

# Content

## **Preface**

## **1 Introduction**

### **1.1 Risk in Economics and Business**

### **1.2 The Focus of the Monograph**

### **1.3 Accounting-based Indicators**

#### **1.3.1 Profitability ratios**

#### **1.3.2 Cash flow ratios**

#### **1.3.3 Liquidity ratios**

#### **1.3.4 Asset management indicators**

#### **1.3.5 Indebtedness indicators**

#### **1.3.6 Indicators of business size**

#### **1.3.7 Other indicators**

### **1.4 References**

## **2 Research Methods Applied**

### **2.1 Methods of Verifying Data Properties**

#### **2.1.1 The normal distribution of data**

#### **2.1.2 The presence of outliers**

#### **2.1.3 The issue of multicollinearity and methods for its detection**

### **2.2 Methods of Feature Selection**

#### **2.2.1 Student's t-test and the Welch test**

#### **2.2.2 The Mann-Whitney U-test**

#### **2.2.3 The Chi-square test**

### **2.3 Classification Methods for Deriving the Default Prediction Model**

#### **2.3.1 Parametric classification methods**

#### **2.3.2 Non-parametric classification methods**

#### **2.3.3 The combination of methods – hybrid models**

### **2.4 Measures Used for Testing the Distress Prediction Model**

#### **2.4.1 Methods of analysing the variables significance**

- 2.4.2 Goodness of fit measures
  - 2.4.3 Accuracy measures
- 2.5 References
- 3 Corporate Default Prediction Models
  - 3.1 Specifying the Object of Prediction
  - 3.2 Causes of Corporate Default
  - 3.3 Types of Credit Scoring Model
    - 3.3.1 A credit scoring model according to the consideration of recovery rate
    - 3.3.2 A credit scoring model according to consideration of credit risk measures
    - 3.3.3 Credit scoring model according to consideration of the exposure to default
    - 3.3.4 Credit scoring models according to the type of data utilised
  - 3.4 Predicting the Default of SMEs
    - 3.4.1 The adopted definition of SMEs
    - 3.4.2 Financial constraints and default prediction issues in SMEs
    - 3.4.3 Default predictors specific to SMEs and related issues
  - 3.5 The Accuracy of Models under Alternative Conditions
  - 3.6 Research Sample and Design – Default Prediction Model
    - 3.6.1 The conditions in the economic environment in the analysed period
    - 3.6.2 The research sample and its proportions
    - 3.6.3 The analysed set of variables
    - 3.6.4 Results – default prediction models
    - 3.6.5 Detailed description of the steps proposed in the flowchart
    - 3.6.6 The preselection of variables
    - 3.6.7 Principal component analysis (PCA) results

- 3.6.8 Analysing the appropriate number of components
  - 3.6.9 Component matrix
  - 3.6.10 Creating a logit model
  - 3.6.11 Deriving a hybrid model
  - 3.6.12 Model testing results
- 3.7 Conclusions
- 3.8 References
- 4 Prediction of Synergies in Mergers and Acquisitions – the Case of the Czech Republic
  - 4.1 Introduction
  - 4.2 Why Investigate M&As? Even if the Volume Increases, the Effect Remains Unclear
  - 4.3 Motives for M&As
  - 4.4 Approaches to Synergy Measurement
    - 4.4.1 Identification of synergies based on financial indicators
    - 4.4.2 Identification of synergies based on determination of the business value
    - 4.4.3 Estimation of the discount rate
    - 4.4.4 The research methodology applied in the Czech Republic and the data used
    - 4.4.5 Description of the research group
    - 4.4.6 Determination of company value
  - 4.5 Results: Identification of Financial Ratios for Synergy Prediction
    - 4.5.1 Division of mergers into successful and unsuccessful according to financial ratios
  - 4.6 Results: Synergistic Value Prediction
    - 4.6.1 Modification of the company value determination procedure
    - 4.6.2 Factors influencing the value of achieved synergies
    - 4.6.3 A model predicting the achievement of synergy



- 4.6.4 Model predicting the value of synergies
- 4.7 Conclusion
- 4.8 References
- 5 Mergers and Acquisitions in Romania
  - 5.1 Introduction
  - 5.2 Mergers of Romanian Private Companies: Opportunities and Obstacles
    - 5.2.1 Romanian mergers: a review of types, phases and evolution
    - 5.2.2 Motives for participating in mergers
    - 5.2.3 Hypotheses development
    - 5.2.4 Target population and analysed sample
    - 5.2.5 Models proposed for analysis and data source
    - 5.2.6 Results and discussions
  - 5.3 Determinants for Acquirers' Behaviour on the Romanian Acquisitions Market
    - 5.3.1 Evolution and characteristics of the Romanian market for corporate acquisitions
    - 5.3.2 Hypotheses development
    - 5.3.3 Target population and analysed sample
    - 5.3.4 Models proposed for analysis and data source
    - 5.3.5 Results and discussion
  - 5.4 Conclusions
  - 5.5 References
- 6 Conclusion
- 7 References
- 8 Attachments
  - 8.1 List of Abbreviations
  - 8.2 List of Tables
  - 8.3 List of Figures