

KNOWLEDGE – ECONOMY – SOCIETY

**CHALLENGES AND TOOLS OF MODERN FINANCE
AND INFORMATION TECHNOLOGY**

CRACOW UNIVERSITY OF ECONOMICS
Faculty of Management
FOUNDATION OF THE CRACOW UNIVERSITY OF ECONOMICS

KNOWLEDGE – ECONOMY – SOCIETY

CHALLENGES AND TOOLS OF MODERN FINANCE AND INFORMATION TECHNOLOGY

Edited by

Paweł Ulman, Ryszard Węgrzyn, Piotr Wójtowicz

Cracow 2017

Reviewer

Beata Skowron-Grabowska

All papers have been prepared in English by the Authors

Wydanie publikacji zostało sfinansowane z dotacji na utrzymanie potencjału badawczego przyznanej Uniwersytetowi Ekonomicznemu w Krakowie

The book was financed with subsidies for maintaining the research capacity granted to the Cracow University of Economics

© Copyright by the Cracow University of Economics, Cracow 2017

ISBN 978-83-65907-09-7 (printed version)

ISBN 978-83-65907-10-3 (on-line pdf)

Publishing House

Foundation of the Cracow University of Economics
ul. Rakowicka 27, 31-510 Kraków, Poland

Table of contents

Introduction	7
--------------------	---

PART I CONTEMPORARY ISSUES AND TOOLS OF FINANCIAL RISK MANAGEMENT AND ACCOUNTING

Chapter 1

Antonio Fabio Forgione, Carlo Migliardo, Ivan Nania

The Impact of Ownership Structure on Bank Performance and Risk in the European Union	13
---	----

Chapter 2

Stanislaw Wanat, Ryszard Konieczny

Value-at-Risk Estimation under Dependence Uncertainty	21
---	----

Chapter 3

Ryszard Węgrzyn

The Development of the World Derivatives Exchange Market	31
--	----

Chapter 4

Ryszard Pukala

Financing the Operational Risk of Start-ups through Insurance	43
---	----

Chapter 5

Artur Holda, Anna Staszal

Creative Accounting – The Ordinary Perception of the Concept on the Internet	53
--	----

Chapter 6

Jurij Renkas

Outline of the History of Work Accounting	63
---	----

PART II

TOOLS AND APPLICATIONS OF MODERN INFORMATION AND COMMUNICATION TECHNOLOGIES

Chapter 7

Dragomir Dimitrijević, Zoran Kalinić

Software Tools Usage in Fraud Detection and Prevention in Governmental and External Audit Organizations in the Republic of Serbia 71

Chapter 8

Slawomir Szurman, Roland Górnisiewicz, Jan Trąbka

Proposal for the Experimental Use of FeedForward Neural Networks Together with a BOW Text Classification Method in the Audit of Staff Documentation – A Case Study 79

Chapter 9

Artur Żuwala

Persistence Homology as a Tool for Multidimensional Data Analysis 93

Chapter 10

Pavel A. Smelov, Katerina A. Shestaeva, Viktoria A. Izvarina

BI System of Plekhanov Russian University of Economics in Scientific-Educational Process 103

Chapter 11

Paweł Wołoszyn, Katarzyna Wójcik, Przemysław Płyś, Jacek Wołoszyn

An Example Application of Tournament Approach in Grading Student Assignments 115

Chapter 12

Janusz Stal, Grażyna Paliwoda-Pękosz

Mobile Technology in Knowledge Acquisition: A Preliminary Study 123

Chapter 13

Zora Arsovski, Slavko Arsovski, Dragana Rejman Petrović

Fostering Transition to Digital Enterprises 133

Chapter 14

Ewa Soja

Supporting Independent Living of the Elderly through ICT: A Review of Available Solutions ... 149

Chapter 15

Jan Madej

Password Selection in Computer Systems – A Comparison of the Results of Research Conducted in 1998/1999, and 2016 159

Chapter 16

Dariusz Dymek

Model Based Description of Different Approaches to the IT Project Management 169

Authors 181