



Varazdin Development and Entrepreneurship Agency
in cooperation with
Faculty of Management University of Warsaw and University North

Economic and Social Development
17th International Scientific Conference on Economic and Social Development –



“Managerial Issues in Modern Business” Development – “Managerial Issues in Modern Business”
Editors: **Mirosław Przygoda, Mihaela Mikic and Petar Kurecic**
Book of Abstracts
Warsaw, 20-21 October 2016

Varazdin Development and Entrepreneurship Agency
in cooperation with
Faculty of Management University of Warsaw
and **University North**

Editors:

Miroslaw Przygoda, Mihaela Mikic and Petar Kurecic

Economic and Social Development

17th International Scientific Conference on Economic and Social
Development –
“Managerial Issues in Modern Business”

Book of Abstracts

Warsaw, 20-21 October 2016

Title ■ Economic and Social Development (Book of Abstracts), 17th International Scientific Conference on Economic and Social Development – “Managerial Issues in Modern Business”

Editors ■ Miroslaw Przygoda, Mihaela Mikic and Petar Kurecic

Scientific Committee ■ Marijan Cingula, University of Zagreb, Croatia (President); Ayuba A. Aminu, University of Maiduguri, Maiduguri, Nigeria; Gouri Sankar Bandyopadhyay, The University of Burdwan, Rajbati Bardhaman, India; Haimanti Banerji, Indian Institute of Technology, Kharagpur, India; Marija Boban, University of Split, Croatia; Alla Bobyleva, The Lomonosov Moscow State University, Russia; Leonid K. Bobrov, State University of Economics and Management, Novosibirsk, Russia; Rado Bohinc, University of Ljubljana, Slovenia; Adnan Celik, Selcuk University - Konya, Turkey; Angelo Maia Cister, Federal University of Rio de Janeiro, Brasil; Mirela Cristea, University of Craiova, Romania; Sreten Cuzovic, University of Nis, Serbia; Oguz Demir, Istanbul Commerce University, Turkey; T.S. Devaraja, University of Mysore, India; Alba Dumi, Vlora University, Vlore, Albania; Ksenija Dumcic, University of Zagreb, Croatia; Galina Pavlovna Gagarinskaya, Samara State University, Russia; Fran Galetic, Zagreb University, Croatia; Mirjana Gligoric, Faculty of Economics, Belgrade University, Serbia; Mehmet Emre Gorgulu, Afyon Kocatepe University, Turkey; Anica Hunjet, University North, Koprivnica, Croatia; Oxana Ivanova, Ulyanovsk State University, Ulyanovsk, Russia; Irena Jankovic, Faculty of Economics, Belgrade University, Serbia; Lara Jelenc, University of Rijeka, Croatia; Myrl Jones, Radford University, USA; Ana Jovancai Stakic, John Naisbitt University, Belgrade, Serbia; Gorazd Justinek, Graduate School of Government and European Studies, Slovenia; Hacer Simay Karaalp, Pamukkale University, Turkey; Dafna Kariv, The College of Management Academic Studies, Rishon Le Zion, Israel; Salih Katircioglu, Eastern Mediterranean University, Northern Cyprus, Turkey; Hilal Yildirim Keser, Uludag University, Bursa, Turkey; Sophia Khalimova, Institute of Economics and Industrial Engineering of Siberian Branch of Russian Academy of Science, Novosibirsk, Russia; Marina Klacmer Calopa, University of Zagreb, Croatia; Vladimir Kavsca, University of Zagreb, Croatia; Goran Kozina, University North, Koprivnica, Croatia; Dzenan Kulovic, University of Zenica, Bosnia and Herzegovina; Lejla Lazovic Pita, School of Economics and Business, University of Sarajevo, Bosnia and Herzegovina; Robert Lewis, Les Roches Gruyère University of Applied Sciences, Bulle, Switzerland; Ladislav Lukas, Univ. of West Bohemia, Faculty of Economics, Czech Republic; Pascal Marty, University of La Rochelle, France; Vaidotas Matutis, Vilnius University, Lithuania; Marjana Merkač Skok, GEA College of Entrepreneurship, Ljubljana, Slovenia; Daniel Francois Meyer, North West University, South Africa; Marin Milkovic, Rector, University North, Koprivnica, Croatia; Gratiela Georgiana Noja, West University of Timisoara, Romania; Zsuzsanna Novak, Corvinus University of Budapest, Hungary; Alojzy Z. Nowak, University of Warsaw, Poland; Mislav Ante Omazic, University of Zagreb, Croatia; Vera Palea, Università degli Studi di Torino, Italy; Dusko Pavlovic, President DIU Libertas International University, Zagreb, Croatia; Dinko Primorac, University North, Koprivnica, Croatia; Zeljka Primorac, University of Split, Croatia; Miroslaw Przygoda, University of Warsaw, Poland; Nicholas Recker, Metropolitan State University of Denver, USA; Kerry Redican, Virginia Tech, Blacksburg, USA; Robert Rybnicek, University of Graz, Austria; Katarzyna Szymanska, The State Higher School of Vocational Education in Ciechanow, Poland; Jan Turyna, University of Warsaw, Poland; Ilaria Tutore, University of Naples Parthenope, Italy; Mladen Vedris, University of Zagreb, Croatia; Rebeka Danijela Vlahov, University of Zagreb; Ilko Vrankic, University of Zagreb, Croatia; Thomas Will, Agnes Scott College, USA; Li Yongqiang, Victoria University, Australia; Peter Zabielskis, University of Macau, China; Andrzej Wiatrak, University of Warsaw, Poland; Tao Zeng, Wilfrid Laurier University, Waterloo, Canada; Snezana Zivkovic, University of Nis, Serbia; Jerzy Zyzynski, University of Warsaw, Poland.

