

Atlantis Highlights in Engineering
Editor-in-Chief: Zheng Zheng

Ziqiang Zeng · Vilas Gaikar ·
Reza Lotfi *Editors*

Proceedings of the 2022
3rd International
Conference on
E-commerce and
Internet Technology
(ECIT 2022) · Volume 11

OPEN ACCESS

Editor-in-Chief

Zheng Zheng, *Beihang University, Beijing, China*

Associate Editor

Zhiyu Xi, *Beihang University, Beijing, China*

Series Editors

Siqian Gong, *Beijing Jiaotong University, Beijing, China*

Wei-Chiang Hong, *Jiangsu Normal University, Xuzhou, China*

Mohamed Arezki Mellal, *University of Boumerdès, Boumerdès, Algeria*

Ramadas Narayanan, *Central Queensland University, Bundaberg, Australia*

Quang Ngoc Nguyen, *Waseda University, Tokyo, Japan*

Hwai Chyuan Ong, *University of Technology Sydney, Sydney, Australia*

Zaicheng Sun, *Beijing University of Technology, Beijing, China*

Sharif Ullah, *Kitami Institute of Technology, Kitami, Japan*

Junwei Wu, *Harbin Institute of Technology, Shenzhen, China*

Baochang Zhang, *Beihang University, Beijing, China*

Wei Zhang, *Beijing University of Technology, Beijing, China*

Quanxin Zhu, *Hunan Normal University, Changsha, China*

Wei Zheng, *Northwestern Polytechnical University, Xi'an, China*

“The proceedings series Atlantis Highlights in Engineering aims to publish high-quality peer-reviewed proceedings from conferences on research and applications in fields of engineering.

Topics covered by this series:

Control engineering, Systems engineering, Data engineering, Software engineering, Aerospace engineering, Automotive engineering, Biological engineering, Biomedical engineering, Civil and structural engineering, Electrical engineering, Industrial engineering, Mechanical engineering, Mechanics of materials, Ocean engineering, Safety, risk, reliability and quality, Computational mechanics”

Ziqiang Zeng · Vilas Gaikar ·
Reza Lotfi
Editors

Proceedings of the 2022 3rd International Conference on E-commerce and Internet Technology (ECIT 2022)

Preface

Due to recent pandemic, the 2022 3rd International Conference on E-commerce and Internet Technology (ECIT 2022) which was planned to be held in Zhangjiajie, China, was held virtually online during March 4–6, 2022. The decision to hold the virtual conference was made in compliance with many restrictions and regulations that were imposed by countries around the globe. Such restrictions were made to minimize the risk of people contracting or spreading the COVID-19 through physical contact. There were 90 individuals who attended this online conference, representing many countries including Singapore, USA, India, and China.

ECIT is to bring together innovative academics and industrial experts in the field of E-Commerce and Internet Technology to a common forum. The primary goal of the conference is to promote research and developmental activities in E-Commerce and Internet Technology. Another goal is to promote scientific information interchange between researchers, developers, engineers, students, and practitioners working all around the world. The conference will be held every year to make it an ideal platform for people to share views and experiences in E-Commerce and Internet Technology and related areas.

During the conference, the conference model was divided into three sessions, including oral presentations, keynote speeches, and online Q&A discussion. In the first part, some scholars, whose submissions were selected as the excellent papers, were given about 5–10 minutes to perform their oral presentations one by one. Then in the second part, keynote speakers were each allocated 30–45 minutes to hold their speeches. In the second part, we invited four professors as our keynote speakers. Prof. Arumugam Dhanalakshmi, Wenzhou University, China, performed a speech on *Application of Artificial Intelligence in the Internet Driven Economy*. And then we had Assoc. Prof. Minyue Jin, Chongqing University, China. She made a wonderful speech on *Implications of Green Optimism upon Sustainable Supply Chain Management*. And then we had Assoc. Prof. Au Yong Hui Nee, our third keynote speaker, from Universiti Tunku Abdul Rahman, Malaysia. She delivered a wonderful speech on *Potentials Of The Innovation–economic Growth Nexus To A Digital Future*. The finale keynote speaker, Assoc. Prof. Desislava Stoilova, South-West University “Neofit Rilski”, Bulgaria, performed a speech on *Analysis of the Financial Management of Municipal Enterprises in Southwest Bulgaria with Z-Score Model*. Their insightful speeches had triggered heated discussion in the third session of the conference. Every participant praised this conference for disseminating useful and insightful knowledge.

The proceedings is a compilation of the accepted papers and represents an interesting outcome of the conference. Topics include but are not limited to the following areas: E-commerce and digital business, information economy and enterprise management, digital economy and artificial intelligence technology and application, and other related topics. All the papers have been through rigorous review and process to meet the requirements of international publication standard.

