



TABLE OF CONTENTS

Title Page	I
Ratification Page.....	ii
Declaration.....	iii
Acknowledgement.....	iv
Table of Content	v
List of Tables	ix
List of Figures	x
List of Appendices	xii
Abstract	xiii
Abstrak	xiv
Chapter 1 INTRODUCTION	1
1.1 Background	1
1.2 Sampoerna Telekomunikasi Indonesia	4
1.3 Problem Formulation	7
1.4 Research Questions	7
1.5 Research Objective	7
1.6 Research Impacts	7
1.7 Scope of Research	7
1.8 Organisation of the Thesis	8
Chapter 2 THEORETICAL FRAMEWORK.....	9
2.1 Theoretical Framework	9



2.2 Hype Cycle	9
2.3 Business model canvas	10
2.4 IoT (Internet of Things)	17
Chapter 3 RESEARCH METHODOLOGY	24
3.1 Research Design	24
3.2 Data Collection Method	25
3.3 Research Instrument	27
3.4 Company Profile	28
Chapter 4 RESEARCH RESULTS AND ANALYSIS	32
4.1 Interview Results	32
4.2 Hype Cycle Analysis	35
4.2 Business Model Canvas Analysis	36
4.2.1 Customer Segment	36
4.2.2 Value Proposition Analysis	40
4.2.3 Channels	43
4.2.4 Customer Relationship	47
4.2.5 Revenue Stream	47
4.2.6 Key Resources	50
4.2.7 Key Activities	52
4.2.8 Key Partnership.....	52
4.2.9 Cost Structure	52
4.3 REGULATION	53
Chapter 5 CONCLUSION	55



5.1 Conclusion	55
5.2 Recommendations	55
5.3 Limitations	57
Bibliography	58
Appendices	62



LIST OF TABLES

Table 2.1 Niche Market Definition	12
Table 4.1 Coding and Categorizing Results.....	32
Table 4.2 Current and Prediction Revenue of STI.....	39
Table 4.2 Regulation of unlicensed LORA	54



LIST OF FIGURES

Figure 1.1	ARPU in the Telecom Industry is Falling in Virtually Every Region	1
Figure 1.2	Blended Mobile ARPUs Indonesia: 2015-2017 (IDR)	2
Figure 1.3	The most overhyped technology	3
Figure 1.4	Significant Opportunity of Telco's	3
Figure 1.5	Target Revenue until 2022	4
Figure 1.6	IoT Architecture in Three layers	5
Figure 1.7	IoT Frequency	5
Figure 2.1	Hype Cycle for Emerging Technologies	9
Figure 2.2	Business Model Canvas	11
Figure 2.3	Value Proposition Canvas.....	14
Figure 2.4	Company Funding for IoT.....	19
Figure 2.5	Internet of Things Model Reference.....	20
Figure 3.1	Qualitative research cycle.....	25
Figure 3.2	The Reseach Process.....	26
Figure 3.3	History of STI.....	29
Figure 3.4	Geographical reach of different frequencies (illustrative).....	30
Figure 3.5	Organization	30
Figure 4.1	Hype Cycle Analysis	36
Figure 4.2	Telkomsel Coverage	37
Figure 4.3	XL Coverage	38



Figure 4.4	Indosat Coverage	38
Figure 4.5	Tri (3) Coverage	38
Figure 4.6	Smartfren Coverage.....	38
Figure 4.7	Prototype system with sensors embedded interconnected with smart technology	42
Figure 4.8	STI Value Proposition for B2B	43
Figure 4.9	US B2B Lead-to-deal Conversion Rate.....	44
Figure 4.10	STI Revenue for B2C.....	48
Figure 5.1	IoT Business Model Canvas for STI.....	55



LIST OF APPENDICES

Appendix A - Skrip dan Petunjuk Wawancara Mendalam	62
Appendix B - Transkrip Wawancara Dengan Narasumber Pertama.....	66
Appendix C - Transkrip Wawancara Dengan Narasumber Kedua	88
Appendix D – Pengkodean dan Kategorisasi	103