Table of Contents

I. Abstract 6
II. Zusammenfassung 7
III. List of figures 9
IV. List of abbreviations 10
1. Introduction 11
1.1 Motivation 12
1.2 Objective, research questions, and framework 14
1.2.1 Research questions 14
1.2.2 Research framework and process 16
1.2.3 Research process and evolvement of research framework 17
1.3 Structure of this dissertation 18
1.4 Contribution 19
2. Literature review and research gap 21
2.1 Definitions and clarifications 21
2.1.1 Management accounting 21
2.1.2 Digitization 23
2.1.3 Digitization: Further discussion on terms and definition 24
2.1.4 Management control 25
2.1.5 Controlling vs. management accounting 25
2.2 Literature review methodology 27
2.3 Literature review results 28
2.3.1 Impact of digitization on management accounting 28
2.3.2 Impact on tasks and tools (RQ1) 31
2.3.3 Impact on organizational setup (RQ2) 34
2.3.4 Impact on educational background, required skills, and training (RQ3) 36
2.3.5 Relation of strategy and management accounting (RQ4) 38
2.4 Review of practitioners' papers and publications 41
2.5 Confirmation of research gap 44
3. Theory 45
3.1 Organizational perspective 46
3.1.1 Division of labor and economies of scale and scope 46
3.1.2 Porter’s generic strategies 47
3.2 Individual perspective 50
3.2.1 Social exchange theory 52
3.2.2 Decision-making: Heuristics and biases in decision-making and human judgment .. 54

3.3 Conclusions from theory ... 56
4. Methodology ... 58
4.1 Qualitative vs. quantitative research ... 58
4.2 Research design: Methodological framework ... 58
4.2.1 Application of grounded theory and case study methodology ... 59
4.2.2 Case study research design and process ... 61
4.2.3 Validity tests ... 62
4.3 Case selection ... 63
4.3.1 Determined sample size ... 64
4.3.2 Sampling strategy ... 64
4.3.3 Sample sourcing ... 64
4.3.4 Evolution of the interview process ... 65
4.4 Case companies ... 66
4.5 Interviews ... 67
4.5.1 Empirical research process ... 67
4.5.2 Interviews with management accountants ... 72
4.5.3 Interviews with decision-makers ... 73
4.5.4 Interviews with management accounting enablers ... 73
4.6 Analysis of interviews: Coding methodology ... 76
5. Findings ... 79
5.1 Five cases of digitization in management accounting ... 79
5.1.1 Case 1: Pharma and chemicals conglomerate ... 79
5.1.2 Case 2: Beverage manufacturer ... 84
5.1.3 Case 3: Consumer goods company ... 88
5.1.4 Case 4: Mechanical engineering company ... 92
5.1.5 Case 5: Automotive supplier ... 97
5.2 Summary: Impact of digitization on tasks and tools on management accounting function in manufacturing organizations ... 101
5.3 Summary: Impact of digitization on organizational structure of management accounting function in manufacturing organizations ... 105
5.4 Summary: Impact of digitization on skills and training of management accounting function in manufacturing organizations ... 109
5.5 Grounded model: Two archetypes of digitization in management accounting ... 112
5.5.1 Streamlining: Efficiency focused ... 113
5.5.2 Enabling: Value-added focused ... 114
5.6 Change of positioning and trends with regard to the discovered archetypes ... 116
5.7 Relation of strategy to the digitization of management accounting (RQ4) ... 118
5.7.1 Case 1: Pharma and chemicals conglomerate ... 119

5.7.2 Case 2: Beverage manufacturer 120
5.7.3 Case 3: Consumer goods company 121
5.7.4 Case 4: Mechanical engineering company 122
5.7.5 Case 5: Automotive supplier 123
5.7.6 Discussion of relation of strategy to the digitization of management accounting 123
5.8 Analyzing a (potentially) futuristic view on management accounting: Perspective of software providers 124
5.8.1 View on RQ1 126
5.8.2 View on RQ2 128
5.8.3 View on RQ3 128
5.9 Conclusions from findings 129
5.10 Discussion of findings 130
6. Conclusion 133
6.1 Summary 133
6.2 Practical implications 136
6.3 Limitations of study and suggestions for further research 139
V. Bibliography 141
VI. Appendix: Interview guidelines 152
A.1 Introduction 152
A.2 Tasks, tools, and methods 152
A.3 Digitalization: Process of introducing new tools and analyses 153
A.4 Introduction of new tools and technologies: 153
A.5 Role 154
A.6 Organization, cooperation, and workflows 154
A.7 Organizational setup (focus: before vs. after/expectation) 155
A.8 Outsourcing/offshoring (as one step in the digitization process) 155
A.9 Shared service centers (as one step in the digitization process) 155
A.10 Organizational culture and working style (as enabler/impact on the digitization process) 156
A.11 Driver/pre-conditions of change with respect to digitization 156
A.12 Barriers to change with respect to digitization 156
A.13 Benefits of digitization 156
A.14 Skills and background (RQ3) 157