

# **8th International Institute of Statistics and Management Engineering Symposium 2016**

Yantai City, China  
16 – 18 August 2016

**Editors:**

**Konglai Zhu  
Henry Zhang**

ISBN: 978-1-5108-3357-9

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



**Some format issues inherent in the e-media version may also appear in this print version.**

Copyright© (2016) by the Aussino Academic Publishing House  
All rights reserved.

Printed by Curran Associates, Inc. (2017)

For permission requests, please contact the Aussino Academic Publishing House  
at the address below.

Aussino Academic Publishing House  
14 Union St  
Riverwood, NSW 2210

Phone: 61 29 584 8084

aaph\_sydney@hotmail.com

**Additional copies of this publication are available from:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: 845-758-0400  
Fax: 845-758-2633  
Email: curran@proceedings.com  
Web: www.proceedings.com

# Table of Content

Foreword

Biographies of Conference Committee

Keynote Speakers

An Empirical Study on the Purchasing Power Parity of RMB - Based on Data from 2005 to 2015

*Shuang Qing PAN* ..... Page 1

**JEL Code: E5 - Money Policy**

Empirical Analysis: The Impact of Interest Rate Marketization on Profitability of Commercial Banks - Based on Neoclassical Economics Paradigm and Data from China

*Zhen Guo HAN, Lie Rong QING* ..... Page 6

**JEL Code: G2 - Financial Institutions and Service**

Application of Clustering Analysis in Statistical Analysis of NRCMS Fund Management

*Lian Ta SU, Si Qin LIN, Si Da LIN* ..... Page 15

**JEL Code: G2 - Financial Institutions and Service**

Customer Segmentation Based on Customer Lifetime Value by Markov Chains Models in Retail Banking Context

*Qin WANG, Qiang WANG* ..... Page 22

**JEL Code: G2 - Financial Institutions and Service**

Consideration of Government Financial Support for Innovation and Development in the Perspective of Investment in Science and Technology

*Yong Fei JIA, Hua Tian WANG, Yan ZHUANG, Lin QI, Peng ZHANG* ..... Page 28

**JEL Code: G2 - Financial Institutions and Service**

Empirical Analysis on Relationship between Debt Structure and Performance of Tourism Listed Companies

*Xiao Meng MA, Fen Yi DONG, Li Li CHENG*..... Page 37

**JEL Code: G3 - Corporate Finance and Governance**

A Practical Application of the Balanced Scorecard on Performance Evaluation - Taking a Clothing Company as an Example

*Cai Xia LI, Fang WANG, Jie ZHU, Yi Fan MENG*..... Page 42

**JEL Code: G3 - Corporate Finance and Governance**

Supply Chain Finance Credit Risk Assessment Based on Bayesian Network with Cost Sensitive

*Bao Yu ZHONG, Yue Liang SU*..... Page 47

**JEL Code: G3 - Corporate Finance and Governance**

Research of Product Evaluation Based on Big Data -- A Case Study of Mobile Phone Products

*Xi Xi LI, Su Ling JIA* ..... Page 53

**JEL Code: G3 - Corporate Finance and Governance**

Data Mining Method Based on Bayesian Statistical Theory and Empirical Analysis

*Xie Rui LI*..... Page 59

**JEL Code: G3 - Corporate Finance and Governance**

The Statistical Analysis for Financial Data Based on GARCH Models

*Wen Guang TANG, Yu Hang XIONG*..... Page 67

**JEL Code: G3 - Corporate Finance and Governance**

Multi-Objective Optimization Application Decision

*Li LI, Kong Lai ZHU, Yi Jun WANG*..... Page 75

**JEL Code: G3 - Corporate Finance and Governance**

The Current Supply Plight and Developmental Proposals of Home Care Services  
in Shanghai

*Tao WAN, Hong Yan LI*..... Page 78

**JEL Code: H5 - National Government Expenditures and Related Policies**

A Competence Evaluation Model of University-Student Entrepreneurial Teams

*Zhao Hui GUO, Xiao Jun YIN, Le SUN, Ting CAI*..... Page 86

**JEL Code: I2 - Education and Research Institutions**

Prediction Analysis of School Age Population of Basic Education in Beijing

*Yan Hong YANG, Xuan LI, Cui You YAO*..... Page 93

**JEL Code: I2 - Education and Research Institutions**

Analysis and Design of Open Teaching Quality Management and Control System  
Based on QFD

