



[Home](#)
[Authors](#)
[Program](#)
[Registration](#)
[Committee](#)
[Competitions](#)
[Keynote](#)
[Global Engineering Education](#)
[Industry Solutions](#)
[Sponsors](#)
[Travels](#)

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ID 13 Increasing Ambulance Capacity with a Lean TOC Approach

Bernardo Villarreal, Fernando González Aleu, Arturo Quezada, Gabriela Morales and Aracely Carranza, Universidad de Monterrey San Pedro Garza Garcia, N.L., Mexico

ID 15 Waste Cooking Oil as an Energy Source

John Y. Pumwa, Papua New Guinea University of Technology Papua New Guinea

ID 16 Input uncertainty quantification on supply chain simulation optimization using Bayesian view

Mansur Maturidi Arief, University of Michigan Ann Arbor

ID 17 A System Dynamic Approach of Patient Satisfaction in India's Leading Healthcare

Maria S. Sebastin, School of Business, Amrita Vishwa Vidyapeetham, Bengaluru, Karnataka, India
Mridula Sahay, Amrita School of Business, Amrita Vishwa Vidyapeetham University, Coimbatore, Tamil Nadu, India

ID 18 Environmental Impact Assessment for Setting up a Biogas Plant

M. M. Manyuchi, C. Mbohwa and E. Muzenda, BioEnergy and Environmental Technology Centre, University of Johannesburg, South Africa

ID 19 Linear and Exponential Kinetic Modelling for Biogas Production in Municipal Waste

M. Manyuchi, C. Mbohwa and E. Muzenda, BioEnergy and Environmental Technology Centre, University of Johannesburg, South Africa

ID 20 Techno-economic Feasibility for Recovering Biogas in a Bio augmented Municipal Sewage Plant

M. Manyuchi, C. Mbohwa and E. Muzenda, BioEnergy and Environmental Technology Centre, University of Johannesburg, South Africa

ID 21 STEM Approach on Playing Video Games

Mason Chen, Six Sigma Black Belt, Stanford Online High School, CA, USA

ID 22 Use of improvement heuristics for solving a Vehicle Routing Problem: The case of a Moroccan company

Imane MOUFAD and Fouad JAWAB, Laboratory of Manufacturing, Energy and Sustainable Development College of Technology, Fez, Morocco

ID 23 A methodology for measuring the ecological footprint of freight transport in urban areas: a case study of a Moroccan City

Imane MOUFAD and Fouad JAWAB, Sidi Mohamed Ben Abdellah University, Fez, Morocco

ID 27 Road Transport Problems in Morocco: Discernment and Classification

Kawtar Akoudad and Fouad Jawab, Sidi Mohamed Ben Abdellah University, Fez, Morocco

ID 28 A Demonstration of the Difference between Binomial and Hypergeometric in Statistics

Yvanny Chang, Morrill Learning Center, San Jose, CA, USA

ID 29 Statistical Pi Simulation by Java

Katherine Lim, Eleanor Murray Fallon Middle School, CA, USA

ID 31 Hospital logistics activities

Fouad Jawab, Youness Frichi and Said Boutahari, Sidi Mohamed Ben Abdellah University, Fez, Morocco

ID 32 Reducing The Capacitated Lot Sizing Problem (CLSP) With Set Up, Production, Shortage And Inventory Cost To CLSP With Set Up Production and Inventory Cost

Prof. RRK Sharma and Vinayak A. Drave, Department of Industrial Engineering, IIT Kanpur, India

ID 34 Measuring the impact of freeway infrastructure on the accessibility of the city of Fez

Imane MOUFAD and Fouad JAWAB, Sidi Mohamed Ben Abdellah University, Fez, Morocco
Ismail AIT FASKA, Engineer in the field of the computing specialized in the logistics, in particular the air transport

ID 38 Remodelling the process flow of the metal division assembly line

Joshua Wong Kha Choon and Olugu Ezutah Udony, UCSI University Wilayah Persekutuan Kuala Lumpur, Malaysia

ID 39 Recent progress in the Use of Atomic Force Microscopy (AFM) Techniques in Biomedical Applications

Ayesha Siddiqua and Zahid Hossain, Arkansas State University, Jonesbor, Arkansas, USA

ID 40 Towards Assessment of Innovation in SMEs with Decision Analysis Concepts

Mohmood Al Kindi and Sami Al Kharusi, Sultan Qaboos University Muscat, Oman

ID 41 A Comparison of Ambulance Location Models in Two Mexican Cases

Edgar Granda, Bernardo Villarreal and Gabriela Morales, Universidad de Monterrey San Pedro Garza García, N.L., México
Yazmin Maldonado Instituto Tecnológico de Tijuana Tijuana, Mexico

