

**EDITING OF THE BOOK  
OF ABSTRACTS BY:**

Professor Anastasios Karasavoglou,  
*Eastern Macedonia and Thrace  
Institute of Technology, Greece*

Assistant Professor Persefoni  
Polychronidou,  
*Technological Educational Institute  
of Central Macedonia, Greece*

Professor Alexandra Horobet,  
*Bucharest University of Economic  
Studies, Romania*

**ABSTRACTS**



**11th International Conference**

**The Economies of the Balkan**

**and the Eastern European Countries**

**in the changing World**



**EBEEC 2019**  
Bucharest, Romania  
**May 10-12, 2019**









EASTERN MACEDONIA AND THRACE INSTITUTE OF TECHNOLOGY,  
DEPARTMENT OF ACCOUNTING AND FINANCE, KAVALA (GREECE),

FACULTY OF INTERNATIONAL BUSINESS AND ECONOMICS,  
BUCHAREST UNIVERSITY OF ECONOMIC STUDIES, ROMANIA

CENTER OF RESEARCH IN INTERNATIONAL BUSINESS AND ECONOMICS,  
BUCHAREST UNIVERSITY OF ECONOMIC STUDIES, ROMANIA

ROMANIAN ACADEMY - INSTITUTE FOR ECONOMIC FORECASTING, ROMANIA

ROMANIAN ACADEMY - CENTER FOR FINANCIAL AND MONETARY RESEARCH  
"VICTOR SLAVESCU", ROMANIA

# **11<sup>th</sup> International Conference The Economies of the Balkan and the Eastern European Countries in the changing World**

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**ΤΟ ΒΟΟΚ ΟΦ ΑΒΣΤΡΑΚΤΣ ΕΙΝΑΙ ΧΟΡΗΓΙΑ ΤΩΝ ΕΚΔΟΣΕΩΝ ΠΡΟΠΟΜΠΟΣ, ΣΤΟΝ ΟΠΟΙΟ ΠΑΡΑΧΩΡΟΥΝΤΑΙ ΤΑ ΔΙΚΑΙΩΜΑΤΑ ΓΙΑ ΤΗΝ ΕΚΔΟΣΗ ΤΟΥ. ΚΑΜΙΑ ΠΛΕΥΡΑ ΔΕΝ ΒΑΡΥΝΕΤΑΙ ΜΕ ΟΙΚΟΝΟΜΙΚΕΣ ΑΠΑΙΤΗΣΕΙΣ.**

© 2019 PROPOBOS PUBLICATIONS

ISBN: 978-618-5036-????

PROPOBOS Publications  
53, Patission str., 10433, Athens, Greece  
T: 210 5245264, F: 210 5245246  
E: propobos@propobos.gr  
<http://www.propobos.gr>

# Contents

VISEGRAD FORUM: A TOOL FOR THE ENHANCEMENT OF RAILWAY DEVELOPMENT INTERESTS Bálint Tóth.....	15
POLITICAL RISK ON THE BELT AND ROAD David Morris.....	16
SENTIMENT ANALYSIS: RELATIONSHIP BETWEEN CUSTOMER SENTIMENT AND ONLINE CUSTOMER RATINGS FOR PRICE COMPARISON SHOPPING ENGINES BETWEEN CASUAL/ ATHLETIC CLOTHING AND TECHNOLOGY INDUSTRY; AN EMPIRICAL STUDY Iason Papafotikas, Dimitrios Folinias .....	17
ENTREPRENEURSHIP IN GREECE Athanasios Vasilopoulos and Christos Tsitsakis.....	17
THE DIGITALIZATION OF THE ORGANIZATION Stavros Valsamidis, Ioannis Petasakis, Fotini Perdiki and Vasilios Ferelis.....	18
DATA DEVELOPMENT ANALYSIS (DEA): AN APPLICATION OF DEA REGARDING GREEK TERTIARY EDUCATION Efthymios Mavris, Sofia Anastasiadou, Giannoula Florou, Efthymios Balkanos and Lazaros Anastasiadis.....	19
FROM GLOBALIZATION TO PLANETIZATION – IS THE TIME OF COLONIZATION OF THE SOLAR SYSTEM APPROACHING? Pavel Stoynov.....	20
A FRAMEWORK FOR INFORMATION MINING FROM AUDIT DATA Aikaterini Ioannou, Dimitrios Bourlis, Stavros Valsamidis and Athanasios Mandilas .....	21
DEVELOPMENT OF A FINANCIAL MODEL IN A BUSINESS: THE CASE OF PLASTIKA KRITIS S.A. Alexander Jaki, Charalambos Aitsidis, Fotios Panagiotopoulos and Dimitrios Maditinos.....	22
CRISES CONSEQUENCES ON THE STRUCTURE OF THE GREEK BANKING SYSTEM Symeon Karafolas .....	22
EXAMINATION OF THE LIQUIDITY, PROFITABILITY AND INDEBTNESS RELATIONS FOR POLISH COMPANIES WITH NEURAL NETWORKS Katerina Lyrودي and Thomas Chatzigagios .....	23
ART MARKET CHARACTERISTICS Corina Dimitriu Dimitriu and Geo Hurduzeu Hurduzeu .....	24
FOREIGN DIRECT INVESTMENT AND CONSUMER FINANCE COMPANIES: WHAT ARE THE DETERMINANTS? Consuela – Elena Popescu.....	24
BUSINESS RESURGENCE AND JOB GROWTH IN GREECE: RECOVERING THE CRISIS? Maria Tsampra and Reveka Gkerats.....	25
OIL PRICE AND FINANCIAL SECTOR IN EASTERN EUROPE: A PANEL DATA INVESTIGATION Alexandra Horobet and Georgiana Vrinceanu.....	26

THE COST-SAVING ROLE OF BLOCKCHAIN TECHNOLOGY AS A DATA INTEGRITY TOOL: E-HEALTH SCENARIO Zarko Radjenovic.....	26
THE CONTRIBUTION TO EFFICIENCY OF PRIVATE-PUBLIC PARTNERSHIP IN INTEGRATED SERVICES: THE CASE OF "OPERATING ROOM SUPPORT SERVICES" IN ALBANIAN HEALTHCARE Niccolò Persiani, Martina Giusti, Ioana Paduraru, Laura Yzeiraj, Emiljan Karma, Edi Dragusha and Alberto Romolini .....	27
EMPLOYEES ATTITUDES TOWARDS WORK FLEXIBILITY Nancy Bouranta and Maria Tsampra .....	28
DO ENTREPRENEURS OF GENERATION Y ADOPT BUDGET PLANNING PROCEDURES? Lambros Tsourgiannis, Michael Nikolaidis and Anastasios Karasavoglou .....	29
A NEW SIMILARITY MEASURE FOR DOCUMENT CLASSIFICATION AND TEXT MINING Mete Eminağaoğlu and Yılmaz Gökşen .....	30
PLANNING AND MANAGING OF DIAGNOSTIC IMAGING TECHNOLOGIES IN HEALTHCARE: THE INTRODUCTION OF MANAGED EQUIPMENT SERVICE (MES) FOR THE SYSTEM'S SUSTAINABILITY Martina Giusti, Niccolò Persiani, Fissi Silvia and Renzo Ricci.....	30
A GEOGRAPHIC PERSPECTIVE ON FOREIGN DIRECT INVESTMENT IN THE SUCCESSOR STATES OF YUGOSLAVIA: ONE QUARTER CENTURY AFTER DISOLUTION Joel Deichmann.....	31
DIGITAL BANKING IN THE NEW ERA: EXPLORING CLIENTS' ATTITUDES Stavros Valsamidis, Lambros Tsourgiannis, Dimosthenis Pappas, Eirini Mosxou .....	32
FOREST FIRES IN GREECE AND THEIR ECONOMIC IMPACTS ON AGRICULTURE Dimitra Stougiannidou, Eleni Zafeiriou and Yannis Raftoyannis.....	33
AN ASSESSMENT OF LOCAL GOVERNMENT AUTONOMY IN ROMANIA Vlad-Cosmin Bulai.....	33
REGIONAL DEVELOPMENT OF FINANCIAL INNOVATION IN EASTERN EUROPEAN COUNTRIES Silvia Sumedrea .....	34
DAVID AND GOLIATH: AN INVESTIGATION BETWEEN GREECE – GERMANY BILATERAL TRADE FOR AGRICULTURAL PRODUCTS Mairi Bekiraki, Achilleas Kontogeorgos and Fotios Chatzitheodoridis.....	35
MAPPING ECONOMIC ACTIVITY IN THE EUROPEAN UNION: DO OWNERSHIP, INDUSTRY AND LOCATION MATTER? Alexandra Horobet, Oana Popovici and Lucian Belascu .....	35
AN EXPLANATORY STUDY OF FINANCIAL PERFORMANCE IN CEE COUNTRIES Stefania Cristina Curea and Lucian Belascu.....	36
OPERATING ROOM MANAGEMENT AFTER THE 2008 ECONOMIC CRISIS IN ITALY: A LITERATURE REVIEW Andrea Rochira, Andrea Ubiali, Matteo Buccioli and Peter Perger.....	37
SPECIALIZATION AND EFFICIENCY OF THE METROPOLITAN REGIONS IN SOUTHEASTERN EUROPE: THE CASE OF EU MEMBER-STATES Panagiotis Nikolopoulos, Andreas Gkouzos and Athanasios Papadaskalopoulos.....	38
IS JAPAN A PIONEER IN HIGH TECHNOLOGY EXPORTS? Spyros Roukanas and Emmanuil Karakostas.....	39

ASSESSING THE ROLE OF ACCESS TO FINANCE FOR YOUNG POTENTIAL ENTREPRENEURS: THE CASE OF ROMANIA Valentina Diana Rusu and Angela Roman.....	40
SYSTEM DEVELOPMENT LIFE CYCLE IN AN EFFECTIVE LEARNING MANAGEMENT SYSTEM DESIGN L. Özge Oral and Emre Karagöz .....	40
THE CONTROL OF SMALL MEDIUM BANKS PROFITABILITY USING FINANCIAL MODELING APPROACH UNDER CERTAINTY AND UNCERTAINTY Sotirios Trigas and Konstantinos Liapis .....	41
INSTITUTIONALIZED AND CURRENT ENTRY STRATEGIES: A SYNTHESIS OF INSTITUTIONAL AND EVOLUTIONARY PERSPECTIVE Xanthippe Adamoglou, Constantinos Styliaras and Dimitrios Kyrkilis .....	42
TOOLS USED IN MODELING OF THE ECONOMIC PROCESSES Cristescu Marian Pompiliu .....	42
FINANCIAL INSTABILITY AND ECONOMIC GROWTH IN TRANSITION ECONOMIES Savvas Zachariadis .....	43
THE IMPACT OF GOOD GOVERNANCE ON SUSTAINABLE ECONOMIC DEVELOPMENT – CASE STUDY: YEMEN Abdulghani Abdullah Gaghman .....	43
REGIONAL DEVELOPMENT MODELS FOR THE BALKAN – THE EXAMPLE OF CATALONIA Eugen Rosca .....	44
DYNAMICS OF A COURNOT GAME WITH DIFFERENTIATED GOODS AND ASSYMETRIC COST FUNCTIONS BASED ON RELATIVE PROFIT MAXIMIZATION George Sarafopoulos and Kosmas Papadopoulos .....	45
ON A COURNOT DYNAMIC GAME WITH BOUNDED RATIONAL PLAYERS, CONVEX, LOG-LINEAR DEMAND AND CONSUMER SURPLUS. George Sarafopoulos and Kosmas Papadopoulos .....	45
THE IMPACT OF CORPORATE SOCIAL RESPONSIBILITY INITIATIVES ON RURAL COMMUNITY DEVELOPMENT: THE CASE OF TITAN – SHARRCEM IN KOSOVO Haziz Vila, Nikolaos Sklavounos, Evangelos Vergos, Konstantinos Rotsios and Hysen Shabanaj.....	46
MANAGERS' PERCEPTIONS ON TRUST AND KNOWLEDGE TRANSFER; EVIDENCE FROM GREEK ISAS IN SOUTH EAST EUROPE Nikolaos Sklavounos, Konstantinos Rotsios and Yannis Hajidimitriou .....	47
A LEGAL AND ADMINISTRATIVE EVALUATION OF ROBOTS, AUTONOMOUS VEHICLES AND INTELLIGENT SOFTWARE Kutan Koruyan and Bedirhan Bedir .....	47
CLOSING THE COMPETITIVENESS GAP: THE BALKAN COUNTRIES FRONT RUNNERS Andreea Paul and Anca Tamas .....	48
WAVELET ANALYSIS AND RECURRENT NEURAL NETWORKS APPLICATION TO AGRICULTURAL MARKET INVESTIGATION Olena Liashenko and Tetyana Kravets .....	49
MCMD APPROACH FOR ASSESSMENT OF FINANCIAL PERFORMANCE OF SERBIAN BANKS Ivana Marjanović and Zarko Popović.....	50
THE IMPACT OF INDIVIDUAL BEHAVIOURAL FACTORS ON TACIT KNOWLEDGE RETENTION: EMPIRICAL STUDY IN OIL AND GAS INDUSTRY Abdulghani Gaghman .....	50



WINE TRADE BETWEEN PORTUGAL AND BALKAN COUNTRIES: A GRAVITY MODEL APPROACH Sofia Gouveia, Anthony Macedo and João Rebelo .....	51
THE BALKANS AS A HIERARCHICAL MARKET ECONOMY Edgar Juan Saucedo Acosta, Doris Salinas and Jesús Diaz Pedroza .....	52
CHALLENGES OF TRANSITION FROM A COMPLIANCE-BASED LOGIC TO ONE BASED ON PROACTIVITY. THE CONTRIBUTION OF NEW TRADE BALANCES AT THE LEVEL OF ROMANIA GENERATING PROSPERITY Dumitru Miron and Ioana Coralia Zavera.....	53
READABILITY AND OPTIMISM IN OPERATIONAL RISK DISCLOSURES OF BANKS Mihaela Mocanu, Christos Grose, Theodore Kargidis.....	54
VOLATILITY FORECASTING WITH NEWS SENTIMENT AND MARKET LIQUIDITY FOR EUROPEAN BANKS Radu Lupu, Cantemir Calin and Iulia Lupu.....	55
THE IMPACT OF PUBLISHING FINANCIAL REPORTS ON BUCHAREST STOCK EXCHANGE LISTED COMPANIES Paul Bahnean and Ovidiu Constantin Bunget.....	56
INDIRECT AUDITING METHODS FOR INDIVIDUALS SUBJECT TO INCOME TAX Aggelos Zoitsas, Dimitrios Valsamidis, Theofilitsa Toptsi and Konstantina Tsoktouridou.....	56
WHY EASTERN EUROPEAN ECONOMIES HAVE FOUND THEMSELVES IN THE MIDDLE INCOME TRAP AND HOW TO OVERCOME IT Iurii Bazhal.....	57
ASSESSING ARTIFICIAL NEURAL NETWORKS (ANNS) ADEQUACY AGAINST ECONOMETRIC MODELS FOR DECISION MAKING APPROACHES IN BANKING INDUSTRY Sotirios Trigas and Konstantinos Liapis .....	58
TYPES OF MARKETS WITHIN THE HEALTHCARE SYSTEMS OF BALKAN AND EAST EUROPEAN COUNTRIES Dan Sava .....	59
THE INFLUENCE OF THE DIGITAL DIVIDE ON E- GOVERNMENT ADOPTION IN GREECE Elias Gounopoulos, Sotirios Kontogiannis, Ioannis Kazanidis, Stavros Valsamidis.....	60
E-GOVERNMENT, DIGITAL DIVIDE, E-PARTICIPATION, GREECEECONOMIC LINKAGES IN THE EU PERIPHERY Clara Volintiru, Ștefan George.....	60
NPL DETERMINANTS. THE CASE OF GREECE Paris Patsis, Liapis Konstantinos .....	61
EXAMINING THE SUITABILITY OF THE METHODS OF REGULATING NON-PERFORMING LOANS Paris Patsis, Liapis Konstantinos .....	61
EMPOWERING IT OPERATIONS THROUGH ARTIFICIAL INTELLIGENCE – A NEW BUSINESS PERSPECTIVE Logica Banica, Persefoni Polychronidou, Cristian Stefan, Alina Hagiu.....	62
REGIONAL INTEGRATION IN THE EU; EXPLAINING THE COMMUNITY METHOD AND THE OPEN METHOD OF COORDINATION Ilektra Simitsi .....	62
STUDYING THE RELATIONSHIP BETWEEN BURNOUT AND STUDENT LIFE George S. Androulakis, Dimitra Ap. Georgiou.....	63

AN EXAMINATION OF FACTORS AFFECTING CYNICISM AS A FACTORIAL ELEMENT OF STUDENTS' BURNOUT George S. Androulakis, Dimitra Ap. Georgiou.....	64
ITEM RESPONSE THEORY FOR THE MEASUREMENT OF STUDENTS' BURNOUT George S. Androulakis, Dimitra Ap. Georgiou, Ioannis Katsenos.....	64
TENDENCIES OF BUSINESS SERVICES TRADE IN VISEGRAD COUNTRIES Tatiana Corejova, Roman Chinoracky, Maria Rostasova.....	65
THE EFFECTS OF ADOPTION IFRS ON ACCOUNTING SYSTEM (CASE OIL COMPANIES IN IRAQ) Dhiaa Alzaawi, Ileana Nisulescu Ashrafzadeh.....	66
MEASURING STATES OF INEFFICIENCY AND DECOUPLING IN THE EUROPEAN UNION Edgar Juan Saucedo Acosta, Tania Muñoz Remos and Jesús Díaz Pedroza.....	66
THE ECONOMIC COSTS OF SMOKING IN GREECE Konstantina Koronaiou, Sophia Delipalla.....	67
NATIONAL REGULATION OF BANKRUPTIES: THE CASE OF RUSSIA Vladimir Plotnikov, Yulia Vertakova, Ion Anghel, Neli Muntean.....	67
EXAMINATION OF THE RELATIONSHIP BETWEEN CURRENT AND CAPITAL ACCOUNTS IN TURKEY Özcan Karahan, Olcay Colak.....	68
THE DRIVING FORCES OF BUSINESS R&D INTENSITY IN EASTERN EUROPEAN COUNTRIES Özcan Karahan, Olcay Colak.....	69
EUROPEAN LEGISLATION AND ALTERATIONS IN THE OPERATION OF CAPITAL COMPANIES Kalliopi Kalampouka, Dimitra Giannopoulou, Elektra Simitsi.....	69
PRODUCTIVE EMPLOYMENT AND WORKING CONDITIONS AS DETERMINANTS OF SUSTAINABLE ECONOMIC DEVELOPMENT IN SERBIA Milica Djokić, Milica Jovanović.....	70
THE LINK BETWEEN FINANCIAL CAPITAL MOVEMENTS AND EXCHANGE RATE IN TURKEY Özcan Karahan, Olcay Colak.....	71
TOURISM DESTINATION DEVELOPMENT, A SITUATION ANALYSIS OF A GREEK REGION Eirini Triarchi, Paraskevi Pappa, Efstratios Kyriotelis.....	72
RETAIL EVOLUTION IN EASTERN EUROPEAN COUNTRIES: AN OVERVIEW Alma Pentescu, Cosmin Pastiu.....	73
THE PUBLICLY DECLARED CUSTOMS UNION BETWEEN ALBANIA AND KOSOVO: AN EFFORT FOR FURTHER ECONOMIC INTEGRATION AND DEVELOPMENT OR A MEANS OF IRREDENTISM? Victoria Pistikou.....	73
DETERMINANTS OF UNIVERSITY EFFICIENCY FOCUSING ON ENTREPRENEURSHIP AND INNOVATION ACTIVITIES Özge Saygın Karagöz, Şenay Üçdoğruk Birecikli, İpek Deveci Kocakoç.....	74
THE EFFECTIVENESS OF SUBSIDIZED CROP INSURANCE IN SELECTED COUNTRIES IN EUROPE AND IN THE WORLD Krzysztof Lyskawa, Marietta Janowicz-Lomott, Pawel Rozumek.....	75
QUALITATIVE CRITERIA AND PERFORMANCE OF THE GLOBAL ECONOMY Efstratios Kyriotelis, Nikolaos Arnis, George Koliass.....	76
GREEK IT START UPS – AN ANALYSIS OF FOUNDER'S PERCEPTIONS Theocharis Stylianos Spyropoulos.....	77

CORRUPTION AND THE ENVIRONMENT IN CENTRAL EASTERN & SOUTHEASTERN EUROPE: AN EMPIRICAL ANALYSIS Maria Panteli.....	78
CEO DUALITY AND FIRM DISTRESS Georgios Kolias, Efstratios Kyriotelis, Nikolaos Arnis .....	78
DETECTING CREATIVE ACCOUNTING IN BUSINESSES IN FINANCIAL DISTRESS Nikolaos Arnis, Konstantinos Karamanis, Georgios Kolias.....	79
INSURTECH IN CEE REGION – WHERE ARE WE? Anna Chojan, Jacek Lisowski .....	80
IS THE TAX BURDEN A GENERATING FACTOR OF FISCAL EVASION IN SOUTH-EAST EUROPE? Loredana Andreea CRISTEA, Alina Daniela VODĂ, Bianca CIOCANEA and Mihaela LUCA .....	80
COMPETITIVENESS, PROFITABILITY AND R/D INTENSITY: THE CASE OF THE DOMESTIC PHARMACEUTICAL INDUSTRY IN GREECE Vasiliki Kounnou, Dimitris Kyrkilis.....	81
IMPLEMENTING THE SDGS: RECENT PROGRESS AND FUTURE OUTLOOK OF ROMANIA Nancy Diana Panța .....	82
TURKEY'S INDUSTRY 4.0 ADVENTURE: DREAM OR REALIZATION Vahap Tecim, Cigdem Tarhan .....	82
WHAT KIND OF LECTURES DO MODERN STUDENTS NEED? STUDYING THE NEEDS OF CONSUMERS OF EDUCATIONAL SERVICES IN EAST-EUROPEAN UNIVERSITIES Valery Okulich-Kazarin.....	83
MAIN DETERMINANTS OF FDI INFLOWS IN CEE EMERGING COUNTRIES: A COMPARATIVE ANALYSIS Anca Mihaela Copaciu, Ioana Alexandra Radu, Alexandra Horobet.....	84
A REVIEW OF RENEWABLE ENERGY PROFITABILITY, EXPOSURE TO RISK AND SUSTAINABILITY ISSUES Fatbardha Morina, Chrysanthi Balomenou, Ugur Ergun.....	85
DO FISCAL RULES CONSTRAIN FISCAL POLICY IN ROMANIA? Alina Daniela Vodă, Loredana Andreea Cristea, Bianca Ciocanea, Mihaela Luca.....	86
DIGITAL DIVIDE EVALUATION IN HIGH EDUCATION FROM DISTANCE LEARNING PERSPECTIVE Cigdem Tarhan, Can Aydin, Vahap Tecim.....	86
PUBLIC CORPORATE GOVERNANCE: UPCOMING CHANGES REGARDING THE IMPLEMENTATION OF INTERNATIONAL PUBLIC SECTOR ACCOUNTING STANDARDS (IPSAS) AND CORPORATE SOCIAL RESPONSIBILITY IN PUBLIC SECTOR Christos Galanos, Sotirios Trigkas, Fotini Pagalou, Konstantina Giarou .....	88
SUPRANATIONAL CLASS FORMATION AND CONCEPT OF CONTROL IN GLOBAL ECONOMY Efstratios Kyriotelis, Eirini Triarchi, Konstantinos Karamanis .....	88
CONTEMPORARY ASPECTS OF FINANCIAL - BANKING RESPONSIBILITY Bratu Renate .....	89
OPERATING ROOM MANAGEMENT AFTER THE ECONOMIC CRISIS IN ITALY: A CASE-STUDY Andrea Ubiali, Andrea Rochira, Matteo Buccioli, Stefano Bonarelli, Maurizia Rolli, Mario Cavalli, Anselmo Campagna.....	90
GREEK SPECIAL SECRETARIAT FOR THE MANAGEMENT OF PRIVATE DEBT: MEASURING THE RESULTS IN EPIRUS Paraskevi Pappa, Theofania Rizou, Eirini Triarchi .....	91

MEASURING GLOBAL POLITICAL ECONOMY	
Spyros Roukanas .....	91
DETERMINANTS OF SUBJECTIVE WELL-BEING: A REVIEW OF LITERATURE	
Arjona Cela, Chrysanthi Balomenou .....	92
LABOR MARKET DEVELOPMENTS IN THE ROMANIAN REGIONS AFTER THE ACCESSION TO THE EUROPEAN UNION: EMPLOYMENT, WAGES, STRUCTURAL SHIFTS	
Jordan Marioara, Chilian Mihaela Nona .....	93
ANALYSIS OF RESEARCH & DEVELOPMENT EXPENDITURES WITH INCOMES AND EXPENSES IN INFORMATION TECHNOLOGY SECTOR OF BORSA ISTANBUL	
Turker Susmus .....	94
THE DIMENSION, DIVERSITY AND COMPLEXITY OF THE MACROECONOMIC RISK	
Draghici Dalis Maria .....	94
AN EMPIRICAL ANALYSIS TO THE TRADE FLOWS OF THE EUROPEAN BALKAN COUNTRIES OVER THE PERIOD 2008-2018	
Ioannis Panteladis, Elisavet Doxaki, Christina Panteladi .....	95
THE ROLE OF INTERNATIONAL SCIENTIFIC COOPERATION IN DECLARING THE FĂGĂRAȘ MOUNTAINS AS A NATIONAL PARK	
Simona Spanu, Virgil Nicula .....	96
PARADIGM SHIFT TO THE EUROPEAN BUSINESS MODEL. EXTREME LIGHT INFRASTRUCTURE – NUCLEAR PHYSICS PROJECT STUDY CASE	
Dumitru Miron, Dragos Seuleanu .....	97
AN ANALYTICS APPROACH TO EU POLICY ANALYSIS	
Nikitas-Spiros Koutsoukis, Efstathios Fakiolas, Athanassios Katsis, Pyrros Papadimitriou .....	98
THE EU AS MULTIDISCIPLINARY EDUCATION PODIUM	
Nikitas-Spiros Koutsoukis, Efstathios Fakiolas, Athanassios Katsis, Pyrros Papadimitriou .....	98
SIBIU REGION, A GASTRONOMIC TOURISTIC DESTINATION IN 2019	
Virgil Nicula, Simona Spanu .....	99
A GOVERNANCE FRAMEWORK FOR CROSS BORDER RELATIONS: AN EMPIRICAL ANALYSIS OF THE EU AND TURKISH BORDER REGIONS	
Cigdem Varol, Emrah Soylemez .....	99
MIGRATION FLOWS IN GREECE. THE DEVELOPMENTS AT ECONOMIC, SOCIAL AND POLITICAL LEVEL	
Angelos Michail Michalopoulos, Maria Papoutsis, Koutsaftakis Kyriakos .....	100
ADOPTION OF SUSTAINABLE ACCOUNTING PRACTICES AMONG CROATIAN SME'S	
Gordana Nikolic, Valentina Vitenberg, Bisera Karanovic .....	101
BUILDING RESILIENCE THROUGH CROSS-BORDER COOPERATION BETWEEN ROMANIA, MOLDOVA & UKRAINE. A COMPARATIVE ANALYSIS BETWEEN EUROREGIONS «UPPER PRUT» AND «LOWER DANUBE».	
Anatolie Carbune .....	101
HOUSING CONSTRUCTION AS A LEADING ECONOMIC INDICATOR	
Olga Bormpotsialou, Antonios Rovolis .....	102
CORPORATE SOCIAL RESPONSIBILITY AND COMMUNITY ISSUES	
Rodica Milena Zaharia .....	102
ECONOMIC GROWTH AND FOREIGN DIRECT INVESTMENT – SOME CONSIDERATIONS FOR THE BALKAN AND EASTERN EUROPEAN COUNTRIES	
Mihaela Covrig, Maria Andres .....	103

STOCHASTIC SOCIO-ECONOMIC EX-ANTE EVALUATION OF ROAD TRANSPORT INFRASTRUCTURE PROJECTS Dimitrios D. Kantianis.....	103
ASSESSING CONSUMER PERCEPTIONS TOWARDS LOCAL FOODS AND THEIR SIGNIFICANCE FOR TOURISM DESTINATIONS: THE CASE OF GREEK LOCAL FOODS Apostolos Goulas, Christos Karelakis, George Theodossiou .....	104
GOVERNANCE REFORM AND EMPLOYMENT POLICY PERFORMANCE IN GREECE: LEARNING AN ELEPHANT TO FLY? Sifis Plimakis, George Karachalios, Victoria Pistikou.....	105
ROMANIAN-MOLDAVIAN CROSS-BORDER COOPERATION. A SOLUTION FOR A BETTER FUTURE Lia Alexandra Baltador.....	106
FORECASTING THE NET OCCUPANCY RATE IN CROATIAN HOTEL INDUSTRY USING NEURAL NETWORKS Tea Baldigara, Raffaella Folgieri, Goran Karanović .....	106
A CORE-PERIPHERY ANALYSIS OF ANKARA AS TO SOCIO-ECONOMIC CHARACTERISTICS Cigdem Varol, N. Aydan Sat.....	107
THE PERCEPTION OF RISK MANAGEMENT AMONG HOTEL MANAGERS: EVIDENCE FROM CROATIA Goran Karanović, Ana Stambuk, Bisera Karanovic.....	108
THE INTERACTION OF LEAN MANUFACTURING - INDUSTRY 4.0 AND A SECTORAL ANALYSIS Ceyda Unal, Huseyin Tuna, Cihan Cilgin, Yilmaz Goksen .....	108
MEASURING TOURISM SEASONALITY ACROSS EUROPEAN COUNTRIES Marina Laškarin Ažić, Natali Suštar.....	109
STUDY ON INSTITUTIONAL RESILIENCE AT THE EU'S EASTERN BORDER Ramona Tiganasu, Gabriela Pascariu, Cristian Incaltarau, Loredana Simionov .....	110
LOCAL DEVELOPMENT AND ENVIRONMENTAL POLICIES: THE CASE OF ADDED VALUE OF CONSTRUCTED WETLANDS FOR WASTEWATER TREATMENT Ioannis Tsoukalidis, Antonios Kostas, Anastasios Karasavoglou.....	111
AN ALTMAN Z-SCORE BASED ANALYSIS FOR BANKRUPTCY FORECAST IN A GREEK GAMBLING COMPANY Anna Xaritidou, Eirini Iosifidou, Kosmas Kosmidis .....	112
THE USAGE OF CREATIVE ACCOUNTING IN BREACHING CORPORATE GOVERNANCE RULES: A CASE STUDY OF A GREEK LISTED FIRM Michail Angelos Michalopoulos, Prodromos Yannas, Nicos Sykianakis .....	112
SWISS NEUTRALITY – FACTOR OF PROSPERITY AND ECONOMIC WELFARE Anca Gabriela Ilie, Dan Dumitriu, Roxana Sarbu .....	113
MULTI-SPEED EUROPE? AN ANALYSIS OF THE REAL CONVERGENCE WITHIN THE EUROPEAN UNION Dumitru Miron, Ana-Maria Holobiuc.....	114
ASSESSING ATTITUDES TOWARDS THE REFORMED CAP: A FARMER'S PERSPECTIVE IN A REMOTE EUROPEAN REGION Christos Karelakis, Olga Vachanelidou, George Theodossiou, Konstantinos Galanopoulos.....	114
EXAMINING THE ECONOMIC STRUCTURE AND SECTORAL INTERRELATIONS OF THE EURASIAN ECONOMIC UNION COUNTRIES EMPLOYING INPUT-OUTPUT MODELING Tatevik Mkrtchyan, Efstratios Loizou, Kostadinos Mattas.....	115
OVERTIME IN THE PRIVATE SECTOR IN TURKEY: AN ANALYZE BY QUANTILE REGRESSION MODEL Mustafa Ünlü, Şenay Üçdoğruk Birecikli .....	116

VOLATILITY TRANSMISSION AMONG CDS, EQUITY AND OIL MARKETS: EVIDENCE FROM TURKEY Mehmet Ozan Özdemir, Hamdi Emeç .....	117
EXPLORING DECISION RULES FOR ELECTION RESULTS BY CLASSIFICATION TREES Ipek Deveci Kocakoç, İstem Keser .....	117
A MODEL TO SIMULATE THE CONVERGENCE PROCESS IN EU AND IN BALKANS REGION BASED ON EMPIRICAL EVIDENCES Lucian-Liviu Albu.....	118
EMPLOYMENT AND SKILL MISMATCH IN POST-COMMUNIST ECONOMIES Jelena Stankovic, Marija Dzunic and Marko Petkovic .....	119
MOTIVES AND CHARACTERISTICS OF HIGHLY QUALIFIED LABOR FORCE MIGRATION Miloš Todorović and Aleksandar Đorđević .....	119
THE ECONOMIC INTEGRATION MATURITY OF ROMANIA AND BULGARIA Oleg Tankovszki and Viktória Endrődi-Kovács.....	120
EMOTIONAL BRANDING - IDENTIFYING THE DIFFERENCE BETWEEN NIKE AND ADIDAS Alexandra Kammerer, B.A., Dr. Christian Ploder, Thomas Dilger .....	121
AN APPROACH FOR THE EFFECT OF THE NEGATIVE RATES ON INSURANCE COMPANIES PROFITABILITY UNDER THE REGIME OF SOLVENCY II Evaggelia Siopi.....	121
VIABILITY AND PROSPECTS OF P.G.I. APPLE FARMING IN A GREEK RURAL REGION Katerina Melfou, Fotios Chatzitheodoridis and Eleni Oxouzi .....	122
THE WINE LAB GENERATING INNOVATION BETWEEN PRACTICE AND RESEARCH EXPLORING THE STUDENT'S VIEW Spyridon Mamalis, Alessio Cavicchi, Gigliola Paviotti, Irene Kamenidou, Elissavet Bouloumpasi, Stayros Pavlides .....	123



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## VISEGRAD FORUM: A TOOL FOR THE ENHANCEMENT OF RAILWAY DEVELOPMENT INTERESTS

Bálint Tóth

*Corvinus University of Budapest, Hungary, btoth.ir@gmail.com*

### ABSTRACT

On account of their central geographical position between Eastern and Western Europe, the Visegrad States (the Czech Republic, Hungary, the Republic of Poland and the Slovak Republic) have numerous geopolitical, strategic, economic, social and historical features in common that provide these governments a solid platform for a joint transport planning. Visegrad Countries tend to harmonize their positions on international railway policies whenever their interests coincide. The specialized bodies of the European Union may be used as negotiating forums whenever challenges concerning international rail traffic emerge and despite being represented in a number of specialized international railway organizations, the governments of V4 Countries have always kept railway-related topics on the table during their quadripartite summits too. Since the regime changes, the coordinated improvement of transport axes has contributed to the economic performance of the V4 States. Given their dependence on foreign trade partners the V4 Countries are in constant need of upgraded and reliable freight transport corridors, while these four states have also realized that the improvement of rail linkages stimulates economic development by boosting business relations and tourism between the states concerned. On the other hand, the European rail freight corridors interlinked with intermodal terminals mitigate road congestions and contribute to an environmentally sustainable modal-split. As a result, since the beginning of the 1990's the Visegrad Countries have become integral parts of European priority transport axes and the coordinated improvement of these routes on the basis of holistic and integrated development concepts amid appropriate technical, eco-sustainable solutions have contributed to the attractiveness of V4 rail infrastructures providing cost-effective transport solutions. Therefore Budapest, Bratislava, Prague and Warsaw decided to help each other adopt international rail traffic standards and legislation. The Visegrad Cooperation provides an optimal forum to agree upon joint lobbying positions prior to the voting on proposed railway regulations in international organizations. V4 meetings also serve as forums to exchange best practices and know-how in relation to the construction of rail corridors, the modernization of old lines or the deployment of the national rail infrastructures with standardized interoperable traffic control systems. Consequently, the Visegrad Forum may be seen also as a tool for the endorsement of railway diplomacy interests complementing the endeavors of these states in other specialized international organizations. Through research and analysis of official memoranda of understanding, presidency programs, minutes of expert meetings, panel discussions, EU documents and statistical data, this paper seeks to find the answers on how and to what extent the Visegrad Cooperation – as a weakly institutionalized regional intergovernmental negotiating platform – can be useful for the endorsement of interests in railway diplomacy. This study shall contribute also to the better understanding of the Visegrad Four's real-life functioning, the operation of the European Union's mobility policies and structural funds, as well as the transportation needs of a region that is located in the crossroads of



east-west and north-south corridors. At last but not least, this paper is intended to shed a light upon the important role of transportation planning in the support of economic development too.

**KEYWORDS**

Visegrad Group, Central East Europe, Intergovernmental transport planning, Railway development, Railway diplomacy

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**POLITICAL RISK ON THE BELT AND ROAD**

David Morris

*Corvinus University of Budapest, Hungary, david@davidmorrisprojects.com*

**ABSTRACT**

China's plan to fund and build new infrastructure and connectivity across the developing world inevitably raises questions about purpose and risks, including for Central and Eastern Europe. The Belt and Road Initiative is not only a product of China's emerging leadership in the next phase of economic globalisation and part of Xi Jinping's grand narrative about China's future. It is by its very nature a geopolitical exercise that will enhance China's role in global economic governance, involves a vast array of states that will respond over time in different ways to the rise of China and will involve a multitude of firms in a diverse range of governance and business environments. At each level there are risks to be managed. For China, the initiative represents in itself a giant risk mitigation strategy to avoid negative impacts from its economic restructuring away from investment towards a higher value consumption economy, providing opportunities for China's giant construction and logistics firms in global markets and aiding the development of Western China by building new connectivity for trade and investment. It is also a diversification strategy, to build supply chains from a wider range of sources than those on which China currently relies and to grow and build logistical links to new markets for Chinese exports. As a constitutionally-entrenched program, the reputational risks for China of its failure or perceived failure to achieve its objectives should not be underestimated. Further, the political risks for partners can be broken down into (a) geopolitical risks; (b) country risks; and (c) firm-level risks. Across each of these risk areas are scenarios for specific projects ranging from low risk and high transactional benefit to high risk and low transactional benefit. At any point on the spectrum there will be risks to be identified and managed. The grandest generalizations are likely to be drawn at the geopolitical level. Depending on ideological predisposition, the initiative represents on one extreme a huge contribution to the public good that could be contrasted with the colonialism and plunder of former rising powers or, on another extreme, a strategic play to trap the developing world into debt domination by Chinese state and business interests. Where a project has a strong business case and the long-term objectives of China and partner country are aligned, geopolitical risks will be mitigated. On the other hand, where a project has an inadequate business case and driven by short-term political vanity despite lack of repayment capacity in the case of the partner country or overbearing influence from China, geopolitical risks are high. For each project, there will also be country level risks and with many challenging environments for major infrastructure investment along the Belt and Road, these include poor local governance and operating environments, security, inadequate infrastructure and labour supply. At the firm-level, risks include a lack of experience in international or country-specific environments, inability to manage cross-cultural communications and to involve

sufficient local ownership and leadership, resulting in misalignment between the project with stakeholder objectives.