Review Committee ■ Marina Klacmer Calopa (President); Ana Aleksic; Ayuba Aminu; Mihovil Andjelinovic; Josip Arneric; Lidija Bagaric; Tomislav Bakovic; Sanja Blazevic; Leonid Bobrov; Ruzica Brecic; Ratko Brnabic; Anita Ceh Casni; Mirela Cristea; Oguz Demir; Stjepan Dvorski; Robert Fabac; Ivica Filipovic; Fran Galetic; Mirjana Gligoric; Tomislav Globan; Anita Goltnik Urnaut; Tomislav Herceg; Irena Jankovic; Dafna Kariv; Oliver Kesar; Hilal Yildirim Keser; Mirko Klaric; Tatjana Kovac; Vladimir Kavsca; Petar Kurecic; Angelo Maia Cister; Vaidotas Matutis; Marjana Merkač Skok; Daniel Francois Meyer; Natanya Meyer; Josip Mikulic; Ljubica Milanovic Glavan; Guenter Mueller; Ivana Nacinovic Braje; Gratiela Georgiana Noja; Zsuzsanna Novak; Alka Obadic; Claudia Ogorean; Matko Pajcic; Igor Pihir; Najla Podrug; Vojko Potocan; Zeljka Primorac; Zeljko Radic; Sanda Renko; Souhaila Said; Armando Javier Sanchez Diaz; Tomislav Sekur; Lorena Skufflic; Mirko Smoljic; Petar Soric; Mario Spremic; Ana Jovancai Stakic; Matjaz Stor; Lejla Tijanac; Daniel Tomic; Boris Tusek; Mladen Vedris; Rebeka Daniela Vlahov; Ilko Vrankic; Thomas Will; Zoran Wittine; Tao Zeng; Snezana Zivkovic; Berislav Zmuk.

Organizing Committee ■ Domagoj Cingula (President); Marija Boban; Marina Klacmer Calopa; Erlino Koscak; Miroslaw Przygoda; Rebeka Danijela Vlahov.

Publishing Editor ■ Domagoj Cingula

Publisher ■ Design ■ Print ■ Varazdin Development and Entrepreneurship Agency, Varazdin, Croatia
Faculty of Management University of Warsaw, Warsaw, Poland
University North, Koprivnica, Croatia

Printing ■ Online Edition, ISSN 1849-7543

The Book is open access and double-blind peer reviewed.

Our Books are indexed and abstracted by ProQuest, EconBIZ, CPCI (WoS) and EconLit databases and available for download in a PDF format from the Economic and Social Development Conference website: <http://www.esd-conference.com>

© 2016 Varazdin Development and Entrepreneurship Agency, Varazdin, Croatia; Faculty of Management University of Warsaw, Warsaw, Poland; University North, Koprivnica, Croatia.

All rights reserved. Authors are responsible for the linguistic and technical accuracy of their contribution

AN APPROACH TO PLANNING AN ADVERTISING CAMPAIGN

Mels Sahakyan

Yerevan State University, Faculty of Economy, Armenia
mels.sahakyan@gmail.com

Gayane Tumanyan

Yerevan State University, Faculty of Economy, Armenia
tum.gayane@gmail.com

ABSTRACT

An operations research approach to planning an advertising campaign of goods is employed to demonstrate the expediency of the use and the power of applied mathematics tools in solving business and trade problems. In this work we propose a new approach to plan an advertising campaign using three models. It is shown that under certain natural assumptions, the considered planning problem can be formulated as an optimization one, namely, as an integer linear programming problem and nonlinear programming problem with linear constraints, in which the constraints represent the value of the advertising budget, total number of commercials and expected revenue., whereas the goal function is the GRPs of advertising. We also conducted comparative assessment of advertising campaign effectiveness to applying data envelopment analysis method to classify channels according to the level of efficiency.

Keywords: *advertising campaign, DEA method, expected revenue, Gross Rating Points, Nonlinear programming*

.....