

## Table of Contents

<b>Foreword</b> .....	<b>V</b>
<b>Preface</b> .....	<b>VII</b>
<b>Table of Contents</b> .....	<b>IX</b>
<b>List of Figures</b> .....	<b>XV</b>
<b>List of Tables</b> .....	<b>XIX</b>
<b>List of Formulas</b> .....	<b>XXV</b>
<b>List of Abbreviations</b> .....	<b>XXVII</b>
<b>A Introduction</b> .....	<b>1</b>
1 Motivation and Objectives.....	1
2 Proceeding and Method .....	5
<b>B Understanding of Early Warning in Literature and Definition of Important Terms</b> .....	<b>7</b>
1 German Literature.....	7
1.1 Frühwarnung, Früherkennung and Frühaufklärung.....	7
1.2 The Concept of Early Warning by KRYSTEK and MÜLLER-STEWENS .....	9
1.2.1 Operational Early Warning.....	9
1.2.2 Strategic Early Warning.....	12
2 English Literature.....	15
2.1 AGUILAR's Concept of Environmental Analysis.....	15
2.2 ANSOFF's Concept of Weak Signals .....	16
2.3 Issue Detection.....	20
2.3.1 Historical Development .....	20
2.3.2 Description of an Issue .....	20
2.3.3 Strategic Issue Diagnosis and Organizational Sensemaking.....	22
2.4 Organizational Information Processing .....	24
<b>C Contingency Theory as an Approach to Explain Early Warning Behavior</b> ....	<b>27</b>
1 Basis of the Classical Contingency Theory .....	27
1.1 Development of the Classical Contingency Theory .....	27

1.2	Aims and Main Assertions of the Classical Contingency Theory.....	28
2	Extension of the Classical Contingency Theory.....	32
3	Critical Assessment of the Contingency Theory .....	36
4	Application of the Contingency Theory to Early Warning Behavior. Research Model and its Variables .....	40
4.1	Application of the Contingency Theory to Early Warning Behavior.....	40
4.2	Selection of Design Variables of Early Warning Behavior and Success Measures .....	41
4.2.1	Scanning.....	42
4.2.2	Interpretation.....	44
4.2.3	Measures of Success .....	46
4.3	Research Model .....	46
5	State of Empirical Research.....	47
<b>D</b>	<b>Deduction of Hypotheses .....</b>	<b>51</b>
1	Relationship between Environmental Uncertainty and the Design Variables of Early Warning Behavior.....	51
2	Relationship between the Personality of the CEO and the Design Variables of Early Warning Behavior.....	64
2.1	Locus of Control .....	64
2.2	Tolerance for Ambiguity .....	68
2.3	Need for Achievement.....	71
2.4	Risk Propensity .....	74
2.5	Egalitarianism .....	75
2.6	Moral Reasoning.....	77
2.7	Machiavellianism.....	79
2.8	Trust in People .....	81
3	Relationship between Success of Early Warning and Economic Success .....	82
4	Overview of Hypotheses.....	83
<b>E</b>	<b>Operationalization of the Research Model.....</b>	<b>87</b>
1	Basic Aspects of the Operationalization.....	87
2	Operationalization of Early Warning Behavior.....	88
2.1	Scanning.....	88

2.1.1	Scanning Frequency and Sources .....	88
2.1.2	Scope of Scanning .....	90
2.1.3	Degree of Delegation .....	91
2.2	Interpreting.....	91
2.2.1	Diversity of Internal Models.....	91
2.2.2	Intensity of Interpretation .....	92
2.2.3	Degree of Tool Support .....	92
2.2.4	Fixity of Time for Interpretation.....	93
3	Operationalization of Contingency Variables .....	93
3.1	Environmental Uncertainty .....	93
3.2	Personality.....	97
3.2.1	Locus of Control .....	97
3.2.2	Tolerance for Ambiguity .....	98
3.2.3	Need for Achievement.....	98
3.2.4	Risk Propensity .....	99
3.2.5	Egalitarianism .....	100
3.2.6	Moral Reasoning.....	100
3.2.7	Machiavellianism.....	101
3.2.8	Trust in People .....	101
4	Success.....	102
4.1	Success of Early Warning.....	102
4.2	Economic Success.....	103
<b>F</b>	<b>Methodological Conception of the Analysis .....</b>	<b>105</b>
1	Data Collection and Data Basis .....	105
1.1	Data Collection .....	105
1.2	Data Basis .....	109
2	Basis of the Quantitative Analysis.....	112
2.1	Introduction to Modeling Structural Equations .....	112
2.2	Basics of Constructs.....	114
2.3	Selection of Method for Structural Equation Modeling .....	121
2.4	The Structural Model as Means of Valuating Simple Causal Hypotheses.....	121
2.4.1	Overview.....	121
2.4.2	Fit Criteria for Structural Models .....	123