ID 42 A Goal Programming Model for Nurse Scheduling at Emergency Department

Nasr Al-Hinai, Noor Al-Yazidy, Anfal Al-Hooti and Ekhlal Al-Shereiqi, Department of Mechanical & Industrial Engineering, Sultan Qaboos University Muscat, Oman

ID 45 Lean Manufacturing Adoption in the Transport and Logistics Sector of Thailand – An Exploratory Study

Jose Arturo Garza-Reyes and Simon Peter Nadeem, University of Derby Derby, UK
Sarita Tangkeow, The University of Warwick Coventry, UK
Vikas Kumar, Bristol Business School University of the West of England Bristol, UK

ID 46 Innovation and Growth in Family-Owned Mexican SMEs

Gonzalo Maldonado-Guzmán and Sandra Yesenia Pinzón-Castro Centro de Ciencias Económicas y Administrativas Universidad Autónoma de Aguascalientes Aguascalientes, Ags, México
Jose Arturo Garza-Reyes, University of Derby, Derby, UK
Juan Mejía-Trejo, Centro Universitario de Ciencias Económicas y Administrativas Universidad de Guadalajara Zapopan, Jalisco, México
Vikas Kumar, Bristol Business School University of the West of England Bristol, UK
Simon Peter Nadeem, University of Derby, Derby, UK

ID 47 Analysis Heterogeneous Human Sensory Data from Product Exterior Design Using BRSM

Muhammad Reza Do. Bagus, School of Information Management and Computer Tidore Mandiri, Indonesia
Muhammad Fikri Do. Bagus, Information Engineering Department Gunadarma, University, Indonesia

ID 48 The use of artificial intelligence techniques for the Diagnosis of periodontal disease by clinical indices

Farzad Firouzi Jahantigh and Samin Arbabi, Industrial Engineering Department Sistan and Baluchestan University Zahedan, Iran

ID 49 Work-Related Musculoskeletal Discomforts among College Teachers: An Assessment

Engr. Ryan Jeffrey P. Curbano, ASEAN Eng, Maria Cristina Victoria C. Bagos, Melanie L. Corpus, Aira P. Lusterio, Industrial Engineering Department Lyceum of the Philippines Laguna

ID 51 Performance Evaluation and Organization of New Product in Indonesia Manufacturing Firms

Evo Sampetua Hariandja, Department of Management, Business School Universitas Pelita Harapan Tangerang, Indonesia

ID 52 An Engineering Model for Healthcare Devices to Control, Detect, and Diagnose Medical Errors

Farzad Firoozi gahantigh and Atefeh Batani, Department of Industrial Engineering University of Sistan and Baluchestan, Zahedan, Iran

ID 53 Impact of Internal Driver on Implementation of GSCM Practice

Aries Susanty, Diana Puspita Sari, Dyah Ika Rinawati, Lutfi Setiawan, Department of Industrial Engineering, Diponegoro University, Tembalang, Semarang, Indonesia

ID 54 Effective Heuristics for the Bicriteria Scheduling Problem of Minimizing Total Tardiness and Total Flow Time with Zero Release Dates

Saheed Akande, Department of Mechanical and Mechatronics Engineering, Afe Babalola, University, Ado-Ekiti. Nigeria
Ayodeji. E. Oluleye, Department of Industrial and Production Engineering, University of Ibadan, Ibadan. Nigeria.
E.O. Oyetunji, Department of Mechanical Engineering, Lagos State University, Lagos. Nigeria

ID 55 Linking the Innovation Capability and Innovation Outcome: an Exploratory Investigation of the Hotel Industry

Evo Sampetua Hariandja, Department of Management, Business School, Universitas Pelita Harapan, Tangerang, Indonesia

ID 56 Green human resource management, Green supply chain management practices and Sustainable performance

Abdul Talib Bon and Ahmed A. Zaid Production and Operations Management Department,
Universiti Tun Hussein Onn, Parit Raja, Johor, Malaysia

ID 58 Assessing the Impact of Input Model Misspecification on Integrated Supply Chain Decisions

Ejim-Eze, Emmanuel, Institute of Engineering, Technology and Innovation Management, University of Port Harcourt, Nigeria

ID 60 Success Factors of a Performance Excellence Model: A Hospital Case Study

Fernando Gonzalez Aleu, Department of Engineering, Universidad de Monterrey, San Pedro Garza García, NL, Mexico

ID 61 The Challenges of Cyclic Steam Stimulation (CSS) to Enhanced Oil Recovery (EOR) in Sudanese Oil Field

Husham A. Elbaloula and Dr. Tagwa A. Musa, Sudan University of Science and Technology, Petro-Energy-E&P, PDOC & PE Tower, Khartoum, Sudan

ID 62 Saving behaviors for retirement among government officers at Sirindhorn College of Public Health, Praboromarjchanok Institute, Public Health Ministry

