

ALPHANUMERIC JOURNAL

Volume 7, Issue 1, 2019

*The Journal of Operations Research, Statistics, Econometrics and
Management Information Systems*

Editors

Bahadır Fatih YILDIRIM

bahadirfyildirim@alphanumericjournal.com

Sultan Kuzu

sultankuzu@alphanumericjournal.com

Production Editor

Hüseyin BURGAZOĞLU

h.burgazoglu@alphanumericjournal.com

Sümeýra UZUN

sumeyrauzun@alphanumericjournal.com

ISSN 2148-2225

<http://www.alphanumericjournal.com/>

<http://dergipark.gov.tr/alphanumeric>



**Alphanumeric Journal is a “Peer-Reviewed
International Journal”.**

The journal is semiannually published

in June and December.

Index

-  **TR Dizin**
TÜBİTAK ULAKBİM TR Directory
-  **EconLit**
Economics Literature
-  **Index Copernicus**
International
-  **SOBIAD**
Social Science Citation Index
-  **CiteFactor**
Academic Scientific Journals
-  **ResearchBib**
Academic Resource Index
-  **Akademik Dizin**
Turkish Academic Journals Index
-  **Erih Plus**
The European Reference Index for the Humanities and the Social Sciences
-  **Arastirmax**
Scientific Publication Index
-  **ASOS Index**
Academia Social Science Index
-  **AcarIndex**
Academic Researches Index
-  **DRJI**
Directory of Research Journals Indexing

Database

-  **EBSCOhost**
Research Databases
-  **EKUAL**
National Academic License for Electronic Sources
-  **DOAJ**
Directory of Open Access Journals
-  **RePEc**
Research Papers in Economics
-  **EconPapers**
-  **Scilit**
Scientific Literature
-  **IDEAS**
Internet Documents in Economics Access Service

Repository

-  **OpenAIRE**
-  **Turkey Academic Archive**
-  **JournalPark**
Academic

Search Engine

-  **Google Scholar**
-  **Microsoft Academic**

ALPHANUMERIC JOURNAL

Volume 7, Issue 1, 2019

EDITORIAL BOARD

Honorary Editors

- [David F. McAllister](#), *NC State University, USA*
- [Lyn Thomas](#), *University of Southampton, UK*
- [Myron Hlynka](#), *University of Windsor, Ontario, Canada*

Advisory Editors

- [Ignacio Castillo](#), *Wilfrid Laurier University, Ontario, Canada*
- [Jaya Bishwal](#), *University of North Carolina at Charlotte, Charlotte, USA*
- [Jose Luis Alfaro Navarro](#), *University of Castilla-La Mancha, Real, Spain*
- [Konrad Kulakowski](#), *AGH University of Science and Technology, Kraków, Poland*
- [Miguel Ángel Goberna Torrent](#), *University of Alicante, Spain*
- [Mohd Lazim Abdullah](#), *Universiti Malaysia Terengganu, Malaysia*
- [Lapo Governi](#), *Università degli Studi di Firenze, Italy*
- [Qinan Wang](#), *Nanyang Technological University, Singapore*
- [Rajmund Mirdala](#), *Technical University of Kosice, Kosice, Slovak Republic*
- [Rocco Furferi](#), *University of Florence, Firenze, Italy*
- [S. Senthil](#), *Kamaraj College of Engineering and Technology, Virudhunagar, India*
- [Tadashi Dohi](#), *Hiroshima University, Japan*
- [Zeshui Xu](#), *Sichuan University, Chengdu, P. R. China*

