLE OF CONTENT

2024	<i>i</i>
ORIGINALITY STATEMENT SHEET	<i>ii</i>
ABSTRACT	<i>iii</i>
THANK YOU NOTE	<i>v</i>
TABLE OF CONTENT	<i>vii</i>
LIST OF FIGURES	<i>xi</i>
LIST OF TABLES	<i>xii</i>
CHAPTER I	<i>1</i>
INTRODUCTION	<i>1</i>
1.1 Background	<i>1</i>
1.2 Formulation of the problem	<i>2</i>
1.3 Objectives and Problem Limitations	<i>3</i>
1.4 Research Method	<i>3</i>
1.4.1 Literature Study	<i>3</i>
1.4.3 Technology Analysis	<i>3</i>
1.4.4 Economic Analysis	<i>3</i>
1.4.5 Regulatory Analysis	<i>4</i>
1.4.6 Conclusion	<i>4</i>
1.5 Hypothesis	<i>4</i>
CHAPTER II	<i>6</i>
LITERATURE REVIEW	<i>6</i>
2.1 Health Tech	<i>6</i>
2.2 Techno-Economic Analysis	<i>8</i>
2.2.1 Technology Analysis	<i>8</i>
2.2.2 Quality of Services	<i>9</i>
2.2.2.1 Delay	<i>10</i>

2.2.2.2 <i>Jitter</i>	10
2.2.2.3 Throughput.....	11
2.2.3 Economic Analysis.....	11
2.2.3.1 Capital Expenditure (CAPEX).....	12
2.2.3.2 Operating Expenditure (OPEX).....	12
2.2.3.3 Net Present Value (NPV).....	12
2.2.3.4 Internal Rate of Return (IRR).....	13
2.2.3.5 Pay Back Period (PBP).....	13
2.2.3.6 Profitability Index (PI) or B/C Ratio.....	13
2.3 Regulatory Analysis.....	14
CHAPTER III	15
RESEARCH METHODE	15
3.1 Research Methode.....	15
3.2 Technology Analysis.....	16
3.2.1 Device Type.....	16
3.2.2 Device Naming.....	17
3.2.3 Network Physical Infrastructure Design.....	17
3.2.4 Health Tech Application Infrastructure.....	19
3.2.5 Health Tech Application Maintenance.....	20
3.2.6 Health Tech Application Technology.....	23
3.3 Economic Analysis.....	24
3.3.1 Marketing.....	24
3.3.2 Human Resource.....	25
3.3.3 Supporting Calculations.....	26
3.4 Regulatory Analysis.....	26
3.4.1 Law Number 36 of 2009 concerning Health.....	26
3.4.2 Minister of Health Regulation (Permenkes) Number 46 of 2017 concerning the National E-Health Strategy.....	27
3.4.3 Law of the Republic of Indonesia Number 19 of 2016 concerning Electronic Information and Transactions.....	28

3.4.4 Law of the Republic of Indonesia Number 27 of 2022 concerning Personal Data Protection.....	29
3.4.5 Regulation of the Minister of Trade Number 66 of 2019 concerning General Provisions for the Distribution of Goods.....	30
<i>CHAPTER IV.....</i>	32
<i>DATA ANALYSIS AND SIMULATION</i>	32
4.1 Technology Analysis	32
4.1.1 Analysis Based on Logical Network Health Tech Topology	32
4.1.2 Analysis Based on Quality of Service Network Health Tech Parameters	34
4.1.2.1 Preparation.....	34
4.1.2.2 Data Collection with Traffic Generator.....	35
4.1.2.3 Delay Analysis	35
4.1.2.4 Jitter Analysis.....	37
4.1.2.5 Throughput Analysis	38
4.1.2.6 Stackwise Virtual Configuration.....	39
4.1.2.7 Spanning Tree BPDU Guard	40
4.1.2.8 Firewall.....	40
4.1.2.9 Routing Protocol Design	41
4.2 Economic Analysis.....	41
4.2.1 Economic Assumption.....	41
4.2.2 Cost Benefit Analysis	42
4.2.3 Cost Structure.....	42
4.2.3.1 CAPEX.....	42
4.2.3.2 OPEX	43
4.2.3.3 Revenue	44
4.2.3.4 EBITDA	45
4.2.3.5 EBIT	46
4.2.3.6 Net Income After Tax	47
4.2.3.7 Cashflow.....	47
4.2.3.8 Cumulative Cashflow.....	48
4.2.4 Economic Feasibility Analysis.....	48

4.2.4.1 NPV Analysis	48
4.2.4.2 IRR Analysis	49
4.2.4.3 PP Analysis	49
4.2.4.4 PI Analysis	50
4.2.5 Economic Analysis Assesment	50
4.3 Results of Regulatory Analysis	50
4.3.1 Introduction	50
4.3.2 Problem Identification	51
4.3.3 Recommendation	53
4.3.4 Opportunities and Challenges	54
4.3.5 Conclusion.....	55
<i>CHAPTER V</i>	56
<i>CONCLUSION</i>	56
5.1 Conclusion	56
<i>REFERENCES</i>	57