Rujee Charupash Department of Geneducation, Sirindhron College of Public Health Khon Kaen Province, Thailand

ID 63 Passive Isolation of Vibrations in Stone Cutting process

Ahmed Abu Hanieh and Ahmad Albalasie, Department of Mechanical and Mechatronics Engineering, Birzeit University, Palestine

ID 64 A New Formulation of Multi item Lot Sizing Problem with Set up, Inventory and Shortage Costs

Prof. RRK Sharma and Priyank Sinha, Department of Industrial Engineering, IIT Kanpur, India

ID 65 Optimising Service Centre Competitiveness using Lean Enterprise Philosophy and Simulation Techniques

Grace Mukondeleli Kanakana and Olasumbo Ayodeji Makinde, Faculty of Engineering and the Built Environment, Tshwane University of Technology Pretoria West, South Africa

ID 67 Optimizing Protection Decision in Railway Systems

Girish Ch. Dey, Mamata Jenamani, Department of Industrial & Systems Engineering, Indian Institute of Technology, Kharagpur, West Bengal, India

ID 68 Improving Teamwork Quality to Succeed Software Development Project Using AHP (Case study)

Garda Satria, Devi Pratami and Ika Arum Puspita, Industrial Engineering Faculty, Telkom University, Jawa Barat, Indonesia

ID 69 Using the Delphi method to verify a framework to implement sustainability initiatives

Bruno Gallotta, Jose Arturo Garza-Reyes and Anthony Anosike, Centre for Supply Chain Improvement, University of Derby, Derby, UK

ID 70 Supplier selection using two phases model

Gamal Mohamed Nowara, Mohammad Abdel Halim Mansour and Ghada Mohamed Abdel Salam, Industrial Engineering Department, Zagazig University, Cairo, Egypt

ID 72 Multi-Criteria Decision Making Optimization for Reverse Supply Chains

Bandar A. Alkhayyal, Department of Engineering Management, College of Engineering, Prince Sultan University, Riyadh, Saudi Arabia

ID 73 Carbon Emissions Policies Impact on Reverse Supply Chain Network

Bandar A. Alkhayyal, Department of Engineering Management, College of Engineering, Prince Sultan University, Riyadh, Saudi Arabia

ID 76 A system-dynamics based model for implementing theory of constraints on healthcare systems

Mohamed Grida, Mahmoud Zeid and M. Adel El-Baz, Industrial Engineering Department, Faculty of Engineering, Zagazig University, Zagazig, Egypt

ID 78 Performance-Based Contracts for Energy Efficiency Projects

Liang Ding, University of Michigan, Stephen M. Ross School of Business
Sam Aflaki, HEC Paris – Operations Management and Information Technology
Roman Kapuscinski, University of Michigan, Stephen M. Ross School of Business

ID 79 Re-formulating the theoretical principles of lean manufacturing in the Fourth Industrial Revolution: A Grounded Theory Approach

Eldon Caldwell, Smart, Lean and Cognitive Systems Laboratory, Industrial Engineering Department, University of Costa Rica, San José, Costa Rica

ID 80 Implementation of Lean Manufacturing System to Eliminate Wastes on the Production Process of Line Assembling Electronic Car Components with WRM and VSM Method

Muhammad and Yadrifil, Department of Industrial Engineering (IE UI), Faculty of Engineering, Industrial Engineering Department, Fakultas Teknik – Universitas Indonesia, Depok

ID 81 Reinforcement Learning Based Buffer Allocation Problem on Complex Production Lines

Vina Sari Yosephine and Young Jae Jang, Department of Industrial and Systems Engineering, Korea Advanced Institute of Science and Technology, Daejeon, South Korea

ID 82 The Impact of Transactional Leadership on Employees' Performance through the mediation of job satisfaction in Malaysian's Telecommunication sector

Abdul Talib Bin Bon, Department of Technology Management and Business, University Tun Hussein Onn Malaysia
Ali Orozi Sougui, Université de N'Djamena, Tchad

ID 86 Productivity Improvement in Assembly Line by Reduction Cycle Time using Time Study at Automotive Manufacturer

Abdul Talib Bon and Siti Nor Aini Samsudin, Production and Operations Management Department, Universiti Tun Hussein Onn, Parit Raja, Johor, Malaysia

ID 87 Influence of Inventory and Work In Process Adjustment Time on Production Target Achievement of D Minus 1 Production Scenario: A Case Study of Hospital Bed Production

Susanto Sudiro, Magister Teknik Mesin Universitas Pancasila Jakarta, Indonesia
Sha'ri Mohd Yusof, Razak School of Engineering and Advanced Technology, Universiti Teknologi Malaysia Kuala Lumpur
Revino, Post Graduate Program, Institut Sains dan Teknologi Nasional Jakarta, Indonesia