We would like to acknowledge all of those who supported ECIT 2022. The help and contribution of each individual and institution were instrumental in the success of the conference. In particular, we would like to thank the organizing committee for its valuable inputs in shaping the conference program and reviewing the submitted papers.

The Committee of ECIT 2022

X. S. Qin	Nanyang Technological University, Singapore
M. Hou	Zhejiang Gongshang University, China
Y. X. Xue	Xi'an University of Technology, China
D. G. Xu	Hubei University of Arts and Science, China
M. D. Butt	Dalian University of Technology, Pakistan

Contents

Peer-Review Statements	1
<i>Ziqiang Zeng, Vilas Gaikar, and Reza Lotfi</i>	
Research on Precision Marketing of Tourist Attractions Based on Big Data Technology: E-commerce Perspective	4
<i>Zhouyin, Huang Mengdie, and Wan Yuhang</i>	
Customer Requirements Mining and Product Design Analysis Based on E-commerce Comment Data	14
<i>Pei-yu Shi and Jun-he Yu</i>	
Research on Response Strategies of O2O Take-Out Platform Merchants Based on Eye Tracking Experiment.	26
<i>Shengchun Ding, Yilin Wang, Linlin Hou, Yue Zhang, and Jingyao Cai</i>	
A Study on the Impact of E-Commerce Anchor Interaction Strategy on Consumers' Willingness to Continue to Buy.	35
<i>Huan-Huan Wang</i>	
The Rise of Domestic Theme Parks in China Compared with Overseas Markets Based on Investigation and Data Analysis	47
<i>Ziyi Ma, Jiahe Sun, Yijin Xu, and Zishan Zou</i>	
Research on Pricing Strategy Based on Consumer Behavior	61
<i>Huiyi Wu and Yunfu Huo</i>	
Research on Cross-Border E-Commerce Operation Mode Based on Big Data Technology.	71
<i>JunJie Le</i>	
Visualization Analysis of Chinese Cross-Border E-Commerce Research: Based on CNKI Literature Database	78
<i>YuFan Diao and YuJiao Shen</i>	
The Influence of E-Commerce Development on Traditional Retail Industry Under the Background of "Internet Plus"	90
<i>Fengxian Yang and Limei Zhou</i>	

A Multi-product Newsvendor Problem Model Based on Demand Transfer and Mental Accounting in the Context of E-Commerce	97
<i>Yuan Qiao, Wenhao Yang, and Ziyao Sun</i>	
Live E-Commerce Multi-entity Value Co-creation Behavior: A Consumer Engagement Motivation Perspective	109
<i>Yu-miao Chang, Ying Zhu, and Hui Li</i>	
Analysis of Cross-Border E-Commerce Customer Information of Chinese Jewelry Enterprises Based on Cross-Border E-Commerce TMCIE Model—Taking Dongguan BD Company as an Example	123
<i>Fei Lei, Liangmei Luo, Yangyang Yan, Kun Xiu Lu, and Chenghua Li</i>	
Research on the Influence of Virtual Adviser Identity Disclosure on Users' Adoption Intention	133
<i>Ying Zhu</i>	
Research on the Path of Promoting Low-Carbon Consumption in the E-Commerce Industry	144
<i>Yuyu Wang</i>	
Research on the Performance Evaluation of the Tobacco Supply Chain—Based on the AHP and the Fuzzy Comprehensive Evaluation Method	152
<i>Xutong Zhang and Dongbing Huang</i>	
Application of the Online Reverse Auction Theory in the Software Outsourcing Procurement	162
<i>Sihao Luo, Yongsheng Zhou, and Linyun Zhou</i>	
Research on the Nonlinear Influence of Artificial Intelligence on Employee Development in Manufacturing Enterprise	169
<i>Zeshuang Liu and Xin Lei</i>	
Research on the Impact of Cross-border E-Commerce on Economic Growth in China – An Empirical Test Based on VEC Model	183
<i>Yaping Jiang</i>	
Static Game Distribution Service Pricing Method Considering Consumers' Green Preference and Consumption Level	192
<i>Zhenlin Wei, Junxi Chen, Cong Li, and Haochen Zhang</i>	
Research on Feature-Based Classification of Consumption Internet Products	204
<i>Dong Yao, Xiaoyu Liu, and Tiange Shen</i>	

Portfolio Decision Model Based on NIWPSO-LSTM. 215
Xinyi Feng, Mingshang Chen, and Zhengrong Hou

Research on the Influencing Factors of Customer Service Performance
of E-Commerce Enterprises Based on Two-Stage Least Square
Regression Model 228
Ping Liu, Ziyue Xiong, and Yi Zhang