**KEYWORDS**

China – CEE, Belt and Road Initiative, political risk

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**SENTIMENT ANALYSIS: RELATIONSHIP BETWEEN CUSTOMER SENTIMENT AND ONLINE CUSTOMER RATINGS FOR PRICE COMPARISON SHOPPING ENGINES BETWEEN CASUAL/ ATHLETIC CLOTHING AND TECHNOLOGY INDUSTRY; AN EMPIRICAL STUDY**

Iason Papafotikas, Dimitrios Folinias  
*The Open University, Greece, iapapaf@yahoo.gr*  
*The Open University, Greece, Dfolinas@gmail.com*

**ABSTRACT**

Sentiment analysis, in other words opinion mining, is aiming on analyzing people's sentiments, opinions, emotions, attitudes etc. Customer sentiment refers to the emotions expressed by customers through their text reviews. These sentiments can be positive, negative or neutral. This study will explore customer sentiments and express them in terms of customer sentiment polarity. In the current days, Greece is facing one of the worst economic crisis in its history, so price comparison engine usage is more than needed, especially for the most competitive and pricy goods, such as athletic footwear and technology ones. In such circumstances, companies have to find more efficient ways to get the absolutely necessary information from their targeted audience by overcoming the problems that a researcher can face with the usage of an ordinary questionnaire, because the customer has written his own point of view, using his own words without being guided by a questionnaire or an interview. This study tries to identify this crucial information and help the contemporary e-shop to improve its ecommerce services and gain more income with less advertising, cpc campaigns etc. Hence, in this case we gathered from «Skroutz» one of the most renowned PCE in Greece and extracted the sentiment from these core industries target groups, based on the users'/buyers' comments and their rating. We used WEKA for classifying the text and extracting knowledge.

**KEYWORDS**

Sentiment analysis, e-commerce, online customers, price comparison engine (PCE), machine learning, customer polarity, skroutz, Data Mining

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**ENTREPRENEURSHIP IN GREECE**

Athanasios Vasilopoulos and Christos Tsitsakis  
*Technological Educational Institute of Sterea Ellada, Greece, vasilopoulosthanos@gmail.com*  
*Technological Educational Institute of Sterea Ellada, Greece, tsitsakis@teiste.gr*

**ABSTRACT**

Back in 2008, when the global economic crisis started, Greek companies and generally the corporate sector faced numerous difficulties. A lot of businesses closed, and the unemployment

rate was significantly raised. The aim of the following paper is attempting to study the current situation of entrepreneurship in Greece, to find the problems that arised from crisis and to acknowledge any future chance of positive development. We collected data, with the conduction of two surveys. The first one, is answered by entrepreneurs (Self-Owners and Start-Up companies), in order to investigate which, were the problems that entrepreneurs are current facing and to understand the environment and development, as in terms of trend for creation of new businesses. In the second survey we investigated the general reaction of public opinion, for the current economic crisis as well as why non-entrepreneurs are afraid to make their own business. The results have indicated that the entrepreneurs who answered our survey are facing a lot of problems in extroversion, due to the high taxation and the general market crisis. Also, only half of them had any advisory support in the beginning of their business. Similarly, their answers showed that it is more possible for them to close their business soon, as they are more pessimistic for a better conditions and environment in entrepreneurship, in the near future. In the other hand the results for the non-entrepreneurs, who answered our second survey, showed that a lot of them were in favor of making a company but they hesitate because of the taxation system, the bureaucracy and the luck of knowledge in business sector. The key to make entrepreneurship in Greece approachable, is to rebuild the tax system and make it more sustainable for the businesses. Similarly, it is important to have financing support through private and public initiatives and help new innovative businesses and startups begin operations. Lastly, Greek Government must make a new proactive environment to protect all low and middle range businesses from terminating their operation.

**KEYWORDS**

Entrepreneurship, Greece, Crisis, Economy

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**THE DIGITALIZATION OF THE ORGANIZATION**

Stavros Valsamidis, Ioannis Petasakis, Fotini Perdiki and Vasilios Ferelis

*TEI of Eastern Macedonia and Thrace, Greece, svalsam@teikav.edu.gr*

*TEI of Eastern Macedonia and Thrace, Greece, jpetasakis@hotmail.com*

*TEI of Eastern Macedonia and Thrace, Greece, fperdiki@teikav.edu.gr*

*TEI of Eastern Macedonia and Thrace, Greece, ferel@teiemt.gr*

**ABSTRACT**

While digitization is creating a digital version of analogue and physical things, digitalization means the use of digital technologies and of data in order to create revenue, improve business, transform business processes and create an environment for digital business, whereby digital information is at the core. Nowadays, digital technology proliferate contemporary organization and the relationship between organization and 'the digital' continues to be of particular interest to many researchers. This reflects the significant relationship between organization and digital technology that has developed over the last decades. On one hand, digital technology is now part of organization in ways that would have been difficult to imagine even a few years ago. A variety of portable and personalised digital devices offer unprecedented access to information and communications to unlimited number of users. On the other hand, digitalization creates excessive dependency with possible problems. The main obstacles for organization digitalization are the organizational resistance to change, the lack of a clear digital customer value proposition, the ineffective gathering and leveraging of customer data, the inflexible tech-

nology stack and development processes and the engagement to legacy business models. The aim of the study is to deepen our knowledge and understanding of the digitalization theme. More precisely, our intent is to provide the reader with an overview of the phenomenon and offer the insights whether factors, such as Customer Experience, Improvement of operations and Reinvention of business models can determine the digitalization of an organization. The objectives of the study are the evaluation of the digitalization through techniques such as factor analysis, correlation and regression analysis, in order to discover possible dependencies of the data based on these factors and some demographics data. We posed the following hypotheses: (1) the Customer Experience leads to the digitalization of the organization, (2) Improvement of operations contributes to the digitalization of the organization, and (3) Reinvention of business models plays an important role in the digitalization of the organization. These hypotheses correspond to three factors. A questionnaire that consists of 20 questions was completed by 300 respondents of organizations in Kavala. In the questionnaire, we chose closed questions for quick completing and data processing. Moreover, the questions are multiple choice ones, where it is possible to choose among several predefined answers and most of them are questions of scale or preference, where the degree of preference of the respondent is stated. We applied the factor analysis with the method of principal components and with varimax rotation. We investigate the relationship among a number of items and group them in factors. Thus, the four factors, based on 20 questions of our questionnaire, are used for factor analysis. Before we proceed, we check the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) value to be suitable for factor analysis. Chi-square value for Bartlett's test of sphericity is also checked, in order to continue the process of factor analysis. For the factor analysis and descriptive statistics, correlations and reliability validation, the statistical package SPSS 22 is used.

#### KEYWORDS

Digital technology, Digitalization, Factor analysis, Correlation, Regression

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### DATA DEVELOPMENT ANALYSIS (DEA): AN APPLICATION OF DEA REGARDING GREEK TERTIARY EDUCATION

Efthymios Mavris, Sofia Anastasiadou, Giannoula Florou,  
Efthymios Balkanos and Lazaros Anastasiadis

*Department of Nursery Education, University of Western Macedonia, Greece, mavris.eu@gmail.com*  
*Department of Nursery Education, University of Western Macedonia, Greece, sanastasiadou@uowm.gr*  
*Department of Accountancy, Eastern Macedonia and Thrace Institute of Technology, Greece, gflorou@teikav.edu.gr*

*Department of Educational and Social Policy, University of Macedonia, Greece, evalkan@uom.edu.gr*  
*University of Crete, Greece, sofia.d.anastasiadou@gmail.com*

#### ABSTRACT

Productivity and Efficiency are two terms that are being used a lot in the ever changing ever challenging economic environment in the world. While corporate mentality drives the private sector to increase the outcomes of its production the public sector needs to find ways to stay relevant to this challenge. Education is one of the most sensitive sectors in every country and it affects many different areas, that's why it has become more and more popular to look for ways to increase its effectiveness. In this paper we will describe how Data Envelopment Analysis can

be used as a method to identify efficiencies in Greek Tertiary Education and what actions could be taken to improve it. In this study the history, the methodology, the mathematical modeling is described and also a review on relative works of the research community in regard to DEA and education is provided. A simple mathematical example is provided and also an application of DEA to fifteen Greek Technical Education Institutions. According to the findings five Technological Institutes, T.E.I. of Piraeus, T.E.I. of Mesologgi, T.E.I. of Larisa, T.E.I. of Serres and T.E.I. of Kavala have improved the efficiency and reached 100% efficiency scores. On the contrary T.E.I. of Chalkida and T.E.I. of Western Macedonia have lower efficiency scores than the score they have achieved in 2011. DEA can help the non-efficient DMUs to identify strategies that could help them improve their efficiency. According DEA, T.E.I. of Western Macedonia could improve its efficiency with a mixture of strategies adopted by T.E.I. of Larisa, T.E.I. of Serres, T.E.I. of Kalamata and T.E.I. of Lamia. While T.E.I. of Chalkida could adopt strategies from T.E.I. of Crete, T.E.I. of Kavala, T.E.I. of Lamia and T.E.I. of Ionian Islands. Its important to see that during the economic crises some tertiary education institutions managed to improve their efficiencies. An important factor here that we should mention is that there has been certain merges for T.E.I.'s in Greece and that might have been one of the factors that we see different efficient scores.

**KEYWORDS**

Efficiency, Data, Envelopment, Analysis, Education, Decision – Making, Unit

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**FROM GLOBALIZATION TO PLANETIZATION – IS THE TIME OF COLONIZATION OF THE SOLAR SYSTEM APPROACHING?**

Pavel Stoynov

*Sofia University, Bulgaria, pavel\_todorov\_stoynov@yahoo.com*

**ABSTRACT**

It can be said that today humanity already achieved, at least in general, the globalization of the society. Now, the main concern for the society is whether it will succeed to jump to other planets before the Earth resources become completely consumed. The technologies now are developing rapidly but still the level allowing colonization of other planets is not achieved. Economies could assure fast development of the advanced technologies. Another important issues are the regional struggles between multi-polar political powers which spends resources for unnecessary political competition. Solving economic, technological and political issues are key for speed-up of preparation for colonizing the near planets.

**KEYWORDS**

Globalization, planetization, technologies, political powers, economy

## A FRAMEWORK FOR INFORMATION MINING FROM AUDIT DATA

Aikaterini Ioannou, Dimitrios Bourlis, Stavros Valsamidis and Athanasios Mandilas

*TEI EMT, Greece, gikomo92@gmail.com*

*Mercendez-Benz, Greece, bourlisdimitris@gmail.com*

*TEI EMT, Greece, svalsam@teikav.edu.gr*

*TEI EMT, Greece, smand@teiemt.gr*

### ABSTRACT

Nowadays, the risen operating of autonomous and automated Accounting (Audit) Information System, enterprises are increasingly faced with the growing size of accounting-relevant big data. Therefore, the audit's purpose, which is namely to examine the true and fair view of financial statements, is heavily increasing in complexity. On the other hand, the prevalence of the Big Data paradigm has manifold impacts on the accounting-relevant processes. To cover the requirements to Audit Information System in Big Data Computing Environments, we strive for the development of a framework for information mining from audit data. Auditing is an automatic method used to perform auditing activities, such as control and risk assessments, on a frequent basis. Technology plays a key role in audit activities by helping to automate the identification of exceptions or anomalies, analyze patterns within the digits of key numeric fields, review trends, and test controls, among other activities. Most financial and auditing executives are aware of controls monitoring and auditing of the general benefits of such programs. Yet, relatively few organizations have realized their full potential, particularly at the organization-wide level. The reason for this is twofold: first, executives have not seen a clear, strong business case for establishing either monitoring or auditing in their organizations; second, they lack a clear picture of how monitoring or auditing would be implemented in their organizations. As global organizations aim to address the rapidly evolving and often complex risk environment and meet ever-changing regulatory, business, and industry requirements, leaders are searching for innovative ways to efficiently meet organization objectives. This study, prepared for audit, accounting, financial, and risk management executives, can guide in these considerations. In this paper we report on the framework we have developed in the department of Accounting and Finance. Our study identifies the management of audit alarms and the prevention of the alarm floods as critical tasks in this implementation process. We develop an approach to solving these problems utilizing the data mining techniques. Since, the implementation of auditing is a recognized challenge among researchers and practitioners, and traditional audit tools and techniques neglect the potential of Big Data Analytics, we strive for the development of an appropriate audit framework based on data mining tools and techniques. We analyze established audit data from a well known data repository considering the dimensions of the Big Data paradigm in this paper. This led us to a first proposal of a conceptual architecture for an integrated audit approach.

### KEYWORDS

Framework, Big Data, Audit, Data mining techniques

## **DEVELOPMENT OF A FINANCIAL MODEL IN A BUSINESS: THE CASE OF PLASTIKA KRITIS S.A.**

Alexander Jaki, Charalambos Aitsidis, Fotios Panagiotopoulos  
and Dimitrios Maditinos

*TEI EMT (EMaTTech), Greece, aljaki@teiemt.gr*

*TEI EMT (EMaTTech), Greece, aitsidis@teiemt.gr*

*TEI EMT (EMaTTech), Greece, fpanag@teiemt.gr*

*TEI EMT (EMaTTech), Greece, dmadi@teiemt.gr*

### **ABSTRACT**

The purpose of this study is to analyze and explore thoroughly the economic situation of one of the leading European producers of masterbatches and agricultural films, hereafter (PK SA) and to propose various ways of development and expansion. In this paper, the operational analysis tools (PEST, SWOT and Porter) were used to analyze the company's external and internal environment. Next, a financial analysis based on the financial data of PK SA was carried out. Moreover, a financial model for the years 2012-2016 has been constructed in Excel so that by using possible future scenarios to forecast the financial future of the company for the next five years 2017-2021. In generating the scenarios, we mainly took into consideration the data that emerged from the historical figures of the company's annual financial reports, the current economic situation in the country and the countries in which it operates and the corresponding political stability. The model used the analysis of the company's financial data and was valued by using the net present value based on the weighted average cost of capital. The results obtained from the implementation of the various scenarios were recorded and compared with each other. The conclusions show that the company has a great potential to increase sales and profits, exploiting its potential and, above all, its extroversion, can achieve further growth over the next five years.

### **KEYWORDS**

PEST, SWOT, Porter, Financial model, Financial analysis, WACC

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## **CRISES CONSEQUENCES ON THE STRUCTURE OF THE GREEK BANKING SYSTEM**

Symeon Karafolas

*Western Macedonia University of Applied Sciences, Greece, skarafolas@yahoo.gr*

### **ABSTRACT**

Greek banking market had an important growth after Greece's adhesion to the Eurozone. It reflected to the growth of banks, banking network and employees' growth. Crisis of the Greek economy and in particular the consequences of the austerity program Greece followed had serious consequences on the Greek banking market. These consequences appear through the dramatic growth on non-performing loans, the reduction of banks operating in Greece due to mergers and acquisitions, banking bankrupts and withdraw of foreign banks. As a consequence, Greece has the most concentrate banking market in the Eurozone. The decline of the number of banks operating in Greece provoked the reduction of the banking branches and banking employees. Nevertheless some aggregates seem to benefit the remaining banks in

Greece. The ratio of deposits per branch and employee and in particular the ratios of loans per branch and employee have a positive evolution increasing the productivity of the banks.

**KEYWORDS**

Banking system, Economic crisis, Acquisitions, Mergers, Greece

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**EXAMINATION OF THE LIQUIDITY, PROFITABILITY AND INDEBTNESS  
RELATIONS FOR POLISH COMPANIES WITH NEURAL NETWORKS**

Katerina Lyroudi and Thomas Chatzigagios

*Hellenic Open University and University of Macedonia, Greece, lyrkat@gmail.com*

*University of Macedonia, Greece, chatzig@uom.gr*

**ABSTRACT**

This study tries to investigate the relations of liquidity, indebtness and profitability for non financial listed companies in the Warsaw Stock Exchange by applying neural network analysis. Poland is a developing and transition economy as well as a member of the European Union and there have been other studies examining the above relations using parametric techniques. Therefore, it is intriguing and will lead to further insights, the investigation of these relations by a non parametric method such as the neural networks and compare the results. After we present the legal environment of the Polish stock market (the Warsaw stock exchange), our objective is to investigate the relationship of liquidity, as measured by the selected indicators, with the company's profitability, as measured by the known profitability ratios; and with the firm's indebtness, as measured by the debt ratio. It is important for the financial managers to know that by improving their company's profitability, the liquidity is also affected, or that by managing their company's liquidity efficiently, they can improve the firm's profitability. Similarly, a relationship between liquidity and indebtness will also be investigated, since high liquidity reduces the firm's default and bankruptcy risk. For the examination of the testable hypotheses we use the non parametric statistical method called neural network analysis. A neural network is an information processing system that is functioning in a similar way to biological nervous systems when it processes the information given to it. Specifically it processes data mimicking certain processes of the human brain and has the ability to learn from its mistakes. For the nonlinear modelling of the relationship between variable  $x$  (input) and variable  $y$  (output). The neural network analysis can identify patterns in data as it is exposed to it. Our results showed that the cash conversion cycle was positively related to the return on assets ratio but had a changeable relation with the return on equity, the net profit margin and the gross profit ratio. The current and the quick ratios were positively related to the return on assets and the return on equity ratios, supporting our hypothesis. Regarding the relation of liquidity with the indebtness of the company we found that the cash conversion cycle was positively and negatively related to the debt ratio, in other words had a changeable relation, while the current and the quick ratios were negatively related to the debt ratio, supporting our hypothesis. Our results compared to the relative literature indicated that the selected methodology (parametric vs non-parametric) did not give any different results regarding the examined relations. Actually, they complemented each other clarifying the ambiguity of some results on the relations we obtain between the selected variables.

**KEYWORDS**

Liquidity, indebtness, profitability, neural networks



## **ART MARKET CHARACTERISTICS**

Corina Dimitriu Dimitriu and Geo Hurduzeu Hurduzeu  
*Academy of Economic Studies, Romania, corina.dimitriu@gmail.com*  
*Academy of Economic Studies, Romania, gheorghe.hurduzeu@rei.ase.ro*

### **ABSTRACT**

The art market has been seen always as an area of excellence, where only the elected people can understand the mysteries of the specific of the arts. This paper intends to present the specific of the art markets from the economic perspectives, the factors which affect the demand and supply, and the current trends in this specific economy. All industries have been affected by the technology, and the art market was not left aside. Access to information is much easier in our days, people are can be more educated than previous generations. This is one of the factors that influences this market.

### **KEYWORDS**

Art market, art investment, productivity lag

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## **FOREIGN DIRECT INVESTMENT AND CONSUMER FINANCE COMPANIES: WHAT ARE THE DETERMINANTS?**

Consuela – Elena Popescu  
*Bucharest University of Economic Studies, Romania, popescu.consuela@gmail.com*

### **ABSTRACT**

In the context of the globalization of the financial sector, notably of the non-banking sector within the European Union member states of the last decades, the assets of the non-bank sector have increased in the last years considerably. Taking into account that the regulatory requirements for consumer finance companies are more permissive than for banking financial institutions and that the financials of the sector are not available for almost half of the sector this paper tries to explain the main determinants of foreign direct investments in consumer finance companies for a panel of European Union member states over the period 2006-2013. My approach is using the panel methodology but implementing and testing different panel specifications in order to choose the model that will better explain FDI. Findings show that the percentage of people with internet connection, the quality of the regulatory environment and the unit labour costs are the major determinants of foreign investments in consumer finance companies.

### **KEYWORDS**

Consumer finance companies, foreign direct investment, non-bank financial sector, multinationals, panel data

## **BUSINESS RESURGENCE AND JOB GROWTH IN GREECE: RECOVERING THE CRISIS?**

Maria Tsampra and Reveka Gkerats  
*University of Patras, Greece, mtsampra@upatras.gr*  
*University of Patras, Greece, rebgerats@yahoo.com*

### **ABSTRACT**

Following the increasing rates of joblessness of the first five post-crisis years, positive trends of job growth have been recently recorded in reports signifying the recovery of the EU economy. Yet, employment resurgence tendency differs across member-states, i.e. reaching pre-crisis and even higher levels in some countries, or lagging behind in others. The latter are those mostly hit by the downturn and still struggling to recover, but are experiencing the fastest falls in unemployment rates since 2014 (with the highest score in Greece). However, this evidence is not enough to suggest labour-market upturn. Even on a wider scale, according to Eurofound report on Occupational Change (2017), the recent post-crisis employment growth in Europe has been mainly consumption-driven, with 70% of jobs in services and mostly in the lowest-waged end, coinciding with expanding highly flexible and precarious employment forms. Moreover, as research has pointed out since the early 1990s, jobless recovery to crises has been a major aspect of the labour market as a result of technology-induced structural changes. On the ground of recent employment resurgence in Greece, this paper seeks to explore the factors enhancing or inhibiting job growth in the country's business sector. The latter has traditionally consisted by micro-enterprises (of less than 10 employees), still contributing 97.3% to (non financial) entrepreneurship and 57.1% to persons employed in 2017. Primary data were retrieved through fieldwork conducted in 2017 with the use of structured questionnaires. Responses provided information on the profile of micro-entrepreneurs (age, gender, educational qualifications and professional skills, etc.), as well as on the features of micro-businesses (corporate form, period of establishment, economic activity and level of specialisation, ICT-use propensity, employing personnel or not, etc). The performed econometric analysis assessed the effect of different sets of variables on the likelihood of micro-enterprises to have employees, or not. The results indicate the indisputable influence of business features on employment contribution, unlike the limited impact of entrepreneurs' attributes. The likelihood of employment is higher for firms in consumer-oriented sectors of low-specialisation (restaurants, cafés, small-scale commerce) and also for firms established prior to the crisis. The findings depict important changes in the Greek business sector during recession, mainly reflected on adjustments towards employment. The elaborated conclusions and discussion can be useful for policymakers and stakeholders to plan and act for job growth.

### **KEYWORDS**

EU Crisis, jobless growth, micro - entrepreneurship, employment recovery

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## OIL PRICE AND FINANCIAL SECTOR IN EASTERN EUROPE: A PANEL DATA INVESTIGATION

Alexandra Horobet and Georgiana Vrinceanu

*The Bucharest University of Economic Studies, Romania, alexandra.horobet@rei.ase.ro*

*The Bucharest University of Economic Studies, Romania, georgiana.vrinceanu\_2013@yahoo.com*

### ABSTRACT

Our paper investigates the exposure to oil price fluctuations of financial companies listed on stock exchanges from 8 Eastern European countries: Romania, Bulgaria, Hungary, Poland, Czech Republic, Slovakia, Slovenia and Croatia. Using monthly datasets covering the period from January 2010 to December 2017, we examine the relationship between stock prices of these financial companies, oil prices and other macroeconomic variables, such as local stock indices (BET for Romania, BSE SOFIX for Bulgaria, FTSE for Hungary and Czech Republic, WIG Poland, SAX for Slovakia, Blue-Chip SBITOP for Slovenia and CROBEX for Croatia), a European stock index designed to measure the performance of companies from this region (FTSE Europe), an indicator of a country's international competitiveness in terms of the foreign exchange market (NEER), Bond Yields and a financial stability indicator, i.e. the Capital adequacy ratio. Applying the panel data methodology, our results indicate an unpredictable fact. We show that there is a significant exposure of financial companies to the oil price fluctuations. We discover that in the financial sector, high oil prices may have indeed positive effects on the stock prices. The price of oil has a higher impact on the stock prices of financial companies than we expected and it proved to be a risk factor for this sector. Our results indirectly highlight the pervasive exposure of economies from the region to risk factors through the financial sector channels, which raises challenges from the perspective of macroeconomic and financial policies.

### KEYWORDS

Oil price, financial sector, panel data analysis

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## THE COST-SAVING ROLE OF BLOCKCHAIN TECHNOLOGY AS A DATA INTEGRITY TOOL: E-HEALTH SCENARIO

Zarko Radjenovic

*Innovation Center University of Niš, Serbia, zarkoradjenovic@hotmail.com*

### ABSTRACT

The digital economy of health and its global proliferation have led to the use of health information systems in the daily health services delivery to patients. Consequently, there is a development of a web-based electronic healthcare aimed at providing electronic health services in real time. In this way, through the implementation of the concept of electronic health, there is an exchange of health information among all stakeholders of the health organization, all with the aim of monitoring the health status of patients, timely intervention and adequate allocation of medical resources. Processing and sharing a large amount of health data in real time, with the constant need to maintain a high level of interoperability and scalability of network infrastructure, requires the highest possible level of security in accessing data, in order to reduce the misuse of health data. By using blockchain technology, the risk of misusing health information, asymmetry of information and the risk of increasing transaction costs are reduced in

a very short time. Blockchain is a robust mathematical algorithm that can provide maximum security of the transaction using cryptographic methods. This type of technology is based on a distributed database that contains encrypted data that can not be changed or disturbed. For this reason, the application of this technology as a data integration tool is increasingly reflected in the electronic business of health organizations - electronic healthcare. Blockchain technology is especially used in information-intensive electronic healthcare records and medical applications, which ultimately results in reduced costs of providing health services, especially when it comes to system maintenance and security costs, interoperability and data redundancy. According to above mentioned cost- saving role of blockchain technology in processing, sharing and analyzing healthcare data, in this paper, there will be more to say about the positive economic impact of blockchain technology on electronic healthcare, especially in the case of Estonia. This European country is a pioneer in creating, implementing and using the e-Health concept as an integral part of health information system through its healthcare system, in order to increase efficiency of healthcare services.

#### KEYWORDS

Blockchain technology, health economics, e-Health

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### THE CONTRIBUTION TO EFFICIENCY OF PRIVATE-PUBLIC PARTNERSHIP IN INTEGRATED SERVICES: THE CASE OF "OPERATING ROOM SUPPORT SERVICES" IN ALBANIAN HEALTHCARE

Niccolò Persiani, Martina Giusti, Ioana Paduraru, Laura Yzeiraj, Emiljan Karma, Edi Dragusha and Alberto Romolini

*Università degli Studi di Firenze, Italy, npersiani@unifi.it*

*Università degli Studi di Firenze, Italy, martina.giusti@unifi.it*

*Università degli Studi di Firenze, Romania, ioana\_cmmt@yahoo.it*

*Catholic University Our Lady of Good Counsel, Albania, Lyzeiraj@unizkm.al*

*Catholic University Our Lady of Good Counsel, Albania, e.karma@unizkm.al*

*Catholic University Our Lady of Good Counsel, Albania, e.dragusha@unizkm.al*

*Università Telematica Internazionale UNINETTUNO, Italy, a.romolini@uninettunouniversity.net*

#### ABSTRACT

One of the main problems that characterizes healthcare in transition countries is the inadequacy of its hospital assets with particular reference to operating rooms. This aspect usually involves significant levels of inefficiency, scarce productivity of the structures and, at the same time, incapability to meet international standards with the consequent high level of post-operative and hospitalization infections. During the long transition from the Soviet system to the current, Albanian healthcare has set up a health system not adequate to the challenges of modern health, in order to guarantee the quality of healthcare it offers. In this framework, the operating rooms system is not an exception. To cope with this situation, the Albanian Ministry of Health in 2016 implemented a public- private partnership (PPP) project with a group of international companies for the management of operating rooms and for the supply of sterilization services to the hospitals. This is a significant organizational innovation for the Albanian healthcare system that will redesign the entire related healthcare delivery system over the next years. The aim of this paper is to measure the effects generated from an outsourcing system of operating rooms' organizational processes, on the productivity of the clinical process.

In particular, the work aims to investigate whether the most efficient organization of operating rooms produces effects on the volumes of activity. The paper uses the case study approach, based on the activity data of Mother Theresa of Tirana Hospital, the main Albanian University hospital including all the main specialties and the first hospital in which the described service was applied. Therefore, for each clinical specialty, the production volumes were compared before and after the introduction of the new organizational model. In order to confirm the relationship between the change in the volume of activity and the new organizational model, based on the supply of sterilized kits to operating rooms, the production data were matched with the actual deliveries of the kits, as resulting from the warehouse of the company provider. Targeted interviews with hospital managers, surgeons and private partner managers, were moreover used to verify the adequacy of the data and to deepen the circumstances of the results obtained. The data demonstrate that the organizational model adopted has translated into a significant increase in productivity in most of operating rooms and in related clinical specialties. This increase is due to both the organizational model, which allows a more rapid preparation of the operating room, and the greater safety guaranteed to professionals. This effect, combined with the decreased clinical risk through the eventual reduction of hospital infections, expresses an element of important growth and development of the Albanian hospital system.

**KEYWORDS**

Albanian healthcare, operating rooms, clinical risks, hospital organization, PPP

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**EMPLOYEES ATTITUDES TOWARDS WORK FLEXIBILITY**

Nancy Bouranta and Maria Tsampra

*University of Patras, Greece, nbouranta@upatras.gr*

*University of Patras, Greece, mtsampra@upatras.gr*

**ABSTRACT**

The use of flexible work is a practice widely acknowledged since the 1980s, especially in research on deindustrialization and the shift from Fordism to flexible specialisation. It signified the adjustment of labour market regulations and employment arrangements to emerging accumulation regimes. The various forms of flexible work and employment are identified in literature as "atypical", in reference to "typical" long-life full-time employment. Work flexibility has been usually considered as a way adopted by employers to decrease labour costs; but also, although less often, it has been a choice of employees to better combine individual priorities. From the employer's perspective, labour market flexibility enables the immediate adjustment of business operating costs to changing economic conditions and thus, to effectively compete in a worldwide market. But in downturns, work contracts based on asymmetrical bargaining when power is held by the employer, evidently entrap the employees in unstable and unfair jobs, even injurious for their subsequent career development. On the other hand, flexibility may serve employees by providing a degree of discretion in working patterns, allowing for autonomy and control over work time and location, thus enabling a more satisfactory work and life balance. Taking into account this two-sided reality, the following analysis distinguishes between employer-friendly and employee-friendly work flexibility. The objective of the paper is to provide a justified explanation of work forces attitudes towards flexible employment. To this purpose, primary data were retrieved through empirical survey with the use of structured questionnaire, administered to both employed workers and unemployed job-seekers in

Greece, during post-crisis recession. Individual characteristics – i.e. age, gender, family and financial status, qualifications and skills, career path, predisposition towards entrepreneurship, etc. – are considered in this study as defining of the respondents' predisposition and acceptability of flexible working arrangements (in wages, time, location, duties etc.). The survey sample was randomly formed and provided 1,056 usable questionnaires, adequate to examine the research hypotheses. Descriptive and inferential statistics (t-test and analysis of variance) were employed to analyze the data. The results suggest that respondents are unwilling to accept flexible work, even in its employee-friendly form. Interestingly, those employed and those highly qualified are the most reluctant towards work flexibility. The young job-seekers are the most positive towards self-owned entrepreneurship. Findings coincide with the acute exploitative use of atypical working practices in the Greek labour market and its dramatic implications during recession, downgrading the most skilled labour force to highly precarious low-wage employment.

**KEYWORDS**

Employer, employee-friendly flexibility, employee characteristics, attitude towards flexibility

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**DO ENTREPRENEURS OF GENERATION Y ADOPT BUDGET PLANNING PROCEDURES?**

Lambros Tsourgiannis, Michael Nikolaidis and Anastasios Karasavoglou

*Region of Eastern Macedonia and Thrace, Greece, [tsourgiannis@gmail.com](mailto:tsourgiannis@gmail.com)*

*Eastern Macedonia and Thrace Institute of Technology, Greece, [mnikol@teikav.edu.gr](mailto:mnikol@teikav.edu.gr)*

*Eastern Macedonia and Thrace Institute of Technology, Greece, [akarasa@teikav.edu.gr](mailto:akarasa@teikav.edu.gr)*

**ABSTRACT**

This paper aims to explore the attitudes of entrepreneurs of generation Y towards budget planning procedures. A primary survey conducted in October – December of 2018 to a random sample of entrepreneurs operated in Greece. Principal component analysis (PCA) conducted to identify the main attitudes of entrepreneurs towards budget planning procedures. Cluster analysis performed to classify those entrepreneurs into groups according their behaviour towards business planning whilst discriminant analysis conducted to check cluster predictability. Non parametric tests performed to identify the attitudes of Generation Y businessmen towards business planning procedures as well as to explore if there is any significant association between any particular behaviour of entrepreneurs towards business planning and their demographic characteristics or the characteristics of their enterprise.

**KEYWORDS**

Business Planning, Generation Y, Budgeting planning

## A NEW SIMILARITY MEASURE FOR DOCUMENT CLASSIFICATION AND TEXT MINING

Mete Eminagaoglu and Yılmaz Gökşen

*Dokuz Eylül University, Turkey, mete.eminagaoglu@deu.edu.tr*

*Dokuz Eylül University, Turkey, yilmaz.goksen@deu.edu.tr*

### ABSTRACT

Accurate, efficient and fast processing of textual data and classification of electronic documents have become an important key factor in knowledge management and related businesses in today's world. Text mining, information retrieval, and document classification systems have a strong positive impact on digital libraries and electronic content management, e-marketing, electronic archives, customer relationship management, decision support systems, copyright infringement and plagiarism detection, which strictly affect economics, businesses, and organizations. In this study, we propose a new similarity measure that can be used with k-nearest neighbors (k-NN) and Rocchio algorithms, which are some of the well-known algorithms for document classification, information retrieval, and some other text mining purposes. We have tested our novel similarity measure with some structured textual data sets and we have also compared the results with some other standard distance metrics and similarity measures such as Cosine similarity, Euclidean distance, and Jaccard similarity. We have obtained some promising results, which show that this proposed similarity measure can be alternatively and effectively used within all suitable algorithms, methods, and models for text mining, document classification, and relevant knowledge management systems.

### KEYWORDS

Text mining, Document classification, Similarity measures, k-NN, Rocchio algorithm

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## PLANNING AND MANAGING OF DIAGNOSTIC IMAGING TECHNOLOGIES IN HEALTHCARE: THE INTRODUCTION OF MANAGED EQUIPMENT SERVICE (MES) FOR THE SYSTEM'S SUSTAINABILITY

Martina Giusti, Niccolò Persiani, Fissi Silvia and Renzo Ricci

*Department of Experimental and Clinical Medicine, University of Florence, Italy, martina.giusti@unifi.it*

*Department of Experimental and Clinical Medicine, University of Florence, Italy, niccolo.persiani@unifi.it*

*Department of Business and Economics, University of Florence, Italy, silvia.fissi@unifi.it*

*Ausl toscana Centro, Firenze, Italy, renzo.ricci@uslcentro.toscana.it*

### ABSTRACT

The lack of economic resources has driven healthcare management studies to recognise Private and Public Partnerships (PPP) as the solution in managing the efficiency, effectiveness and profitability of technological innovation. Among them recent studies have identified the purchase model called Managed Equipment Service (MES), in which purchaser and seller share the risks of innovation management and technology use, as an optimal problem-solving method. The aim of this research is to analyse the potential economic financial and organisational benefits of MES introduction in healthcare, particularly in diagnostic imaging medical devices, and to determine the effects in terms of quality. The research applies the case study method. We have examined an Italian Local Health Au-

thority which can be considered sufficiently representative due to the dimensions, managerial characteristics and case mix offered but, especially, for its high health standards. The data has been elaborated through statistical analysis to observe the correlations. Evidence demonstrates that MES costs are lower than all the other planning and purchasing methods analysed (between 31% - 157%). In a context in which the correlations between age of facilities and effectiveness of services provided are strong, MES grants the maintenance of a lower average age of facilities than the recognised international standard. The analysis highlights a more efficient use of resources and significant margins of profitability. In this way, the emerging model of PPP is a possible solution to the current issues surrounding economic and financial sustainability of healthcare systems, considering the always lower resources and the technological progress. MES in healthcare appears to be a highly efficient way of managing innovation, particularly in high technology diagnostic imaging medical devices; also, it is a relevant instrument to address planning innovation and diagnostic services providing organisation. The research has also observed benefits in terms of quality of services offered.

**KEYWORDS**

Public Private Partnership (PPP), Managed Equipment Service (MES), High Technologies, Diagnostic Imaging

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**A GEOGRAPHIC PERSPECTIVE ON FOREIGN DIRECT INVESTMENT IN THE SUCCESSOR STATES OF YUGOSLAVIA: ONE QUARTER CENTURY AFTER DISOLUTION**

Joel Deichmann

*Bentley University, United States, jdeichmann@bentley.edu*

**ABSTRACT**

This paper provides a descriptive comparative overview of transnational flows of capital to the Western Balkan region, focusing upon the political entities that were formed after the breakup of Yugoslavia. These include Bosnia & Herzegovina, Croatia, Kosovo, Macedonia, Montenegro, Serbia, and Slovenia. The presentation begins with a brief summary of the English-language literature on FDI in the region, followed by a discussion of the major data challenges in this area of research. We then examine the growth and decline of FDI to the successor states over time, in addition to destination-specific differences in origin countries and industrial composition of FDI from 1995-2017. In conclusion, prospects for future FDI growth are discussed.