*Ying GAO, Qi Qi YU*..... Page 100

**JEL Code: I2 - Education and Research Institutions**

The Analysis of Factor that the Elderly Participate in Voluntary Service –

Based on the Data to Elderly in Jinan

*Xiang Fei XU, Zong Hua LI*..... Page 105

**JEL Code: J1 - Demographic Economics**

The Industrial Development Benefits Green Evaluation Research Based on Variance  
Coefficient Weight and TOPSIS

*Wan Jun LIANG*..... Page 109

**JEL Code: L16 - Industrial Structure and Structural Changes**

Research on Innovation Synergy Effects of National Hi-tech Zones

*Rong LI*..... Page 119

**JEL Code: L16 - Industrial Structure and Structural Changes**

Study on Factors Affecting Private Partner Selection in PPP Model

*Yi DIAO*..... Page 124

**JEL Code: L16 - Industrial Structure and Structural Changes**

Application of Straight-Line Intersect Sampling in Coarse Woody Debris

*Xian Xian LUO, MeiLong XIAO*..... Page 128

**JEL Code: L73 - Forest Products**

Research and Analysis of The Status Quo and The Future New Mode of The Express Delivery Services in Colleges and Universities

*Ai Min YANG, Chang Fan XIAO, Jin JIN*..... Page 13

**JEL Code: L87 - Postal and Delivery Services**

Research and Application of Evaluation Index System for the Development of Productive Service Industry -- Taking Jilin Province as an example

*Yu Shuang CHEN, Minna MA*..... Page 144

**JEL Code: L9 - Industry Studies: Services**

Research on Relation of Corporate Environmental Responsibility and Enterprise Value

*Meng Xue WANG, Xiao Wei WANG*..... Page 148

**JEL Code: M1 - Business Administration**

Based on Netlogo Computer Simulation Analysis of the Influence of the Penalty on the Cooperative Behavior

*Lin JIANG, Yue Liang SU*..... Page 15

**JEL Code: M1 - Business Administration**

Influence of Paternalistic Leadership on the Staff's Performance

*Zhi Hua DENG*..... Page 158

**JEL Code: M51 - Firm Employment Decisions**

A Bibliometric Analysis of Research Literature on Supply Chain Innovation in China

*Mei Dan XIAO, Jun Jun YANG*..... Page 162

**JEL Code: O3 - Technological Change, Research and Development**

Complexity Evaluation Method on Polycentric Symbiosis Networks of Metropolitan Regions

*Jun Cheng ZHU, Min ZHANG, Ruang ZHONG*..... Page 168

**JEL Code: R1 - General Regional Economics**

Empirical Analysis of Macro Tax Burden and Economic Growth in Qingdao City

*Hai Jun XIE, Tong ZHANG, Wei WANG*..... Page 173

**JEL Code: R1 - General Regional Economics**

Evaluation and Analysis on the Present Situation of Eco -- Environmental Cooperation in Beijing-Tianjin-Hebei

*Guo Jiao CHEN, Cui You YAO*..... Page 183

**JEL Code: R1 - General Regional Economics**

Statistic Analysis on the Industrial Transfer Motivation of Beijing-Tianjin-Hebei Area

*Ling XIN, Chao SUN, Jie YANG*..... Page 191

**JEL Code: R1 - General Regional Economics**

Comparative Analysis of Economic Coordinated Development for Counties and Districts in Beijing, Tianjin and Hebei Province -- Data Based on the Counties (Cities) in Hebei around Beijing

*Ting YANG, Cui You YAO*..... Page 196

**JEL Code: R1 - General Regional Economics**

Spatial-Temporal Variation of Haze in Chengdu-Chongqing Urban Agglomeration

*Qiu Ling HU, Yan Yan YOU*..... Page 206

**JEL Code: R5 - Regional Government Analysis**

Necessity Study of Quanzhou Maritime Silk Road Incense Culture Tourism Development

*Cai Zhen HONG*..... Page 212

**JEL Code: Z1 - Cultural Economics**

Research of Factors Influencing Attenuation Coefficient of Box Office

*Yan Nan HUANG, Yun Tong YE*..... Page 217

**JEL Code: Z1 - Cultural Economics**

Modeling and Simulating of Different Agents' Opinion Evolution in Social Networks

*Hong Xuan ZHOU, Su Ling JIA*..... Page 222

**JEL Code: Z13 - Economic Sociology**

Analysis of European Refugee Migration and Accommodation

*Xiaobing CHEN, Yun CHEN, Tong SHANG* ..... Page 228

**JEL Code: R23 - Regional Migration**

The Prediction and Socio-economic Aspects of Population Aging in Beijing

*Dan LIAO, Yu Jie CUI, Dan Yang LIU, Jin WANG*..... Page 233

**JEL Code: J1 - Demographic Economics**

Author(s) Index

About Publisher

**END**