Area Editors

- [A. Neyran ORHUNBİLGE](#), *Istanbul University, Istanbul, Turkey*
- [Bilge ACAR BOLAT](#), *Istanbul University, Istanbul, Turkey*
- [Burak GÜRİŞ](#), *Istanbul University, Istanbul, Turkey*
- [Burcu ADIGÜZEL MERCANGÖZ](#), *Istanbul University, Istanbul, Turkey*
- [Burcu KIRAN](#), *Istanbul University, Istanbul, Turkey*
- [Cavit YEŞİLYURT](#), *Atatürk University, Kars, Turkey*
- [Cengiz KAHRAMAN](#), *Istanbul Technical University, Istanbul, Turkey*
- [Coşkun HAMZAÇEBİ](#), *Karadeniz Technical University, Trabzon, Turkey*
- [Çiğdem ARICIGİL ÇİLAN](#), *Istanbul University, Istanbul, Turkey*
- [Dilek ALTAŞ](#), *Marmara University, Istanbul, Turkey*
- [Emine Ebru AKSOY](#), *Gazi University, Ankara, Turkey*
- [Emrah ÖNDER](#), *Istanbul University, Istanbul, Turkey*
- [Erdoğan ÖZTÜRK](#), *Suleyman Demirel University, Isparta, Turkey*

- Ergün EROĞLU, *Istanbul University, Istanbul, Turkey*
- Erhan ÖZDEMİR, *Istanbul University, Istanbul, Turkey*
- Esmâ Nur ÇİNİCİOĞLU, *Istanbul University, Istanbul, Turkey*
- Fatih ÇEMREK, *Eskişehir Osmangazi University, Eskişehir, Turkey*
- Fatih ECER, *Afyon Kocatepe University, Afyon, Turkey*
- H. Öner ESEN, *Istanbul University, Istanbul, Turkey*
- H. Zafer YÜKSEL, *University of Massachusetts Boston, USA*
- Hakan DEMİRGİL, *Suleyman Demirel University, Isparta, Turkey*
- Halim KAZAN, *Istanbul University, Istanbul, Turkey*
- Hamdi EMEÇ, *Dokuz Eylül University, Izmir, Turkey*
- İlker Murat AR, *Karadeniz Technical University, Trabzon, Turkey*
- İrfan ERTUĞRUL, *Pamukkale University, Denizli, Turkey*
- Koorosh Gharehbaghi, *RMIT University, Australia*
- L. Sinem SARUL, *Istanbul University, Istanbul, Turkey*
- M. Erdal BALABAN, *Istanbul University, Istanbul, Turkey*
- M. Vedat PAZARLIOĞLU, *Dokuz Eylül University, Izmir, Turkey*
- Mahmut ERDOĞAN, *Gumushane University, Gumushane, Turkey*
- Mahmut ZORTUK, *Dumlupınar University, Kutahya, Turkey*
- Mehpare TİMOR, *Istanbul University, Istanbul, Turkey*
- Miguel Angel Bautista Martin, *University of Barcelona, Spain*
- Mustafa CAN, *Istanbul University, Istanbul, Turkey*
- Nazif ÇALIŞ, *Adiyaman University, Adiyaman, Turkey*
- Necmi GÜRSAKAL, *Uludağ University, Bursa, Turkey*
- Neslihan FİDAN, *Istanbul University, Istanbul, Turkey*
- Nezih Metin ÖZMUTAF, *Izmir Katip Celebi University, Izmir, Turkey*
- Nihat TAŞ, *Istanbul University, Istanbul, Turkey*
- Nilgün ÇİL, *Istanbul University, Istanbul, Turkey*
- Oğuz AKBİLGİÇ, *University of Tennessee, Canada*
- Ötüken SENGEL, *Kafkas University, Kars, Turkey*
- Özgür ÇAKIR, *Marmara University, Istanbul, Turkey*
- Özlem KUVAT, *Balikesir University, Balikesir, Turkey*
- Rauf NİŞEL, *Marmara University, Istanbul, Turkey*
- Reşat KASAP, *Gazi University, Ankara, Turkey*
- Sadi Evren ŞEKER, *Istanbul Medeniyet University, Istanbul, Turkey*
- Seda TOLUN, *Istanbul University, Istanbul, Turkey*
- Selahattin GÜRİŞ, *Marmara University, Istanbul, Turkey*
- Selim BAŞAR, *Ataturk University, Erzurum, Turkey*
- Seung Hyun BAEK, *Hanyang University, South Korea*
- Seyhan NİŞEL, *Istanbul University, Istanbul, Turkey*
- Sinan SARAÇLI, *Afyon Kocatepe University, Afyon, Turkey*
- Sona MARDİKYAN, *Bogazici University, Istanbul, Turkey*
- Şakir ESNAF, *Istanbul University, Istanbul, Turkey*
- Şebnem AKAL, *Marmara University, Istanbul, Turkey*
- Şebnem ER, *University of Cape Town, South Africa*
- Tunçhan CURA, *Istanbul University, Istanbul, Turkey*
- U. Tuğba ŞİMŞEK GÜRSOY, *Istanbul University, Istanbul, Turkey*
- Ulaş AKKÜÇÜK, *Bogazici University, Istanbul, Turkey*
- Vincent F. YU, *National Taiwan University of Science and Technology, Taiwan*
- Yeliz YALÇIN, *Gazi University, Ankara, Turkey*