**KEYWORDS**

Foreign Direct Investment, Western Balkans, Former Yugoslavia



## DIGITAL BANKING IN THE NEW ERA: EXPLORING CLIENTS' ATTITUDES

Stavros Valsamidis, Lambros Tsourgiannis, Dimosthenis Pappas, Eirini Mosxou

*TEI of Eastern Macedonia and Thrace, Greece, svalsam@teikav.edu.gr*

*TEI of Eastern Macedonia and Thrace, Greece, ltsourgiannis@gmail.com*

*TEI of Eastern Macedonia and Thrace, Greece, dpappas@teiemt.gr*

*TEI of Eastern Macedonia and Thrace, Greece, irini\_m@otenet.gr*

### ABSTRACT

The digitalization of banking sector is a direct consequence of the overall digitalization of the economy. Overall, there are many different underlying topics to research on this subject as the digitalization in the banking sector is starting to submerge and grow and therefore the future brings many improvements to customer experience, banks value chains and to the fundamental way we handle our banking errands. Traditionally, banks spend most of their efforts, time and money on transaction execution, which is nothing but has become a very basic feature of their overall service. Banks now need to rethink the way customers are being valued, may be from the angle of the industries that greatly value customer experience. Today's demand is anytime anywhere banking. This requires innovative, robust, secure, optimized and ready to meet the expectations of empowered and tech-savvy customers. As a result of these changes, it is important to capture the new reality in relation to the banking environment, through the views of clients. This paper aims to explore clients' attitudes towards the use of digital services and applications in banking sector. In particular, it aims to identify the factors that affect clients' attitudes towards those applications, to classify them into groups according to their similar behaviour patterns and to profile each group of clients according to their demographic characteristics and other factors. A primary survey conducted in October 2018- December 2018 to 100 citizens in Greece. Principal component analysis (PCA) conducted to identify the main factors that affect citizens' attitudes towards the use of digital services and applications in banking sector. Cluster analysis performed to classify citizens into groups with similar behaviour whilst discriminant analysis conducted to check cluster predictability. Non parametric tests performed to profile each group of clients according to their demographic characteristics and other factors. PCA identified three main factors that citizens attitudes towards those applications: (a) better service, (b) cautiousness and (c) timelines /directness. Cluster analysis classified clients into three groups according to their purchasing behaviour towards the use those digital services/applications (i) those that are in favour of, (ii) opportunists and (iii) sceptical. Chi-square analysis indicated that demographic characteristics such as gender, age, education, marital status, income have an impact on clients' particular behaviour. Furthermore, Friedman non parametric test identified that some other opinion of clients regarding the use of digital applications in comparison with those of traditional banking services are also related with their behaviour towards those digital banking applications. The results indicate that the relationship with customers has become less personalised and more automated. It also shows that an alignment in the bank has contributed to increased satisfaction among digitally oriented customers. Generally speaking, the majority of the sample considers digital banking services to be easy to access and use in general, while at the same time, they are considered it as more convenient and reliable than traditional banking. Clients pay particular attention to the security and quality of digital transactions. The most important advantages of digital banking services are 24-hour support, better use of limited time of people and simplified procedures. Finally, older and less educated people had a profile of a person who is reluctant to technology, does not understand and does not trust it.

**KEYWORDS**

Digital banking, Clients, Questionnaire, Principal component analysis, Cluster analysis, Discriminant analysis

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**FOREST FIRES IN GREECE AND THEIR ECONOMIC IMPACTS ON AGRICULTURE**

Dimitra Stougiannidou, Eleni Zafeiriou and Yannis Raftoyannis

*Democritus University of Thrace, Department of Agricultural Development, Greece,  
stougiannidou@yahoo.gr*

*Democritus University of Thrace, Department of Agricultural Development, Greece,  
ezafeir@agro.duth.gr*

*Eastern Macedonia and Thrace Institute of Technology, Department of Forestry and Natural  
Environment Management, Greece, rafto@teiemt.gr*

**ABSTRACT**

Forest fires have increased in the last decades, due to many factors such as climate change, land use change and management. In Greece, wildfires burn cultivated lands and affect significantly the rural economy and society. However, the economic impacts of forest fires on agricultural areas has not been estimated, and this is our aim. After an extended literature review and consultation with the stakeholders, we decided to build a model with many variables. The total cost of fire depends on the cost of prevention and suppression measures, and also direct and indirect costs. Direct costs, as adjusted for the immediate effects of fire, are divided into two categories: direct damages instantaneous and direct losses induced. Direct damages are estimated by a function that calculates the instantaneous damage in permanent crops, seasonal crops, livestock, infrastructure, construction and machinery. Direct losses are estimated by a function that calculates fire-induced costs in permanent crops, seasonal crops, livestock, additional borrowing costs and services costs. For the composition of the time-space model, we will use secondary data, as well as data originated from fieldwork. The literature review showed that the ex post analysis involving detailed consultation with a representative sample of affected farms, provides a more consistent appraisal.

**KEYWORDS**

Forest fires, economic impacts, cost, agriculture

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**AN ASSESSMENT OF LOCAL GOVERNMENT AUTONOMY IN ROMANIA**

Vlad-Cosmin Bulai

*Bucharest University of Economic Studies, Romania, vldbulai@yahoo.com*

**ABSTRACT**

The issue of fiscal decentralization has been much debated in the public space and the academic literature likewise. On the one hand, a greater level of local government autonomy may lead to public services which respond better to the needs of local communities. On the other hand, this may deepen regional inequalities as resources available to authorities governing less affluent localities might be lower relative to their wealthier counterparts. In Romania, fiscal decentralization

has progressed in recent years with local governments being allowed to directly collect certain taxes. Nevertheless, local authorities remain largely dependent on allocations from the central government amidst allegations of such allocations made on political rather than economic grounds. Furthermore, a significant part of revenues may be directed at welfare programs to the detriment of development. The purpose of our analysis is to assess the vulnerability of local government budgets to shocks, which can be of great value to policymakers and public managers. We address this issue by constructing an index of local government autonomy using revenue and expenditure data for all 3181 territorial administrative units in Romania, which we then map. The index is comprised of the degree of coverage of civil servant salaries by local taxes with a high level of stability (such as taxes on buildings and vehicles), and the level of welfare expenditures per capita (such as services for the handicapped and the elderly). We choose these indicators in order to partly mitigate the issue of data availability – the analysis is cross-sectional for the year 2017. For this reason we focus on revenues and expenditures which are expected to be reasonably stable over time. We find that the level of civil servant salary coverage is better in the case of municipalities and towns compared to communes, thus suggesting the presence of economies of scale. A more troubling finding is a significant positive correlation between the two indicators used in the index. Therefore administrative units with a high ratio of civil servant salary expenditures to local taxes also tend to have high welfare expenditures per capita. We can interpret this as a vulnerability of local government budgets being compounded by high commitments to social expenditures. This may be attributable to poverty, public sector inefficiency or a combination of both.

**KEYWORDS**

Local government, fiscal decentralization, public services

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**REGIONAL DEVELOPMENT OF FINANCIAL INNOVATION IN EASTERN EUROPEAN COUNTRIES**

Silvia Sumedrea

*Transilvania University of Brasov, Romania, [silvia.sumedrea@unitbv.ro](mailto:silvia.sumedrea@unitbv.ro)*

**ABSTRACT**

In the beginning of XXIst century, the development of information technologies has changed the face of many industries and finance domain makes no exception on this. New products and new technologies have been developed very fast for satisfying the needs of new digital born customers and the name of this new trend is fintech. Fintech is the new disruptive star of a rather conservative domain that intended to end the domination of financial giants and offer the IT geeks the opportunity to develop better, cheaper and reliable financial products destined to fulfill the requirements of a new generation of entrepreneurs, that were disappointed by the traditional banks' way of doing businesses during and after the financial crisis in 2008-2011. Some countries introduced those products and services enthusiastically, but others were more reluctant. In a world that is more and more connected, the ability to take advantages of business opportunities is a crucial skill and if a country is not well prepared to use it, its future economic development is affected. The paper is analyzing the development of fintech industry in a regional context in an attempt of explaining the unequal development of financial innovation in various markets. The development of crowdfunding, digital payments and digital commerce development, but also the development of asset management via robo-advisers will be analyzed us-

ing economic and social driven of the phenomena, particularly for the Eastern European countries that are now members of EU, but who in the past shared a common communist history without a proper developed financial market. The 30 years of transition to the market economy is ended now, but some question remains. Are this countries prepared to incorporate financial innovations at a fast pace or not? What are the main driven of such phenomenon? And what actions should they take to become more attractive in the future? The analyses and the conclusions of the paper are useful both for policies makers and business developers but also for academia and researchers.

**KEYWORDS**

Financial innovation, regional development, EU countries

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**DAVID AND GOLIATH: AN INVESTIGATION BETWEEN GREECE – GERMANY  
BILATERAL TRADE FOR AGRICULTURAL PRODUCTS**

Mairi Bekiraki, Achilleas Kontogeorgos and Fotios Chatzitheodoridis

*University of Patras, Greece, mairibekiraki@gmail.com*

*University of Patras, Greece, akontoge@gmail.com*

*Technological Educational Institute of Western Macedonia, Greece, fchatzittheo@gmail.com*

**ABSTRACT**

This paper investigates the factors that affect the bilateral trade between Greece and Germany in total, and for specific agricultural products (cereals, dairy products, meat & meat products, fruits & vegetables). Data was collected through the databases of World Bank and the Organisation for Economic Co-operation and Development for the period 1992-2016. An analysis of trade flows is made in order to identify the factors that affect trade between the two countries. Also, an extended gravity model was used to estimate these factors. This paper incorporates the cost of trade between the two countries instead of the geographic distance that is usually used in the classic gravity model. The results showed that the GDP of both countries has a positive effect on the trade flow. Trade costs appear to have a positive effect on trade flows in sectors where the country has a competitive advantage. The paper aims to quantify trade flows and facilitate this way researchers and policymakers to address practical issues and questions when analysing trade policies between economic giants and smaller trade partners.

**KEYWORDS**

Greece, Germany, Bilateral Trade, Agricultural Products

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**MAPPING ECONOMIC ACTIVITY IN THE EUROPEAN UNION:  
DO OWNERSHIP, INDUSTRY AND LOCATION MATTER?**

Alexandra Horobet, Oana Popovici and Lucian Belascu

*The Bucharest University of Economic Studies, Romania, alexandra.horobet@gmail.com*

*The Bucharest University of Economic Studies, Romania, popovici.oana@yahoo.com*

*Lucian Blaga University of Sibiu, Romania, lucian\_belascu@yahoo.com*

**ABSTRACT**

The paper proposes a new method for analyzing the structure and dynamics of economic activity undertaken by locally-owned and foreign-owned companies within the European

Union. We employ an unsupervised learning algorithm that generates a neural network that is depicted on Kohonen maps that offers a clustering of companies with different ownership (local and foreign) from various industries and countries of the European Union. The industries and countries have been selected in order to maximize the data available. The period under analysis is 2009-2016 and the data on companies' activities is collected from Eurostat – Inward Foreign Affiliates Statistics (FATS). The research methodology is based on a Self-organizing Map (SOM) algorithm proposed by Kohonen (2011), which belongs to a class of neural networks trained to organize data so that unknown patterns may be discovered, thus leading to results that cannot be attained by more traditional clustering methods such as Statistical Cluster Analysis (SCA) and Principal Components Analysis (PCA). SOM is a type of neural network that uses an unsupervised training algorithm that organizes results in a topological representation of the underlying data. The neural network rearranges a set of input vectors for each case on a bi-dimensional grid, and companies are grouped around a number of nodes or neurons. Each type of company (locally-owned and foreign-owned) from a specific industry and country is characterized by a series of performance indicators that are included in the SOM algorithm, i.e. indicators at the average enterprise and employee level (turnover, value added at factor cost, gross operating surplus, personnel costs, gross investments) and comprehensive indicators, such as labor productivity and profitability (the latter through the gross operating rate). We detect various clusters of companies based on Euclidian distances that provide similarities and differentiation between companies' common production activities by taking into account their ownership (foreign versus local), industry and country of location, and related performance results, as well as their interrelationships. The resulting classification can be used to understand the linkages between European Union companies and the different branches of economic activities across EU countries, as well as to investigate the performance gap between locally-owned and foreign-owned companies.

**KEYWORDS**

Performance, European Union, economic activity, foreign enterprises, neural networks

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**AN EXPLANATORY STUDY OF FINANCIAL PERFORMANCE  
IN CEE COUNTRIES**

Stefania Cristina Curea and Lucian Belascu

*The Bucharest University of Economic Studies, Romania, stefania.curea@ase.ro*

*Lucian Blaga University of Sibiu, Romania, lucian\_belascu@yahoo.com*

**ABSTRACT**

Our research investigates the performance of companies from Central and Eastern European countries in the period after the Global Financial Crisis of 2007-2009 with the aim of identifying the driving factors behind accounting- and market-based performance. We include in the analysis companies from various industries in CEE countries that are European Union members and we study their performance between 2008 and 2016 over the following areas of performance: liquidity, solvency and indebtedness, operational profitability, global performance (through Return on assets and Return on equity), returns available to shareholders and market-based performance (through Price-Earnings ratio and Tobin Q ratio). Employing

the hierarchical and non-hierarchical k-means cluster analysis companies are segmented into various homogeneous groups using various financial performance indicators as variables, Euclidian distances and the Ward amalgamation method. Furthermore, the resulting clusters have been grouped according to the country of origin and industry. Our findings show that specific groups of companies in these countries share common attributes, as evidenced by their performance indicators, which do not seem to be entirely based on their countries of origin and industry. Moreover, our exploration of CEE companies' performance dynamics after 2008 evidences the increased competition in all industries particularly after 2009, as well as businesses' need to adjust their activities after the losses incurred during the crisis period, but these phenomena is present with different intensities depending on country of origin and industry. At the same, we note the enhancement of global performance through improvements in the operational performance instead of financial leverage and indebtedness, which is a sound business approach by CEE companies.

#### KEYWORDS

Financial performance, Central and Eastern Europe, Statistical Cluster Analysis, Return to investors

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## OPERATING ROOM MANAGEMENT AFTER THE 2008 ECONOMIC CRISIS IN ITALY: A LITERATURE REVIEW

Andrea Rochira, Andrea Ubiali, Matteo Buccioli and Peter Perger

*University of Bologna, Italy, rochiraandrea@gmail.com*

*University of Bologna, Italy, ubiali.andrea@gmail.com*

*Rizzoli Orthopedic Institute, Italy, matteo.buccioli@gmail.com*

*Health and Life Science University – UMIT, Austria, peter.perger@gmail.com*

#### ABSTRACT

The consequences of the world economic crisis of 2008 have impacted on various activities and productive processes, both private and public, modifying their administrative arrangements. Among these, healthcare services have been heavily affected by the crisis. In fact the strong reduction of available resources has forced national and local administrations to develop new health policies. Countries with a public national health system suffered the most because of the effects of the crisis. This is the case of Greece, which had to operate several funding cuts to its national health system, with consequences on both professionals and provided services. Similarly, Italy went through a difficult period concerning its economic resources. On this regard Italy, together with Portugal and Greece, owns one of the highest public debts and has one of the lowest Gross Domestic Product (GDP) growth indexes of the entire continent. For these reasons Italy as well underwent a deep reorganization of its healthcare system, adhering to a strict fiscal austerity policy. Consequently, the management of particularly costly activities, such as surgery, has become a priority aspect in healthcare administration. Adaptation to the new scenario, though, was not homogeneous within the national territory. Much scope is granted to regional legislation in relation to the Italian healthcare system. Some regions have issued specific deliberations in order to regulate the surgical process, while others have not, creating extremely heterogeneous experiences. Given this context, we performed a literature review about experiences

or projects regarding operating room management (ORM) carried out in Italy between 2007 and 2018. We searched Medline, Scopus and Cochrane Library databases for english and italian-written papers focusing on ORM. We found 16 articles meeting the inclusion criteria. One of them was a review, while the others were original papers. Only one paper was published in 2007, the remaining were issued in the following years. The italian regions involved were mainly located in the north-central area. The covered topics were various: ORM reorganizations in clinical hospitals, simulated models aimed to resolve OR slots assignment, and surgical waiting lists management. Our results show a growing interest in ORM in Italy, with a strong multi professional involvement. Surgeons, anesthesiologists, nurses, engineers and managers appear to be key figures in this complex activity. Local and national policy makers as well play a strong role in defining the regulatory environment in which activities take place. In fact, because OR are the most expansive and the most productive areas of every hospitals, it's of paramount relief to implement strategies in order to, especially. In conclusion our work shows that in a country highly hit by economic crisis as Italy, ORM actions represent a viable option in order to optimize OR quality and efficiency and minimize the non-productive and unnecessary costs. This is particularly important in a period of austerity measures and continuous cuts to public healthcare funding.

**KEYWORDS**

Hospitals, management, crisis, resources, ORM

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**SPECIALIZATION AND EFFICIENCY OF THE METROPOLITAN REGIONS IN SOUTHEASTERN EUROPE: THE CASE OF EU MEMBER-STATES**

Panagiotis Nikolopoulos, Andreas Gkouzos and Athanasios Papadaskalopoulos

*Department of Economic and Regional Development, Panteion University,  
Greece, p.g.nikolopoulos@panteion.gr*

*Department of Economic and Regional Development, Panteion University, Greece,  
agkouzos@panteion.gr*

*Department of Economic and Regional Development, Panteion University, Greece, pdask@panteion.gr*

**ABSTRACT**

Cities -as well as their function- have always been among the most discussed topics of the economic space related sciences, with size being a critical factor to their role and importance for the national economic system as a whole. In this context, it is widely accepted that metropolitan regions constitute the "locomotives" of national economy, while at the same time they are considered sufficient entities to undertake a significant developmental role in a broader, transnational level. Nowadays, the global economy is significantly affected by large metropolitan configurations with international influence, through the securing of the requisite population and market size, and consequently a sufficient volume and composition of economic activities. However, in Europe, besides the dynamic large urban concentrations (Northwestern Europe), there are also metropolises, including these of Southeastern Europe, which face the challenges of the modern, continental and global economy, with the additional difficulties set by their peripheral geographical location, and proximity to non-EU countries. In addition, these metropolitan regions belong to states which have experienced particularly intense political, social and/or economic developments in recent decades, which have undoubtedly influenced their economic structure, and have consequently affected their growth level. This paper in-

tends to explore the economic characteristics of the metropolises in the EU member-states of Southeastern Europe, emphasising on their specialisation and sectoral efficiency as key determinants of metropolitan development. The paper employs methods of regional analysis, such as the location quotient, the coefficient of specialisation and localisation, and finally, the shift - share analysis. The metropolises under examination correspond to the "Metropolitan Region typology of NUTS3 regions" (Eurostat), and are located in Greece, Bulgaria, Romania, Croatia and Slovenia, while the employment data used in the analysis concern the same -NUTS3- level for 2000 and 2015, and were extracted from the Eurostat database.

**KEYWORDS**

Metropolitan regions, sectoral efficiency, regional specialization

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**IS JAPAN A PIONEER IN HIGH TECHNOLOGY EXPORTS?**

Spyros Roukanas and Emmanuil Karakostas

*University of Piraeus, Greece, sroukana@unipi.gr*

*University of Piraeus, Greece, ekarakwstas@unipi.gr*

**ABSTRACT**

One of the most powerful economies in the global economic system is Japan. Nowadays the global economic system is facing many economic and politic challenges. Some of the major economic issues are that the United States of America have launched measures of protectionism and a trade war mostly with China as an emerging economy is about to start. Europe is facing problems such as Brexit and its implications and China is going to become the strongest economy with economic and political consequences. Due to the fact that Japan is one of the most powerful economies has to maintain or to strengthen its economic power in order to face the upcoming challenges. The Japanese economic growth is an combination of export growth, private investments and consumption. Japan in order to overcome the slow growth, launched the Abenomics with three main arrows – a bold monetary policy, flexible fiscal policy and a growth strategy. Although the adoption of the Abenomics, the economy of Japan has to overcome three major challenges. Firstly, the government debt continues to rise as a percentage of GDP. Secondly, Japan is facing a declining population growth which decreases its potential economic growth. The Japanese population is aging fast and as a result, this will limit growth and productivity due to a shrinking and aging labor force. The most important challenge of the Japanese economy is the potential economic competition in the high technology products is China. Japan is facing increasing competition from China. The main economic advantage that Japan maintains is the high technological development in several sectors. The aim of this paper is to show if Japan has a Revealed Comparative Advantage in high technology exports. The methodology adopted is the theory of comparative advantage.

**KEYWORDS**

Revealed Comparative Advantage, Economy of Japan, High Technology Exports, Competitiveness



## **ASSESSING THE ROLE OF ACCESS TO FINANCE FOR YOUNG POTENTIAL ENTREPRENEURS: THE CASE OF ROMANIA**

Valentina Diana Rusu and Angela Roman

*Alexandru Ioan Cuza University of Iasi, Institute of Interdisciplinary research,  
Romania, valentinadiana.ig@gmail.com*

*"Alexandru Ioan Cuza" University of Iasi, Romania, aboariu@uaic.ro*

### **ABSTRACT**

The significant role played by entrepreneurship for the economic growth of countries has shifted the attention of researchers to the potential entrepreneurs, and how to stimulate the enter on the market of new and innovative individuals which might have positive effects on economic development. The present research is conducted to identify the influence of some characteristics of business environment and of access to financial resources on entrepreneurial intentions and entrepreneurial orientation of faculty students from one of the largest universities of Romania. We conducted the study on a sample of undergraduate and master students, by applying a questionnaire. The questions are targeting several categories of factors that might influence the decision of a young individual to become entrepreneurs, such as: the entrepreneurial education, personality characteristics, the entrepreneurial history and the characteristic of the business environment. The main objectives of this paper are to analyse how the young potential entrepreneurs perceive the access to finance for start-ups and if this factor would be a significant predictor of the decision to become entrepreneurs of the university students from Romania. In addition, our study discusses how policy makers could provide support for young people to create innovative businesses, from a financial perspective. Our findings show that all the considered factors influence entrepreneurial propensity, but the access to financial resources is the most important obstacle identified by the university students with entrepreneurial intentions. Also, access to information and fewer business regulations were identified as factors with a significant contribution on entrepreneurial orientation of youth. The implications of the study are significant for potential policy intervention. In order to stimulate young entrepreneurs, and especially innovative ones, the policy makers should be aware of the key factors motivating or discouraging the potential entrepreneurs.

### **KEYWORDS**

Potential entrepreneurs, entrepreneurial intentions, access to finance, business environment, university students, Romania

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## **SYSTEM DEVELOPMENT LIFE CYCLE IN AN EFFECTIVE LEARNING MANAGEMENT SYSTEM DESIGN**

L. Özge Oral and Emre Karagöz

*Dokuz Eylül University, Turkey, lozge.oral@deu.edu.tr  
Dokuz Eylül University, Turkey, emre.karagoz@deu.edu.tr*

### **ABSTRACT**

Education and learning system cannot be carried out without the opportunities offered by today's technologies. There are many learning management systems that allow online training in both secondary and higher education. Different types of commercial and open source learning

management systems can be used for distance education process and many of them meet the demands of educational institutions. During the selection of the learning management system, a learning management system may be needed which will consist of various features of different learning management systems. This situation may necessitate a new learning management system. The use of system development lifecycle steps in the design of this new learning management system can prevent the problems that may be encountered in the process and can design the learning management system in the structure desired by the institution. In this study, a roadmap will be developed on how to design a learning management system using system development life cycle (Project Lifecycle) steps. In addition, some information about different learning management systems will be transferred and compared.

#### KEYWORDS

Learning management system, distance education, system development life cycle

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## THE CONTROL OF SMALL MEDIUM BANKS PROFITABILITY USING FINANCIAL MODELING APPROACH UNDER CERTAINTY AND UNCERTAINTY

Sotirios Trigas and Konstantinos Liapis

*Panteion University of Social and Political Sciences, Faculty of Sciences of Economy and Public Administration, Greece, s.trigas@panteion.gr*

*Panteion University of Social and Political Sciences, Faculty of Sciences of Economy and Public Administration, Greece, konstantinos.liapis@panteion.gr*

#### ABSTRACT

Following a prototype economic modeling approach for Small-Medium Banks (SMBs) business plans according to structure of Additional Funds Needed (AFN) models this paper examines the volatility of banking efficiency in terms of Key Profitability Variables (KPVs) in order to determine Key Performance Indicators (KPIs). The KPVs are the size and structure of deposits, loans and their interest rates. Initially we examine the intervals in which the KPVs of the SMB are moving. Then we conduct a sensitivity analysis under certainty and uncertainty. Furthermore, we proceed with an analysis in a stochastic environment under uncertainty where the interpretive KPVs following normal distribution, as well as their historical limits in a PERT distribution. Finally, we control the sensitivity in uncertainty conditions using Monte Carlo simulations and examine the results under deterministic confidence and stochastic uncertainty.

Our paper concludes that business plans following AFN economic models is a worthy tool for financial planning of SMBs in order to control their performance, contributing to budgeting and decision making for SMBs strategic planning.

Financial planning of SMBs in order to control their performance, contributing to budgeting and decision making for SMBs strategic planning, prove to be a critical process for the overall bank efficiency. With this paper we contribute to debate regarding the introduction economic modeling approaches under certainty and uncertainty in the banking industry.

#### KEYWORDS

Bank performance, AFN models, Operation Research

## **INSTITUTIONALIZED AND CURRENT ENTRY STRATEGIES: A SYNTHESIS OF INSTITUTIONAL AND EVOLUTIONARY PERSPECTIVE**

Xanthippe Adamoglou, Constantinos Styliaras and Dimitrios Kyrkilis

*University of Macedonia, Greece, adamoglou@hotmail.com*

*University of Macedonia, Greece, stconstantinos@gmail.com*

*University of Macedonia, Greece, kyrkilis@uom.edu.gr*

### **ABSTRACT**

The study of foreign entry-mode choice has been taking for granted that the choice of entry strategies is the outcome of managers' habitual decisions. Since then, many significant research attempts took place to shed light on this relationship, but through two main idiosyncrasies. First, under the synthesis of two main theoretical avenues: transactional cost & institutional theory and resource based-view & institutional theory, producing mixed results. And, second, in a control variable level. The primary goal of the present study is to overcome the said constraints and provide a unifying dynamic perspective by examining the relationship between past entry strategies-institutionalized- and the subsequent ones. We synthesize institutional theory and evolutionary perspective, and, more particularly, we pay attention on the mode learning of evolutionary process of entry-mode choice by focusing on the initial entry strategies that take place in an emerging economy, Turkey. The sample consists of 1310 entry mode choices that take place from 9 European and non-European countries in Turkey.

### **KEYWORDS**

Foreign Direct Investments, Entry mode choice, Institutional theory, Evolutionary theory

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## **TOOLS USED IN MODELING OF THE ECONOMIC PROCESSES**

Cristescu Marian Pompiliu

*"Lucian Blaga" University of Sibiu, Romania, marian.cristescu@ulbsibiu.ro*

### **ABSTRACT**

The paper aims at identifying the economic process modeling languages, starting from the premise that the main beneficiaries of the resulting models are economists or decision-makers, respectively economic researchers. There are a large number of languages that have been developed with different objectives, but they have all been used to describe business processes. Languages have studied different aspects of business processes (dynamic, functional, organizational, and informational) and may be more or less formal, depending on the intended use and audience. There is no easy way to classify these languages along a single dimension. However, the languages fall into four clearly defined scientific or professional groups: traditional process modeling languages, object-oriented languages, dynamic process modeling languages, and language integration. Modulation and analysis of the economic process require model-specific requirements used, as well as languages for their expression. Economic processes are generally very complex and, therefore, different points can be formulated about their modeling.

### **KEYWORDS**

Formal language, model, simulation, algorithm, business processes

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## FINANCIAL INSTABILITY AND ECONOMIC GROWTH IN TRANSITION ECONOMIES

Savvas Zachariadis

*University of Macedonia, Greece, szachariadis@yahoo.gr*

### ABSTRACT

Financial Crisis (GFC) of 2007-2009 and afterwards. It highlights the impact of the transmission of crisis and the changes that have been ensued in terms of the pattern of economic growth. For this reason, it reviews the relation of higher GDP growth rates and the deepening of financial development, a model that had been adopted by the majority of countries until the outbreak of the crisis. More precisely, emphasis shall be given to Bulgaria, Romania, and the Baltic countries due to the fact that these countries had experienced the more intense effects. Furthermore, we incorporate Minsky's financial theory in order to identify the resemblances of the theory with their domestic financial systems and to reveal the weaknesses and vulnerabilities of their fiscal and financial stance. The scope is to indicate that the pursuit of a rapid accelerating GDP growth rates based solely on the financialisation of the economy does not constitute a panacea policy for total economy. Thus, we display relative macroeconomic data in relation with growth GDP rates ex ante and ex post the crisis. Hence, we address the issue that the advent of Global Financial Crisis has induced the countries under examination to moderate their economic policy of credit expansion and high indebtedness towards more balanced and steady growth pattern at the expense though of lower annual GDP rates.

### KEYWORDS

Growth, Global crisis, Minsky, financial instability, capital flows

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## THE IMPACT OF GOOD GOVERNANCE ON SUSTAINABLE ECONOMIC DEVELOPMENT – CASE STUDY: YEMEN

Abdulghani Abdullah Gaghman

*The Bucharest University for Economic Studies, Romania, abdulghanigaghman@stud.ase.ro*

### ABSTRACT

The era of Yemeni domination of trade routes and much sought-after export products – such as frankincense, myrrh, and coffee – is long gone. The economy, which was already fragile, weakened further as a result of disruption to oil production and other economic activities. Since 2014, the Yemeni economy has been in a deep recession that has only worsened. 2017 GDP contracted 2%, an improvement over 2016's GDP. Other 2017 key economic indicators include a 13.7% industrial production growth rate, a 7.425 million people work force, over 25% unemployment, more than 75% of the population below the poverty line, 13.5% of GDP collected through taxes, a -6.9% of GDP budget deficit, 135.5% of GDP in public debt, and a 20% inflation rate (CIA). Additionally, Yemen ranks 168th in the UNDP's Human Development Reports and 178th out 180 countries in Transparency International's 2017 Corruption Perceptions Index with a score of 14/100. The UN Declaration on the 2030 Agenda and its Sustainable Development Goals (SDGs) recognizes and stresses the interconnectedness of the SDGs and their entire implementation as indispensable for achieving sustainable development. Therefore, the role of each SDG and its impact on

sustainable development needs to be carefully assessed in the process of prioritization and sequencing for implementation. This paper discusses the new approach to rebuild the economy and achieve the (SDGs) in Yemen as a case study learning from all Arab countries. This move required a change in the mindset and culture of designing development strategies, policies, and plans, and their monitoring and assessment. Adopting an integrated systematic approach to policy making is necessary to ensure policy coherence. This should be supported by a package of regulatory and market-based measures, in order to ensure that the proposed policies, plans, and programs are economically viable, socially equitable, and environmentally acceptable. Adopting the governance principle; transparent, accountable, and participatory approach is a prerequisite for achieving this end. Building human capacity is one of the key requirements needed to make a qualitative shift towards sustainable development. It is recommended to reform the current institutional arrangements at the regional as well as national levels, such as establishing "High Councils for Sustainable Development". This would ensure integrated policy formulation, governance, adequate cooperation and coordination among different government entities, and between the government and non-state stakeholders. Paper concluded that, adopting sustainable development policies, if properly designed and implemented, is likely to generate sufficient funding to support sustainable development activities. Domestic resource mobilization supported by public policies are key for achieving sustainable development. These policies should include good governance, adequate fiscal space, countercyclical fiscal policies, and measures to combat corruption. Apart from securing additional financial resources, focus should be on the mobilization and the re-direction of existing local financial resources, both public and private, towards supporting sustainable development activities. Paper recommendation and result will be presented to the official government and economic institutions to be integrated in the reform strategies and mainly in the Yemen Development and Reconstruction Strategy (2050).

**KEYWORDS**

Sustainable Development, Governance, Economic policies Reform, Yemen, SDGs

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**REGIONAL DEVELOPMENT MODELS FOR THE BALKAN – THE EXAMPLE OF CATALONIA**

Eugen Rosca

«Lucian Blaga» University of Sibiu, Romania, eugenrosca@yahoo.com

**ABSTRACT**

With a population of 16% of the total population and a GDP of 19.2% of Spain's GDP, Catalonia is currently the most prosperous Spanish Autonomous Community. Moreover, its gross income per capita is 23% higher than the average value for Spain and 17% above the EU average, but one should note that at the beginning of the 20th century, Catalonia had only 10.5% of the population of Spain and that the economic growth in Catalonia has led to the migration of labour from the rest of Spain, particularly in the fifth decade of the last century. The Catalan secessionist movement, more evident in the last years, has been stimulated by various socio-economic drivers, such as: on the one hand, the globalization, European integration, free trade and international governance processes have nourished the idea that states should not be large to take advantage of economies of scale, and the economic and political risks of an independent small state are smaller if it is part of a supra-national area like the EU; on the other hand, after 2008, the economic crisis has generated a massive social crisis in Spain (including Catalonia), with very high unemployment and an amplified

impact on the middle class, which has led to a political crisis as this class is the usual electoral base of nationalism. In this complicated and complex framework, the objective of this paper is to explore the extent of "Catalonia as example of development" as applicable to regional development in the Balkans, given the propensity towards secessionism in a region fuelled by nationalist movements such as the ones in Kosovo and Northern Macedonia. The study proposes a comparative approach between Catalonia's development as an autonomous region and the prospects of development of regions in the Balkans by highlighting their strengths and weaknesses and by investigating the business environments with their pros and cons related to economic development. The results of our study may be used for the design of regional economic policies in the Balkans with the goal of enforcing a development with less turbulent outcomes compared to the Catalan one.

#### KEYWORDS

Regional Development, Balkans, Catalonia

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### DYNAMICS OF A COURNOT GAME WITH DIFFERENTIATED GOODS AND ASSYMETRIC COST FUNCTIONS BASED ON RELATIVE PROFIT MAXIMIZATION

George Sarafopoulos and Kosmas Papadopoulos

*Department of Economics, Democritus University of Thrace, Greece, gsarafop@econ.duth.gr*  
*Department of Economics, Democritus University of Thrace, Greece, hurdlerofthrace@yahoo.gr*

#### ABSTRACT

Based on the Cournot oligopoly game and the nonlinear dynamics theory, we study the behavior of semi-public enterprises by considering corporate social responsibility into their objectives. A dynamical duopoly Cournot model with bounded rationality and consumer surplus is established. We suppose that the cost function is quadratic and the demand is a convex and log-linear function. The game is modelled with a system of two difference equations. Existence and stability of equilibriums of this system are studied. We show that the model gives more complex chaotic and unpredictable trajectories. The complex dynamics of the system is demonstrated numerically via computing Lyapunov numbers, sensitive dependence on initial conditions, strange attractors and bifurcation diagrams.

#### KEYWORDS

Consumer surplus, Cournot duopoly game, Discrete dynamical system, Bounded rationality, Stability, Chaotic Behavior

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### ON A COURNOT DYNAMIC GAME WITH BOUNDED RATIONAL PLAYERS, CONVEX, LOG-LINEAR DEMAND AND CONSUMER SURPLUS.

George Sarafopoulos and Kosmas Papadopoulos

*Department of Economics, Democritus University of Thrace, Greece, gsarafop@econ.duth.gr*  
*Department of Economics, Democritus University of Thrace, Greece, hurdlerofthrace@yahoo.gr*

#### ABSTRACT

Based on the Cournot oligopoly game and the nonlinear dynamics theory, we study the behav-

ior of semi-public enterprises by considering corporate social responsibility into their objectives. A dynamical duopoly Cournot model with bounded rationality and consumer surplus is established. We suppose that the cost function is quadratic and the demand is a convex and log-linear function. The game is modelled with a system of two difference equations. Existence and stability of equilibriums of this system are studied. We show that the model gives more complex chaotic and unpredictable trajectories. The complex dynamics of the system is demonstrated numerically via computing Lyapunov numbers, sensitive dependence on initial conditions, strange attractors and bifurcation diagrams.

**KEYWORDS**

Consumer surplus, Cournot duopoly game, discrete dynamical system, bounded rationality, stability, chaotic behavior

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**THE IMPACT OF CORPORATE SOCIAL RESPONSIBILITY INITIATIVES ON RURAL COMMUNITY DEVELOPMENT: THE CASE OF TITAN – SHARRCEM IN KOSOVO**

Haziz Vila, Nikolaos Sklavounos, Evangelos Vergos,  
Konstantinos Rotsios and Hysen Shabanaj

*Perrotis College - American Farm School of Thessaloniki, vhaziz@perrotis.edu.gr*  
*Perrotis College - American Farm School of Thessaloniki, Greece, sklavounosnikos@yahoo.gr*  
*Perrotis College - American Farm School of Thessaloniki, Greece, vvergos@afs.edu.gr*  
*Perrotis College - American Farm School of Thessaloniki, Greece, krotsi@afs.edu.gr*  
*Laboratory for Business Activities (LAB), hysen.shabanaj@lab-ks.org*

**ABSTRACT**

Corporate Social Responsibility (CSR) has become an integral part of firms' strategies, in their effort to increase their positive impact on society. This study investigates the effect of a direct investment, based on the CSR context, on a local community's overall sustainable development. More specifically, it examines the impact of a CSR initiative, known as the "LAB project", implemented by the TITAN – Sharrcem Company, on the rural community of Hani I Elezit (HIE), in Kosovo. The project aims to facilitate and support local population to establish and operate agricultural and food related start-ups and most importantly to ensure their sustainability. The sample of the study consists of 174 area residents. Their responses are statistically analyzed and the findings are discussed. Overall, the results reveal that the project has set the foundations for the community's sustainable development. This study contributes to the existing literature on the impact of CSR initiatives on the development of local communities, by providing new findings on a series of CSR related issues. Furthermore, to the best of the authors' knowledge, this is the first research on the effect of similar initiatives in the region.

**KEYWORDS**

Corporate Social Responsibility, Rural Entrepreneurship, Community Development

## **MANAGERS' PERCEPTIONS ON TRUST AND KNOWLEDGE TRANSFER; eVIDENCE FROM GREEK ISAs IN SOUTH EAST EUROPE**

Nikolaos Sklavounos, Konstantinos Rotsios and Yannis Hajidimitriou

*University of Macedonia, Greece, sklavounosnikos@yahoo.gr*

*Perrotis College - American Farm School of Thessaloniki, Greece, krotsi@afs.edu.gr*

*University of Macedonia, Greece, hajidim@uom.edu.gr*

### **ABSTRACT**

Nowadays, cooperation through the formation of International Strategic Alliances (ISAs) has become a key strategy for many firms that aim to expand internationally. Trust among foreign partners and knowledge transfer are identified in the literature as crucial factors for satisfactory ISA performance. This paper extends a previous research (Rotsios et al., 2018) on these two important parameters and examines a sample of 171 Greek ISAs operating in the under-researched region of South East Europe. Based on aspects from the Social Exchange Theory and the Resource Based View, we explore a) the perceived level of Greek managers' trust towards their foreign partners, and b) the perceived level of the knowledge that the Greek companies have acquired from their participation in the alliance. The empirical findings are discussed and detailed managerial implications are presented, while issues for further research are also proposed. The findings of this study, regarding Greek executives' perceptions on trust and knowledge transfer in the context of ISAs in South East Europe, contribute to the relevant literature by providing support to previous research findings. Furthermore, to the best of our knowledge, no similar research has been conducted before in this region.