The Influencing Mechanism of Perceived UGC Quality on Gen
Z Consumers' Loyalty – An Empirical Analysis 237
Li Yu Tseng, Hao Nan Xu, Yu Yan Lian, and Jing Yang Xue

Research on Dynamic Prediction Model of Orders in E-Commerce
Distribution Center for Intelligent Scheduling 248
Yu Wang and Zhuan Wang

Research on the Index Effect of Economic and Environmental Regulation
in Guangxi Based on OLS Regression and TCA Algorithm 261
Yujian Xu, Ruichao Yu, Chunying Gao, Xinyu Li, and Linrong Wu

An Implementation of Information Technology in Massive Questionnaire
Survey for the Climate Index of SMEs 269
Xin Fu, Linping Xu, James Ho, and Zhiwei Zhang

Research on the Problems and Countermeasures of China's E-Government
Under the Background of Big Data 281
Yan Ke and Panpan Wu

An Experimental Research on the Game of Industry Choice by Farmers
Embedded in the Value Chain 290
Juanli Lan and Yubo Wang

A Comprehensive Trading Strategy Model for Forecasting
and Scheme-Planning 303
Xinyu Zhang, Yuhang Wu, and Zexuan Li

The Research on the Location Preference of China's OFDI Flows–
From the Perspective of the Country Risk 316
Qianxuan Huang, Fengru Zhang, and Liyong Su

Study on the Green Development Channels of Logistics Enterprises
in E-Commerce Environment 326
Tingting Jiang and Yahong Sun

Research on the Innovation Efficiency of Chinese Industrial IOT Companies Based on the Three-Stage DEA Method 337
Yitong Liu and Yichao Zhang

The Characteristics of SDGs of Internet Enterprises Based on Text Mining . . . 348
Wanyi Zhang and Xiang Xie

HTTPB: Integrate Blockchain into HTTP, A Method to Increase Democracy in E-Commerce Online Review System. 359
Ziqi Yan, Imran Khan, and Ian Mackie

A Study of the Drivers of Non-commercial Behavior Donations to the Internet for Good: Based on the Perspective of Value Co-creation 367
Yucan He and Fang Zou

Using Social Big Data and Neural Network Algorithms to Evaluate the Quality of Talent Training in Colleges and Universities 375
Shaoying Chen, Zhenyu Huang, and Zhe Chen

The Empowerment and Subversion of Information Technology to Accounting Information System 384
Yuxue Chen and Xiaqiu Long

Research on the Relationship Between Corporate Social Responsibility, Regional Financial Risk Level and Enterprise Green Innovation 393
Lei Han

Analysis on the Factor Contribution of Regional Economic Growth Under the Internet Economy: Take the Data of Hubei Province from 2010 to 2020 as an Example 410
Fenglin Duan

Research on Spatial Heterogeneity of Regional Innovation Convergence 419
Yong Gang Xue

Research on Digital Transformation Coordination Mechanism of Vehicle Enterprises Based on Tripartite Evolutionary Game Model 427
Puchao Li and Mian Wang

Enterprise Social Media Communication Visibility and Knowledge Sharing Behavior: Role of Impression Management Motivation 437
Yuan Sun, Xujie Li, and Anand Jeyaraj

The Influence of the Development of the E-Commerce Economy
in the Digital Age on the Innovation of Regional Enterprises 449
Long Lin, Jie Zhang, and Zengyu Wei

Data Analysis of Poverty Alleviation Through Electronic Internet Under
Rural Revitalization: Based on the Ending of Poverty Alleviation in 2020 459
Hong Chen and JianMing Tan

Measurement and International Comparison of the Competitiveness
of Digital Service Trade Based on Entropy Method. 468
Lan Liu and Wan Luo

The Influence of Miss Anxiety and Extroversion Personality on Enterprises’
Information Push by Artificial Intelligence Under the Background of
Internet Economy is Explored. 477
Wei Jia Liu

Guangdong’s Role in the Global Value Chain and Its Evolution:
An Empirical Analysis Based on China’s Interregional Input-Output Table. . . . 487
Yonghui Han, Jiahao Lai, Weikun Mai, and Xiaofei Luo

Analysis on the Development of Financial Technology and Its Impact
on Commercial Banks in the Era of Big Data. 496
Chongyan Li and Xianke Li

Research on the Application of “Non-contact” IoT Industry Based
on the Epidemic: An Example of IoT Application Scenarios Spawned
in the Post-epidemic Era 505
Shaoyi Guo and Hanwei Liu

Research on the Influence of Digital Inclusive Finance on the Profits
of Commercial Circulation Industry Empirical Analysis Based on China’s
Provincial Panel Data 512
Xinyi Du