ALPHANUMERIC JOURNAL

Volume 7, Issue 1, 2019

CONTENTS

[Measuring Digital Divide by Using Confirmatory Factor Analysis and MANOVA : A Case of Turkey](#)

1-12

Dijital Bölünmenin Doğrulayıcı Faktör Analizi ve MANOVA ile Ölçülmesi: Türkiye Örneği

Çiğdem Arıcıgil Çılan

[Comparison of Parametric and Non-Parametric Estimation Methods in Linear Regression Model](#)

13-24

Doğrusal Regresyon Modelinde Parametrik ve Parametrik Olmayan Tahmin Yöntemlerinin Karşılaştırması

Tolga Zaman, Kamil Alakuş

[Effect of Real Estate Investment Trusts Portfolio Structure on the Market Performance](#)

25-36

Gayrimenkul Yatırım Ortaklıkları Portföy Yapısının Piyasa Performansına Etkisi

İbrahim Sırma

[Analysis of Herd Behavior In Commodity Futures Markets](#)

37-54

Emtia Futures Piyasalarında Sürü Davranışının Analizi

İsmail Atacan, Erdinç Altay

[Fuzzy Decision Making Methodology for Portfolio Selection Problem Under Uncertainty: An Application at Borsa Istanbul \(BIST\)](#)

55-70

Belirsizlik Altında Portföy Seçimi Problemi için Bulanık Karar Verme Metodolojisi: Borsa İstanbul (BIST)'da Bir Uygulama

Beyza Özkök

[Examining The Factors Affecting The Employment Increase Of Enterprises In Turkey](#)

71-86

Türkiye'deki İşletmelerin İstihdam Artışını Etkileyen Faktörlerin İncelenmesi

Özlem Yorulmaz, Selay Giray Yakut, Nimet Melis Esenyel İçen

[Investigation of Attitude About Nuclear and Renewable Energy by Using Partial Least Squares Structural Equation Modeling](#)

87-102

Kısmi En Küçük Kareler Yapısal Eşitlik Modellemesiyle (PLS-YEM) Nükleer ve Yenilenebilir Enerjiye İlişkin Tutumların Araştırılması

Veysel Yılmaz, Yasemin Can, Nil Aras

[A Comparative Analyze Based On EATWOS and OCRA Methods For Supplier Evaluation](#)

103-112

Tedarikçi Değerlendirmesinde EATWOS ve OCRA Yöntemlerine Dayalı Karşılaştırmalı Bir Analiz

Nilsen Kundakçı

ALPHANUMERIC JOURNAL

Volume 7, Issue 1, 2019

CONTENTS

[Stochastic Contests with Linex Utility Functions](#)

113-128

Doğrusal-Üstel (Linex) Yarar Fonksiyonları ile Rassal Yarışmalar

Pelin G. Canbolat

[Using Multi-Criteria Decision Making Methods to Make Logistics Decisions in Sports Clubs](#)

129-142

Çok Kriterli Karar Verme Yöntemleri Kullanarak Spor Kulüplerinde Lojistik Kararların Verilmesi

Uğur Orhan Karaköprü, Özgür Kabadurmuş

[Using Machine Learning Algorithms For Forecasting Rate of Return Product In Reverse Logistics Process](#)

143-156

Tersine Lojistik Sürecinde İade Oranlarının Tahmini İçin Makine Öğrenme Algoritmalarının Kullanılması

Ayşe Nur Adıgüzel Tüylü, Ergün Eroğlu