### **KEYWORDS**

International Strategic Alliance, Trust, Knowledge Transfer, South East Europe

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## **A LEGAL AND ADMINISTRATIVE EVALUATION OF ROBOTS, AUTONOMOUS VEHICLES AND INTELLIGENT SOFTWARE**

Kutan Koruyan and Bedirhan Bedir

*Dokuz Eylul University, Turkey, kutan.koruyan@deu.edu.tr*

*Dokuz Eylul University, Turkey, bedrhan94@gmail.com*

### **ABSTRACT**

Developments in robotic and autonomous vehicle technology have shown an incredible acceleration over the past five years. This acceleration can be characterized as intention, recognition and investment. The works and large investments of companies such as TESLA and Google are indicative of the importance and value of autonomous vehicles, as well as, robots. The European Union's initiatives like RoboLaw and the size of the investments made in robot field show the popularity of the topic in the last decade. The inadequacy of the existing legal infrastructure for high-cost but potentially lucrative and efficient robots and autonomous vehicles is currently a hot topic of debate. Furthermore, a legislation for these systems are necessary, and investigating the legal deficiencies and misapplications is important to finding solutions for future problems. Case studies and experiences show the legal imperative of robot law. Although, with the help of intelligent software, robots may appear to act on their own, there is actually a programmer, manufacturer or user in the background. For example, the Da Vinci



surgical robot is an assistant robot used by surgeons that only performs specific functions. During surgeries, robots executed medical errors in 9 out of 350 procedures, which caused injury to patients and could have resulted in loss of life. In addition, unfortunately there is no legal system for robotic surgeries if somebody dies during these operations. Autonomous vehicle accidents are another topic of discussion. For example, an UBER autonomous vehicle was involved in a fatal accident. Although the test driver was in the vehicle, he did not focus on the road, believing there was nothing to pay attention to. In this case, the identity of the responsible party (test driver, programmer, manufacturer or vehicle) is still a question that needs to be answered. The purpose of this study was to investigate robots, autonomous vehicles and intelligent software under the current law of the European Union, the United States and Turkey. In addition, the study has made administrative recommendations for improving existing laws and identifying responsible parties for criminal cases. This study examined the legal implications of robots, autonomous vehicles and intelligent software in view of the developing technology and its potential economic benefits in a global world.

**KEYWORDS**

Robots, Autonomous Vehicles, Intelligent Software, Robotic Law, Information Technology Law

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**CLOSING THE COMPETITIVENESS GAP: THE BALKAN COUNTRIES FRONT RUNNERS**

Andreea Paul and Anca Tamas

*The Bucharest University of Economic Studies, Romania, andreea.paul@inaco.ro*

*The Bucharest University of Economic Studies, Romania, anca.tamas@rei.ase.ro*

**ABSTRACT**

The aim of this paper is to investigate the closing of the competitiveness gap between the Balkan countries and the rest of the EU countries and to highlight the front runners among the Balkan countries between 2012 and 2018. The trend regarding the competitiveness and the ease of doing business of the Balkan countries is positive for most of the countries in the investigated period. Macedonia is the only Balkan country in top 3 European countries regarding the ease of doing business in 2018. In 2017, Greece was in the first position at tertiary education enrollment rate, followed by Turkey in second position and Montenegro was on the first position at legal rights index. In 2018, Croatia, Romania and Slovenia shared the first position at trading across borders. A comparison between the performances of the EU Balkan countries and the Non EU Balkan countries regarding competitiveness was made and a valuable Romanian insight was provided. The NGO INACO (with both authors involved) assessed the Romanian National Strategy for Competitiveness and revealed that only one objective out of 27 was met. The conclusions of the paper include practical recommendations to increase the competitiveness among the Balkan countries.

**KEYWORDS**

Competitiveness, Ease of doing business, Balkan countries

## WAVELET ANALYSIS AND RECURRENT NEURAL NETWORKS APPLICATION TO AGRICULTURAL MARKET INVESTIGATION

Olena Liashenko and Tetyana Kravets

*Taras Shevchenko National University of Kyiv, Ukraine, lyashenko@univ.kiev.ua*

*Taras Shevchenko National University of Kyiv, Ukraine, tankravets@yandex.ru*

### ABSTRACT

The global agricultural market is characterized by a high level of dynamism. The volatility of agricultural product supply in the world market and its deficit in some regions, price fluctuations and shocks, development of foreign economic relations, changes in agrarian policy and state support mechanisms require the study of the world market of agricultural products in accordance with modern trends in the development of economic and mathematical modeling. The agricultural market can be interpreted as a system of economic relations, which is formed with the participation of various institutions, provides and regulates the production of agricultural products in the economy. This market is an effective mechanism for meeting the needs of commodity producers and consumer inquiries. The activities of the global agricultural market can not be imagined without commodity markets. In international trade commodity exchanges are very important elements of the general market for agricultural products, which has a particular impact on other food trade processes in the world. The purpose of this work is investigation of prices time series for agricultural commodities futures, based on the wavelet analysis of time series and price dynamics prediction by the Singular Spectral Analysis (SSA) and the Long Short Term Memory (LSTM) recurrent neural network. The basis of the study was the dynamics of daily wheat, corn, oat and soybean futures prices on the Chicago Mercantile Exchange for the period from 2000 to 2018. This gap was chosen because it covers major crises and changes in world markets. In the first stage a preliminary analysis of time series was conducted and a transition to normalized profitability was performed. At the next stage, the wavelet power spectrum were determined, which allow us to study the evolution of the time series dispersion in each scale during the period under consideration. Areas of high power were identified that correspond to the end of 2007-2015. For a number of wheat prices, a clearly defined region with a high level of volatility at medium scales (16-32 days) has been observed since the beginning of the survey by the middle of 2013. Available power peaks determine significant fluctuations of prices, which were 20-35%. The reasons for this situation are largely due to the complex impact of two factors: the industry's dependence on weather conditions and the low elasticity of demand for agricultural products. Also, the crisis had a major impact on financial markets. For fluctuations lasting from 16 to 128 days, the power was greater in the period 2008-2014 and the most noticeable in the wheat market. From the end of 2015, the market is characterized by stable dispersion and a lack of significant fluctuations. It is possible to identify episodes when fluctuations were temporarily stronger for oats, due to the increase in the yield of rough grains (corn, sorghum, barley, oats, rye, millet and mixed cereals) in this period. At the third stage, cross-wavelet power spectrum and wavelet coherence for time series are calculated. Cross-wavelet spectrum is a combination of complex and significant interconnected wavelet spectrum of each time series and shows maximum values at the time and scale, where both series behave like each other. Wavelet coherence characterizes the degree of similarity and phase ratios of series. A stable comovement was found for all the rows, indicating a correlation between volatility and trends (disturbances) in the agricultural market, as well as bidirectional relationships that support the feedback effect and the effect of volatility. In addition, there is an

unstable comovement, that is, for several periods of time and for some scales, the rows are in-phase, and for other periods of time and scales they are antiphase. At the last stage, the prediction of the time series dynamics was performed using the SSA method and the recurrent neural network LSTM. Comparison of the obtained results showed that the LSTM network has better forecasting accuracy.

**KEYWORDS**

Wavelet analysis, wavelet coherence, SSA, neural networks, crisis

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**MCDM APPROACH FOR ASSESSMENT OF FINANCIAL PERFORMANCE OF SERBIAN BANKS**

Ivana Marjanović and Zarko Popović

*University of Nis, Faculty of Economics, Serbia, ivana.veselinovic@eknfak.ni.ac.rs*

*University of Nis, Faculty of Economics, Serbia, zarko.popovic@eknfak.ni.ac.rs*

**ABSTRACT**

The significance and role of the banking sector for the development of national economy define the need for continuous monitoring of the performance of banks. The banking sector in the Republic of Serbia has undergone through considerable changes in recent decades. Contemporaneous trend of liberalization enabled the entry of foreign capital which led to an increase in competition, and the issue of financial performance of banks got significant attention. Adequate evaluation of banks' financial performance may provide useful guidelines to bank managers during decision-making. The problem of banks' financial performance assessment can be defined as a multi-criteria decision making (MCDM) problem since the bank needs to check and oversee an extensive set of performance indicators. Therefore, the MCDM techniques can be a useful tool for the evaluation of the financial performance of banks. In this paper the financial performance of all banks that operated in the Republic of Serbia during the period from 2012 until 2017 was assessed using an integrated model combining the CRITIC method and the TOPSIS method. The analysis consists of two steps: in the first step criteria weights are obtained by the CRITIC method while in the second step the ranking is performed using TOPSIS method.

**KEYWORDS**

CRITIC method, TOPSIS method, financial performance, banks

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**THE IMPACT OF INDIVIDUAL BEHAVIOURAL FACTORS ON TACIT KNOWLEDGE RETENTION: EMPIRICAL STUDY IN OIL AND GAS INDUSTRY**

Abdulghani Gaghman

*The Bucharest University for Economic Studies, Romania, abdulghanigaghman@stud.ase.ro*

**ABSTRACT**

Oil and Gas (O&G) companies are characterised as intensive-knowledge, high-technology organisations which depend highly on employee's accumulated knowledge. On the same time, it is a more turbulent industry which has a higher risk in the term of organisation learning and knowledge retention. The heads of oil and gas organisations like others, face ever new chal-

Challenges and need novel ideas for dealing with them: how to manage global competition, labour diversity, changes in the market, and the transformation of organisational culture. Those external and internal pressures make leaders look for new methods, more accurate approaches, which would assist both in retaining the quality tacit knowledge and in fostering the morale of the employees, as well as assuring the stability in the organisation by avoiding crew changes. To attain the aims, theoretical and empirical study using (277) samples from different international and national oil and gas companies has quantitatively assessed three main factors; the strategic impact of tacit knowledge loss, the impact of knowledge and organisational behaviour at the individual level on Knowledge Retention. This study intentions to understanding knowledge behavioural and organisational behaviour of individuals are mandatory, as relying on explicit knowledge and old-style training courses is simply no longer effective; therefore, the role of tacit knowledge retentions as part of knowledge management is becoming increasingly more important to fulfil the organisation strategic goals. Based on the study results, knowledge and organisational behaviour have a direct impact to improve the knowledge retention within the oil and gas organisation. What knowledge and whose knowledge should be emphasized to reduce the impact of crew change. Learning and sharing knowledge is affected by the cognitive processes and the way the organisation practice and implement the knowledge share such as community of practice (CoP). The last element is positive individual attitude, which reflected in more effectiveness knowledge share and retention. These elements improve tacit knowledge retention and fulfil the strategic goals such as improve the performance and effectiveness of the employees. This conclusion made based on the linear regression - of which explains 83% of the variance in the data with correlation ( $r > 0.90$ ). Results reported using ranges of statistical and graphical techniques including validity measurement. Due to lack of literature review related to knowledge retention in oil and gas organisations, the outcome from this paper will enable organisations to understand the key factors that impact tacit knowledge retention and how to improve and integrate it as part of knowledge management strategy to sustain company's competitive advantages.

#### KEYWORDS

Oil and Gas, Knowledge retention, tacit knowledge, knowledge behaviour, organizational behaviour, knowledge management

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### WINE TRADE BETWEEN PORTUGAL AND BALKAN COUNTRIES: A GRAVITY MODEL APPROACH

Sofia Gouveia, Anthony Macedo and João Rebelo

*UTAD, Portugal, sgouveia@utad.pt*

*UTAD, Portugal, anthonym@utad.pt*

*UTAD, Portugal, jrebelo@utad.pt*

#### ABSTRACT

In a globalised economy, the competitiveness of a country is more and more dependent on the ability of industries to participate in the game of international trade. This issue has been studied since the publication of the seminal work of Ricardo's theory of comparative advantages and Krugman's new trade theory. In particular, the European Union (EU) is looking for a better economic integration with the Balkan countries, not only with countries that already are in the EU but also with those that have started the preliminary activities for membership. The Balkan

countries are economies in transition as they have witnessed large changes and economic transformations. For these countries, trade integration plays an important role in the economic growth and development. Wine is a good example of a globalised product having a diversified geography of production and consumption and fierce competition between countries, and even wine regions. From 2001 to 2015, wine imports of Balkan countries have massively increased from 46.7 to 219.9 million US dollars (increase of 370%). Such increase in the demand was not exploited by Portuguese wines, which have only increased their exports to these countries by around 0.4 million US dollars. Among Balkan countries, Turkey was the main importer of Portuguese wine in 2015, but other major importers in recent years were Romania and Bulgaria. In 2015, despite Portugal being a top 10 wine exporter of the world, the market share of Portuguese wine in all Balkans was only 0.62% (in value terms), and even in the main importing countries this share remained under 3%, which may indicate that Balkan countries are a potential market to be explored with large margin to grow. The dynamics of international trade in general and of wine in particular have been accompanied by a wave of research estimating macroeconomic determinants using the gravity framework to explain trade flows in value or volume. The gravity model is established in the literature as a popular way to analyse international trade. Newton's physical law of gravity is the original idea behind the gravity model. The logic applied to this model is that economic flows are affected by the economic masses of the origin and destination countries whilst being negatively affected by distance. The main goal of this paper is to analyse the recent evolution of wine trade between Portugal and seven Balkan countries (Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Romania, Slovenia and Turkey) based on data of Comtrade. Moreover it investigates the effect of typical gravity variables (extracted from CEPII database) as geographical distances, cultural similarity, EU membership, and the role of regional trade agreement using a panel gravity model for the period from 2001 to 2015.

#### KEYWORDS

Globalisation, Wine trade, European Union, Balkan countries, Gravity model

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### THE BALKANS AS A HIERARCHICAL MARKET ECONOMY

Edgar Juan Saucedo Acosta, Doris Salinas and Jesús Díaz Pedroza

*University of Veracruz, Mexico, esaucedo@uv.mx*

*University of Veracruz, Mexico, dyazminsalinas@gmail.com*

*Autonomous Metropolitan University- Iztapalapa, Mexico, jdp@xanum.uam.mx*

#### ABSTRACT

The Balkans Capitalism has been classified as Coordinated Market, Liberal Market, and Mediterranean and as a version of the region itself. Schneider classified the Latin American economies as a Hierarchical Market Economies, and points out such classification could be applied to medium income economies of others regions. The aim of the paper is to show that Balkan economies can be considered as Hierarchical Market Capitalism. To do that, we estimate a Hierarchical Economy Index to both regions (Balkans and Latin America), which was built with proxy variables of the following organizations: Diversified Business Groups (and multinationals) working in oligopolies and monopolies environments with low competitiveness, Low Skills and Atomized Labour Relations (with high levels of informal economy). Results show that Balkans economies can be classified as hierarchical, because their Hierarchical Economy

indexes are similar to those presented by Latin America economies. Conclusions show that Schneider's Hierarchical Market Economies Classification fit to Balkans economies, because those economies have low competitiveness levels, a high level of informal economy and low skilled workers. Nevertheless, as Latin America, the hierarchical level of Balkans economies varies among such countries.

**KEYWORDS**

Varieties of capitalism, Balkan region, lack of competitiveness, informal economy

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**CHALLENGES OF TRANSITION FROM A COMPLIANCE-BASED LOGIC TO ONE BASED ON PROACTIVITY. THE CONTRIBUTION OF NEW TRADE BALANCES AT THE LEVEL OF ROMANIA GENERATING PROSPERITY**

Dumitru Miron and Ioana Coralia Zavera

*The Bucharest University of Economic Studies, Romania, dumitru.miron@rei.ase.ro*

*The Bucharest University of Economic Studies, Romania, zaveraioanacoralia@yahoo.com*

**ABSTRACT**

Like the other Central and Eastern European countries, Romania needs to move from a societal logic (paradigm shift) based on compliance (specific to the EU accession period) to a pro-active one - which is defining for the process of integration into this particular economic and institutional architecture. In this paper we aim to capture the way in which the Romanian economy evolved in the context of the European economic integration process, having as basic analytical vectors the changes determined by the implementation of the four freedoms of movement specific for the new stage of the single internal market of the European Union. Special emphasis is on the free movement of goods based on the hypothesis that it allows for a clearer emphasize of how the criteria for efficiency in resource allocation and contribution to economic growth have been respected. The authors sought to highlight the level at which imports and exports have put their mark on the general economic structure and how a smaller economy with a certain level of openness to the external environment (small, open economy) manifests competitiveness and contributes through the policies implemented to macrostabilisation in the context of economic cycle fluctuations, as well as to the increase of the degree of well-being. The analysis will highlight how the two trade flows evolved after joining the EU in relation to the previous period, among the methodological parameters used, the new geographical chart of trade relations and a number of significant mutations in the GDP / growth model, the integration of national actors into European value chains (economic integration), and the way in which economic policies are formulated.

**KEYWORDS**

Paradigm shift, freedoms of movement, macroeconomic balances

## READABILITY AND OPTIMISM IN OPERATIONAL RISK DISCLOSURES OF BANKS

Mihaela Mocanu, Christos Grose, Theodore Kargidis

*Bucharest University of Economic Studies, Romania, mihaela.mocanu@cig.ase.ro*

*International Hellenic University, Greece, c.grose@ihu.edu.gr*

*ATEI Thessalonikis, Greece, kargidis@mkt.teithe.gr*

### ABSTRACT

Operational risk has been acknowledged as a major source of material failures in financial firms. Despite the increased concern of financial institutions and their stakeholders on this topic, the literature that deals specifically with the operational risk disclosure in the banking system is scarce. The major problems addressed by the literature that deals specifically with operational risk management (ORM) in the banking system relate to (1) the appropriateness of different measurement models for the operational risk capital charge; (2) the determinants of ORM disclosure; (3) the quality and quantity of ORM disclosure. The present research investigates the style of disclosure in transparency reports of Romanian banks and focuses in particular on the operational risk disclosures. The sample consists of all 28 commercial banks operating in Romania in 2015. The style of disclosure combines conciseness and balance, understood as syntactical reading ease and verbal tone manipulation. First of all, a concise transparency report is characterized by clarity in the expression of concepts, usage of as few words as possible, limited use of technical terms and avoidance of highly generic disclosures. Second of all, a balanced report has no bias in the selection or presentation of information. To attain balance, banks should give equal consideration to strengths and weaknesses of the organization, positive and negative performance etc. Balance is a matter closely related to the extent to which companies make use of impression management methods in order to distort audience perceptions on their image. In line with the impression management literature, we argue that the levels of balance in transparency reports vary systematically depending on corporate performance. Drawing upon prior research, we expect that banks with lower levels of performance are foggier (i.e. less concise) and use a more optimistic tone (i.e. are less balanced) in order to improve the image resulting from their transparency reports. On the contrary, high-performing banks have no incentive to deliberately mislead communication. Additionally, in line with the legitimacy theory, a bank's public reputation is determined by how much time that bank has been operating. Building a reputation requires consistency in behavior within the bank, as well as consistency in disclosure through time. It is expected that the longer an entity has been established, the higher its reputation level may be. In other words, higher levels of disclosure are expected to build and sustain reputation. Hence, we posit that the transparency reports of older banks are less balanced and disclose on a more optimistic tone compared to the recently established banks. The research is part of the larger debate related to disclosure and its various impacts on both the recipient and the giver of information. The main contribution is the innovative approach consisting of the textual analysis of transparency risk reports. To the best of our knowledge, we are not aware of any study that examined disclosure conciseness and balance in the setting of operational risk disclosure by banks.

### KEYWORDS

Readability, Optimism, Narrative disclosures, Banks, Romania

## VOLATILITY FORECASTING WITH NEWS SENTIMENT AND MARKET LIQUIDITY FOR EUROPEAN BANKS

Radu Lupu, Cantemir Calin and Iulia Lupu

*Bucharest University of Economic Studies and Institute for Economic Forecasting,  
Romanian Academy, Romania, radu.lupu@rei.ase.ro*

*Bucharest University of Economic Studies and Institute for Economic Forecasting,  
Romanian Academy, Romania, cantemircalin@gmail.com*

*"Victor Slăvescu" Center Financial and Monetary Research, Romanian Academy,  
Romania, iulia.s.lupu@gmail.com*

### ABSTRACT

The recent evolution of machine learning techniques with applications in Natural Language Processing nurtured the proliferation of new indicators for uncertainty or sentiment. These indicators are based on algorithms that take into account the polarization of words in news articles and their transformation into time dependent standardized measures. Relying on the development behavioral finance, the sentiment indicators have been attracting a lot of attention from both investors and regulators. However, from the empirical perspective, their relation to the fundamentals of pricing is still under investigation. This paper proposes an analysis of the extent to which news sentiment dynamics affects the evolution of volatility for the banking sector operating in the European Union. We use Bloomberg data on price, liquidity and the News Sentiment dynamics for the set of 41 banks listed on European markets, which are part of the STOXX 600 index. For the evolution of price dynamics we use the last trading price for each trading session, while for the News Sentiment we employ the indicator with the same that is newly introduced in the Bloomberg platform. This indicator relies on supervised machine-learning techniques to determine financial sentiment of a news story towards a given company from a long position investors perspective and it takes values between -1 and 1. The sources used for the computation of this indicator are Bloomberg news, Web content and select premium news wires, according to a proprietary selection method used by Bloomberg. For liquidity measurement, we build a liquidity index based on the first component obtained from Principal Components Analysis applied to a set of indicators that contain the Amihud liquidity index, the Hui-Heubel liquidity gauge, the turnover and the bid-ask spreads. Our paper attempts to investigate the following issues: i) Is there any relation between News Sentiment with the dynamics of log-returns? ii) What is the impact of News Sentiment on the evolution of volatility? iii) What is the relation of News Sentiment with market liquidity? iv) Under the assumption that higher liquidity shows better the market dynamics, we analyze the extent to which the volatility models are better fit when liquidity is high rather than the situations with low liquidity. v) What is the impact of the News Sentiment on the fitting power of volatility models? In this development we employ a set of GARCH models for the measurement of volatility and we use Markov regime-switching techniques to differentiate between high a low volatility and News Sentiment.

### KEYWORDS

News Sentiment, market volatility, market liquidity, banking industry



## THE IMPACT OF PUBLISHING FINANCIAL REPORTS ON BUCHAREST STOCK EXCHANGE LISTED COMPANIES

Paul Bahnean and Ovidiu Constantin Bunget

*School of Economics and Business Administration, West University of Timisoara, Romania, paul\_bahnean@yahoo.com*

*School of Economics and Business Administration, West University of Timisoara, Romania, ovidiu.bunget@e-uvt.ro*

### ABSTRACT

Any investor, whether active or passive, aims to take the most accurate investment decisions so that the amount of money invested can be recovered as quickly as possible also in the form of dividends. At the same time, the companies listed on the stock exchange are looking to be as traded as possible, so there should be a financial balance between listed companies that obtain capital and the investors that are looking for a profitable investment. The main purpose of this paper is to find out in which way the publication of the annual reports by the companies listed on the Bucharest Stock Exchange impacts the decisions of the investors. Especially the companies with a considerable experience on the capital market, but not only, prepare financial reports treating the achievements of the previous year, the objectives for the current year, the presentation of the management team and also the shareholders of the companies. Thus, the investors who follow these reports can understand the main goals of the companies they are interested in and can have an overall idea of future investment decisions. In order to investigate the impact of financial reports on the investor behavior, I decided to analyze the evolution in time of at least 5 companies listed on BVB by comparing their stock market activity in December 2017 with May 2018, when all companies are asked to publish financial reports for 2017. The completed charts will help us to see if the moment when these annual financial reports are published can be considered factor of decisive influence.

### KEYWORDS

Bucharest Stock Exchange, investors, investment decision, financial reports

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## INDIRECT AUDITING METHODS FOR INDIVIDUALS SUBJECT TO INCOME TAX

Aggelos Zoitsas, Dimitrios Valsamidis, Theofilitsa Toptsi  
and Konstantina Tsoktouridou

*Department of Accounting and Finance, TEI of Eastern Macedonia and Thrace, Greece, a.zoitsas@solae.gr*

*Department of Accounting and Finance, TEI of Eastern Macedonia and Thrace, Greece, dim.valsam94@gmail.com*

*Department of Accounting and Finance, TEI of Eastern Macedonia and Thrace, Greece, filtop@teiemt.gr*  
*Department of Accounting and Finance, TEI of Eastern Macedonia and Thrace, Greece, ntinatso@teiemt.gr*

gr

### ABSTRACT

This paper provides a tax audit guide, gathering all indirect audit methods applied both in Greece and abroad. It also identifies the size of hidden tax base and of the amounts that could be revealed and taxed. The aim of the current study is to present the indirect audit methods, as this is the imperative

future of tax audits. Indirect methods are applied mainly to individuals, as according to experience, money that has escaped taxation, always ends up in one or more individuals. There are references in the ways in which this fact can be discovered during a tax audit, how to be determined and how understated income will be converted to taxable matter. Problems, opportunities, legislative framework and the overall impact of indirect audit methods are being analyzed in order to reduce tax evasion, in combination with an empirical research conducted as part of this study. A questionnaire that is consisting of 31 questions was completed by 102 tax-employees of the region of Macedonia and Thrace between May 2017 and September 2017. In the questionnaire, we chose closed questions for quick completing and data processing. Moreover, the questions are multiple choice, where it is possible to choose among several pre-defined answers and most of them are questions of scale or preference, where the degree of preference of the respondent stated. They are the most important questions in a questionnaire, because they allow classification of the views or attitudes of respondents. The chosen scales in this research are the Likert and the Gutman. We apply the factor analysis with the method of principal components and with varimax rotation. We investigate the relationship among a number of items and group them in factors. So, the four factors, based on 21 questions of our questionnaire, are used for factor analysis. Before we proceed, we check the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) value to be suitable for factor analysis. Chi-square value for Bartlett's test of sphericity is also checked, to continue the process of factor analysis. All statistical analysis is conducted with the application of the SPSS version 22 software package.

#### **KEYWORDS**

Indirect audit methods, Tax audit, Individuals subject to income tax, Tax evasion

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## **WHY EASTERN EUROPEAN ECONOMIES HAVE FOUND THEMSELVES IN THE MIDDLE INCOME TRAP AND HOW TO OVERCOME IT**

Iurii Bazhal

*National University of Kyiv-Mohyla Academy, Ukraine, ibazhal@gmail.com*

#### **ABSTRACT**

The «middle income trap» mode means first of all a stop in the economic development of those countries that pursues a policy of economic growth but after a certain successful period this tendency slow down and the gap of welfare against developed countries ceases to decrease. This mode can emerge for different countries at various levels of GDP per capita. The variance in income may be rather large, but the common feature is preservation of the existing welfare gap with the developed countries. Such steady state leads to crises in all countries that have fallen into this trap of middle income. In Europe, this situation was emerging after the global financial and economic crisis of 2008-2009. These processes have developed as the continuation of the economic differentiation of the «North» and «South» countries, as well as countries of Western and Eastern Europe. The forecasts for the automatic economic convergence of the European Union countries have not been to come true. Why it was happen? Why the global financial and economic crisis stopped the economic growth of many European countries? This paper tries to give some analytical answers this question and suggests certain economic policy measures to overcome this situation. The main methodological basis of this research was the

Joseph Schumpeter's theory of economic development with a conceptual invention that technological innovations are the main factor of economic development and that the slowdown of innovation processes causes the limitation of economic development. The analysis showed that the confirmation of this situation may be demonstrated by the contemporary economic competition between Europe and United States, as well as with the dynamic Southeast Asia countries. It is the weakening of modern innovation processes in Europe that led to an increase in the economic backwardness of Europe from the United States and a shortening distance from epy advanced Asian countries that realised successfully the catch-up policy. The same picture is observed inward Europe between separate countries. The research carried out in the paper shows that the boundary between countries - economic leaders, and other countries is clearly traceable to the indicators of the European Innovation Scoreboard. The same indicators and characteristics of the participation of countries in the processes of the modern industrial revolution (4IR) convincingly suggest in favour that the «middle income trap» problem is primarily due to the lack of the strong innovation activities in the countries concerned. Based on these findings the practical recommendations for economic policies aimed at overcoming the economic problems of the countries of Eastern Europe that have fallen into the «middle income trap» are offered. Methodological approach of Schumpeter's theory let us theoretical and practical benchmarks to better recognize the needed key economic policy content in the middle-income countries. In this sense it is important to form a vision of economic reforms as the innovation technological change.

#### KEYWORDS

The middle income trap, Schumpeter's theory of economic development, Innovations and knowledge economy, Economics of Catch-up, Economic crisis, Comparative Economics

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### ASSESSING ARTIFICIAL NEURAL NETWORKS (ANNS) ADEQUACY AGAINST ECONOMETRIC MODELS FOR DECISION MAKING APPROACHES IN BANKING INDUSTRY

Sotirios Trigas and Konstantinos Liapis

*Panteion University of Social and Political Sciences, Faculty of Sciences of Economy and Public Administration, Greece, s.trigas@panteion.gr*

*Panteion University of Social and Political Sciences, Faculty of Sciences of Economy and Public Administration, Greece, konstantinos.liapis@panteion.gr*

#### ABSTRACT

The purpose of this paper is to test the effect of non-parametric methodology of ANNs on enhancing decision making procedures compared to classic multivariate Regression models. We implement the two methods on decision making for loan allowances and on a valuation of colaterals using data from a Small Medium Greek Bank. Using sensitivity analysis, we find also the key points where decision-making results change. We provide all the estimations and a comparable matrix is produced in order to point out the similarities and differences between the two methodologies. Also, the key points in decision making approach are presented. The practical implication is that crucial for decision making approach in the banking industry and affects bank's risk management. From the presentation of comparison between the two methodologies, we provide also the relationship between independent variables along with decision making options.

The debate in academic society for theoretical and non-theoretical approaches in decision making procedures, is crucial the last decades. Our paper contributes also to this academic debate, by presenting advantages and disadvantages per methodology. This study demonstrates a practical tool for decision roles and units who are trying to define the best practice for decision making procedures.

**KEYWORDS**

Banking, Artificial Neural Networks, Regression Analysis, Decision Making

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**TYPES OF MARKETS WITHIN THE HEALTHCARE SYSTEMS OF BALKAN AND EAST EUROPEAN COUNTRIES**

Dan Sava

*Independent consultant, Romania, dsava22@gmail.com*

**ABSTRACT**

The purpose of the paper is to provide a general framework for describing various markets within the health care system and to understanding the characteristics of main actors, especially those who act simultaneously in different markets playing the role of supply and demand in the same time. The paper is based on a review of various types of markets within the healthcare systems of Balkan and East European countries using for examples data from the WHO monographs (HiT) on their respective health systems. Nevertheless when the discussion required, as exemptions, selected examples from other health systems were used. It was inferred that markets within their health systems can be grouped in two tiers. The markets where the patient is the demand and the provider of health services (i.e. hospital, clinic, pharmacy) is the supply, and the markets where provider of health services is the demand, and producers of medical inputs (i.e. manufacturers of medical materials, medical equipment, and pharmaceuticals) are the supply. Based on their characteristics, these markets are analyzed from microeconomic perspective. As expected, all of them were found to be imperfect competition markets, of different types, where actors' behavior is specific to the type of market. The article also discusses the how health insurance and government intervention affects these markets. A comprehensive framework captures these findings. The discussion is limited only to the types of markets within the healthcare systems and does not extend to macroeconomic context. The article is an attempt for contributing to the development of economic knowledge especially in regard to less visible, medical inputs markets, called here back-stage markets, which by their extent have a great influence upon the other markets where actors are providers of health services and the patients, called front-stage markets. Health provider institutions and independent medical practitioners play a double role within the health system. They constitute the supply on front-stage markets and demand on back-stage markets. The article is important for policymakers, as it describes the economic incentives driving the actors in the health care system and it is useful in designing hereupon interventions, especially those comprising public interest issues like access, equity, efficiency, quality of care. The article is an endeavor to create a comprehensive yet clear framework which encompasses the markets within the health system, from microeconomic perspective.

**KEYWORDS**

Health care system, Imperfect markets

## THE INFLUENCE OF THE DIGITAL DIVIDE ON E- GOVERNMENT ADOPTION IN GREECE

Elias Gounopoulos, Sotirios Kontogiannis, Ioannis Kazanidis, Stavros Valsamidis  
*Technological Education Institute of Western Macedonia, Dept. of Business Administration, Grevena, Greece, elgounop@teiwim.gr*

*Department of Mathematics, University of Ioannina, Ioannina Greece, Kavala Greece, skontog@gmail.gr*

*Department of Accounting and Finance, TEI of Eastern Macedonia and Thrace, Agios Loukas, 65404 Kavala Greece, Kavala Greece, kazanidis@teiemt.gr*

*Department of Accounting and Finance, TEI of Eastern Macedonia and Thrace, Agios Loukas, 65404 Kavala Greece, Kavala Greece, svalsam@teiemt.gr*

### ABSTRACT

The adoption of e-government services and the active participation of citizens may be affected by the pre-dominant socio-economic inequalities. The current study examined the impact of the digital divide to the use of e-government and e-participation services. We used the micro-data from the national survey on the use of Information and Communication Technologies by the Greek households and individuals. This survey was conducted by the Greek Statistical Authority in 2017, in a representative sample of the Greek population (n = 5443). We analyzed the data by using structural equation modeling. According to the results, the existing digital divide in Greece may influence the adoption of e-government and the active participation of citizens through Internet. The most important factors affecting the decision to use e-government services are the educational level, age and gender. This work highlights the impact of digital divide to every aspect of our digital life. The state should implement policies to address the digital divide, focusing on the vulnerable social subgroups, such as the low-educated and older people.

### KEYWORDS

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e-government, digital divide, e-participation, Greece **ECONOMIC LINKAGES IN THE EU PERIPHERY**

Clara Volintiru, Ștefan George

*Bucharest University of Economic Studies (ASE), Romania, clara.volintiru@gmail.com*  
*Bucharest University of Economic Studies (ASE), Romania, stefan.george.m@gmail.com*

### ABSTRACT

The economic linkages with the economies in the periphery of the European Union have long been the foundation of bilateral relationship. With the EU leading globally in both international trade and foreign direct investment (FDI), it is only natural for neighboring markets to benefit from the geographic proximity and concentration effects of the Single Market. In this article, we explore the regional and bilateral economic linkages that the EU has and looks to develop in the Western Balkan region and the Eastern Partnership (EaP) countries. Following Sasse's (2013) conceptual construction that economic linkages are in a dynamic relationship with domestic politics, we explore the extent to which closer institutional cooperation (e.g. pre-accession procedures, Association Agreements) in the EU periphery leads to higher economic international flows (i.e. trade and investment). To this end, we deploy a mixed methods empirical assessment of trade and investment patterns in the EaP countries

that signed the Association Agreement (i.e. Ukraine, Republic of Moldova and Georgia) and the Western Balkan countries that are in the accession negotiation phase (i.e. Serbia and Montenegro). The present article thus shows in quantitative terms the extent of the economic linkages EU has with its strategic neighbors in the EaP and Western Balkan regions. Additionally, we explore the competing trade and investment flows from third parties, such as Russia and China. As such, we contribute to the existent theory with a conceptual model of relative economic linkages, defined not only by the extent of the bilateral flows, but also by the extent of competing flows.

**KEYWORDS**

Western Balkans, Eastern Partnership, International Trade, Foreign Direct Investments (FDIs) Health care system, Imperfect markets

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**NPL DETERMINANTS. THE CASE OF GREECE**

Paris Patsis, Liapis Konstantinos  
*Panteion University, Greece, p\_patsis@panteion.gr*  
*Panteion University, Greece, konstantinos.liapis@panteion.gr*

**ABSTRACT**

The purpose of this paper is to study the effect of Macroeconomic determinants and country specific determinants in the evolution of the Non-Performing Loans (NPLs) in the Greek Banking sector. Our research focuses not only to the aggregate loans of the banking sector, but also test different loan categories (consumer loans, business loans and mortgages). This paper is motivated by the hypothesis that country specific and macro determinants affect the evolution of NPLs. As methodology we use multi-regression models in order to see how macro and bank specific determinants affect the NPLs. Our research shows relationship between macroeconomic determinants and the evolution of the NPLs. This paper may help policy makers and risk controllers of financial institutions to predict the evolution of the NPLs in the future based on assumptions of the evolution of the macroeconomic variables. This can lead financial institution to take proactive measures to deal with the problem of the NPLs. Our research contributes to the debate that has been developed around the NPLs, since it captures both an expansion and a recession period and also captures the effort of the Greek Financial Institutions to return to normality.

**KEYWORDS**

Banking, NPLs, Macroeconomic Determinants

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**EXAMINING THE SUITABILITY OF THE METHODS OF REGULATING  
NON-PERFORMING LOANS**

Paris Patsis, Liapis Konstantinos  
*Panteion University, Greece, p\_patsis@panteion.gr*  
*Panteion University, Greece, konstantinos.liapis@panteion.gr*

**ABSTRACT**

The purpose of this paper is to study the effect of the restructuring methods proposed by the BoG and EBA on distressed businesses. These methods have been created in order to address the

problem of the Non-Performing Loans, a problem that needs to be addresses as soon as possible and affects not only Greece but also South European countries. We created several business plans of companies that face financial problems. Then we used all the proposed methods in order to find how these methods affect the financials of the companies. These models are also been examined under certainty and uncertainty. This paper shows that under specific circumstances, these methods may indeed help businesses to improve their financials. In addition, we concluded to a technique to choose the best method for each case in order to maximize the positive effects of the restructuring methods to the financial of the companies. Our research has practical implications, since its findings can help distressed businesses that face liquidity, solvency and productivity problem to choose the most appropriate restructuring method in order to face financial healthier conditions, which at the moment doesn't exist. This study demonstrates practical tool for policy makers and businesses that trying to define a solution to companies that face financial problems which at the moment is very important for businesses in Greece.

**KEYWORDS**

Banking, Accounting, Corporate Finance, Non-Performing Exposures

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**EMPOWERING IT OPERATIONS THROUGH ARTIFICIAL INTELLIGENCE – A  
NEW BUSINESS PERSPECTIVE**

Logica Banica, Persefoni Polychronidou, Cristian Stefan, Alina Hagiu

*University of Pitesti,Romania, olga.banica@upit.ro*

*TEI of Central Macedonia,Greece, polychr@teicm.gr*

*Spiru Haret University, Romania, liviu.stefan@yahoo.com*

*University of Pitesti,Romania, alina.hagiu@upit.ro*

**ABSTRACT**

This paper aims to describe the concept of applying Artificial Intelligence for IT Operations (AIOps) and its main components, Big Data, Machine Learning and Artificial Intelligence. The concept was implemented by a multi-layered fusion of the technologies that power the components in AIOps platforms present on the IT market. The study also presents the features of this software category, consisting in benefits for the business environment and their integration into the Internet-of-Things model.