2.5	Moderating Effects as Means of Valuating Alignment Hypotheses .....	124
2.5.1	Introduction to Moderating Effects .....	124
2.5.2	Modeling Moderating Effects in the Context of the PLS	
	Method .....	125
2.5.3	Valuation of Alignment Hypotheses .....	127
2.6	Fit Criteria for Constructs .....	127
2.6.1	Fit Criteria for Reflective Constructs .....	128
2.6.2	Fit Criteria for Formative Constructs .....	132
3	Construct Measuring.....	133
3.1	Early Warning Behavior .....	133
3.1.1	Scanning.....	133
	3.1.1.1 Scanning Frequency and Sources .....	133
	3.1.1.2 Scope of Scanning .....	136
	3.1.1.3 Degree of Delegation.....	136
3.1.2	Interpreting.....	137
	3.1.2.1 Diversity of Internal Models.....	137
	3.1.2.2 Intensity of Interpretation .....	137
3.2	Contingency Variables.....	138
3.2.1	Environmental Uncertainty.....	138
3.2.2	Personality .....	140
	3.2.2.1 Locus of Control.....	140
	3.2.2.2 Tolerance for Ambiguity .....	141
	3.2.2.3 Need for Achievement.....	141
	3.2.2.4 Risk Propensity .....	142
	3.2.2.5 Egalitarianism .....	143
	3.2.2.6 Moral Reasoning.....	143
	3.2.2.7 Machiavellianism.....	144
	3.2.2.8 Trust in People .....	145
3.3	Success Measures .....	145
	3.3.1 Success of Early Warning.....	145
	3.3.2 Economic Success.....	146
4	Cluster Analysis .....	146
<b>G</b>	<b>Results of the Empirical Analysis.....</b>	<b>149</b>
1	Introductory Analysis .....	149

1.1	Differences of Perceived Strategic Uncertainty among Sectors.....	149
1.2	Empirical Assessment of Early Warning Behavior.....	151
1.2.1	Average Early Warning Behavior.....	151
1.2.2	Early Warning Behavior in Dependence on Success .....	152
1.2.3	Early Warning Behavior in Dependence on Organizational Size.....	158
2	Empirical Valuation of Hypotheses.....	160
2.1	Fundamental Aspects of the Valuation of Hypotheses.....	160
2.2	Valuation of Hypotheses within the Context of the Classical Contingency Theory .....	162
2.2.1	Valuation of Hypothesis about the Degree of Uncertainty in Task and General Environment .....	162
2.2.2	Valuation of Hypotheses about the Relationship between Environmental Uncertainty and Design Variables of Early Warning Behavior.....	164
2.2.3	Valuation of Hypotheses about the Alignment of Environmental Uncertainty with Design Variables of Early Warning Behavior.....	168
2.3	Valuation of Hypotheses within the Context of the Extended Contingency Theory .....	171
2.3.1	Valuation of Hypotheses about the Relationship between Attitudes and Design Variables of Early Warning Behavior .....	171
2.3.1.1	Locus of Control .....	171
2.3.1.2	Tolerance for Ambiguity .....	172
2.3.1.3	Need for Achievement.....	173
2.3.1.4	Risk Propensity .....	175
2.3.1.5	Egalitarianism .....	176
2.3.1.6	Moral Reasoning.....	176
2.3.1.7	Machiavellianism.....	177
2.3.1.8	Trust in People.....	178
2.3.2	Overview of the Valuation of Hypotheses within the Context of the Extended Contingency Theory .....	179
2.3.3	Attitudes and their Explanatory Contribution for Design Variables of Early Warning Behavior .....	180
2.4	Concluding Analysis.....	184

2.4.1 Synthetic Valuation of the Classical Contingency Theory and its Extension.....	184
2.4.2 Valuation of the Hypothesis about the Relationship between Success of Early Warning and Economic Success.....	186
2.4.3 Clusters of CEOs Doing Early Warning.....	186
<b>H Final Thoughts and Outlook.....</b>	<b>195</b>
1 Summary and Discussion of the Results .....	195
2 Critical Assessment and Further Research Possibilities.....	205
3 Implications for the Practice .....	208
<b>Appendix.....</b>	<b>211</b>
1 Measuring of Composite Constructs.....	211
2 Explanatory Contribution of Attitudes for Design Variables of Early Warning Behavior.....	217
3 Explanatory Contribution of all Contingency Variables for Design Variables of Early Warning Behavior .....	218
4 Questionnaire .....	219
<b>Bibliography .....</b>	<b>227</b>