

Table of Contents

- 1 Introduction..... 1**
 - 1.1 Problem Description and Motivation 1
 - 1.2 Objectives and Benefits..... 5
 - 1.3 Structure of the Thesis..... 9
- 2 Foundations 15**
 - 2.1 Cloud Computing 15
 - 2.1.1 Essential Characteristics 16
 - 2.1.2 Delivery Models..... 17
 - 2.1.3 Deployment Models..... 18
 - 2.2 IT Security Risk Perception 20
 - 2.2.1 The Nature of Perceived Risks 21
 - 2.2.2 Perceived IT Security Risks in the Context of the Cloud 23
 - 2.3 Organizational IT Security Risk Management..... 26
 - 2.3.1 Phase I: Identification of IT Security Threat 27
 - 2.3.2 Phase II: IT Security Risk Analysis 28
 - 2.3.3 Phase III: Solution Analysis..... 30
 - 2.3.4 Phase IV: Decision..... 31
 - 2.3.5 Phase V: Implementation..... 33
- 3 Part I: The Inhibiting Role of Unrealistic Optimism in Providers' IT Security Risk Management 35**
 - 3.1 Theoretical Background and Hypotheses Development 35
 - 3.1.1 Organizational IT Security Risk Management 36
 - 3.1.2 Technology Threat Avoidance Theory 37
 - 3.1.3 Institutional Theory..... 46
 - 3.1.4 Decision Makers' IT Security Risk Perceptions..... 50
 - 3.1.5 Unrealistic Optimism in Decision Makers' IT Security Risk Perceptions .. 55
 - 3.2 Research Methodology..... 59
 - 3.2.1 Measurement Model 59
 - 3.2.1.1 Measurement of Absolute Unrealistic Optimism..... 60
 - 3.2.1.2 Measurement of Comparative Unrealistic Optimism..... 66
 - 3.2.2 Survey Administration..... 67
 - 3.2.3 Sample Characteristics..... 67
 - 3.2.4 Data Analyses 69

3.3	Results	71
3.3.1	Impacts of Decision Makers' IT Security Risk Perceptions on Providers' IT Security Risk Management.....	71
3.3.1.1	Assessment of Measurement Validation	71
3.3.1.2	Results of the Structural Model Testing.....	73
3.3.2	Existence of Unrealistic Optimism in the IT Security Risk Perceptions of Providers' Decision Makers	79
3.3.2.1	Analysis of Absolute Unrealistic Optimism.....	79
3.3.2.2	Analysis of Comparative Unrealistic Optimism	85
3.4	Discussion of Study Findings.....	88
4	Part II: Perceptual Incongruences regarding the IT Security Risks as a Barrier to Cloud Adoption.....	93
4.1	Theoretical Background and Hypotheses Development	93
4.1.1	Perceptual Congruence	93
4.1.2	Perceptual Incongruences regarding the IT Security Risks	95
4.1.3	Cognitive Dissonance Theory.....	97
4.1.4	Expectation Confirmation Theory	99
4.1.5	Cloud Adoption.....	100
4.2	Research Methodology.....	103
4.2.1	Measurement Model	103
4.2.2	Survey Administration.....	104
4.2.3	Sample Characteristics.....	105
4.2.4	Data Analyses	107
4.3	Results	109
4.3.1	Existence of Perceptual Incongruences between Providers and Customers regarding the IT Security Risks	109
4.3.2	Impacts of Perceptual Incongruences between Providers and Customers regarding the IT Security Risks on Cloud Adoption	111
4.3.2.1	Assessment of Measurement Validation	112
4.3.2.2	Results of the Structural Model Testing.....	113
4.4	Discussion of Study Findings.....	116
5	Conclusion and Summary of Key Findings.....	119
5.1	Implications for Theory and Research	119
5.2	Implications for Practice	123
5.2.1	Implications and Recommended Actions for Providers	123
5.2.2	Implications and Recommended Actions for (Potential) Customers.....	126
5.3	Limitations and Future Research Directions.....	127

5.4	Résumé	130
Appendix		133
A.1	Supporting Material for Part I (Chapter 3).....	133
A.1.1	Measurement Items	133
A.1.2	Validity Analysis	138
A.1.3	Consistency Analysis of the Absolute Unrealistic Optimism Classifier ...	139
A.1.4	Multi-Group Analysis of the Structural Model.....	140
A.2	Supporting Material for Part II (Chapter 4)	141
A.2.1	Measurement Items	141
A.2.2	Validity Analysis	142
A.2.3	Formation of IT Security Risk Perceptions in the Context of the Cloud...	143
References		145