**KEYWORDS**

Big Data, Machine Learning, AIOps, Business performance

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**REGIONAL INTEGRATION IN THE EU; EXPLAINING THE COMMUNITY  
METHOD AND THE OPEN METHOD OF COORDINATION**

Ilektra Simitsi

*Democritus University, Greece, ilektrasimitsi@windowlive.com*

**ABSTRACT**

Regional integration is a multi-functional term that involves multiple sectors of the economy. The first important word identified is "region" where it is understood as the geographical setting, or the area which the act of integration is referred to. Complemented to region, "integra-

tion" stands to highlight the creation of a common ground for all those stakeholders participating in an action of convergence. There are many different countries that have either established agreements for their economic or legal development or others that moved to the establishment of an entire peripheral institutional organization in order to support their strategic plans to integration, convergence, agreements and targets achievements. Because after all, it is better not to stand alone in the era of globalization. One of the most studied and described successful examples of peripheral or regional organizations it is the European Union, and that is the reason why it has been selected to define and describe regional integration and the means to succeed it. In this current paper we will take the example of the EU to explain what a regional organization is, the reason why it has been established and the accompanied theories behind its development and how it has progressed through the years. Explaining the EU as a regional and supranational organization, we will move to the decision making processes of the EU through applying the Community Method which through the EU law it encourages the member states to build common frameworks towards one direction, through legal integration and ordinary legislative procedures, and the adversary of the role of the Open Method of Coordination the EUs' form of soft law, a form of intergovernmental policy-making that does not result in binding EU legislative measures and it does not require EU countries to introduce or amend their laws.

**KEYWORDS**

EU, Coordination, Integration, Law

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**STUDYING THE RELATIONSHIP BETWEEN BURNOUT AND STUDENT LIFE**

George S. Androulakis, Dimitra Ap. Georgiou

*University of Patras, Greece, gandroul@upatras.gr*

*University of Patras, Greece, dgeorgioy@upatras.gr*

**ABSTRACT**

This work attempts to analyze the relationship between burnout syndrome and student life. In particular, core elements of student life were examined using Exploratory Factor Analysis (EFA). By means of hierarchical regression trees, the components of student life were ranked in terms of the importance of their effect on burnout. Accordingly, using EFA, burnout syndrome was decomposed to the structural factors of physical and psycho-emotional burnout, efficacy and self-accomplishment of studies, difficulty in working with others, lack of interest in study and absenteeism, empathy - understanding others' feelings, depersonalization, cynicism - lack of interest in others. Additionally, given that only indirect effects of factors other than the phenomenon itself contribute to burnout syndrome, the impact of each element of the student's life on their burnout level was evaluated by the usage of a Structural Equation Model. The results of the research indicated that the most crucial axes of student life that exert significant impact on students' burnout are the workload pressure of their studies, the adequacy of information and organization provided by their department and the level of their studies' satisfaction as a whole.

**KEYWORDS**

Student Burnout, Student Life, Recursive Regression Trees, Structural Equation Modelling



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## AN EXAMINATION OF FACTORS AFFECTING CYNICISM AS A FACTORIAL ELEMENT OF STUDENTS' BURNOUT

George S. Androulakis, Dimitra Ap. Georgiou  
*University of Patras, Greece, gandroul@upatras.gr*  
*University of Patras, Greece, dgeorgioy@upatras.gr*

### ABSTRACT

In this paper the factors affecting the cynicism as one of the main dimensions of the burnout syndrome are analysed. Specifically, the present study examines student cynicism as a result of the main factors that emerged by means of nested hierarchical regression trees. The most crucial variables derived, were similarly analysed by corresponding hierarchical regression trees and were further approached through a structural equation model. The sample of the survey consists of 582 students of Patra's University, in Greece, representative based on the criterion of the university departments and the students' geographical origin distribution. The results indicated that the main variables influencing students' cynicism is primarily their difficulty in working with others and additionally the inability to understand others' feelings. Simultaneously the lack of efficacy and self-accomplishment of their studies appear to induce their status of cynicism. By evidence, efficacy and self-accomplishment of students' studies, as a factor exerts a dual indirect effect on the level of cynicism, through the channels of the difficulty in working with others and through the lack of interest in the academic studies.

### KEYWORDS

Student Burnout, Cynicism, Emotional Intelligence, Structural Equation Modeling, Recursive Regression Trees

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## ITEM RESPONSE THEORY FOR THE MEASUREMENT OF STUDENTS' BURNOUT

George S. Androulakis, Dimitra Ap. Georgiou, Ioannis Katsenos  
*University of Patras, Greece, gandroul@upatras.gr*  
*University of Patras, Greece, dgeorgioy@upatras.gr*  
*University of Patras, Greece, ikatsenos@gmail.com*

### ABSTRACT

The phenomenon of students' burnout is studied by many researchers. The most common approach is through the usage of structured questionnaires examining the main axes of the syndrome. Typically, for each axis a number of items is used. The aim of this work is to construct an equivalent, smaller questionnaire that includes selected items from each thematic category. The central idea is to use the Item Response Theory (IRT) in order to select the most representative questions of each thematic axis, in such a way that a smaller questionnaire is formatted without affecting its qualitative assessment. For this purpose, the set of items for each thematic axis is analyzed using a multidimensional item response theory to identify the questions with the greatest discrimination ability towards respondents' answers. In this way, the questions arise structure a significantly smaller questionnaire. It is evident from the results of this paper that this "short" questionnaire retains most of the benefits of the "extensive" one. Therefore, it can be used as an initial tool and in case that certain particular characteristics regarding the burnout syndrome ap-

pear the extended questionnaire could be applied. Perhaps in this way, the practical application of the "short" questionnaire could be considered so as valid results could be extracted in a short time.

#### KEYWORDS

Student Burnout, Item Response Theory, Burnout Measurement Scales, Burnout Questionnaire

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### TENDENCIES OF BUSINESS SERVICES TRADE IN VISEGRAD COUNTRIES

Tatiana Corejova, Roman Chinoracky, Maria Rostasova

*University of Zilina, Slovakia, tatiana.corejova@fpedas.uniza.sk*

*University of Zilina, Slovakia, roman.chinoracky@fpedas.uniza.sk*

*University of Zilina, Slovakia, maria.rostasova@fpedas.uniza.sk*

#### ABSTRACT

The proposed paper deals with the trends and structure of the trade with other business services among the Visegrad countries (e.g. Czech Republic, Poland, Hungary and Slovak Republic) as well as in the context of trade in EU 28 and in Eurozone. Visegrad countries are classified as the high income countries. Also, they are all transition economy countries. They significantly change the structure of economy in the transition period and now they have to move to the new structure by the sectors to the economy based on the services with high value added. The providing other business services in these countries indicate the changes in business environment, the firms and the challenge to improve the position in international market. Two important trends in the world economy are identified. First, technological innovations are becoming an ever more important contributor to economic well-being. Second the nationals in the world economy are becoming increasingly open and increasingly independent. The two are not unrelated. The rapid changes in technology intensify the motives for trade and the consequences of integration into the world trading system. The trade with the services so include the trade with the research and development services, legal services, accounting, auditing, bookkeeping and tax consulting services as well as the business and management consulting and public relations services. The laws are constantly changing and speculations increasing in the market, therefore it is necessary to use services such as auditing, services of consultant companies, services of legal offices, etc. The import and export of these services are connected with regional specialization as well as with the increasing the integration or with the increasing the foreign investments. The trends and tendencies are indicated on the basis of the OECD data related to global innovation index both the input and output sides indexes as well as on the data about the trade – export and import of the other business services. These services are important in the era of digital disruption and globalization. The contribution discusses differences or distances between the indexes and their stability in the context of global value chain. The comparison of indices and its sub-indices in Visegrad countries shows the opportunities for better understanding of the conditions, performance, tendencies and rates of exports in these countries. There are several areas further research could be carried out in. To build on the limitations of the study, future research should explore other services and countries. It would also be of particular interest to investigate how the level of development of different industries affects the demand for business and industrial services, and how they are managed. Legal techniques which could be used to gain competitive advantages could quite feasibly be determined. Another key factor which could be examined when investigating industries is the international context – by analysing the effect of cultural factors on the provision and management of business services. One would also

expect the different levels of industrial development and the competitive advantages from country to country to result in different expectations of business services as well as the export and import of services. The aim is connected with increasing the share of the Visegrad countries in the trade with services.

**KEYWORDS**

Business services, trade, Visegrad countries, Import, Export

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**THE EFFECTS OF ADOPTION IFRS ON ACCOUNTING SYSTEM (CASE OIL COMPANIES IN IRAQ)**

Dhiala Alzaawi, Ileana Nisulescu Ashrafzadeh

*Bucharest University of Economic Studies, Romania, dhiala.sabah@yahoo.com*

*Bucharest University of Economic Studies, Romania, nisulescu\_ileana@yahoo.com*

**ABSTRACT**

This research aims to explain the nature of accounting procedures which are currently used in Iraqi oil companies, and accounting procedures in accordance with the International Accounting Standards (IASs), and International Financial Reporting Standards (IFRS). Also, this research aims to find the differences between them, and the impact of adoption IASs, IFRS on current Iraqi accounting system. The research found that some of the important conclusions which is a difference in accounting procedures for accounting system which are currently used in Iraqi oil companies with accounting procedures according to IASs, and IFRS. In addition, harmonization between accounting procedures in Iraqi's oil companies with IASs, IFRSs will contribute to provide relevant information which it helps to attract foreign investments. Finally, the research put set of recommendations including there is a need to reflect in current accounting system which is used in Iraqi oil companies in regard to in line with International Accounting Standards, and particularly with international financial reporting standards (IFRS 6) for extractive industries, as well as, there is a need to achieve harmonization between currently Iraqi accounting procedures and IASs, IFRS in order to attract foreign investments.

**KEYWORDS**

Iraqi oil companies, The Uniform accounting system, IFRS6

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**MEASURING STATES OF INEFFICIENCY AND DECOUPLING IN THE EUROPEAN UNION**

Edgar Juan Saucedo Acosta, Tania Muñoz Remos and Jesús Díaz Pedroza

*University of Veracruz, Mexico, esaucedo@uv.mx*

*University of Veracruz, Mexico, taniamr16@gmail.com*

*Autonomous Metropolitan University- Iztapalapa, Mexico, jdp@xanum.uam.mx*

**ABSTRACT**

The aim of paper is to propose the application of non-parametric models of enveloping data to evaluate the decoupling of the gross domestic product from greenhouse gas emissions and to analyse the effects of two of the main factors of environmental degradation, using variables such as population growth and gross domestic product as the main factors affecting the in-

crease of greenhouse gas emissions and energy inefficiency. The models were applied to analyse the situation of inefficiency and decoupling of the 28 EU Member countries, using data from the years 1995, 2000, 2005, 2010 and 2014. It was found that Luxembourg, Austria, Denmark, Malta, United Kingdom and Italy are the economies that turn out to be the most decoupled, and according to the analysis, a restructuring of public policies is urgent to decrease the inefficiency indexes.

**KEYWORDS**

European Union, Greenhouse gas emissions, Decoupling, Energy inefficiency

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**THE ECONOMIC COSTS OF SMOKING IN GREECE**

Konstantina Koronaiou, Sophia Delipalla  
*University of Macedonia, Greece, koronaiou@uom.edu.gr*  
*University of Macedonia, Greece, sd@uom.edu.gr*

**ABSTRACT**

Greece is among the countries with the highest smoking prevalence (43.8% for ages 15+), ranking third globally and second among EU countries. The high proportion of smoking population makes smoking the leading risk factor for death and disability. This habit has a detrimental impact on health, creating a cost to society. Our aim is to measure the economic cost of diseases attributable to smoking and secondhand smoke in Greece. The method used is the Cost of Illness approach. The economic cost consists of direct costs, such as healthcare expenditures, and indirect costs capturing the productivity loss due to morbidity and mortality. Using estimated smoking attributable deaths and disability from the Global Burden of Diseases Study 2016, we find that the total economic cost is € 6.88 billion (3.95% of GDP); 8.9% of total cost is attributable to secondhand smoke; the direct cost of smoking (secondhand smoke) is slightly less (more) than the indirect cost; the indirect cost is higher for males; musculoskeletal disorders and cardiovascular diseases comprise the greatest fraction of morbidity and mortality cost, respectively. Smoking imposes a heavy economic burden in Greece, underlining the need for efficient interventions, including better implementation of existing policies.

**KEYWORDS**

Smoking, Secondhand smoke, Economic cost, Healthcare expenditure, Mortality cost, Morbidity cost

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**NATIONAL REGULATION OF BANKRUPTIES: THE CASE OF RUSSIA**

Vladimir Plotnikov, Yulia Vertakova, Ion Anghel, Neli Muntean  
*Saint-Petersburg State University of Economics, Russia, plotnikov\_2000@mail.ru*  
*South West State University, Russia, vertakova7@ya.ru*  
*Bucharest University of Economic Studies, Romania, ion.anghel@ase.ro*  
*Academy of Economic Studies of Moldova, Moldova, nelimuntean8@gmail.com*

**ABSTRACT**

Bankruptcy is one of the main mechanisms for the functioning of a market economy. Bankruptcy is a legitimate way to stop the competition for those firms that have lost it. Due to the

significance of this mechanism, the state should regulate its use. At the same time, the forms and degree of this regulation differ in different countries of the world. Analysis of the system of state regulation of bankruptcy in Russia, as well as an assessment of the strengths and weaknesses of this regulation. Objectives of the study: (1) to consider the concept of «bankruptcy of the company», its main characteristics; (2) to analyze the system of state regulation of bankruptcy in Russia; (3) on the basis of empirical data, assess the effectiveness of the national bankruptcy regulation system; (4) to justify proposals for improving bankruptcy regulation. The study used data from the official statistical monitoring of the Russian Federation, federal legislation, data of judicial arbitration practice on cases of bankruptcies of legal entities. To process the initial information, the methods of structural, economic, legal, and institutional analysis were used. It has been established that the system of regulating bankruptcy of companies in Russia is at the stage of formation and development. This is due to the fact that in the Soviet period, with a planned economic model and the absence of a free market, the institution of bankruptcy did not exist. When forming a national model of bankruptcy regulation in Russia, foreign experience was actively used. These borrowings led to the formation of an eclectic model of regulating national bankruptcy. Bankruptcy in Russia is governed by federal laws and government regulations. This regulatory system is stable. Its effectiveness is estimated as quite high. No major changes to this system are required. Today it is necessary to increase the effectiveness of the practice of introducing bankruptcy procedures. An important contribution to solving this problem is made in the development of information support for bankruptcy. In Russia, a national Internet portal has been created where data on cases of bankruptcy of companies are concentrated. An analysis of the information presented there indicates that the number of bankruptcies of companies in Russia does not show active dynamics. The directions for the improvement of the existing system are: (1) the development of information support for bankruptcy procedures; (2) the formation of specialized consulting; (3) development of methods for early diagnosis of bankruptcies and their popularization; (4) improvements in staff training for corporate finance in order to improve the quality of company management and prevent bankruptcy.

**KEYWORDS**

Bankruptcy, Financial condition of company, Government regulation of economy, Russian economy

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**EXAMINATION OF THE RELATIONSHIP BETWEEN CURRENT AND CAPITAL ACCOUNTS IN TURKEY**

Özcan Karahan, Olcay Colak

*Bandırma Onyedli Eylül University, Turkey, okarahan@bandirma.edu.tr*

*Uşak University, Turkey, olcay.colak@usak.edu.tr*

**ABSTRACT**

In today's economies, where commercial and financial economic relations are intensely concentrated, the balance of the current account and its relation to the capital account have gained importance in terms of economic growth and macroeconomic stability. Accordingly, the number of studies analyzing the interaction between the current account and the capital account has increased rapidly in recent periods. However, there is still no consensus in the literature on the causal relationship between the current account and the capital account. A group of economists argue that the developments in foreign trade or current accounts have determined the variations in capital

account. On the other hand, another group of economists argue that the capital inflows to the country, in other words, the changes in the capital account determine the variations in the current account. Starting from this discussion, the purpose of the study is to analyze the causal relationship between current and capital accounts in Turkey. The empirical results show that there is a long-term relationship between the current account and capital account in Turkey. Furthermore causal relationship runs from capital account to current account. Thus, in order to ensure stable economic growth by maintaining the current account balance, effectively managing of foreign capital inflows is a basic factor for the economic policies implemented in Turkey.

**KEYWORDS**

Current Account, Capital Account, Causality Analysis

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**THE DRIVING FORCES OF BUSINESS R&D INTENSITY IN EASTERN EUROPEAN COUNTRIES**

Özcan Karahan, Olcay Colak

*Bandırma Onyedli Eylül University, Turkey, okarahan@bandirma.edu.tr*

*Uşak University, Turkey, olcay.colak@usak.edu.tr*

**ABSTRACT**

Improving national innovation capacity by fostering business R&D expenditure is important to insure long-run economic growth. Therefore, the determination of the drivers of business R&D spending has become an important research topic for economists. Accordingly, this paper aims to make a contribution to this literature identifying the drivers of business R&D expenditure in Eastern European area. Based on panel data regression models for Eastern European countries, we examine the drivers of business R&D intensity with an emphasis on the roles of human capital, high-tech density in manufacturing sector and public R&D intensity. Empirical results show that all three factors have a significant and positive impact on business R&D intensity in Europe. Thus, public policies towards intensively supporting of high-tech manufacturing, investing more on human capital and creating knowledge base by more publicly performed R&D are preferable in order to stimulate business R&D activities enhancing productivity growth.

**KEYWORDS**

R&D Expenditure, Eastern European Countries, Panel Data Models

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**EUROPEAN LEGISLATION AND ALTERATIONS IN THE OPERATION OF CAPITAL COMPANIES**

Kalliopi Kalampouka, Dimitra Giannopoulou, Ilektra Simitsi

*Eastern Macedonia and Thrace Institute of Technology, Greece, pkalab@teiemt.gr*

*Aristotle University of Thessaloniki, Greece, dgiannopou@econ.auth.gr*

*University of Democritus, Greece, ilektrasimitsi@windowslive.com*

**ABSTRACT**

European legislation and alterations in the operation of capital companies have a significant impact on the abolition of bureaucracy at the start-up phase of the companies, with the ultimate goal of stimulating entrepreneurship. This study will attempt to interpret the essential provi-

sions that serve this purpose. At the same time, a survey will be carried out on economic and other elements so as to see if the act reaffirms the will and intention of the European legislator in this field. Reference will be made to the specific legislation on capital companies, and more specifically the provisions of the recent Directive 1132/2017 / EU it will be analyzed and the degree of harmonization of the Greek legislation with the corresponding Directive will be investigated. By focusing on ensuring minimum equivalent protection for both shareholders and partnerships, and capital company creditors, it is particularly important to harmonize the EU Member States' national legislation on setting up such companies and maintaining, increasing and reducing of their capital. In order to ensure legal certainty in relations between companies and third parties as well as between partners, it is necessary to limit the cases of nullity as well as the retroactive effect of the declaration of nullity. This will enhance the security of bona fide third party transactions with companies operating within the Union and help sustainable entrepreneurship.

Finally, the single regulation of cross-border mergers by coordinating national provisions leads to a single internal market where free competition operates through a specific and modernized legal framework that can lead to the expansion and growth of European trading companies and an increase in a sound economy.

#### **KEYWORDS**

Legislation, Law and economics, Company law, Public limited company, Private limited liability company, Harmonization

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## **PRODUCTIVE EMPLOYMENT AND WORKING CONDITIONS AS DETERMINANTS OF SUSTAINABLE ECONOMIC DEVELOPMENT IN SERBIA**

Milica Djokić, Milica Jovanović

*Faculty of Economics, University of Nish, Serbia, milica91nis@hotmail.com*

*Faculty of Economics, University of Nish, Serbia, jovanovicmilicaa90@gmail.com*

#### **ABSTRACT**

For decades, the concept of sustainability has been recognized as the basis for survival and further development of humanity. It became widely accepted that economic progress should not be achieved at the expense of the environment, human well-being and social peace. As the result of joint efforts, The 2030 Agenda for Sustainable Development was adopted in 2015 by United Nations member states, as a plan and direction for future prosperity. It identified 17 goals, with one of them highlighting the sustainable economic growth, productive employment and decent work. Providing quality jobs and safe working environment, while decreasing in-work poverty, are important preconditions for sustainable economic development. In order to achieve it, it is necessary to reduce informal employment, to solve the problem of labor market inequality and especially the issue of youth unemployment. Position of young people in Serbia is peculiarly unfavorable, especially considering the EU standards, but also in relation to their peers from countries in the region. They usually spend much longer time in search for the first job, perform lower quality jobs, often not related to their profession, and get significantly less paid. Such circumstances are the main causes of the «brain drain» that Serbia has been facing for years. The purpose of this paper is to point out the importance of productive employment from the aspect of sustainable development on the example of Serbia, comparing indicators

with surrounding countries and leading EU members. Particular emphasis will be placed on the main difficulties young people in Serbia deal with at the labor market, on certain inequalities and necessary strategies to alleviate the current problems. The issue of youth not in employment, education or training will be analyzed as well, along with unemployment and decent work opportunities in terms of gender and age structure. Furthermore, it aims to address the main causes of these disparities in order to indicate the changes that need to be made and suggest strategies for their implementation.

**KEYWORDS**

Productive employment, Decent work, Unemployment, Serbia, Sustainable economic development

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**THE LINK BETWEEN FINANCIAL CAPITAL MOVEMENTS AND EXCHANGE RATE IN TURKEY**

Özcan Karahan, Olcay Colak

*Bandırma Onyedi Eylül University, Turkey, okarahan@bandirma.edu.tr*

*Uşak University, Turkey, olcay.colak@usak.edu.tr*

**ABSTRACT**

With all countries rapidly adopting financial liberalization, international capital movements have reached enormous dimensions. As a result, capital movements in developing countries have had a major impact on exchange rates, resulting in instability in domestic currency values. Whereupon, the Inflation Targeting Regime, which aims to directly protect the value of domestic currency, has been accepted in many developing countries in recent years. However, even under the Inflation Targeting Regime, it is determined that the interaction between international capital movements and exchange rate leads to various difficulties in the protection of domestic currency value. From this point of view, the purpose of our study is to analyse relationship between financial capital movements and exchange rate in Turkey which adopted Inflation Targeting Regime since 2002. Accordingly, the relationship between financial capital movements towards Turkey and exchange rate has been examined using quarterly data between 2003 and 2018. Econometric results show that financial capital inflows have a significant impact on exchange rate in Turkey. These findings indicate that capital flows to Turkey can be effectively managed in order to stabilize the value of domestic currency.

**KEYWORDS**

Exchange Rate, Financial Capital Movements, Inflation Targeting Regime



## **TOURISM DESTINATION DEVELOPMENT, A SITUATION ANALYSIS OF A GREEK REGION**

Eirini Triarchi, Paraskevi Pappa, Efstratios Kypriotelis

*University of Ioannina, Greece, etriarhi@teiep.gr*

*University of Ioannina, Greece, pvpappa@teiep.gr*

*University of Ioannina, Greece, kypriot@teiep.gr*

### **ABSTRACT**

Tourism is acknowledged to contribute to job and wealth creation, economic growth, environmental protection and poverty reduction. Hence, the excellent performance of the tourism sector globally implies the prospects of a significant revenue stream. Tourism beneficial influence is evident in improving the quality of social life, in intercultural understanding and the sustainable development of cities and communities. Tourism success in building sustainable destinations is a contemporary challenge that the globalisation, technology, innovation, climate and demographic change produced. Well-Balanced tourism management must incorporate all the new trends and supports policies towards sustainability and competitiveness of destinations. However, tourism growth has also unfolded its negative side, especially on the environment, society, and the local economy, shaking the balance between tourists, locals and destinations, and the organisations and businesses of the sector. Thereby, the role of policy planners and developers in tourism should be to maximize destinations communities' welfare by eliminating any other costs. They should be in the position to identify and promote those types of tourism –mass vs alternative- that locals are in favour, ensuring the success of sustainable tourism development. To this context, a challenging issue is how a remote, poor and low performing tourism region, can be developed as a tourism destination and ensure sustainable growth? What type of tourism should be evolved in the area increasing tourists' arrivals, extending their stay and at the same time respecting local society's welfare? These questions are answered through the case study of Epirus development as a tourism destination. Epirus, a region located in Northwestern Greece has the potential to be developed as a favourite tourism destination, and establish a tourism destination image. The region holds a wide range of heritage monuments, natural and cultural resources. However, inadequate infrastructure, inefficient governmental policies, ineffective promotion, lack of collaboration of the region's stakeholders, especially when existing in combination, hinder the sustainable tourism development. The central part of the case study is the S.W.O.T. analysis of Epirus as a tourism destination. This situation analysis discovers the significant advantages and the weak spots of the region as well as the potential opportunities and threats. Also, the stakeholders involved in destination development are recorded, and the development vision is presented. This analysis will be useful in assessing the region's competitiveness as a tourism destination and in planning effective policies for the further development and delivery of tourism experiences following the current market trends of the tourism industry.

### **KEYWORDS**

Tourism Destination Development, Alternative Tourism, Mass Tourism, SWOT Analysis

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## RETAIL EVOLUTION IN EASTERN EUROPEAN COUNTRIES: AN OVERVIEW

Alma Pentescu, Cosmin Pastiu

*Lucian Blaga University of Sibiu, Romania, alma.pentescu@ulbsibiu.ro*

*Lucian Blaga University of Sibiu, Romania, cosmin\_pastiu@yahoo.com*

### ABSTRACT

Retail has evolved a lot in the last years. Still, compared to more mature markets (such as US, UK, Germany, France, Sweden or the Netherlands), retail in Eastern European countries is less developed, with more balanced supply and demand (compared with markets with over-supply of retail space). The growth of online shopping, as well as the ever changing and diverse consumer demands, are key drivers of change in more mature markets. From global business leaders to small local businesses, retail is a dynamic sector with intense competition. According to GfK report on "European Retail in 2018", in 2017 there was a slight increase (+1.9%) in the purchasing power within the European Union (EU28) countries, Romania having the biggest increase (+7.8%). However, Romania's low per capita purchasing power shows a gap in wealth levels across Europe. Huge differences between Western and Eastern Europe are visible also in terms of per capita values for retail space. For example, Denmark, Germany, Luxembourg, Switzerland, Netherlands, Belgium, and Austria have between 1.40-1.60 m<sup>2</sup>/inhabitant, while Turkey, Romania, and Bulgaria have less than 0.80 m<sup>2</sup>/inhabitant (GfK, 2018). Thus, this paper aims to take a look at how several indicators (turnover by NACE Rev. 2, value added by NACE Rev. 2, persons employed by NACE Rev. 2, per capita sales area, retail turnover per m<sup>2</sup> of sales area) have evolved during recent years in Eastern European countries. Data was collected from Eurostat and other industry reports (GfK, 2018; Oxford Institute of Retail Management, 2014). Preliminary results show that on average [EU28] the turnover in wholesale and retail trade has constantly grown (between 2011-2016). This trend is also visible in Bulgaria and Macedonia, while in the rest of the countries there have been fluctuations. As regards the persons employed in this sector, from 2011-2013 there was a slight decline on average [EU28], but starting 2013 the number of employees has constantly grown. Per capita sales area has also increased between 2014-2017 in most Eastern European countries (except for Greece, where it was constant). This positive trend is visible also for retail turnover per m<sup>2</sup> of sales area in all countries considered, although there are differences among them (with Bulgaria and Romania ranked the lowest and Cyprus and Greece the highest).

### KEYWORDS

Retail, Eastern Europe, Secondary data, Indicators

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## THE PUBLICLY DECLARED CUSTOMS UNION BETWEEN ALBANIA AND KOSOVO: AN EFFORT FOR FURTHER ECONOMIC INTEGRATION AND DEVELOPMENT OR A MEANS OF IRREDENTISM?

Victoria Pistikou

*Democritus University of Thrace, Greece, victoria.pistikou@gmail.com*

### ABSTRACT

Leaders of Albania and Kosovo have publicly declared that they plan to create a customs union in order to abolish the traditional borders between them. They also claimed that the abolition

of borders will inevitably occur with the accession of Albania and Kosovo to the EU. The aim of the paper is to examine whether such a union is possible and assess if this move primarily reinforces economic integration or it is the means of fulfillment of irredentist plans. Testing the validity of the theoretical framework, according to which regional trade agreements and even more bilateral free trade areas allow stronger states to further influence weaker states, I examine the case of the creation of the customs union between Albania and Kosovo, under the 1244 Security Council Resolution. First, I analyze the economic conditions under which the potential customs union is going to be made and to what extent basic principles of the background theory is satisfied for a successful endeavor. This will enable me to assess this is a realist plan or whether this is part of the Albanian irredentism in the Balkans, thus, serving political aspirations. More precisely, I use and analyze macroeconomic indicators related to economic power, such as GDP, GDP per capita, growth rates as well as bilateral economic relations. In addition, I analyze the political dimension of the creation of the customs union through a quantitative and qualitative analysis based on military expenditures and foreign policy goals, respectively. I conclude, that the creation of the customs union between Albania and Kosovo is more the first step for the fulfillment of Albania's nationalistic aspirations rather than an effort of the economic upgrade of a Balkan country which struggles to become a member of the EU.

**KEYWORDS**

International Economic Relations Economic Integration, Customs Union, Irredentism, Albania, Kosovo

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**DETERMINANTS OF UNIVERSITY EFFICIENCY FOCUSING ON  
ENTREPRENEURSHIP AND INNOVATION ACTIVITIES**

Özge Saygın Karagöz, Şenay Üçdoğruk Birecikli, İpek Deveci Kocakoç

*Dokuz Eylül University, Turkey, ozge.saygin@deu.edu.tr*

*Dokuz Eylül University, Turkey, s.ucdogruk@deu.edu.tr*

*Dokuz Eylül University, Turkey, ipek.deveci@deu.edu.tr*

**ABSTRACT**

The Bayh - Dole Act came into force in response to the lack of sufficient patent numbers received by US research institutes prior to 1980 and the lack of a technology transfer mechanism to efficiently commercialize the patented inventions. A new era has started in the cooperation between the research universities and the state and the industry with the related law, the transfer of research results from the universities to the industrialization has gained great momentum. It is inevitable for universities to focus on new functions for information transfer in the face of these changes in the ecosystem. Today, one of the main and most important locomotives of knowledge transfer is Higher Education Institutions. The productivity, efficiency and effectiveness issues in Higher Education Institutions are of high importance for policy makers and higher education professionals in the construction of innovative strategies. In this context, the topic of the research is about the measurement of efficiency and determining the factors that affect performance of the university efficiency in the focus of entrepreneurship and innovation activities, which is considered as the third role of the universities. Based on the data for the years 2011 – 2016, it is aimed to calculate the efficiency scores of the top 50 universities in the "Entrepreneur and Innovative University Index" between 2011-2016 by Data Envelopment Analysis (DEA), to examine the environmental factors

affecting the efficiency scores with the panel data analysis and to analyze in detail the elements necessary for higher ranking of successes. The study has a unique value in determining the status of universities in Turkey by focusing on them, determining the necessary elements for developing the entrepreneurial and innovative aspects of the universities and contributing to the achievement of higher rank in the Global Innovation Index internationally.

#### KEYWORDS

Efficiency, Efficiency in Higher Education, Data Envelopment Analysis, Panel Data Analysis

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### THE EFFECTIVENESS OF SUBSIDIZED CROP INSURANCE IN SELECTED COUNTRIES IN EUROPE AND IN THE WORLD

Krzysztof Lyskawa, Marietta Janowicz-Lomott, Pawel Rozumek

*Poznań University of Economics, Poland, k.lyskawa@ue.poznan.pl*

*Warsaw School of Economics, Poland, mjanow@sgh.waw.pl*

*Poznan University of Economics, Poland, prozumek@gmail.com*

#### ABSTRACT

The purpose of the paper is to define a fair way of evaluating the effectiveness of subsidizing crop insurance in selected countries. In the subject literature, there are numerous ways of financing the consequences of peril occurrence in agriculture. Among them, one may distinguish insurances, but also some ad-hoc resources coming from the state budget or aid funds. Subsidized crop insurance is supposed to be the answer to the limitation of ad hoc help for the farmers whose holdings were afflicted by weather phenomena. In the subject literature one may find three basic models of state aid to the market of agricultural insurances [Mahul and Stutley 2010]. They include: the model based on 'full interventionism', the model of public - private partnership and the model which lacks public intervention, based exclusively on market mechanisms. Too little commonness of using this insurance led to introduction of subsidies or compulsory crop insurance. In this paper we are presenting hitherto crop insurance penetration data in Poland, Czech Republic, Slovakia and Ukraine and we assess the potential written premium from this insurance. Considering the contribution of public resources in financing the insurance premium we evaluate the efficiency of this expenditure using economics of subsidies (Harberger triangle) and simulation of the effects of the crop insurance absence. The aim of this paper is to answer the question: is subsidizing the crop insurance in these countries efficient? Public - private partnership (PPP) is frequently perceived as subsidies to insurance premiums and subsidies to the costs of running and maintaining the system or state reinsurance. Many economists question the justification except subsidy schemes [Goodwin and Smith 2013] while others specify a number of conditions in which subsidies can be justified [Hazell et al. 1986, Barrett Barrett and Skees 2007]. As PPP assumes financial involvement, as in the case of any investment (for instance, infrastructure investments), it is essential to determine the effectiveness of spent state funds and practical use in the case of subsidized crop insurances in these countries. Due to limited access to data regarding subsidizing crop insurances, the authors suggest the use of a simplified method of evaluating the effectiveness of subsidizing crop insurances. The concept of evaluating the effectiveness of subsidies to crop insurances from the perspective of budget fund disposer (ministry response for an agriculture) can be based on the analysis of financial flows directed to farmers from the state budget (through the this ministry) as state aid in case of crop damage caused by natural disasters and other natural perils, and confronting them

with claims that farmers receive in the form of compensation arising from crop insurance. If the value of premium subsidies and state aid are higher than the total amount of insurance paid out by insurance companies, insurance subsidizing is not effective. In case when the value of insurances exceeds the value of aid funds and subsidies for farmers, such support is effective. This effectiveness, however, can be evaluated only with respect to those farmers who are insured. Therefore, aid funds should be calculated with respect to insured as well as uninsured farmers. The presented methods cover a simplified and more developed method. The first is based on the currently available data and because of the data limit it can only provide ex post analysis. The other method is deriving from the deadweight loss theory and uses a Monte Carlo simulation for analyzing the effectiveness at different subsidy levels. The proposed methods base on simple analysis of inputs and outputs, theory of deadweight loss and a Monte Carlo Simulation. The previously presented method is the most suitable for current means and possibilities as it relies on available data. On the other hand, it does not allow to analyze different scenarios and forecasting. For such purposes we present following method. It consists of two elements – an economical analysis of subsidy's influence on the market and a Monte Carlo simulation of subsidies and losses occurred in uninsured crops. The simplified method proved that until now the system of subsidizing insurance crop for example in Poland has been effective. Although, due to planned increase in the premium subsidy (from 50% to 65%) it is necessary to be able to measure the effects ex ante. A Monte Carlo simulation, designed as a part of the other method, showed that changes in the system will lead to a 55% increase in the spending for crop insurance subsidies.

**KEYWORDS**

Agriculture, Crop insurance, Subsidize, Public - Private partnership

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**QUALITATIVE CRITERIA AND PERFORMANCE OF THE GLOBAL ECONOMY**

Efstratios Kypriotelis, Nikolaos Arnis, George Kolias

*University of Ioannina, Greece, kypriot@gmail.com*

*University of Ioannina, Greece, narnis@teiep.gr*

*University of Ioannina, Greece, koliasg@otenet.gr*

**ABSTRACT**

The economic analysis of the crises has shown that humanity is confronted with the crises with accumulated experience, the world view and the tools of the science. Each system also has a crisis response mechanism. The 2008 crisis is global and requires universal solutions. This was done through the cooperation in global level, on an economic basis, imposed by economic laws. Global society requires global governance, and a scientific management system that can be implemented and operated as a whole. Cooperation at a global level is objectively imposed, and it has been institutionalized in the G20, the birth of continuing and worsening crises. The handling of the 2008 general economic crisis, by a new mechanism, is not traditionally but consistent with economic security, as part of the global security. This is a complete new approach in regulating the economy, putting new qualitative characteristics in the directorate sphere. G20 has reassessed global security arrangements as a basic prerequisite for the liberation of the productive forces and their development. The issue of global security is also intertwined with the issue of investment in the global economy. At this point, confusion should be avoided, that is, when it is stated that global problems require universal participation in their solution, this does not mean that in pursuing global solutions, global objects also pursue common goals nor

does it mean that international institutions can substitute these subjects for global governance. The new element which is explored is the regulating system as configured in the current global thinking and trends that shape the new qualities in global economy. Also the trends developing in the global economy and the synergies that lead to transition from quantitative characteristics to qualitative. The analysis led to the conclusion that further major structural-qualitative changes are taking place in the global economy. This article, is not proposing economic policies in correcting quantitative indicators, i.e. monetary policy, taxation, increase or decrease of production, investment, consumption, circulation of money etc. Instead, new qualitative measures are proposed to regulate the economy on the basis of global security. It traces the measures proposed and the performance of the economy, under certain economic criteria, quantitative and qualitative. Adhered to this, the relation between the qualitative solutions proposed and the quantitative performance of the economy are investigated.

**KEYWORDS**

Globalization, Governance, Security, Performance, Regulation, Institutions

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**GREEK IT START UPS – AN ANALYSIS OF FOUNDER’S PERCEPTIONS**

Theocharis Stylianos Spyropoulos

*Department of International Business, Perrotis College, Thessaloniki, Greece, info@exoha.biz*

**ABSTRACT**

The study examines the IT Greek start-up ecosystem, analyzing the founders' views, strategy, and current perception regarding their ICT start-ups. The study examines perception of more than 120 founders of Greek IT start ups who participated in exhibitions as start-up companies during 2018 and 2019 and had completed at least one accelerator program. The literature review examines the key success factors for new companies, especially start-ups. The research questionnaire was designed, based on findings of the previous research. This research involves primary research and the use of structured questionnaires. More than 120 questionnaires were distributed to the founders of the startups, and were collected immediately. In certain cases brief discussions with the responders took place, in order to clarify certain points and to confirm validity of the data. The data were encoded and the advanced statistical analysis software (SPSS) was used in order to proceed to statistical analysis. The literature review provides a wide range of factors that can determine the success of start-up companies. The study examines the relationships between variables which, according to the literature review, have significant impact on the success of a start-up, such as previous experience and education level of start-up founders, self evaluation of their ventures, number of founders, current challenges, competition and degree of innovation. The research findings provide a deeper understanding of the dynamics of Greek ICT start-ups, in terms of competitive advantage, value to end customer, need for financial support and founder's future expectations. The findings are useful to entrepreneurs as they strive to increase the success rates of current and future projects as well as to the wider innovation ecosystem, e.g. business angels, venture capital firms, the state etc., to further improve their success rates or design and implement policies for innovation promotion. Finally, key areas for further research are presented.