Stock Market Prediction Using Deep Learning Based on Modified Long
Short-Term Memory 522
Wenxuan Li, Meiyong Huang, and Yangqiu Pi

Tow-Phase Commit Rule for Blockchain Consensus 531
Taining Cheng, Shilei Zhang, Jinhong Zhang, and Jing He

Using the Quantile Regression Model to Study the Impact of My Country’s
Big Data, Artificial Intelligence and Blockchain on the Real Economy 542
Xiaohan Sun

Financial Fraud Detection Using Deep Learning Based on Modified Tabular Learning. 550
Meiying Huang and Wenxuan Li

Analysis on the Problems of Legal Digital Currency Based on Blockchain and Information Technology. 559
Xianke Li

Predicting Shared-Bike Routes with Geographic Information System and LSTM Algorithm 568
Hanfeng Wang, Liangbo Zhang, and Ge Zhan

Comperetz Prediction Model of Life Cycle of Huawei Pay with on Block Chain 576
Junfeng Shi, Qinghua Zhu, Youlan Wu, Zhifang Cai, and Dongqin Hu

Predicting Financial Market Risk with Text Analytics: The Role of Intelligence and Readability 585
Tong Wu, Hao Liu, Liangbo Zhang, and Ge Zhan

A Discretization Traceability System for Food Risk Based on Blockchain and Health Code. 593
Zehua Fan, Jincheng Li, Tao Wang, Jiahao Shui, Liangtu Song, and Linli Zhou

Blockchain + Internet of Things in the Field of Environmental Protection 601
Shaoyi Guo and Chengzhu Zhang

The Impact of Talent Introduction Policies on the Economic Development Capability of New First-Tier Cities: Based on Multi-period DID Mod 609
Hongxu Liu

Research on the Financial Supply Mode of Agricultural Products Based on the Integration of the Internet of Things and Blockchain 617
Hongbin Lin, Peichang Zhang, Jihong Zhang, and Gongbin Qian

Prediction on Housing Price Based on the Data on Kaggle. 627
Jiachen Yu

A Cross-Chain Identify Authentication Scheme Based on Block Chain 635
Yue Yu and Shibin Zhang

Analysis of Coupling Relationship Between Agricultural Industry Chain and Inclusive Finance Development. 644
Xiuping Wang and Ying Zhang

Analysis of the Impact of Tax and Fee Cuts on Residents' Consumption Under Blockchain and Big Data 654
Yin Chang

The Global Value Chain Position of China's Service Industry: Empirical Analysis Based on Industry Heterogeneity 663
Xiuhua Zhang, Weiyi Tang, and Shuo Wang

Research on the Framework of the Project Management System for the Reconstruction of Old Residential Areas Based on Blockchain Technology—Take the Xishan District of Kunming as an Example 672
Zheng Niu, Houhui Yu, Xiaosong Wu, Qitao Liu, and Tao Zhou

Blockchain Information Tamper-Proof Algorithm Design Based on Searchable Encryption 681
Pingfan Jia and Junhai Cao

Risk Decision and Predicting of Customer Churn Based on Principal Component Analysis 693
Shiyu Cui, Penghan Lai, Yuwei Deng, and Xiaojiang Zheng

Research on the Basic Ability of Manufacturing Industry in Liaoning Province Based on Model Testing and Data Analysis 702
Xiaonan Fan, Xinyuan Lu, and Xiaocheng Sun

Electric Vehicle Marketing Planning Based on Logic Regression and Boosted Tree 711
YeYu Chai, YiTing Zhao, and BaoRun Li

Metaverse and Stock Market—A Study Based on Fama-French Model 725
Zhitong Chen

The Influence of Cities' Synchronization on Total Factor Productive: Based on the Panel Data of 21 Cities in Guangdong 735
Junliang Zheng and Jing Chu

Peer to Peer Lending Risk Analysis: Predictions from Lending Club 750
Yueqi Gu, Lingqi Guo, Chongyue Ma, Haoyu Wang, and Xiaoran Wei

Deepar-Based Ground Subsidence Prediction Method 760
Tianyu Li, Feng Xiao, Jiaying Li, and Jiaqing Zhang

A Blockchain-Based Multiple-Parties-Involved Vaccination Passport System 772
Runzhi Wang, Bohan Wu, and Taoyue Xia

Forecasting the Pharmaceutical Stock Prices in China in the Context
of the Coronavirus Crisis Based on ARIMA-GARCH Model 786
Lingxian Zhu

A Security Vaccination Passport System Based on Blockchain 796
Mingdu Huangfu, Yujia Huang, and Ziming Qi