**KEYWORDS**

Innovation, StartUps, Business Models, Entrepreneurship, Greek

## **CORRUPTION AND THE ENVIRONMENT IN CENTRAL EASTERN & SOUTHEASTERN EUROPE: AN EMPIRICAL ANALYSIS**

Maria Panteli

*University of Macedonia, Greece, panteli@uom.edu.gr*

### **ABSTRACT**

Corruption has been acknowledged as a phenomenon with far reaching implications and profound negative effects for the economies and societies of both developed and developing countries. Among the wide range of negative consequences pinpointed by researchers, there is a growing body of theoretical and empirical literature suggesting that corruption can lead to a decreased level of environmental quality. Given an ever increasing awareness that environmental degradation has the potential to become a significant social and economic threat, the present study seeks to further investigate empirically the relationship between corruption and environmental pollution in the context of the Central, Eastern and Southeastern European countries, with special emphasis placed on the Western Balkan region. The quality of the environment in this group of countries has been greatly influenced by the legacies of the past, including the structure of the economies before transition, the environmental attitudes and behavior of the population and in many cases by war and conflict. However, a detailed statistical analysis of the corruption – pollution nexus in this sample of countries has not taken place, and this is a main contribution of the paper. Using panel data for 17 countries of the region covering the period 1996 – 2014, the impact of corruption on carbon dioxide emissions is estimated. Following the Environmental Kuznets Curve (EKC) literature, an augmented EKC specification is used, as air pollution is modeled as a function of income, corruption and other factors. In the empirical strategy employed, a distinction is also made between the direct impact of corruption on pollution and the indirect impact, stemming from the fact that corruption has been found to lower per capita income and consequently it does influence pollution levels indirectly. Taking into account the empirical results, policy implications are also discussed.

### **KEYWORDS**

Corruption, Pollution, Environment, Income, Central Eastern & Southeastern Europe, Western Balkans

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## **CEO DUALITY AND FIRM DISTRESS**

Georgios Koliass, Efstratios Kypriotelis, Nikolaos Arnis

*University of Ioannina, Greece, koliassg@otenet.gr*

*University of Ioannina, Greece, kypriot@gmail.com*

*University of Ioannina, Greece, namis@teiep.gr*

### **ABSTRACT**

This study examines the relationship between firm performance and corporate governance structure and mainly leadership structure. The recent literature attempts to define the nature and extends of the dilemmas faced by corporations concerning the structure of corporate governance. The corporate performance led to renewed campaigns for governance reforms. The leadership structure is strongly related with CEO duality. The original form of modern business organization was the small firm in which the ownership and management coincided. The de-

velopment of the modern corporations begins with the joint-stock company, in which individual ownership moves towards social ownership. The joint-stock company is a higher form of ownership than private ownership of the means of production. It marginalizes the individual owner and replaces him with managers, who are bureaucratic employees. There are several aspects and dimensions of this relation, which may influence the corporate performance but this study focused on the extreme situation where this relation reaches at its ends, namely the corporation collapse. The recent corporate failures in various countries around the world is contributed to reasons connected with the quality of leadership. This paper has considered the factors that can cause corporate failure and its governance inability to attain their objectives. Data were collected from 283 unlisted firms went bankrupt and 14000 healthy business, for a period of ten years in order a model to be drawn, indicating the possibility of those firms incorporated under duality to bankrupt.

**KEYWORDS**

Corporate governance, CEO duality, Performance, Bankruptcy

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**DETECTING CREATIVE ACCOUNTING IN BUSINESSES IN FINANCIAL DISTRESS**

Nikolaos Arnis, Konstantinos Karamanis, Georgios Koliass

*University of Ioannina, Greece, narnis@teiep.gr*

*University of Ioannina, Greece, kkaraman@teiep.gr*

*University of Ioannina, Greece, koliasg@otenet.gr*

**ABSTRACT**

This paper investigates whether the management of the firms in financial distress apply creative accounting techniques in order to fine-tune the elements of their financial statements. For this purpose, the financial statements of 385 Greek bankrupt companies of the trade and industry sectors for the period 2003 to 2014 were analyzed. The sample was divided into two sub periods; in the period before the financial crisis, that is from 2003 to 2008, and the period 2009-2014 during which the Greek economy was in crisis and recession. By applying factor analysis, five financial ratios were selected which formed the independent variables in a Discriminant Analysis (MDA) and Logit models in order to find those companies which, while they were bankrupt they classified in the last period of their operation as healthy (type I error). By selecting these companies (common to both models), their accounting data for the last two years before went bankrupt has been investigated in order to determine whether they have been affected by the application of creative accounting methods. The results showed that the management of some firms applied creative accounting techniques during the last year of operation before their bankruptcy, which led to the manipulation and falsification of the published financial statements during the period before the financial crisis. However, this is not the case for the period 2009 to 2014, when the Greek economy was in a financial crisis.

**KEYWORDS**

Creative Accounting, Financial Distress, Bankruptcy Classification



## INSURTECH IN CEE REGION – WHERE ARE WE?

Anna Chojan, Jacek Lisowski

*Poznań University of Economics and Business, Poland, chojan.anna@gmail.com*

*Poznań University of Economics and Business, Poland, jacek.lisowski@ue.poznan.pl*

### ABSTRACT

One of the most important trends observed on financial markets is intensive development in the use of information technologies. Enterprises offering such solutions are called FinTechs (financial technology), and the branch of FinTech which focuses on insurance is called InsurTech. Some of the most important issues that InsurTech tackles are risk detection and risk prevention, improving insurance distribution or claims management and processing, personalization and on-demand insurance. The purpose of the article is to review InsurTechs observed on the Eastern and Central European insurance market and indicate the differences and similarities between trends occurred in chosen countries. An additional aim is to specify goals that insurers want to achieve by cooperation with InsurTechs and what technologies are most popular used for this purpose. This paper describes the most important characteristics of selected insurance markets in CEE Region. The observed applications of modern technologies on the insurance market are described and the chosen InsurTech market are briefly characterized. The general trends, legal conditions, similarities, differences between chosen markets are indicated and the values of investments in new technologies are compared. Additionally, article describes how look trends in development of InsurTech markets in CEE Region in comparison to Western Europe and North America markets. In the summary, the development levels of new technologies at insurance markets in CEE Region are described and main trends in new technologies used by InsurTech are presented. The authors portray the potential future of InsurTech in CEE Region and compare it to technological development levels observed in other markets. The research methods adopted in the article include literature studies, analysis of information from online sources and inference.

### KEYWORDS

FinTech, InsurTech, insurance, CEE Region

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## IS THE TAX BURDEN A GENERATING FACTOR OF FISCAL EVASION IN SOUTH-EAST EUROPE?

Loredana Andreea CRISTEA<sup>1</sup>, Alina Daniela VODĂ<sup>2</sup>, Bianca CIOCANEĂ<sup>3</sup>  
and Mihaela LUCA<sup>4</sup>

<sup>1</sup>*Lucian Blaga University of Sibiu, Victoria Bulevard 10, Sibiu, Romania, crs.loredana@yahoo.com*

<sup>2</sup>*Lucian Blaga University of Sibiu, Victoria Bulevard 10, Sibiu, Romania, alina.voda3@yahoo.ro*

<sup>3</sup>*Lucian Blaga University of Sibiu, Victoria Bulevard 10, Sibiu, Romania, sb19biu@gmail.com*

<sup>4</sup>*Lucian Blaga University of Sibiu, Victoria Bulevard 10, Sibiu, Romania, mihaluca2006@yahoo.com*

### ABSTRACT

Tax evasion is a pernicious phenomenon, very widespread in the world, which is closely linked to the system of taxes and fees. This is considered to be a response to the excessive fiscal pressure exerted on taxpayers. Bypassing the law is also closely related to the phenomenon of corruption, and its removal is a difficult target, under the existing conditions. The main purpose

of this paper is to study the influence of corruption and fiscal pressure on the phenomenon of tax evasion, materialized by the shadow economy indicator. The analysis is carried out over a period of 18 years, namely 1999-2016, for six countries of South-Eastern Europe, member states of the European Union, divided into two categories, namely developed and emerging states. The research methodology requires comparative analysis of existing situations in the research countries. Also, we will use the econometric analysis, with the statistical program SPSS (Statistical Package for Social Sciences), of the relationship between the underground economy and corruption, as well as the correlation between tax burden exerted by the budget revenues and tax evasion. Being difficult to quantify, the level of shadow economy has been taken from Friedrich Schneider's studies, through which he measured underground economy in 157 countries over the period 1999-2013; but also in 36 states, between 2003 and 2016. The level of corruption is measured using the corruption perception index at international level and the tax burden is calculated as the ratio between tax revenue and gross domestic product.

**KEYWORDS**

Tax burden, Shadow economy, Corruption, South-East Europe.

**JEL CLASSIFICATION**

H2, H26, E62

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**COMPETITIVENESS, PROFITABILITY AND R/D INTENSITY: THE CASE OF THE DOMESTIC PHARMACEUTICAL INDUSTRY IN GREECE**

Vasiliki Kounnou, Dimitris Kyrkilis

*University of Macedonia, Greece, vasiliki.kn@gmail.com*

*University of Macedonia, Greece, kyrkilis@uom.edu.gr*

**ABSTRACT**

Greek pharmaceutical industry has emerged as one of the major drivers for the Greek manufacturing sector, especially between 2000 and 2011. The value-added of the industry to the overall economy is indicated by its impact on the gross value-added of the economy's output, employment, exports, innovation and global competitiveness. Greek pharmaceutical firms have one of the highest investment shares in innovation and R&D activities in the total Greek economy. The aim of this paper is to investigate the causal relationship between industry level competitiveness, profitability and R/D intensity. Specific financial ratios have been selected for the regression analysis using a sample of Greek pharmaceutical firms with in-house Research and Development department. The period of the analysis has been defined between 2004 and 2015. According to the existing literature, it is expected that R/D intensity plays a significant role on the profitability and other performance indicators of Greek pharmaceutical firms.

**KEYWORDS**

Greek pharmaceutical industry, R/D intensity, Competitiveness, Profitability

## IMPLEMENTING THE SDGS: RECENT PROGRESS AND FUTURE OUTLOOK OF ROMANIA

Nancy Diana Panța

*Lucian Blaga University of Sibiu, Romania, nancy.panta@ulbsibiu.ro*

### ABSTRACT

In the wake of a worsening environmental degradation and poverty resurgence adding to a growing global population, the future needs to be addressed through the lenses of Sustainable Development. This has also been acknowledged by the United Nations General Assembly, which launched in 2015 a historical universal call to action to address global issues that include, inter alia, poverty, global warming, education, peace and health. Romania is one of the countries that has committed to face present development challenges according to the 2030 Agenda of the United Nations and implement its 17 Sustainable Development Goals (SDGs). Therefore, as the Agenda moves towards achieving the goals, the present paper will follow to analyse the dynamics of the progress reached by Romania in implementing the SDGs in the 2010-2017 period based on statistical data. Also, the analysis will focus on providing a future outlook of the analysed country through forecasting its progress related to SDGs implementation.

### KEYWORDS

Sustainable Development, SDGs, Romania, Progress, Future Outlook

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## TURKEY'S INDUSTRY 4.0 ADVENTURE: DREAM OR REALIZATION

Vahap Tecim, Cigdem Tarhan

*Dokuz Eylul University, Turkey, vahap.tecim@deu.edu.tr*

*Dokuz Eylul University, Turkey, cigdem.tarhan@gmail.com*

### ABSTRACT

Today's technology minimizes human errors and enables the implementation of applications that will enable the electronic devices to work flawlessly as much as possible. Both socially and technically, in each sector with all levels, the manager must make decisions based on his/her responsibility and interest. In these environments, making the right decision, unprotected or minimal damage to the risks, depends on the personal ability of the decision maker as well as the information that comes with it. The concept of Industry 4.0, which has emerged in parallel with technological developments, includes the transformation of production and service activities into modern automation systems in social areas and the use of new methods in data exchange. In this context, the internet of the objects, the internet of services and cyber-physical systems constitute the basic structures of the new formation. In this study, the use of these technologies in the areas where social sciences operate in the fields of which are the components of the technological developments that emerged as Industry 4.0 are discussed in the topics of Autonomous Robots, Big Data, Simulation, System Integration, Cyber Security, Cloud Computing, 3D Printers, Enhanced and Virtual Reality. are presented. In this study, planning, analysis, design, coding and implementation stages of many technologies produced and implemented by Management Information Systems for social sciences with the reason of the emergence of Industry 4.0, innovation, flexibility and efficiency approach will be explained in this study. Additionally, this paper examines the effect of the industrial transformation in Tur-

key. The study also examines R&D and communication indicators Turkish economy from the perspective of the Industry 4.0.

#### KEYWORDS

Industry 4.0, Internet of Things, Management Information Systems, Information Technologies

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## WHAT KIND OF LECTURES DO MODERN STUDENTS NEED? STUDYING THE NEEDS OF CONSUMERS OF EDUCATIONAL SERVICES IN EAST-EUROPEAN UNIVERSITIES

Valery Okulich-Kazarin

*Pedagogical University of Cracow, East European Research Group, Poland, okvp@yandex.ru*

#### ABSTRACT

The aim of this report is to study the needs of East-European consumers of educational services related the way of learning at lectures. There were several groups of respondents from four countries surrounding Romania. There were countries: Bulgaria on the South, Poland on the North, Ukraine on the East and Serbia on the West. The study was carried out since February 2017 till February 2019. The main research methods were literature review, sociology (planning of experiments, questionnaire survey, primary processing and grouping of results) and statistics (verification of statistical hypotheses). The report is a part of a general research of educational services in East-European Universities. The parts are united by a common research methodology. They have very close fields of literature review. And they differ in the purpose of the study, the groups of respondents and research results. The study was carried out with the support of the two research projects: - «0114U006192\_Generation and improvement the mechanism for the sustainable development of economic systems», Ukraine, 2017. - «Analysis of the effectiveness of educational processes on the basis of competencies and opinions of the participants of the educational process: innovations in the management of educational systems and processes», Poland, 2018. Research hypothesis: the consumers of educational services need the auditory learning method at the lectures. The object of the study is educational services in East-European Universities. The subject of the study is the needs of consumers of educational services at the lectures. The result is a real scientific fact: the consumers of educational services do not need the auditory way of learning at lectures. This result applies to the countries surrounding Romania. With a statistical significance level of 99.0%, the alternative hypothesis was accepted: the consumers of educational services do not need the auditory learning style at lectures, if the random deviations are not taken into account. First of all, the result is not a new theory, a new scientific law, a new scientific conception. The independent student opinions were transformed into real scientific knowledge. This real scientific fact should be taken into account when developing of higher education system in the changing Eastern Europe. Secondly, a comparison of the needs of students from different countries surrounding Romania helped to bring together the results of several groups of respondents into a coherent overall picture. Thirdly, on the basis of new scientific fact about the student needs the real recommendations could be given for the Top-management of East-European Universities: university teachers should use visual ways of teaching students at the lectures. Innovative ideas, reflected in the recommendations could be used for improving of teaching-technologies in East-European Universities. This opens new horizons for cross border cooperation in East

Europe. The task of the next study is to assess the needs of the consumers of educational services in other countries of Eastern Europe, first of all, in Romania.

**KEYWORDS**

Educational services, Consumers of educational services, Needs, Lecture, Educational services market

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**MAIN DETERMINANTS OF FDI INFLOWS IN CEE EMERGING COUNTRIES:  
A COMPARATIVE ANALYSIS**

Anca Mihaela Copaciu, Ioana Alexandra Radu, Alexandra Horobet

*The Bucharest University of Economic Studies, Romania, ancamihaela.paraschiv@gmail.com*

*The Bucharest University of Economic Studies, Romania, ioana\_alexandra\_radu@yahoo.com*

*The Bucharest University of Economic Studies, Romania, alexandra.horobet@rei.ase.ro*

**ABSTRACT**

Over the last two decades, European emerging countries have been subject to several changes in terms of capital flows sources, as foreign capital has started to penetrate the economies, with direct impact on reshaping the private and public sectors. The main objectives of this paper are twofold: (i) to delineate the overall trends in foreign direct investments (FDI) inflows and main determinants of FDI attractiveness in a sample of nine selected CEE countries over the last twenty years and (ii) to econometrically investigate the key drivers of FDI inflows within the same group of selected countries. We identify a set of macroeconomic and institutional variables with a direct impact in determining the level of FDI inflows in the host CEE emerging countries. In line with other economic studies, the current analysis draws attention to the following main points: (i) a higher real GDP growth leads to an increase of FDI inflows; (ii) the depreciation of local currencies has a negative impact on FDI inflows evolution; (iii) the quality of infrastructure, the level of corruption, an adequate level of ease of doing business, the level of privatization and the governments' expenditures on education in the host countries are key variables in attracting new FDI inflows in the host CEE emerging countries. Derived conclusions from these results are that a proper and competitive business environment (with positive effects of privatization and enterprise restructuring) and a highly educated labor force, sustained by government investments in this field can increase the inflows of FDIs in the selected host countries to the same extent as more traditional, extensively studied macroeconomic variables, such as real GDP growth, degree of openness, GDP per capita and inflation rate can do. Therefore, our paper offers useful answers to macroeconomic policy issues, by indicating a series of viable directions to follow in order to increase FDI attractiveness in CEE emerging countries.

**KEYWORDS**

Foreign direct investments, Macroeconomic environment, Business environment, Corruption, Education

## A REVIEW OF RENEWABLE ENERGY PROFITABILITY, EXPOSURE TO RISK AND SUSTAINABILITY ISSUES

Fatbardha Morina, Chrysanthi Balomenou, Ugur Ergun

*Epoka University, Albania, fmorina@epoka.edu.al*

*Epoka University, Albania, cbalomenou@epoka.edu.al*

*Epoka University, Albania, uergun@epoka.edu.al*

### ABSTRACT

Energy in the world is being provided using fossil fuels as a source because they have the lowest costs and it is considered that we are living in an era of fossil-fueled economies. But due to global warming and climate change, it is necessary to find alternative sources in order to provide energy for future generations and to end the age of fossil fuels. The demand and consumption of the energy is increasing but the resources are limited. In this way, it is generating interest in renewable energy in order to reduce the negative effects on the environment and to create sustainable development. The question is how profitable and which are the risks that renewable energy companies face? In this way, the aim of this paper is to: 1) theorizing and exploring the factors that affect the profitability and exposure to risk, 2) policies that promote renewable energy, and 3) sustainability of renewable energy. The review process began by conducting a conceptual review of the term profitability, risk and sustainability of renewable energy by academic and non-academic literature and the second stage is searching by using keyword such as "profitability", "risk", "energy policies", "sustainable", "renewable energy" in academic libraries such as ScienceDirect and published books related to these objectives. We have analyzed the different approaches related to profitability such as structure conduct performance (SCP), persistent of profit (POP) and resource base view (RBV). Also, we have reviewed the empirical studies that are conducted for different companies that operate around the world in order to identify which of firm characteristics, country level and macroeconomic factors influence profitability. Renewable energy companies are among the riskiest types of companies to invest in and it is necessary to have good information related the risk factors that will face. These companies often are considered as closer to the technology sector than energy sector due to high cost of investment. The study of renewable energy companies that produce clean energy and they tend to improve human development and consequently economic growth is crucial to create a sustainable development. This study suggests some policies that should follow by policymaker in order to promote renewable energy companies and to create suitable conditions for sustainable development. The development of renewable energy companies is associated with economic, social development, climate changes mitigate that reduce emission in the environment and have positive effect on health.

### KEYWORDS

Profitability, Risk, Renewable energy, Sustainability, Clean energy

## DO FISCAL RULES CONSTRAIN FISCAL POLICY IN ROMANIA?

Alina Daniela Vodă, Loredana Andreea Cristea, Bianca Ciocanea, Mihaela Luca

*University «Lucian Blaga» of Sibiu, Romania, alina.voda3@yahoo.ro*

*University «Lucian Blaga» of Sibiu, Romania, crs.loredana@yahoo.com*

*University «Lucian Blaga» of Sibiu, Romania, sb19biu@gmail.com*

*University «Lucian Blaga» of Sibiu, Romania, mihaluca2006@yahoo.com*

### ABSTRACT

At both macroeconomic and national level, in recent decades, the fiscal policies applied at the European level have shown a particular interest in solving the problem about the spectrum of risks in terms of maturing the business environment and the lack of sustainable development of the economy. There has been a significant increase in general government gross debt, which is increasingly threatening fiscal sustainability in Romania. This is due to the fiscal rules that restrict the applicability of the fiscal policy to balancing the national economy. However, fiscal policy did not act in the direction of economic recovery during the crisis that started in the last quarter of 2007, having a negative impact on the Romanian business environment. In limiting terms, in a democratic country, by respecting economic principles and by stimulating competition, a fundamental element that should be the first in the political agenda, would be to stimulate the business environment by providing tax incentives to lead it to the stage of economic maturity. Moreover, the implementation of certain legislative rules should have helped mitigate the risks of the financial crisis and direct the economy out of the turbulence zone. The European Commission adopted a policy framework entitled «Think Small First: A Small Business Act for Europe», on June 2008, that was to influence the business environment of all member states of European Union, including Romania. The purpose of the Small Business Act (SBA) was to highlight the importance of businesses in the economy of a country by introducing a set of ten principles to capitalize on their potential. This article will analyse how fiscal rules in Romania restrict the application of fiscal policy, as well as whether there is an explicit concordance between them. Objectively, fiscal policy should manifest as a general framework of the economy on the basis of which to develop fiscal rules that act in the direction of sustainable development of the business environment and, implicitly, of socio-economic life. Thus, based on the analysis of a set of six indicators (general government gross debt, gross fixed capital formation, gross domestic product, government revenues, government expenditures and inflation), we will identify how fiscal rules in Romania restrict fiscal policy.

### KEYWORDS

Fiscal policy, Sustainable development, Tax revenues

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## DIGITAL DIVIDE EVALUATION IN HIGH EDUCATION FROM DISTANCE LEARNING PERSPECTIVE

Cigdem Tarhan, Can Aydin, Vahap Tecim

*Dokuz Eylul University, Turkey, cigdem.tarhan@gmail.com*

*Dokuz Eylul University, Turkey, can.aydin@deu.edu.tr*

*Dokuz Eylul University, Turkey, vahap.tecim@deu.edu.tr*

### ABSTRACT

Digital divide is a term that refers to the gap between demographics and regions that have access to modern information and communications technology, and those that don't or have

restricted access. This technology can include the telephone, television, personal computers and the Internet. Well before the late 20th century, digital divide referred chiefly to the division between those with and without telephone access; after the late 1990s the term began to be used mainly to describe the split between those with and without Internet access, particularly broadband. The digital divide typically exists between those in cities and those in rural areas; between the educated and the uneducated; between socioeconomic groups; and, globally, between the more and less industrially developed nations. Even among populations with some access to technology, the digital divide can be evident in the form of lower-performance computers, lower-speed wireless connections, lower-priced connections such as dial-up, and limited access to subscription-based content. The reality of a separate-access marketplace is problematic because of the rise of services such as video on demand, video conferencing and virtual classrooms, which require access to high-speed, high-quality connections that those on the less-served side of the digital divide cannot access and/or afford. And while adoption of smartphones is growing, even among lower-income and minority groups, the rising costs of data plans and the difficulty of performing tasks and transactions on smartphones continue to inhibit the closing of the gap. This paper examines the question of distance education and its pivotal role in promoting success, social change and development in Turkish education system in terms of digital divide concept. The case area is Izmir city which is the 3rd biggest city in Turkey. From started at the beginning of the 21th century, information technologies have been using at different levels of education; for example, the smart boards and tablets at high school level, distance learning at universities. Especially, distance learning is very popular in universities different levels of education. However, they have not the same chance to reach and use internet for their education. Some of the students only use the department computer laboratories and the others use owns cell phones and internet capacities in order to follow courses. This paper aims to discuss the differences from the perspective of digital divide concept. Different levels of university students are observed in Dokuz Eylul University, made questionnaires. One sample t-test, ANOVA and spatial statistical methods (weighted average center, weighted standard distance and weighted standard deviation ellipse) were used in the analysis of the data. In the evaluation of the results, the students were determined as gender and cities where they graduate as factor. Among the students, it has been found that men use information technologies more effectively than women who have information technologies. Additionally, results of the spatial statistics there is no digital divide between regions of country according to city where students graduated.

**KEYWORDS**

Digital divide, High education, Information technology



**PUBLIC CORPORATE GOVERNANCE: UPCOMING CHANGES  
REGARDING THE IMPLEMENTATION OF INTERNATIONAL PUBLIC  
SECTOR ACCOUNTING STANDARDS (IPSAS) AND CORPORATE SOCIAL  
RESPONSIBILITY IN PUBLIC SECTOR**

Christos Galanos, Sotirios Trigkas, Fotini Pagalou, Konstantina Giarou

*Department of Economic and Regional Development, Panteion University, Greece,*

Christos.Galanos@panteion.gr

*Department of Economic and Regional Development, Panteion University, Greece, s.trigkas@panteion.gr*

*Department of Economic and Regional Development, Panteion University, Greece,*

fpagalou@gmail.com

*Department of Economic and Regional Development, Panteion University, Greece,*

nadia.giarou@gmail.com

**ABSTRACT**

The upcoming changes following the mandatory implementation of IPSAS in public entities, as well as those of the wider public sector and the corporate social responsibility of public bodies, are cutting edge issues that will dominate changes in the public sector the following years. This paper aims to highlight the significant changes affecting not only Greece but also all EU countries. We present the changes that have been made to date as well as the upcoming required changes in Greece and the EU. We carry out a comparative analysis between the current and the forthcoming situation, both for the public governance and for the change of the public accounting and its procedures. Also, we compare the corporate social responsibility of European and Greek legislation and of the various convergences between IPSAS and IAS. Through the construction of a flowchart of proposed convergence actions, we point out possible failures - deviations that may occur during the transition time as well as all actions that should be taken accordingly. With this paper, we provide a roadmap for the transition and transformation of the operations of public entities.

**KEYWORDS**

Public Administration, Public Sector Accounting, Corporate Governance, Social Responsibility, IPSAS, IAS

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**SUPRANATIONAL CLASS FORMATION AND CONCEPT OF CONTROL IN  
GLOBAL ECONOMY**

Efstratios Kyriotelis, Eirini Triarhi, Konstantinos Karamanis

*University of Ioannina, Greece, kyriot@teiep.gr*

*University of Ioannina, Greece, etriarhi@teiep.gr*

*University of Ioannina, Greece, kkaraman@teiep.gr*

**ABSTRACT**

In classical theory, the relationship between state and capital is presented as an internal relationship, although there is an argument that it is external. If the relationship is external, that means that state and capital are two separate entities in a dialectical relationship. The relationship between state and management and control is independent of the relationship between capital and state, whether the latter is internal or external. Some commentators have gone as

far as to suggest that we are witnessing the era of the post-national corporations. Doubters have predicted the demise of the nation-state. And globalization has brought changes in state sovereignty, capitalize on its exposure to global market. On the contrary the nation-state persists, especially in its control of fiscal and monetary policies, and international business. And it remains the only political unit. Many combinations and variations can be designed; the state is in a more advantageous position in the global market. The expansion of the state sector in the economy marks the expansion of the recognition of the social nature of the productive forces. However, historical evolution does not end with State Monopoly Capitalism (SMC), which is replaced by the Supranational Monopoly Corporation (SNMCo) - for subjective and objective reasons. This movement creates new trends in the control sphere of global economy, lending to the birth of external, supranational control. The transition to the global market takes place through the passage of capital and labor force movement into a global economy. This article offers a theoretical framework to explain and present the process of developing supranational class and supranational capital and their effect in control of global economy. A mechanism of transition is created, which starts from the nation state and covers the core of economic life, the enterprise and investment in the global environment, in which the issues are now set. In the core of these changes stand the type of entrepreneurship, the type of enterprise evolving as the economy evolves. Consequently, as the economy changes, the management and control of global economy change.

**KEYWORDS**

Globalization, Governance, Control, Supranational, Regulation, Institutions

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**CONTEMPORARY ASPECTS OF FINANCIAL - BANKING RESPONSIBILITY**

Bratu Renate

*Lucian Blaga University, Romania, renate.bratu@ulbsibiu.ro*

**ABSTRACT**

We all as individuals, have responsibility for any decisions, in terms of time, value and risk. In time, the system in which we are evolving requires different behaviors that are in alignment with our interests, as individuals, as organizations or as institutions. The paper brings into attention the concept of financial responsibility manifested in financial – banking environment. The main aim of this articles is to evaluate the awareness, the manifestation and the possible effects of financial responsibility, in Romania. The primary results reveal the fact that financial responsibility can foster the positive effects on individual's welfare, and also on financial system. Moreover, here it is also evaluate the impact of financial education on the financial responsibility manifestation, as well as the theoretical interdependence ratio between those two terms – financial responsibility and financial literacy.

**KEYWORDS**

Financial responsibility, Financial education, Financial environment

## OPERATING ROOM MANAGEMENT AFTER THE ECONOMIC CRISIS IN ITALY: A CASE-STUDY

Andrea Ubiali, Andrea Rochira, Matteo Buccioli, Stefano Bonarelli, Maurizia Rolli,  
Mario Cavalli, Anselmo Campagna

*University of Bologna, Italy, ubiali.andrea@gmail.com*

*University of Bologna, Italy, rochiraandrea@gmail.com*

*IRCCS Istituto Ortopedico Rizzoli, Bologna, Italy, matteo.buccioli@gmail.com*

*IRCCS Istituto Ortopedico Rizzoli, Bologna, Italy, stefano.bonarelli@ior.it*

*IRCCS Istituto Ortopedico Rizzoli, Bologna, Italy, maurizia.rolli@ior.it*

*IRCCS Istituto Ortopedico Rizzoli, Bologna, Italy, mario.cavalli@ior.it*

*Health Policies Department, Emilia-Romagna Region, Bologna, Italy,*

*Anselmo.Campagna@Regione.Emilia-Romagna.it*

### ABSTRACT

**Introduction:** Operating Rooms (OR) represent one of the most important and most critical resources in a hospital, constituting a high-cost/high-risk environment. In this setting many different actors, whose goals and perspectives do not always overlap, interact, generating a high level of complexity. Management and coordination are therefore key activities in order to ensure efficiency, quality and safety of care. Interest in Operating Room Management (ORM) has been growing in the last decades, and got even more momentum in the aftermath of the world economic crisis which triggered a wave of public policies oriented towards fiscal austerity. Italy was severely hit, with consequences reverberating upon the national health service. Many hospitals began to implement re-organizational strategies to adapt to the new scenario, resulting in heterogeneous experiences across the country. Aim of this paper is to describe the actions taken at Rizzoli Orthopedic Institute in order to re-structure, stabilize and optimize the surgical process. **Methods:** The re-organizational process started in march 2017, as a response to the issue of a new regional regulation aimed at standardizing and governing the surgical activity. A multidisciplinary commission (the Interdepartmental Board), composed by clinical and non-clinical staff, was created to define the modus operandi of all surgical activities within the Institute. The Board reviewed the Master Surgical Schedule, in order to separate elective surgery from emergency surgery. In november 2017 the Surgical Planning Office (SPO) was set up to coordinate and monitor the whole surgical path, from insertion of the patient onto the waiting list to discharge. The SPO interfaced with all stakeholders relevant to the surgical process through daily meetings, ensured the collection of key performance Indicators and produced standardized reports regarding productivity, efficiency and state of the art of the surgery waiting list. Finally, in order to improve accountability towards citizens, a centrally managed call-center meant to receive incoming calls from patients was set up, offering a 30 hours a week availability. **Results:** We observed an increase in productivity, as the number of surgical interventions went from 10745 in 2017 to 10915 in 2018. Hip replacement interventions went from 1386 to 1474 and the percentage of hip replacement interventions performed within 180 days also improved (60.8% vs 69.3%). The percentage of over-time interventions was reduced, while average surgical time did not significantly change (78,08 vs 79,26 minutes). From its inception, the call-center received and managed 7093 requests. Planning of the surgical schedule gained more stability, as the number of cancelled or postponed interventions decreased in 2018. Furthermore, we observed a cultural shift within the institute, fostered by the implemented changes, that promoted further organizational changes. In January 2019 the Master

Surgical Schedule and the regulation for OR's usage were reviewed again. Most part of the changes was obtained without any additional expenditure. Conclusions: Effective ORM is a key strategy to improve efficiency and productivity without increasing resources consumption. Introducing positive organizational changes can prompt a virtuous circle generating further positive changes and fostering a culture of continuous improvement.

**KEYWORDS**

Operating room management, Economic crisis, Surgery

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**GREEK SPECIAL SECRETARIAT FOR THE MANAGEMENT OF PRIVATE DEBT: MEASURING THE RESULTS IN EPIRUS**

Paraskevi Pappa, Theofania Rizou, Eirini Triarchi

*University of Ioannina, Greece, pvpappa@teiep.gr*

*Special Secretariat for the Management of Private Debt, Greece, thrizou@gmail.com*

*University of Ioannina, Greece, etriarhi@teiep.gr*

**ABSTRACT**

The recent global economic crisis as well as inherent and endogenous factors led the Greek economy to the deepest recession since its beginning, as it experienced a loss of GDP of over 25% over a period of few years. As a result of this crisis, a giant private household and business debt to the public and banking institutions emerged. After a period of collection of data and its evaluation, the Greek state turned to the adoption of measures through legislation on special arrangements for heavily indebted households and businesses. This legal framework, although to a certain extent helped to reduce non-performing loans, did not address the problem decisively. The aim of the paper is to highlight the problems related to the private debt in Epirus, among the poorest of Greece's regions through quoting and processing of data collected with the aid of the Special Secretariat for the Management of Private Debt. The situation in Epirus is indicative of the nation-wide situation and highlights the need for new initiatives, both at national and at European level, to minimize the negative effects of indebtedness of households and businesses, both economically and socially.

**KEYWORDS**

Greek crisis, Private debt, Household debt, Arrears, Loan adjustments, Epirus, Over indebtedness

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**MEASURING GLOBAL POLITICAL ECONOMY**

Spyros Roukanas

*University of Piraeus, Greece, sroukana@webmail.unipi.gr*

**ABSTRACT**

The global political economy is a field of study that has its roots in international relations. The augmentation of world economic transactions after the collapse of Bretton Woods System at 1970s created the need for a new field of study in order to explain the interdependence between politics and economics at the international level. Decisive factors for the formulation of the

global economy such as nation-states, international markets, multinational companies and international organizations created multiplied interactions such as the emergence of economic globalization. The need of understanding these interactions and the two oil crises at 1970s was the fuel in order to develop speed the field of study of global political economy as an interpretative tool of the global economy. The evolution of economic globalization firstly was analyzed by quality terms. But the multiplied interactions were not easy to be studied only in quality terms. In recent years, they have been developed a number of indicators that are trying to develop quantity analysis in terms that were analyzed only by quality prism. For example, OECD has developed indicators in order to measure the implications of economic globalization. The aim of this article is to study the main indexes that are trying to measure different aspects of the evolution of the global economy. This study is going to reveal if these indicators can have a predictive utility or mainly an interpretive capability of certain facts of the global political economy. The article is going to focus on the following countries, United States, Germany and China for the last decade (2008-2018) according to the available data. The analysis of the last decade will reveal also the implications of the global economic crisis.

**KEYWORDS**

Global Political Economy, Measurement, Indexes, Economic Globalization

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**DETERMINANTS OF SUBJECTIVE WELL-BEING:  
A REVIEW OF LITERATURE**

Arjona Cela, Chrysanthi Balomenou  
*Epoka University, Albania, acela@epoka.edu.al*  
*Epoka University, Albania, cbalomenou@epoka.edu.al*

**ABSTRACT**

Economic of happiness has during the last years has become a booming field of economics trying to give explanations to factors affecting happiness (subjective well-being). A large number of studies investigating subjective well-being have emerged recently and there is a growing literature in this aspect. This concept, which describes subjective assessment of well-being has been studied related to different fields and from different perspectives describing its definition as relatively broad. However, there is a common consensus among researchers that in studying subjective well-being a distinction can be made between life evaluation in general, affect and eudaimonic well-being. Life evaluation or cognitive aspect can be defined as one's evaluation of satisfaction from life in general, while affective dimension, divided into positive and negative affect represent the way people feel about life in a particular point in time. Eudaimonic well-being is the study of well-being from the psychological perspective. This article reviews research focusing on the hedonic aspect of well-being, subjective well-being and affect. It identifies several determinants of subjective well-being based on the literature revised such as socio-demographic characteristics, health status, education and job satisfaction, income, environment quality and social capital. Different factors identified have different impact on subjective well-being. Increase in reported health status, education or job satisfaction appear to increase subjective well-being. The effect of income is somehow predictable to be positive. However, the positive effects of absolute income decrease as soon as it is controlled for relative income variables such as their actual situation compared to the past and compared to the

others. Environment quality also has a significant role in subjective well-being. Environment characteristics such as renewable natural capital, green spaces have positive effect while air pollution a negative effect on life satisfaction. In this research article it is highlighted the importance of environment is subjective well-being and drawn conclusions that advices policymakers to find nature-centered solution in order to increase individual well-being. Social capital appears to be one of the most important elements of contributing to life satisfaction, seen also as an element, which influences economic growth and stability. While, to accurately determine externalities of social capital is necessary to take into consideration types of it because not all kinds of it have positive impact on societies. Literature distinguishes two types of social capital, bonding and bridging social capital. Bonding social capital refers to that type of capital that is among individual of an association that are similar in characteristics while bridging social capital refers to heterogeneous groups with individual of different communities or societies. While it is important to distinguish between different types of it in order to determine its impact it is also important to recognize different elements consisting it such as social connection, volunteering work or volunteering membership in various organizations and trust in individuals and institutions. To the best of our knowledge, there is lack of research that identifies and analyzes all determinants from a literature review perspective. Therefore, aim of this article is to identify factors affecting subjective well-being for channeling future empirical research and policymakers focus in this area.

#### KEYWORDS

Subjective well-being, Life satisfaction, Social capital, Income, Environment quality

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## LABOR MARKET DEVELOPMENTS IN THE ROMANIAN REGIONS AFTER THE ACCESSION TO THE EUROPEAN UNION: EMPLOYMENT, WAGES, STRUCTURAL SHIFTS

Jordan Marioara, Chilian Mihaela Nona

*Institutul de Prognoza Economica, Romania, miordan@ipe.ro*

*Institutul de Prognoza Economica, Romania, cnona@ipe.ro*

#### ABSTRACT

Access to adequate workforce, in numbers and in skills, is a continuous hot issue for all the companies, irrespective of their size, location and life cycle, and for all the economies, irrespective of their levels of territorial aggregation. The mechanisms that ensure the proper matching of labor demand and labor supply are not automatic; even when they work smoothly; they function with time and spatial delays, in any national and regional/local economy. The paper presents a condensed sectoral analysis of the main developments on the labor market in the Romanian regions during the post-accession period, regarding the evolutions of employment, of wages and the structural shifts. The results reveal different types of evolution on the Romanian labor market, occurred both sectorally and regionally after the country's accession to the EU: continuity (preservation or quasi-preservation of a dynamic equilibrium previously installed), discontinuity (movement towards a new dynamic equilibrium, either after accommodating a shock or not), and also peculiarity (individualization of evolutions from a certain region as compared to those of the other regions). Such developments would necessarily require thorough and careful consideration from the part of policy makers and government authorities

when ensuring compliance with the EU legislation and when drawing up and implementing the economy-wide and regional/local policies.

**KEYWORDS**

Labor market, Romanian regions, Employment, Wages, Sectoral shifts, Regional policy

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**ANALYSIS OF RESEARCH & DEVELOPMENT EXPENDITURES WITH INCOMES AND EXPENSES IN INFORMATION TECHNOLOGY SECTOR OF BORSA ISTANBUL**

Turker Susmus

*Ege University, Turkey, turkersusmus@gmail.com*

**ABSTRACT**

Information Technology (IT) sector consist of many areas from computers, mobile phones, tablets to wearable technologies. Nowadays, computers and phones, and all advanced products have greatly facilitated human lifes. And they have provided everyone to access information from anywhere. Especially the development of the telephones in the last few years has brought a different dimension to the information technologies. Therefore, the IT sector is rapidly growing and developing over the years. As a result, IT sector has a very important place in human life day by day. In this study, it will be discussed IT sector operating in Borsa Istanbul. They are traded 15 IT companies in Borsa Istanbul. It is examined structure of assets and liabilities in balance-sheets. And then, it is dealt with incomes and expenditures of IT firms in income statement. In addition, research & development (R&D) expenditures are analysed and they compared with other account items of income statements.

**KEYWORDS**

Research & Development Expenditures, IT sector in Turkey, Financial Statement

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**THE DIMENSION, DIVERSITY AND COMPLEXITY OF THE MACROECONOMIC RISK**

Draghici Dalis Maria

*Lucian Blaga University of Sibiu, Faculty of Economic Sciences, Romania, dalis.draghici@ulbsibiu.ro*

**ABSTRACT**

The approach at a macroeconomic level of the challenges in order to foster the competitiveness in certain economic areas implies understanding and assessing the risk as an essential element which can determine in every moment the availability of the mechanisms and the necessary resources for a sustainable future. Even if in a certain measure the risk has to be assumed, the losses caused by undesired events seem to be more ample than the benefits. The most important aspect and part of the risk management is represented by the fact that risk has to be distributed over time, its effects being extended for long periods. While the benefits are mostly hard to distinguish, the efforts seem to be observed and determined at short notice. Any privation of the risk indicators that are correlated with the long-term objectives leads to a barrier when it comes to monitoring the exactitude and performance of the decision makers. Defining an acceptable level of risk is almost impossible, not only because of the complexity of

the process which has to determine the distribution, but also because of the thorough differences in values, preferences and faiths. Despite the struggle against the global pressure and the political risk, at a macroeconomic level the uncertainty does not only lingers in association with the external framework, but it also succeeded in reaching extreme levels in comparison with the recent history. The world in which we live is becoming more and more complex, but also interconnected, transforming into reality possible dramatic breakdowns. This is why it is mandatory to identify the trends, to evaluate the risks and to initiate the most suitable precautions. The present article aims to observe, categorize and explain the dimension, diversity and complexity of the macroeconomic risk, with the help of the economic, geopolitical, institutional and social factors. Moreover, during the chapters I will try to demonstrate that when it comes to composite systems, the risk follows the same path as the environmental context, all because of the diversified overlaps between financial systems and societies, together with their economies and ecosystems.

#### KEYWORDS

Integrated risk management, Risk society, Uncertainty

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### AN EMPIRICAL ANALYSIS TO THE TRADE FLOWS OF THE EUROPEAN BALKAN COUNTRIES OVER THE PERIOD 2008-2018

Ioannis Panteladis, Elisavet Doxaki, Christina Panteladi

*University of Thessaly, Greece, panteladis@yahoo.com*

*Harokopio University, Greece, doxaki4@yahoo.gr*

*University of Aegean, Greece, christina.panteladi@gamil.com*

#### ABSTRACT

This paper applies the trade gravity model to the trade flows of the European Balkan countries. The gravity model is tested for the four Balkan countries: Bulgaria, Croatia, Greece and Romania that are already members of EU, over the period 2008-2018. The period in question coincides with the intensification of the global economic recession as well as with the significant transformation in the international economic order-cum-the autocratization trend of the European structures in the context of the EU. The main aim of the paper is the analysis of the pattern of trade integration of each Balkan country into the distinct spatial sub-systems of the broader European space. As to the gravity model we opt for a dynamic panel data model of GMM in order to estimate the coefficients of the explanatory variables. By considering that trade relations might last for a long time we use the model in question in order to include the diachronic persistence of the established trade relations in the context of the EU integration as well as in the context of the historical, cultural and geographical proximities. We run the regression for each Balkan country as the structure of exports as well as the dynamics and the spatial orientation of their trade relations are different despite their typical similarities either in terms of their common geographical characteristics or in terms of convergence as to their level of development. The dependent variable of the model is the value of exports of the Balkan country  $i$  to the trade partner  $j$ . Besides, the explanatory variables of the model are the Gross Domestic Product (GDP), the Population that represent the economic size of the Balkan countries  $i$  and the partner country  $j$ , the distance between the exporting Balkan country  $i$  and the partner country  $j$ , the square of the difference in per capita Income between the countries  $ij$ , the Real exchange rate of the Balkan country  $i$  vis-à-vis to the partner coun-



try  $\beta_j$  and the dummies that incorporate the proximities in terms of spatially, historically and culturally adjacent partner countries. Apart from the standard variables of the gravity models (GDP, Population, distance) and the well known corresponding signs of the coefficients, the other variables of the model are of great interest. That is, the coefficient of per capita income differential is positive and statistically significant indicating the so-called Linder effect that refers to the higher bilateral trade when the per capita income between the trading countries is more similar. Moreover, the coefficient of the real exchange rate is positive and statistically significant indicating that the price competitiveness is important indeed. Lastly, the coefficients of the dummy variables are positive and statistically significant relegating to the significance of any type of proximity. The dynamics of trade integration of the Balkan countries seems to transcend their typical membership in the EU. Indeed, regarding the case of Greece, Bulgaria and Romania the proximities exert an impact on the trade dynamics of these countries in the context of the broader European space.

#### KEYWORDS

Dynamic gravity model, Proximities, Trade integration

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## THE ROLE OF INTERNATIONAL SCIENTIFIC COOPERATION IN DECLARING THE FĂGĂRAȘ MOUNTAINS AS A NATIONAL PARK

Simona Spanu, Virgil Nicula

*Lucian Blaga University, Faculty of Agricultural Sciences, Food Industry and Environment Protection, Romania, simona\_spanu@yahoo.com ;*

*University Lucian Blaga of Sibiu, Faculty of Economic Science, Romania, niculavirgil@yahoo.com*

#### ABSTRACT

Between 10 and 11 December 2018, the Institute of Biology of the Romanian Academy dedicated its Annual Conference to the most important mountains in terms of biodiversity in Romania - Făgăraș Mountains. The International Conference Făgăraș Mountains - An inventory towards a new National Park was organized in collaboration with the Conservation Carpathia Foundation, with the Faculty of Agricultural Sciences, Food Industry and Environmental Protection of «Lucian Blaga» University of Sibiu and with the support of the International Union for Conservation Nature (IUCN WCPA). This event brought together more than 250 participants interested in the Făgăraș Mountains area, in various fields: researchers, academics, conservationists, representatives of local communities, regional, central and European institutions. Within the two days, scientific, economic, conservation issues, as well as aspects related to ways of engaging local communities, the impact and benefits that a National Park will have on them are discussed. There were presented 71 scientific papers containing results of complex researches in the area of Făgăraș Mountains (economy, biodiversity, geography, geomorphology, sociological studies, etc.) and discussions were held with representatives from various fields of activity: economics, local sustainable development, conservation, local communities. There were participants from Romania and countries such as Austria, Canada, Switzerland, France, Germany, Great Britain, Poland, Czech Republic, Slovenia, Hungary and Ukraine. The realization of the Făgăraș Mountains National Park is a long process and team work, a team of local communities, scientists, economists, lawyers and conservationists. If this goal is to be achieved, Făgăraș

Mountains National Park will become a park of global importance, especially from the perspective of sustainable development and cooperation between people and nature.

**KEYWORDS**

Sustainable development, International scientific cooperation, Environment protection

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**PARADIGM SHIFT TO THE EUROPEAN BUSINESS MODEL. EXTREME LIGHT INFRASTRUCTURE – NUCLEAR PHYSICS PROJECT STUDY CASE**

Dumitru Miron, Dragos Seuleanu

*The Bucharest University of Economic Studies, Romania, dumitru.miron@rei.ase.ro*

*The Bucharest University of Economic Studies, Extreme Light Infrastructure – Nuclear Physics, Romania, dragos.seuleanu@eli-np.ro*

**ABSTRACT**

The authors of this paper share the idea that the multipliers of paradigm shift in economy are abundance, change of micro and macroeconomic equilibrium, and increased intensity in creativity at the level of economic processes. One of the working hypotheses is that abundance should not be understood as fully satisfying the needs of all societal actors but as a process of mitigating the scarcity of some of the resources essential to economic progress. Consumers no longer look for goods or services in themselves, but a certain level of satisfaction that their bidders promise to ensure. Therefore, paradigm shift means no longer measuring wealth in terms of GDP/capita, but in terms of prosperity plus the level of acceptability and satisfaction expressed by individuals in a certain societal context. Authors start from the hypothesis that in the field of economics and business, a number of enthusiastic approaches to paradigm shift must be taken with some reservations as functional market have their specificity, the public choice logic is very well represented, the idea of social learning is present more than in other fields and the principle of economic rationality has great applicability. At European Union level, the commitments included in the Europe 2020 Strategy are implemented hoping to achieve smart, sustainable and inclusive growth. The most important characteristics of the new European industry are: is based on three pillars: strong educational system, scientific research and high-tech; advanced research is an integrative industry; the results of the advanced research are an Open Source. The analysis is based on the quadruple helix logic, which enables businesses to draw on expertise from outside their operations to develop new products, services, and ideas. In this paper, we stress the fact that advanced research is the most important user of the latest technology and an advanced research project with international impact will represent the most important engine of national and regional economy. We have analyzed the Extreme Light Infrastructure - Nuclear Physics (ELI-NP) where international scientific community has the possibility to characterize the «deep matter» to map the «deep space» whose pillars are: Attosecond Laser Science; High Energy Beam Science; Laser - Induced Photonuclear Physics; Ultra High Field Science. It is important to make a correlation between the large-scale scientific infrastructure in the nuclear and laser field, which develops their own Knowledge Transfer Gate in Europe and the media as a promoter of ideas and business opportunities. As development of a country could be based on few advanced research projects (economic engines) and it is possible to use this experience for the whole region, our conclusions are that - the new engines of the European economy, will

be: nuclear research, extreme intensity light research and astronautics, the new industry will develop a large range of activities and jobs which will modify the labor map and the relocation of large companies to Europe will be one of the concrete result of the stimulating the advanced research.

#### KEYWORDS

Paradigm shift, Business model, Advanced research, New industry

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### AN ANALYTICS APPROACH TO EU POLICY ANALYSIS

Nikitas-Spiros Koutsoukis, Efstathios Fakiolas, Athanassios Katsis, Pyrros Papadimitriou

*University of Peloponnese, Dept. of Political Science and International Relations, Greece,*  
nkoutsou@uop.gr

*University of the Peloponnese, Greece, fakiolas@uop.gr*

*University of the Peloponnese, Greece, katsis@uop.gr*

*University of the Peloponnese, Greece, papdimit@gmail.com*

#### ABSTRACT

In this paper we present an interdisciplinary approach for teaching public policy analysis, based on a Jean Monnet Module that fuses policy analysis with multivariate methods while exercising data analysis skills. This is an innovative approach to EU studies that fuses subjects typically taught in compartmentalized courses. Based on our experience, we suggest that the fusion-approach is a more pragmatic and effective approach for introducing interdisciplinary synergies to audiences without prior experience in at least one of the subjects involved and can find use in contemporary EU studies.

#### KEYWORDS

Policy analysis, Analytics, EU studies, Higher Education

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### THE EU AS MULTIDISCIPLINARY EDUCATION PODIUM

Nikitas-Spiros Koutsoukis, Efstathios Fakiolas,  
Athanassios Katsis, Pyrros Papadimitriou

*University of Peloponnese, Dept. of Political Science and International Relations, Greece,*  
nkoutsou@uop.gr

*University of the Peloponnese, Greece, fakiolas@uop.gr*

*University of the Peloponnese, Greece, katsis@uop.gr*

*University of the Peloponnese, Greece, papdimit@gmail.com*

#### ABSTRACT

European Union-focused Policy Analytics–EuroPoA is an interdisciplinary Erasmus+ Jean Monnet Module in EU studies that fuses the teaching of policy analysis with the teaching of analytics methods using a hands on approach. In this paper we present an overview of the project, evaluate its outputs and the way forward.

#### KEYWORDS

European Union, Policy Analysis, Higher Education

## SIBIU REGION, A GASTRONOMIC TOURISTIC DESTINATION IN 2019

Virgil Nicula, Simona Spanu

*University Lucian Blaga of Sibiu, Faculty of Economic Science, Romania, niculavirgil@yahoo.com  
Lucian Blaga University, Faculty of Agricultural Sciences, Food Industry and Environment Protection,  
Romania, simona\_spanu@yahoo.com*

### ABSTRACT

Gastronomy plays an indispensable role in promoting tourism at regional and local level. In the development of gourmet tourism, traditional strategies can offer the opportunity to use strategic tools to appreciate the quality, variety and uniqueness of local products and the gastronomic specificity of a territory. Consequently, the creation of gourmet tourist products is perceived as a priority for tourist destinations that can offer experiences in this regard. The gastronomy to enroll in the cultural heritage of the five micro-regions in Sibiu County represents a competitive advantage of the area and its recognition and inclusion in the development of dedicated tourism products is the key to creating an economic environment in which local communities will have real benefits and will be encouraged to protect the authenticity of this valuable thesaurus.

### KEYWORDS

Gastronomy, Gourmet tourism, Sustainable development

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## A GOVERNANCE FRAMEWORK FOR CROSS BORDER RELATIONS: AN EMPIRICAL ANALYSIS OF THE EU AND TURKISH BORDER REGIONS

Cigdem Varol, Emrah Soylemez

*Gazi University, Turkey, cvarol@gazi.edu.tr  
Ministry of Environment and Urbanization, Turkey, emrahsoylemez@gmail.com*

### ABSTRACT

State borders have been transforming from physical lines into convergence regions constructed with cross border cooperation. The increase of flows between both sides of the border causes a change in the socio-economic relations and makes the border region an area of social practice involving multidimensional relations of local, regional, national and supranational actors. Besides the increasing relationships, the dominance of security-oriented policies, social and economic polarization and the existence of social sensitivities of the countries create a fragile environment in border regions. These dynamics force the emergence of new governance practices specific to these regions depending on a multidimensional, complex institutional structure that is framed by common specifications (political, economic, social and spatial) of the two countries on either side of the border. This study aims to propose a governance framework by considering these dynamics of the border regions with different socio-economic and institutional structures and practices. Within this context, with the evaluation of field study in the Turkish and the EU border region, an innovative governance framework for the border regions is discussed in two dimensions; vertical and horizontal. The vertical is the border region axis, which includes the border permeability that reflects the characteristics of the border region at the socio-spatial and structural level, as well as the network relationships and patterns on the border region. The horizontal is the governance axis which includes scale, limitations, common norms and values, institutions, implementation tools, actors, processes and decision mechanisms.

**KEYWORDS**

Border regions, Cross border relations, Governance, Turkey, The EU

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**MIGRATION FLOWS IN GREECE. THE DEVELOPMENTS AT ECONOMIC, SOCIAL AND POLITICAL LEVEL**

Angelos Michail Michalopoulos, Maria Papoutsis, Koutsaftakis Kyriakos

*University of Piraeus, Greece, michalop.angel@outlook.com.gr*

*University of Piraeus, Greece, mar\_papoutsis@yahoo.gr*

*University of West Attica, Greece, kyriakoskoutsautakis2@gmail.com*

**ABSTRACT**

In recent years there has been a steady increase in migratory flows, both from Greece and from an intermediate or terminal station itself. Developments at national and global level are forcing citizens to seek better living conditions, security, social benefits and labor rights. It is a fact that the immigration crisis leads society to a constant review of the present situation, as the combination of many and dissimilar nations functions as a lever for the implementation of best practices for their assimilation. This article approaches the rise of this phenomenon from the perspective of volatility to economic, social and political level. Indicators of the country's economy are showing, depending on the burden to meet their needs, the benefits they have to offer to migrants, and especially to the refugees that account for a large proportion of the inflows, and the consequences of the economy from the outflows of the Greeks, mainly people in the age groups of the productive labor force with a high educational level, which constitutes investment capital for the state, which has spent a large proportion of its Gross Domestic Product on their education. On a social level, the progressive formation of new data is observed, as society is urged to absorb - not only - people but with them to respect the peculiarities of these peoples, their customs, their traditions and traditions, but also to learn them particularities of the host country. Also, a basic element is the existence of a political will, that is, of a good political leadership and in cooperation with even the ecclesiastical leadership, the formation of formal and informal rules, the harmonization of the conditions governing this issue and the country as a member European Union has agreed to contribute, as the first host country, due to geostrategic position as an ally of political stability but also security through the recording of the smooth transition of refugees mainly to the rest of Europe. It is also a fact that migratory flows have led to the emergence and empowerment of extreme forces that exploit the citizens' xenophobia, as the number of inflows increases, so that political forms of extreme rhetoric are giant. The purpose of this article is to present the current situation regarding the influence of this phenomenon at the economic, social and political level and the presentation of proposals both for the normalization of the situation and for the formation of a new perspective on this issue. Finally, it is worth noting that education is an important qualitative element that allows people to see such horizons with open horizons, as it requires deepening, prudence and encouragement for the smooth coexistence of different people.

**KEYWORDS**

Migration Flows, Migration Crisis, Refugees, Immigrants, Xenophobia

## **ADOPTION OF SUSTAINABLE ACCOUNTING PRACTICES AMONG CROATIAN SME'S**

Gordana Nikolic, Valentina Vitenberg, Bisera Karanovic

*PAR University College, Croatia, gnikolic@par.hr*

*PAR University College, Croatia, vvitenberg@par.hr*

*PAR University College, Croatia, bisera.karanovic@par.hr*

### **ABSTRACT**

Small and medium-sized enterprises (SMEs) are of great importance to the Croatian economy. As recently as 2015, 99,7% of total registered companies in Croatia were SMEs, accounting for 54% of total revenues and collectively exerting great impact on the society, the national economy, and the environment. Regarding socio-economic representation, they are the key players in achieving sustainability. Considering the fact that sustainability accounting plays a pivotal role in every economy, it is essential to understand how smaller business entities are taking actions on adopting sustainable practices and their corresponding sustainable accounting tasks. It is therefore the objective of this paper to analyse the current awareness, needs and existing approach to sustainable accounting and reporting practices of SMEs in Croatia and identify the main knowledge gaps between the current and the optimal situation. For the purposes of this analysis, a survey was conducted on a sample of 42 respondents between February and March of 2018. The results show that the level of awareness among SMEs regarding socially responsible reporting is particularly low in Croatia, mostly due to the lack of SMEs' field-related knowledge, skills, and experience, as well as the unfamiliarity with reporting advantages. Finally, this paper provides an overview of the lack of knowledge in order to identify competence and skills needed to successfully implement non-financial reporting in SMEs.

### **KEYWORDS**

Sustainable accounting, SMEs, Survey, Croatia

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## **BUILDING RESILIENCE THROUGH CROSS-BORDER COOPERATION BETWEEN ROMANIA, MOLDOVA & UKRAINE. A COMPARATIVE ANALYSIS BETWEEN EUROREGIONS «UPPER PRUT» AND «LOWER DANUBE».**

Anatolie Carbune

*Alexandru Ioan Cuza University, Romania, anatoliecarbune@yahoo.com*

### **ABSTRACT**

An assessment of economic and social potential of Euroregions "Upper Prut" and "Lower Danube" reveals a wide spectrum of opportunities for cooperation which would boost regional development and build resilience. However there still exist several obstacles which should be tackled in order to reach the desired goals. The aim of this article is to identify the opportunities and also the obstacles that reduce the efficiency of cross border cooperation initiatives between Romania, Moldova and Ukraine. The passivity of Moldavian side could be explain by several factors, such as the inefficiency of administrative - territorial structures in creating and promoting own projects, lack of strategies and plans for regional integration which would exploit the benefits of CBC, insufficient allocation of money on a local level, as well as corruption. Within this paper the concept of resilience will be used to assess and to identify the risks and vulnerabilities of both Euroregions and their im-

pact on cross border cooperation. The research method is non-participatory observation. Also, we use quantitative variables to assess and to compare the economic potential of both Euroregions. The conclusions of our study is that institutions and administrative management play a major role in cross border cooperation, and their lack of efficiency will lead to rather weak outcomes and less resilience. Also, there is a tendency towards ignoring cross-border cooperation when discussing about building resilience within EU's neighbourhood, therefore our study aims at filling this gap.

**KEYWORDS**

Cross-border cooperation, Resilience, Regional development

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**HOUSING CONSTRUCTION AS A LEADING ECONOMIC INDICATOR**

Olga Bormpotsialou, Antonios Rovolis

*Panteion University of Social and Political Sciences, Greece, olga\_lagada@hotmail.com*

*Panteion University of Social and Political Sciences, Greece*

**ABSTRACT**

The construction industry, and especially residential building construction activity, represents a significant part of a country's general economy, directly affecting GDP through construction, maintenance and renovation, as well as indirectly with notarial acts and banking transactions. Indeed, in many economies, residential building activity is at the heart of economic growth and, consequently, it is often used as an economic regulator in government policy. The main purpose of the paper is to contribute to the debate on the significance of pursuing a suitable government policy on the real estate market. The research objectives are: a) to review the existing literature regarding the importance of the housing sector in the general economy; b) to conduct an empirical analysis on the relationship between the residential construction activity and the economic development for a number of Balkan countries; and c) to present the results of the aforementioned study in order to draw important conclusions.

**KEYWORDS**

Residential Building Construction, Real Estate Market, Housing Policy, Economic Growth, Balkan Countries

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**CORPORATE SOCIAL RESPONSIBILITY AND COMMUNITY ISSUES**

Rodica Milena Zaharia

*Bucharest University of Economic Studies, Romania, milena\_zaharia@yahoo.com*

**ABSTRACT**

The paper investigates the CSR activities developed by different actors (Business, Non-governmental Organizations (NGOs) towards the community in the context of the relationship between companies and the community as a stakeholder. The objectives are to identify what kind of CSR actions are developed by companies toward the community as a stakeholder, to investigate the reasons companies orient their CSR actions towards the community as a stakeholder, and to characterize the attitudes companies have towards the community. To reach these objectives, the paper undertakes a review of the literature on CSR and community as a stakeholder, to describe the rationale for firm-community relations. To further investigate the actions, reasons and attitudes

of companies towards the community as a stakeholder, empirical data have been collected from a community within the United States of America, using in-depth interviews with 22 individuals, namely business leaders/owners, NGOs leaders, local municipality representatives, local government representatives, central government representatives, professional association (local and regional) leaders, and ordinary citizens. The findings lead to the conclusion that CSR actions developed by the companies towards community issues are mostly philanthropic. I have also found that, overall, companies develop two types of socially responsible attitudes toward community issues: reactive and proactive. Not only businesses, but also other stakeholder groups have been investigated for this research. The importance of the community as a stakeholder for business is evaluated using as a starting point the identification of the most relevant issues pertaining to the community through the perceptions of the respondents. By comparing different business and stakeholder perspectives on the relationship between business and the community, the study provides new insights into the complex relationships that can be established between business and the community as a stakeholder.

**KEYWORDS**

CSR, Community, Stakeholders, United States of America

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**ECONOMIC GROWTH AND FOREIGN DIRECT INVESTMENT – SOME  
CONSIDERATIONS FOR THE BALKAN AND EASTERN EUROPEAN  
COUNTRIES**

Mihaela Covrig, Maria Andres

*The Bucharest University of Economic Studies, Romania, mihaela.covrig@csie.ase.ro*

*The Bucharest University of Economic Studies, Romania, andres.amaria@yahoo.ro*

**ABSTRACT**

For Balkan and Eastern European countries, Foreign Direct Investments (FDI) are important for economic, cultural and related development. In this paper we investigate the direction and to what extent Foreign Direct Investments, international trade, research and development spending, and human capital influence economic growth. The analysis involves the estimation of panel data regression models along with a descriptive approach, using spatial statistics methods. The sample consists of Balkan and Eastern European countries for the time period 2006-2017. The paper aims to highlight the benefits of FDI in technology transfer, increasing competitiveness and the number of jobs.

**KEYWORDS**

Economic growth, Foreign Direct Investment, Balkan Countries

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**STOCHASTIC SOCIO-ECONOMIC EX-ANTE EVALUATION OF ROAD  
TRANSPORT INFRASTRUCTURE PROJECTS**

Dimitrios D. Kantianis

*Panteion University, Greece, dkant@panteion.gr*

**ABSTRACT**

The successful delivery of major infrastructure projects to meet social needs is at the core



of European Union (EU) 2020 strategy aiming at the enhancement of territorial cohesion and economic development. Selecting the 'most valued' public infrastructure investments is obviously crucial, especially during economic recession periods. Cost-benefit analysis (CBA) has long been accepted as the leading analytical technique to assist decision-making in the appraisal of public mega projects by assessing their 'discounted' whole-life cycle socio-economic benefits and costs. Nonetheless, the uncertain nature of the critical variables involved in the analysis is endemic in any ex-ante project evaluation process and, therefore, an appropriate quantitative (stochastic) risk assessment (QRA) is indispensable. According to relevant EU regulations, the inclusion of QRA in CBA is a prerequisite for the approval of major projects. The herein presented paper aims at investigating the level of significance of adopting a stochastic approach to the socio-economic evaluation of public road transport infrastructure projects through the application of QRA within the traditional CBA framework. Both CBA and QRA methodologies are critically analyzed and a concise review of literature investigates their integrated usage in the EU context thus far. Furthermore, an illustrative case study is presented for a road transport infrastructure project: a practical probabilistic CBA implementation concerning the decision whether to proceed with the construction of a new regional motorway for improving the existing local road traffic conditions in the connection of two urban areas. The numerical example demonstrates the advantages of stochastic appraisal and selection of major capital investment projects.

**KEYWORDS**

Transport Infrastructure, Public Decision-making, Cost-Benefit Analysis, Stochastic Simulation

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**ASSESSING CONSUMER PERCEPTIONS TOWARDS LOCAL FOODS AND THEIR SIGNIFICANCE FOR TOURISM DESTINATIONS: THE CASE OF GREEK LOCAL FOODS**

Apostolos Goulas, Christos Karelakis, George Theodossiou

*University of Thessaly, Greece, goulasap@yahoo.com*

*Democritus University of Thrace, Greece, chkarel@agro.duth.gr*

*University of Thessaly, Greece, georteo@teilar.gr*

**ABSTRACT**

In recent years, local food is considered as an imperative resource with a significant contribution to local economies and sustainability. Within this context, abundant research draws attention to the strong and viable combination of food and tourism, supporting the idea that local food may comprise a crucial determinant on a local tourism industry. Food is a physical need for human beings, but it can also be a cultural and social activity also, whereas eating while being on vacation has two significant aspects, satisfy the hunger and experience the local tradition and culture. Offering local food to visitors can augment the image of tourist destinations as tourists demand and search to taste unique local foods and specialties while on vacation and in some cases, the choice of a tourist destination is made according to local food. The present study endeavors to define and analyze the significance of the local food on tourism promotion and the overall experience of tourists. Accordingly, a quantitative survey with a structured questionnaire was conducted to a sample of 926 tourists and a series of multivariate methods were employed to explore their

perceptions towards local foods and their experience on local foods during their vacation. The results underline the importance given by tourists to local foods and additionally indicate the key role that these foods may play on local development and sustainability.

**KEYWORDS**

Local food tourism, Regional development, Cluster Analysis

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**GOVERNANCE REFORM AND EMPLOYMENT POLICY PERFORMANCE IN GREECE: LEARNING AN ELEPHANT TO FLY?**

Sifis Plimakis, George Karachalios, Victoria Pistikou

*University of the Peloponnese, Greece, s.plimakis@gmail.com*

*Greek Public Employment Agency (OAED), karachaliosg@hotmail.com*

*University of the Peloponnese, Greece, victoria.pistikou@gmail.com*

**ABSTRACT**

Effectiveness improvement comprises the key issue of employment policy reform in Greece over the past three decades. Even though recent reforms contributed to a significant extent to the resolution of the management and absorption problems of the national employment policy model, their impact on policy's effectiveness remained particularly limited. A limited impact on provided services efficiency and effectiveness appears to impair policy's impact on job creation and unemployment reduction. It is emerged that key factors of these performance deficits in employment policy, comprise both the inherent restrictions of social capital in Greece, the coordination and decentralization deficits in policy making, the centralization in decision making and the failure to integrate innovative policy tools for the design and provision of employment services. Such inhibiting factors of performance essentially highlight governance deficits in the formulation and implementation of employment policy in Greece. A governance deficit regarding both the participation of regional – local stakeholders and beneficiaries at the design of the employment policy and to the development of policy networks for the effective provision of the services. Based on the combination qualitative and quantitative empirical data, research analyzes the prospects and the comparative performance of collaborative governance models in the distinctive environment of employment policy in Greece. Collaborative governance models and service provision tools are evaluated according to specific criteria regarding the innovation and the stability of the selected organizational model and their impact on services effectiveness and the promotion of management of change on policy design and implementation. Research assess the conditions under which collaborative governance models could lead to the improvement of employment services effectiveness and contribute to the emergence of a new model of employment policy in Greece, based on decentralization, collaboration and performance management. The empirical research is based on the results of a recently completed two year empirical assessment of employment policy development and implementation in Greece over the last decade. Qualitative research includes the conduct of 97 interviews with key stakeholders and the completion of 321 semi structured questionnaires.

**KEYWORDS**

Employment policy, Governance reform, Change management, Public sector innovation, Performance management

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## ROMANIAN-MOLDAVIAN CROSS-BORDER COOPERATION. A SOLUTION FOR A BETTER FUTURE

Lia Alexandra Baltador

*Lucian Blaga University of Sibiu, Romania, lia.baltador@ulbsibiu.ro*

### ABSTRACT

The relations between Balkan countries are ever so often complex and intricate, due to history's influence. Neighbouring countries face even bigger challenges. Such is the case of Romania and Moldavia, two countries that share a partially common history, culture and language, but also some distinct evolutions. This paper aims to determine how the European Neighbourhood Policy has managed to accomplish its objectives, which aims to establish privileged relationship with neighbouring countries, based on mutual commitment to the values of democracy and human rights, the rule of law, good governance and the principles of a market economy and sustainable and inclusive development. The analysis will be based on the Romanian-Moldavian cross-border cooperation, during the last two financial frameworks of the European Union, 2007-2013 and 2014-2020.

### KEYWORDS

European Neighborhood Policy, European Neighborhood Instrument, Cross-border cooperation

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## FORECASTING THE NET OCCUPANCY RATE IN CROATIAN HOTEL INDUSTRY USING NEURAL NETWORKS

Tea Baldigara, Raffaella Folgieri, Goran Karanović

*University of Rijeka, Faculty of Tourism and Hospitality Management,*

*Department of Quantitative Economy, Croatia, teab@fthm.hr*

*Università degli Studi di Milano, Department of Philosophy, Italy, Raffaella.Folgieri@unimi.it*

*University of Rijeka, Faculty of Tourism and Hospitality Management, Department of Finance, Croatia, gorank@fthm.hr*

### ABSTRACT

This study is aimed to compare the performance of different Artificial Neural Networks models in analysing, modelling and forecasting the net occupancy rate in the Croatian hotel industry from January 2004 to November 2018 using artificial neural network models. Considering the importance of the Croatian tourism and hotel industry and the significant share of those industries in the Croatian GDP, the neural network was driven by the assumption, that there is an existing relationship between the net occupancy rate in the hotel industry and several variables that reflect the performance of different key tourism and hotel industry determinants. The forecasting accuracy was tested for several different types of neural networks architectures. The forecasting accuracy was tested using different testing parameters, namely: mean average (MAE), mean absolute percentage (MAPE), mean squared root (RSME) forecast errors, as well as the coefficient of determination ( $R^2$ ) and the correlation coefficient ( $r$ ). In order to build several artificial neural network models for analysing and modelling the net occupancy rate in the Croatian hotel industry, a set of independent variables, approximating the key tourism and hotel industry determinants, were experimented as models inputs, namely: the number of employees in accommodation and food services, the net occupancy rate of bed places in Croa-

tian hotels, the number of tourists arrivals and nights, the average net monthly earnings in accommodation and food services facilities, as well as seasonal dummy variables. The research results pointed out that, artificial neural network models, as prediction models, can capture complex non-linear data patterns that other models might miss. Lastly, results obtained in this study could provide useful information for researchers and practitioner in applying artificial neural networks to tourism related data modelling and forecasting, but also to investigate and examine alternative development strategies for different Croatian industry sectors routing.

#### KEYWORDS

Artificial Neural Network Architecture, Net Occupancy Rate, Tourism and Hotel Industry, Seasonality, Forecasting Accuracy

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## A CORE-PERIPHERY ANALYSIS OF ANKARA AS TO SOCIO-ECONOMIC CHARACTERISTICS

Cigdem Varol, N. Aydan Sat

*Gazi University, Turkey, cvarol@gazi.edu.tr*

*Gazi University, Turkey, bnecibe@gazi.edu.tr*

#### ABSTRACT

In recent decades, socio-economic inequalities have become increasingly noticeable at international, national, regional and local scales. Strikingly, a significant number of countries have been characterized by a division between dynamic and growing metropolitan areas and shrinking and declining rural regions. Relatedly, the Territorial Agenda 2020 of the European Union (EU) states explicitly that "the core-periphery division is still present". Increasing socio-economic inequalities are more apparent within the prosperous metropolises and there has been an increasing socio-economic differentiation between core and periphery of metropolitan areas regarding income, employment, and socio-economic characteristics. Within the urban core, metropolitan areas have been experiencing population growth, driven primarily by younger, better-educated and higher-income people, in contrast to the peripheral areas witnessing an ageing, poorly-educated and low-income population. This differentiation occurring between core and periphery of metropolitan areas and their distribution across space may bring challenging issues for the governments to deal with. The aim of the study is to figure out how much core and periphery differentiate from each other in terms of their socio-economic characteristics. As a case study, Ankara Greater Metropolitan Area is analyzed regarding the variables of age groups, sex, level of education, employment, and household structure both in the core and in the periphery. For Ankara Greater Metropolitan Area; the core is defined as the inner metropolitan area including central districts, and the periphery as the outer area including districts mainly defined by their rural characteristics. There are totally 25 districts of Ankara, where 8 of them are defined as core districts and 17 of them are defined as peripheral districts. The methods employed in the empirical part of the study are to compare the socio-economic characteristics of the population living in the core or the peripheral districts by using the Turkish Statistical Institute's data set. A detailed statistical analysis of socio-economic variation in Ankara is realized via recently available economic and social data for the 25 districts. By ranking the districts of Ankara separately using each of the economic and social variables, a complex district pattern of development in the metropolitan area is revealed that will help the governments to develop alternative policy objectives.

**KEYWORDS**

Core, Periphery, Socio-economic differentiation, Ankara

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**THE PERCEPTION OF RISK MANAGEMENT AMONG HOTEL MANAGERS:  
EVIDENCE FROM CROATIA**

Goran Karanović, Ana Stambuk, Bisera Karanovic

*University of Rijeka, Faculty of Tourism and Hospitality Management, Croatia, gorank@fthm.hr*

*University of Rijeka, Faculty of Economics, Croatia, ana.stambuk@rfri.hr*

*PAR University College, Croatia, bisera.karanovic@par.hr*

**ABSTRACT**

The renewed interest for risk management among scholars indicates this topic's increasing relevance and contemporaneity in today's world. Nevertheless, risk perception and knowledge of risk management methods in hotel industry have not always received extensive attention. The authors investigate the relationship between knowledge and practice of risk management methods and its impact on the perception of risk management among hotel managers in Croatia. Current literature on risks in hotel industry mainly puts emphasis on perception of risks among tourists or managers, however, it does not contain a substantial discussion on the knowledge and practice of the perception of managers. For the purposes of this research, a survey was developed and distributed among four- and five-star hotel managers and corporate-level hotel executives of five big hotel groups. The data were statically analyzed to measure the influence of knowledge and practice on the perception on risk management. A positive relationship was identified between knowledge and practice of risk management methods and the perception of risk management. Higher level of knowledge indicates a higher level of understanding risk management possibilities. The results can be used as a tool for further improvement of risk managements processes. This paper contributes to the understanding of risk perception on risk management by exploring the level of knowledge and practice of risk methods present in the hotel industry. Finally – and based on the obtained findings – a number of policies for improving risk management processes in the hotel industry in Croatia are recommended for implementation.

**KEYWORDS**

Financial risk, Risk Management, Knowledge, Perception, Hotel Industry, Croatia

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**THE INTERACTION OF LEAN MANUFACTURING - INDUSTRY 4.0 AND  
A SECTORAL ANALYSIS**

Ceyda Unal, Huseyin Tuna, Cihan Cilgin, Yilmaz Goksen

*Deu Feas MIS Department, Turkey, ceyda.unal@deu.edu.tr*

*TEKA, Turkey, huseyin.tuna@simeco.com.tr*

*Abant Izzet Baysal University, Turkey, cihancilgin@gmail.com*

*Deu Feas MIS Department, Turkey, yilmaz.goksen@deu.edu.tr*

**ABSTRACT**

Lean Manufacturing is a collection of concepts, systems and techniques aimed at perfecting the value offered by purifying and simplifying the process of creating products and services, and

thus increasing the profitability of the enterprises. Waste in lean thinking (also called Muda, Muri or Mura), beyond its known meaning, is everything that the customer does not accept to pay extra which does not constitute a value for the customer. In the context of lean thinking, seven types of wastes are defined including transport, inventory, motion, waiting, over-processing, overproduction and defects. In order to eliminate waste, several Lean Manufacturing techniques such as Just in Time (JIT) -an inventory management strategy that targets zero inventory and ensures that the material required for production is available at the point of need-, Kaizen -continuous improvement-, Kanban -materials requirement planning technique using visible signs-Jidoka -the approach providing self-stop for machines in case of any errors-, Poke-Yoke -eliminating product defects by preventing, correcting, or drawing attention to human errors as they occur-, Single Minute Exchange of Dies (SMED) -process for reducing setup times-, 5S -workplace organization method for the purpose of improving workplace efficiency and eliminating waste-, Total Productivity Maintenance (TPM) -process of integrating equipment maintenance into the manufacturing process- and Statistical Process Control (SPC) -data-driven methodology for quality analysis and improvement- have been developed. The basic philosophy of lean manufacturing offers a framework where the layout of the factory environment, which is constructed by lean thinking, is planned to minimize the unnecessary movement of humans and materials. In recent years, with the emergence of the concept of Industry 4.0, new applications of Lean Manufacturing methodology have been made possible. In particular, the use of Industry 4.0 technologies such as Internet of Things (IoT), Cloud Computing and Big Data to increase the efficiency and effectiveness of lean manufacturing has led to the emergence of the concept of Lean 4.0. In the research, the relationship between lean manufacturing techniques and Industry 4.0 was analyzed with respect to Jidoka and IoT technology. Besides that, suggestions and evaluations were presented. In addition, it has been suggested that Industry 4.0 technologies will facilitate the implementation of the lean manufacturing philosophy. In order to realize this, the positive aspects of Lean Manufacturing and Industry 4.0 interaction were tried to be shown in a consecutive operation in an international company. With the application part of the study the complementary role of lean manufacturing and the interaction of the accelerator role of Industry 4.0 were highlighted. From this point of view, it is thought that Industry 4.0 and lean manufacturing will interactively provide competitive advantage for enterprises.

#### KEYWORDS

Lean Manufacturing, Industry 4.0, Jidoka

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## MEASURING TOURISM SEASONALITY ACROSS EUROPEAN COUNTRIES

Marina Laškarin Ažić, Natali Suštar

*Faculty of tourism and hospitality management, Croatia, marinal@fthm.hr*

*Faculty of tourism and hospitality management, Croatia, natalis@fthm.hr*

#### ABSTRACT

Seasonality, as one of the key features of tourism activity, represents an unavoidable topic in scientific and professional analyses, whose aim it is to determine its causal effects. Economic consequences of seasonality are those that are most often first contemplated and analyzed in discussions. They imply inefficiency in resource utilization, income variability, change in the employment level, etc. However, fewer analyses have discussed in greater detail the common

problems of seasonality among European countries. One of the aims of this research is to emphasize the similarity between countries with a seasonal character in coastal and continental areas. The frequently used method of calculating the Gini Index will be used for the purpose of estimating the seasonality stage. The Gini Index highlights certain advantages, such as considering the distribution asymmetry and relative insensitivity to extreme values, and the stability of the allocation index throughout the course of one year. On the basis of the individual seasonality index calculation, tourism seasonality clusters will be identified, which will provide a unique view of the similarities and differences of individual countries with regards to seasonal oscillations in tourism. The analysis will cover the total number of tourist nights for all types of accommodation per month between 2013 and 2018. Recent research has largely been based on the difference between domestic and foreign tourist nights. For this reason, this paper focuses on identifying seasonal characteristics between EU countries, thereby taking into consideration their coastal and continental areas, which has not been thoroughly explored in scientific literature so far. The quantitative seasonality calculation will be a key indicator for seasonality measurements across different research areas. Contributions to this paper are reflected in its application of the new seasonality calculation methodology, while taking into account the regular and cyclical structure of time periods suggested by Lomagano et al. 2017. Their seasonality calculation methodology, by means of a relative seasonal index, has not been applied by other authors; therefore, this paper will either confirm or refute the applicability of the new method.

#### KEYWORDS

Tourism Seasonality, hotels, Gini Index, Europe

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### STUDY ON INSTITUTIONAL RESILIENCE AT THE EU'S EASTERN BORDER

Ramona Tiganasu, Gabriela Pascariu, Cristian Incaltarau, Loredana Simionov

*Alexandru Ioan Cuza University of Iasi, Romania, ramona.frunza@uaic.ro*

*Alexandru Ioan Cuza University of Iasi, Romania, gcpas@uaic.ro*

*Alexandru Ioan Cuza University of Iasi, Romania, cristian.incaltarau@uaic.ro*

*Alexandru Ioan Cuza University of Iasi, Romania, loredana.simionov@uaic.ro*

#### ABSTRACT

Based on the literature review, the institutions play a key role in trade and development, and have high relevance for understanding the core-periphery structural differentiations. The peripheral areas are not homogenous territories and require specific policies for development and recovery of gaps. Borderlands are most often characterized by a relatively low level of development, uncompetitive patterns of production and trade specialization, reduced connectivity and accessibility, inefficient governance systems, deviations from central regions and a limited catching-up capacity. All these features translate into a reduced resilience power, with the risk of asymmetric shocks that can affect the economic growth trajectory and the long-term prosperity. The current paper proposes a comparative analysis of the impact of institutions on the economic resilience of the EU's eastern border countries. Both formal and informal institutions are considered, in order to provide a better understanding of the governance structures in these states and new evidences about the leading importance of the institutions to the capacity to resist, to absorb and to adapt to shocks, but also to the transformation capacity (able to generate new structures, new functions, new growth patterns). Finally, the paper complements the analysis with conclusions and policy recommendations for boosting the contribution of

the cross-border cooperation programs to the institutional transformation in the EU's eastern neighbourhood countries, to enhance the resilience and to build a "shared area" of security, stability and prosperity, as main aim of the European Neighborhood Policy. To better capture the resilience capacity in this peripheral area, a reporting to the EU's central countries is achieved. The research methods used include qualitative, comparative and empirical analysis, the results providing a suitable framework to assess whether the taken measures contributed or not to stimulate resilience capacity in this border area.

**KEYWORDS**

institutional resilience, eastern border of the EU, policy recommendations

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**LOCAL DEVELOPMENT AND ENVIRONMENTAL POLICIES:  
THE CASE OF ADDED VALUE OF CONSTRUCTED WETLANDS  
FOR WASTEWATER TREATMENT**

Ioannis Tsoukalidis, Antonios Kostas, Anastasios Karasavoglou  
*DOMI DEVELOPMENT PC 133 Omonias str., 65403 Kavala, Greece, yiannis@domikoinep.gr,  
yiannis.tsoukalidis@gmail.com*  
*Eastern Macedonia and Thrace Institute of Technology, Agios Loukas, 65404, Kavala, Greece*  
*Eastern Macedonia and Thrace Institute of Technology, Agios Loukas, 65404, Kavala, Greece*

**ABSTRACT**

Wastewater treatment is a key element for local communities, for the inhabitants and the visitors; a key factor for local development. Constructed Wetlands are wastewater treatment systems consisted by shallow, up to 1m deep tanks or canals, where planting of aquatic plants occurred to exploit the natural microbial, biological, natural and chemical processes for the treatment of wastewater (urban, industrial, other). Although wetlands were used for centuries for the same reason, the related processes were analyzed only the last decades. The relatively easy and standardized methods of installation of ordinary sewage treatment plants, dominated as a solution for urban wastewater in Greece, by practically vanishing any alternative solutions and affected many regions, which could not afford the required financial means for such investments. In this paper, we examine the option to use the alternative solution of constructed wetlands, either as a sole-installation or in combination with an existing sewage treatment plant and highlight the benefits regarding the environmental factors and in financial terms, for small and medium-size or remote settlements/towns, especially in developing countries and justify why that could be one of the key factors for local development.

**KEYWORDS**

Sustainable Local Development, Wastewater Treatment, Constructed Wetlands, Added value, Environmentally Friendly, Socioeconomic Impact.

**JEL CLASSIFICATION CODES**

Q01, Q53, Q56



## AN ALTMAN Z-SCORE BASED ANALYSIS FOR BANKRUPTCY FORECAST IN A GREEK GAMBLING COMPANY

Anna Xaritidou, Eirini Iosifidou, Kosmas Kosmidis

*Department of Accounting and Finance, TEI of East Macedonia and Thrace,  
Agios Loukas, 65404 Kavala Greece, anna.95@windowslive.com*

*Department of Accounting and Finance, TEI of East Macedonia and Thrace,  
Agios Loukas, 65404 Kavala Greece, eirinaki95iosifidou@gmail.com*

*Department of Accounting and Finance, TEI of East Macedonia and Thrace,  
Agios Loukas, 65404 Kavala Greece, kosmidis@teiemt.gr*

### ABSTRACT

Nowadays, with the fluid economic environment, the existence of model companies whose data can be analyzed is a difficult matter. JUMBO S.A. is one of the companies that can serve as an example as it is the strongest gambling company in Greece as well as in the Balkans. The aim of this study is to present the company's image and to investigate the likelihood of the JUMBO S.A. gambling company in Greece to face the possibility of bankruptcy in the forthcoming years with the aid of indices analysis. The methodology is based on the analysis of the company's derived by the available financial statements in conjunction with the resulting financial ratios. In the analysis, the required information is based on the company's financial statements in periods (2009, 2013-2017) and with the aid of the indices; the progress and the situation of the company are also presented in detail. In order to assess the probability of bankruptcy or otherwise the Altman Z-score model, a widely used instrument for assessing the risk of bankruptcy, was implemented. The Altman Z-Score model is essentially a linear model of econometric analysis with a dependent Z variable, the critical value that defines within which framework a business that wants to avoid bankruptcy in the forthcoming years. According to the produced analyzes, it is concluded that JUMBO S.A. has developed as a strong financial group and has a very important position in the Balkan region. It also fully meets the needs and expectations of its customers and offers a complete network of financial products.

### KEYWORDS

Jumbo, indexes, financial statements, Altman Z-score

### JEL CLASSIFICATION CODES

C43, D22

## THE USAGE OF CREATIVE ACCOUNTING IN BREACHING CORPORATE GOVERNANCE RULES: A CASE STUDY OF A GREEK LISTED FIRM

Michail Angelos Michalopoulos, Prodromos Yannas, Nicos Sykianakis

*M.Sc Researcher, School of Economics, Business and International Studies,  
University of Piraeus, Greece*

*Professor (MBA, Ph.D), Department of Business Administration, University of West Attica, Greece*

*Professor (MBA, Ph.D), Department of Accounting and Finance, University of West Attica, Greece*

### ABSTRACT

Folli Follie Group (FFG) is a family owned Greek based multinational cosmetics company which came under the scrutiny of state authorities when detailed reports started appearing in the press beginning in May 2018 regarding misreporting of its financial statements, including its capital assets. Since May, more and more news stories have come to light in the press alleging miscon-

duct and fraud by the owners. More importantly, the Capital Markets Commission of Greece has issued a number of reports alleging that the company had been implicated in wrongdoing and more specifically "creative accounting" practices since 2006. The aim of this paper is to trace as far back in time as possible the origins of this fraudulent behavior. By analyzing the company's financial statements from 2006, a few years before the global financial crisis erupted, up to 2017, we intend to document that the company a) used the Trade Receivables and Other Receivable Accounts as the mechanism to engage in "creative accounting" and b) did not conform as required to the International Financial Reporting Standards. We intend to prove that the owners, sensing that the company was experiencing difficulties, started tampering with the financial statements before the 2008 financial crisis. The company's difficulties, therefore, may not be attributed to the downturn in performance due to the financial crisis.

**KEYWORDS**

Folli Follie, creative accounting, IFRS, fraud

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**SWISS NEUTRALITY – FACTOR OF PROSPERITY AND ECONOMIC WELFARE**

Anca Gabriela Ilie, Dan Dumitriu, Roxana Sarbu

*The Bucharest University of Economic Studies, Romania, ancaionescu2003@yahoo.com*

*The Bucharest University of Economic Studies, Romania, manueladumitriu22@yahoo.com*

*The Bucharest University of Economic Studies, Romania, sarbu.roxana@ase.ro*

**AbSTRACT**

This paper explains Swiss accession in an international changing world by identifying and estimating the level of the causality relation between Switzerland's prosperity and its neutral policy and the diagram of cooperation relations in the global context. The authors suggest a screening applied to the strategies and to the public policies in what the development concerns, as elaborated and implemented by the Swiss Confederation, that come as an almost non-recurrent example of peoples' contribution and participation to the democratic evolution of the country. The Research Methodology is specific to the scientific papers, based on joint previous qualitative researches. The performed study is a pluridisciplinary qualitative research upon the factors that influenced the lead economic and social development of Switzerland. The whole paper is assumed to be a case study, Switzerland being a unique model in the world when it comes to performance and people's welfare. The main analytical vector relied on the hypothesis that, the neutrality was a progress and prosperity factor. An analysis upon the causality relation between welfare and neutrality can be done in many possible ways, but, for the current work, we have selected the hypothetical requisite according to which, Switzerland „wouldn't have opted for a neutral policy along history but would have been involved in a number (not precise) of military conflicts”.

**KEYWORDS**

Neutrality, Switzerland, diplomacy, prosperity, economic welfare

## **MULTI-SPEED EUROPE? AN ANALYSIS OF THE REAL CONVERGENCE WITHIN THE EUROPEAN UNION**

Dumitru Miron, Ana-Maria Holobiuc

*The Bucharest University of Economic Studies, Romania, dumitru.miron@rei.ase.ro*  
*The Bucharest University of Economic Studies, Romania, anamaria\_holobiuc@yahoo.com*

### **ABSTRACT**

Reaching an appropriate level of economic, social and territorial convergence has been a strategic goal for European policy and decision-makers. The author's first assumption is that, although in the early stages of the regional project, the Member States had similar growth and development levels, with the advancement of the integration process, the development asymmetries increased. In this paper, the authors stress the fact that the European decision-makers and researchers have become more and more interested to study if the Member States of the European Union meet the criteria for certain types of convergence: nominal, real, legal, structural and institutional. This paper brings to the fore-front the process of real convergence, trying to respond to the question if the Member States are catching-up, or are diverging. Moreover, taking into consideration the enlargement of the European Union with the countries from Central and Eastern Europe, we have studied the main trends within this group of countries. In this respect, we have calculated the  $\sigma$  and  $\beta$  convergence for three geographical clusters of countries: Central Eastern, North Western and Southern Europe. The results obtained show that the economies of the New Member States increased faster than those of the North Western countries, experiencing a significant speed of convergence. In contrast, the North Western countries recorded a negative pace in terms of convergence and significant discrepancies between them. In conclusion, the paper shows that the desiderate of real convergence becomes more and more difficult to achieve as while the Central and Eastern Europe states make important steps in reducing the disparities between them and also catching up with the European Union's average, the Southern Europe countries are diverging.

### **KEYWORDS**

European Union, real convergence,  $\sigma$ -convergence,  $\beta$ -convergence

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## **ASSESSING ATTITUDES TOWARDS THE REFORMED CAP: A FARMER'S PERSPECTIVE IN A REMOTE EUROPEAN REGION**

Christos Karelakis, Olga Vachanelidou, George Theodossiou,  
Konstantinos Galanopoulos

*Democritus University of Thrace, School of Geotechnical and Forestry Sciences,  
Department of Agricultural Development, Greece, chkarel@agro.duth.gr*

*Democritus University of Thrace, School of Geotechnical and Forestry Sciences,  
Department of Agricultural Development, Greece, olgavach@yahoo.gr*

*University of Thessaly, Department of Business Administration, Greece, geortheo@yahoo.gr*

*Democritus University of Thrace, School of Geotechnical and Forestry Sciences,  
Department of Agricultural Development, Greece, kgalanop@agro.duth.gr*

### **ABSTRACT**

The European Union within the context of the Common Agricultural Policy (CAP) has been seeking to support farmers since the last fifty years. This policy has been reformed a few times

in order to effectively adapt to the peculiarities and characteristics of different rural sectors in member states. Currently, the European Commission has put forward proposals for the CAP after 2020, aiming to respond to current and future challenges such as climate change and the need for the renewal of generations, and ultimately targeting for a sustainable and competitive agricultural sector. The reformed policy measures will seek to introduce a streamlined policy by identifying future priorities for simplifying and modernizing the CAP, supporting the development of knowledge-based agriculture, higher ambitions for the environment and the climate, and fairer and more efficient allocation of support Member States and producers. The purpose of the present research was to identify the views and attitudes of the farmers of a Greek remote area towards the reformed CAP, and primarily to determine the way they perceive and assimilate the new policy context. The specific objectives of the study mainly concerned farmers' level of knowledge regarding the reformed C.A.P., the modern trends in agriculture, the productive system, its implementation, its advantages and disadvantages. On a second level, the research questions focused on the characteristics of producers and the sources they use to get informed regarding the reform. The data were obtained through a quantitative survey, using personal interviews with a structured questionnaire to a sample of farmers in the prefecture of Evros. A series of multivariate methods were employed to analyze the data, and the results indicated that the farmers of the region confront issues primarily with their agricultural income, whereas very few are young people who want to engage in agriculture. At the same time, farmers appear more aware of the quality of their products and the protection of the environment. Regarding their attitude towards the reformed CAP, a large percentage were not adequately informed about the policy schemes, and the majority trusts that the E.U. should protect agriculture, otherwise it will be weakened and eventually collapse.

**KEYWORDS**

Common Agricultural Policy, farmers, reform, rural sector

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**EXAMINING THE ECONOMIC STRUCTURE AND SECTORAL  
INTERRELATIONS OF THE EURASIAN ECONOMIC UNION COUNTRIES  
EMPLOYING INPUT-OUTPUT MODELING**

Tatevik Mkrtchyan, Efstratios Loizou, Kostadinis Mattas

*Independent, Greece, tatev77777@gmail.com*

*Division of Agricultural Economics, Department of Agricultural Technology,*

*TEI of Western Macedonia, Greece, lstratos@agro.auth.gr*

*School of Agriculture, Department of Agricultural Economics, Aristotle University of Thessaloniki,  
Greece, mattas@auth.gr*

**ABSTRACT**

Eurasian Economic Union (EAEU) is a newborn organization for regional economic incorporation. It aims to raise the competitiveness and cooperation among the national economies; it is being created to promote stable development of member state economies in order to raise the living standards. The member states of the EAEU are The Republics of Armenia, Belarus, Kazakhstan, Kyrgyz and the Russian Federation. Despite the desired aims of the country members to enhance economic cooperation among them, there is a lack in the international scientific literature of studies examining their economic structure in a comparative and integrated form.

The factor that EAEU is not studied well has become the main factor that induced the examination of basic macroeconomic aspects of each member state. Thus, in this context the current study aims to examine the economies of these countries by employing a general equilibrium sectoral analysis, in order to identify intersectoral relations and key sectors for each member. Results aim to reveal leading and lagging sectors in order to identify cooperation needs and potentials for more efficient cooperation. For doing so, Input-Output (I-O) modeling is the tool used in the current analysis, with the estimation of I-O linkage coefficients, such as multipliers and elasticities. With the calculation of these linkages, in a general equilibrium form, the potentials of each sector will be identified in terms of output, income and employment. Further, the possibility to perform an impact analysis is provided, in order to assess potential impacts due to an increased cooperation among the member states.

**KEYWORDS**

EAEU, Input-Output, multipliers, Russian Federation, Kazakhstan, Belarus, Armenia

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**OVERTIME IN THE PRIVATE SECTOR IN TURKEY:  
AN ANALYZE BY QUANTILE REGRESSION MODEL**

Mustafa Ünlü, Şenay Üçdoğruk Birecikli

*Dokuz Eylül University Faculty of Economics and Administrative Sciences Dokuzççeşmeler Campus  
35160 Buca / İzmir, mustafa.unlu@deu.edu.tr*

*Dokuz Eylül University Faculty of Economics and Administrative Sciences Dokuzççeşmeler Campus  
35160 Buca / İzmir, s.ucdogruk@deu.edu.tr*

**ABSTRACT**

Working has emerged the result of people's needs. People who work only to meet their daily needs before the industrial revolution, have started to work in a workplace regularly with the Industrial Revolution and have started to earn wage income. Working times changed over time and the overtime concept was formed. Overtime in the private sector in Turkey is the working hours, which excess of 45 hours performed by individuals aged 18 and over. The aim of the study is to see the reasons for overtime work of individuals working in the private sector by applying the least squares and quantile regression with socio-economic variables. In this context, we use the data obtained from the Household Labor Force survey conducted by the Turkish Statistical Institute in 2015. The demographic variables obtained from pooled data and effective on overtime such as the status of the individual at work, the number of persons working in the workplace, the size of the household, weekly working hours, wage income, the region where they live will be integrated to the model and the necessary policy recommendations will be made. The extreme values in the data cause heteroscedasticity. Considering this, it will be tried to reveal the differences between the quantiles by preferred method.

**KEYWORDS**

Overtime, Quantile Regression

**JEL CLASSIFICATION CODES**

J01, C21

## **VOLATILITY TRANSMISSION AMONG CDS, EQUITY AND OIL MARKETS: EVIDENCE FROM TURKEY**

Mehmet Ozan Özdemir, Hamdi Emeç  
*Faculty of Economics and Administrative Sciences  
Dokuzçesmeler Campus 35160  
Buca / İzmir*

### **ABSTRACT**

Most of the empirical studies concentrate on modeling the conditional mean instead of the conditional variance. However, time series of financial asset returns display volatility clustering. Consequently, modeling the temporal dependence in the second order moments has key relevance in financial econometrics. In the recent past, derivative markets have developed both in size and liquidity. Particularly, the Credit Default Swap (CDS) market has grown considerably, so it provides information about the emerging market's financial circumstances. This paper researches the transmission of volatility between the CDS spreads, crude oil prices and equity returns in Turkey. We apply vector autoregressive (VAR) model and multivariate generalized autoregressive conditional heteroskedasticity (GARCH) models (including BEKK, CCC and DCC) under different distributions in order to determine the proper model. Var model is fitted to generate conditional mean equations of CDS spreads, crude oil prices and equity returns. Then, multivariate GARCH models are fitted to model the residuals obtained from VAR model. When applying the model to financial time series, the distribution of innovations plays an important role due to the idiosyncratic nature of the included variables reflected skewness and thick tails. Therefore, we apply multivariate GARCH models with fat-tailed distributions.

### **KEYWORDS**

credit default swaps, crude oil, equity markets, MGARCH, volatility

JEL CLASSIFICATION CODES

C32, C58, G10

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## **EXPLORING DECISION RULES FOR ELECTION RESULTS BY CLASSIFICATION TREES**

Ipek Deveci Kocakoç, İstem Keser  
*Dokuz Eylül University, Turkey, ipek.deveci@deu.edu.tr  
Dokuz Eylül University, Turkey, istem.koymen@deu.edu.tr*

### **ABSTRACT**

The aim of this study is to estimate a Classification Tree (CART) to find an association between the winner party in Municipality Elections and its socio-demographic characteristics. We collected data on many potential variables that may affect voting decisions on favor of a political party. Each city's economic, geographic and demographic data is taken into consideration as independent variables. The dependent variable is the winner party in 2014 Municipality Elections. The aim of the study is to find which variables affect voting decision the most and try to find a pattern that may lead political campaigns. Amongst many classification algorithms, we used RPART (Recursive Partitioning And Regression Trees) algorithm coded in R. It helps us explore the structure of a set of data, while developing easy to visualize decision rules for predicting a categorical (classification tree) or continu-

ous (regression tree) outcome. The RPART algorithm works by splitting the dataset recursively. At each step, the split is made based on the independent variable that results in the largest possible reduction in heterogeneity of the dependent (predicted) variable. The splitting rules partition the decision space (the entire dataset) into rectangular regions each of which correspond to a split. The algorithm works by making the best possible choice at each particular stage, without any consideration of whether those choices remain optimal in future stages. That is, the algorithm makes a locally optimal decision at each stage. The second stage of the procedure consists of using cross-validation to trim back the full tree. At the end, a binary decision tree showing the classifications is composed and interpreted. The variables at the top of the tree are the most important independent variables affecting the voting decision.

**KEYWORDS**

Classification trees, Voting decision, RPART algorithm, binary trees

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**A MODEL TO SIMULATE THE CONVERGENCE PROCESS IN EU AND IN BALKANS REGION BASED ON EMPIRICAL EVIDENCES**

Lucian-Liviu Albu

*Institute for economic forecasting, Romania, albul@ipe.ro*

**ABSTRACT**

In the context of many new challenges for EU economy, the convergence continues to be one of the main goals on long run. Empirical evidences after 2000 seem to demonstrate a significant trend of convergence at the level of EU28 countries. In the same time, dividing EU in three conventional groups, it was a trend of strong convergence inside of the group of former eastern communist countries (EU11E), a trend of slow convergence inside of the group of southern countries (EU6S), but a trend of slow divergence inside of the group of north-western countries (EU11NW). Moreover, taking into account the new Balkan candidate countries (EU5B, comprising Albania, Bosnia and Herzegovina, Macedonia, Montenegro, and Serbia) and using the same methodology, we analysed the convergence among these four groups of countries in the extended EU, thus conventionally denoted as EU33. As a general conclusion, our study suggests the existence of a complex trend of a such real economic system (like EU33 comprising a large number of heterogenous economies). Thus, inside of the two zones (separated by the average level of income per capita) the behaviour seems to be completely different: on the left side should prevail an accelerate convergence to the average level of the system, but on the right side should prevail a general slow divergence interrupted by some periods of convergence; the distribution could be far from a normal distribution for which the behaviour is linear; around the average level the behaviour may change dramatically, thus it could be an instability sub-zone, higher stability being characteristic only far from the average level on the right side, etc.

**KEYWORDS**

European Union, Balkans region, Convergence, Divergence, Economic Growth, Behavioral regimes

## EMPLOYMENT AND SKILL MISMATCH IN POST-COMMUNIST ECONOMIES

Jelena Stankovic, Marija Dzunic and Marko Petkovic

*Faculty of Economics, University of Nis, Serbia, jelena.stankovic@eknfak.ni.ac.rs*

*Faculty of Economics, University of Nis, Serbia, marija\_dzunic@ni.ac.rs*

*Faculty of Sciences and Mathematics, University of Nis, Serbia, dexterofnis@gmail.com*

### ABSTRACT

Effective use of labour force knowledge and skills is one of key factors of enhancing economic growth and at the same time personal labour market success. When knowledge and skills are not used properly, there is a mismatch with labour market needs. Skill mismatch occurs when workforce skills exceed or do not meet contemporary and increasingly demanding labour market requirements. The research in this paper is aimed to explore the existing skill mismatch in post-communist economies. The significance of the research is reflected in the fact that skill mismatch in transition economies is more pronounced and persistent phenomenon than in developed economies. The analysis includes sixteen European post-communist countries, covering the period 2008-2017. The research aims to determine the patterns of skill mismatch regarding educational and gender aspects in each country, as well as to provide comparative analysis of the countries in the sample. Finally, a cluster analysis is conducted in order to determine groups of post-communist economies with similar patterns of skill mismatch and homogeneous trends in their dynamics.

### KEYWORDS

Skill mismatch, Employment, Transitional economies, Clusters analysis

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## MOTIVES AND CHARACTERISTICS OF HIGHLY QUALIFIED LABOR FORCE MIGRATION

Miloš Todorović and Aleksandar Đorđević

*Economic Faculty, University of Nis, Serbia, milos.todorovic@eknfak.ni.ac.rs*

*Innovation Center, University of Nis, Serbia, djaleksandar91@gmail.com*

### ABSTRACT

Migration of people represents the movement of one factor of production – labor. International movement of labor is one of four freedoms of movement alongside the movement of goods, services, and capital. One type of migration, specifically emigration of highly qualified young people is called brain drain. It is considered very harmful for the emigration country but at the same time highly beneficial for the immigration country. In the era of globalization, considering the demolition of all barriers, it was never easier to transfer a factor of production, primarily labor and capital. One of the basic characteristics of labor migration in Europe is the outflow of highly qualified labor from East European to West European and North American countries. In addition to the theoretical explanations and statistical data available on this topic, a survey among young highly educated people will be conducted in order to determine their personal attitudes on this issue. This paper attempts to identify the motives of migration, the degree of risk taken by leaving the country, as well as the match between expectations and realities related to work and life abroad. Based on a survey, both those who have already emigrated and those who did not will be tested. A multi-dimensional image of the given problem will be obtained.



Possible state measures that would retain highly educated workforce in the country or allow the return of those who have already left will also be analyzed. This research is a part of a wider project and an examination of attitudes in the countries of Eastern Europe, but for this concrete paper only the results from the Republic of Serbia will be presented.

**KEYWORDS**

International migration, brain drain, state measures, retaining talent

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**THE ECONOMIC INTEGRATION MATURITY OF ROMANIA AND BULGARIA**

Oleg Tankovszki and Viktória Endródi-Kovács

*PhD, Institute of World Economy, Corvinus University of Budapest, Hungary,*

*oleg.tankovszki@gmail.com*

*assistant professor, Institute of World Economy, Corvinus University of Budapest, Hungary,*

*viktoria.kovacs3@uni-corvinus.hu*

**ABSTRACT**

The paper discusses the issue of integration maturity in the case of Romania and Bulgaria. Within the country group of South-East Europe, Bulgaria and Romania emerge since these countries joined the European Union firstly from the Balkan countries. These countries joined the European Union in 2007 and since then several economic issues and problems were revealed related to their accession. The aim of this paper is to analyze the economic integration maturity of Romania and Bulgaria at the time of their accession and since then. The paper suggests that however these countries fulfilled the Copenhagen criteria were not fully prepared to join the EU markets. The paper forms the hypothesis that Romania and Bulgaria did not fulfill all the criteria of economic integration maturity and were not fully ready to join the EU in 2007. However, by the time of their accession their readiness was appropriate to join. To prove this, the paper uses the methodology of integration maturity and focuses on the economic aspects since these can be measured and compared by using data and give an objective picture about these economies. The concept of integration maturity is more complex than the accession criteria since it gives a deeper outlook to the readiness of candidate countries to join the European Union and it is an appropriate tool to analyze how these countries can benefit from the membership in an integration. It shows how a candidate country is able to exploit the benefits of membership and minimize its drawbacks before and after the accession. The criteria of integration maturity are functioning market economy, competitiveness, macroeconomic stability, convergence and finance. Based on data analysis (using database of Eurostat, World Bank and OECD) and document analysis it can be examined how successfully these countries could exploit the economic stimulating effects of joining the economic integration, how effectively took an advantage in cohesion and convergence to the other member states during their membership. As a result, it can be stated that although there are some insufficiencies, these countries have sustainable macro-economic indicators and macroeconomic stability could be observed recently; the Romanian and Bulgarian companies would be able to compete against the other Member States and its companies; a development can be observed in their convergences and have close economic relations with the European Union. In sum, Romania and Bulgaria were able to exploit the benefits of membership and minimize its drawbacks.

**KEYWORDS**

Integration maturity, Romania, Bulgaria, readiness, accession, economic criteria

## **EMOTIONAL BRANDING - IDENTIFYING THE DIFFERENCE BETWEEN NIKE AND ADIDAS**

Alexandra Kammerer, B.A., Dr. Christian Ploder, Thomas Dilger

*M.A 1MCI Management Center Innsbruck, Universitätsstraße 15, A-6020 Innsbruck, a.kammerer@mci4me.at*

*MCI Management Center Innsbruck, Universitätsstraße 15, A-6020 Innsbruck, christian.ploder@mci.edu*

*MCI Management Center Innsbruck, Universitätsstraße 15, A-6020 Innsbruck, thomas.dilger@mci.edu*

### **ABSTRACT**

Enterprises place their faith in Emotional Branding to differentiate themselves from competitors and anchor the brand in their customer's mind. By linking a certain character to the brand, people can feel an emotional attachment. Especially in the sports clothing industry, it is important to place a strong relationship to customers to add value. For many years, Adidas and Nike have found themselves fighting for their market position in the sports clothing industry. This paper shows how these two brands represent different personalities based on an empirical study. The study was conducted by the authors within the German speaking countries and it is based on 150 questionnaires. Following on a short introduction (section 1) a literature review is given in section 2. The empirical study is described in section 4 based on the research question (section 3). All the findings are described in section 5 and are recapitulated in section 6.

### **KEYWORDS**

Emotional Branding, Brand Differences, Sports Clothing Industry, Brand Personality

### **JEL CLASSIFICATION CODES**

M31, Z21

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## **AN APPROACH FOR THE EFFECT OF THE NEGATIVE RATES ON INSURANCE COMPANIES PROFITABILITY UNDER THE REGIME OF SOLVENCY II**

Evaggelia Siopi

*Department of Accounting and Finance, Eastern Macedonia and Thrace Institute of Technology, Greece, siopie@gmail.com*

### **ABSTRACT**

Solvency II has been the most important innovation in the field of insurance for the past 20 years, introducing great expectations as well as concerns. The risk based approach in Solvency II, is the most important innovation in the insurance field over the last twenty years, introducing high expectations and concerns. The risk based approach is the most important innovation of the new regulatory framework, determines important issues related to the capital requirements and supervision, as well as their disclosure to the market. Solvency II considers of primary importance for the insured and the insurance policy beneficiaries the protection of their interests. For the insurance companies themselves, offers the chance to meet new capital requirements as a long term opportunity rather than a charge or limitation. When the risk management framework is sufficient to the risks the insurance company can handle as far as policies, means, methods and procedures are concerned, it can then prove the adequacy of the

capital requirement and proceed to "capital discount". This study aims to analyze the united calculation system of the capital requirements in all member-states of the EU, which will fully replace the current system and the insurance legislation of member-states, incorporating risk management techniques, corporate governance and transparency, vital for the proper operation of the market and the protection of the consumer-insured within the modern, complicated and flowing financial system. It will also enhance the conduct of more effective comparison between companies within a state as well as companies from different state-members. The field of research is focused on the effects of low/negative interest rates environment in insurance firms' profitability, notably in life insurance business.

**KEYWORDS**

Solvency II, insurance companies, capital adequacy, negative rates, risk management

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**VIABILITY AND PROSPECTS OF P.G.I. APPLE FARMING IN A GREEK RURAL REGION**

Katerina Melfou, Fotios Chatzitheodoridis and Eleni Oxouzi

*Western Macedonia University of Applied Sciences, Greece, katerinamelfou@gmail.com*

*Western Macedonia University of Applied Sciences, Greece, fchatzitheo@gmail.com*

*Hellenic Open University, Greece, oxouzi.eleni@ac.eap.gr*

**ABSTRACT**

Protected Geographical Indication (PGI) is a European Union quality scheme, which asserts that a product must be produced in the geographical area whose name it carries. The geographical link must occur in at least one stage of production or processing thus permitting a more flexible connection to the specific geographical origin. Greece has obtained the PGI label for numerous products several of which are produced in Western Macedonia, a Greek rural region that suffered severe effects from the recent economic crisis, reflected in ever rising unemployment. The aim of this paper is to assess the profitability, the viability and the future prospects of a PGI product that characterizes this rural region, the Kastoria PGI apple production. Kastoria specializes in specific crops and products which are now characterized as traditional for the region and which contribute significantly to the local economy and employment. Climate and soil conditions prove to be ideal for apple cultivation in the Kastoria region, resulting in the production of high quality apples. The most popular varieties grown are Redchief, Golden Delicious, Gran Smith and Jonagored and over the past years, the bulk of production has been exported. However, a major problem in recent years, despite significant demand, is high production costs, as input prices and variable costs have increased significantly. To analyze PGI apple farming, data were collected by means of a questionnaire and face to face interviews from a random sample of 117 farmers in this rural region. Techno-economic analysis is performed to assess the level of profitability and viability of the farms in the sample. Farming a product of certified quality and reputation that can be attributed to a geographical origin adds to it further value, makes promotion more effective, leads to higher demand and in turn may be expected to have beneficial effects on farm competitiveness and long term viability. The latter is an essential factor in creating new employment opportunities and has positive effects on rural development.

**KEYWORDS**

Profitability, viability, PGI apples, rural development

## THE WINE LAB GENERATING INNOVATION BETWEEN PRACTICE AND RESEARCH EXPLORING THE STUDENT'S VIEW

Spyridon Mamalis, Alessio Cavicchi, Gigliola Paviotti, Irene Kamenidou,  
Elissavet Bouloumpasi, Stayros Pavlides

*Professor of Marketing, Tei Eastern Macedonia and Thrace, Greece, mamalis@econ.auth.gr*

*Associate professor, University of Macerata, Italy*

*PhD Candidate, University of Macerata, Italy*

*Professor of Marketing, Tei Eastern Macedonia and Thrace, Greece*

*Lecturer, Tei Eastern Macedonia and Thrace, Greece*

*Lecturer, Tei Eastern Macedonia and Thrace, Greece*

### ABSTRACT

The wine sector in Europe is considered a key asset for economic growth. It is composed of small producers, thus facing large problems and challenges to survive in the extreme competitive environment. Under this concept, the Wine Lab project is funded by the European Union and Erasmus+ and is implemented to share knowledge, challenges and solutions and produce innovation in the wine sector. This paper reports the results of a quantitative research conducted under this project. The survey aimed at including the point of view of higher education students in 4 different countries about the wine sector. The survey has been implemented through a self-administered, online-based questionnaire that has been provided in the languages of the consortium and English. 185 questionnaires were collected during the research mainly from Bachelor Students. The research aimed to identify student's Perceptions about the wine sector and to assess the potential of the wine sector as a future sector of employment. The present research tried to explore students' perceived views about Wine sector, its strengths and weaknesses and their views about the area of production. Also, it examined the Perceived relevance of the sector for local development. Moreover the research examined student's Expectations of future employability in the wine sector and Perceived competences needed. Results, conclusions are presented and suggestions for future implementation are provided.

### KEYWORDS

Wine Lab Project, European Wine Industry, Marketing Research,