ID 89 Determine the Influenced Factors of Facebook Ads Adoption by SMEs

Aulia F. Hadining and Sukanta, Industrial Engineering Department, State University of Singaperbangsa Karawang, Karawang, Indonesia

ID 90 Heuristics for Maximizing the Total Weight of Just-In-Time Jobs under Multi-Slot Conditions

Ryo Saito and Eishi Chiba, Graduate School of Science and Engineering, Hosei University, Koganei-shi, Tokyo, Japan

ID 91 Attitudes towards Road Safety among Pre-drivers: The Case of Qatar

Semira O. Mohammed, Khalifa N. Al-Khalifa, Wael K.M. Alhajyaseen, Sajeda A. Abounada, Mohannad H. Ahmed, Qatar
Transportation and Traffic Safety Center, Qatar University, Doha, Qatar

ID 93 Managing Inventory Cost and Assuring Medicine Availability: a Case Study of a Pharmacy in Jeddah Saudi Arabia

Lama M. Mufti and Abdulaziz T. Almaktoom, Department of Operations and Information Management, Effat University, Jeddah, Kingdom of Saudi Arabia

ID 94 Factors Affecting Students' Evaluations of Teaching at College Level

Abdelhakim Abdelhadi, Engineering Management Department, Prince Sultan University, Riyadh, Saudi Arabia

ID 95 The impact of Forecasting Techniques on Jeddah Paints Factory

Aseel H. Bashnaini, Marwan M. Lingga, and Abdulaziz T. Almaktoom, Department of Operations and Information Management, Effat University, Jeddah, Kingdom of Saudi Arabia

ID 96 Issues and Improvement Opportunities in Management System Internal Audit – A Survey

Edly F. Ramly, Certification Director, EFR Certification Sdn Bhd, Malaysia

ID 97 Case Study on Development of Process Failure Mode Effect Analysis (PFMEA) – Issues and Recommendations

Edly F. Ramly, Certification Director, EFR Certification Sdn Bhd, Malaysia

ID 98 Logistics Outsourcing: From the Contracts Complexity to the Performance of the Logistic Services

Jabir Arif, Equipe de recherche Modélisation et Optimisation des Systèmes Industriels et Logistique Ecole Nationale des Sciences Appliquées (ENSA) Université Abdelmalek Essaâdi Tetouan, Morocco

ID 99 Risk Assessment in the Logistics Outsourcing process: Decision-Making Tool

Jabir Arif, Equipe de recherche Modélisation et Optimisation des Systèmes Industriels et Logistique Ecole Nationale des Sciences Appliquées (ENSA) Université Abdelmalek Essaâdi Tetouan, Morocco

ID 100 A performance evaluation of genetic algorithm in case of multi-objective bin packing problem

Tatsuya KOMIYA and Yoichi SHIMAKAWA, Department of Computer Science and Technology, Salesian Polytechnic, Machida, Tokyo, Japan

ID 101 Open Innovation in Service Sector

Pimprabha Sirito and Maruf Hasan, School of Mechanical and Manufacturing Engineering, The University of New South Wales (UNSW), Sydney, Australia

ID 102 District Model with Multiple Types of Vehicles for Transporting Sugarcane

Rujirat Patcharamethanon and Kanchala Sudtchart, School of Manufacturing Engineering, Institute of Engineering, Suranaree University of Technology, Nakhon Ratchasima, Thailand

ID 103 Investigation on the Effect of Types of Nanoparticles and Temperature on Nanoparticles-Foam Stability

Tan Bee Chea, Nur Asyraf Md Akhir and Ahmad Kamal Idris, Department of Petroleum Engineering, Universiti Teknologi PETRONAS, Seri Iskandar, Perak, Malaysia

ID 104 A Simple Algorithm to Validate Triangular Inequalities in Routing Problems

Eric Wibisono, Dept. of Industrial Engineering, Faculty of Engineering, University of Surabaya, Surabaya, Indonesia

ID 105 An Effective Genetic Algorithm for Capacitated Vehicle Routing Problem

Hadeer Awad, Raafat Elshaer, Adel Abdelmo'ez and Gamal Nawara, Industrial Engineering Department, Faculty of Engineering, Zagazig University, Zagazig, Egypt

Adel Abdelmo'ez, Industrial Engineering Department, College of Engineering, King Khaled University, KSA

ID 106 Resilience of Logistics Service Providers Facing a Port Strike: A Case Study

Helena Carvalho, Virgínia Helena Machado, Ana Barroso and Virgílio Cruz-Machado, UNIDEMI, Dep. de Engenharia Mecânica e Industrial, Faculdade de Ciências e Tecnologia, FCT, Universidade Nova de Lisboa, Caparica, Portugal

ID 107 Life cycle impacts for electricity generation from wind source

Md. Mizanur Rahman, Hasan Mohd Faizal, Aminuddin Saat and Mazlan Abdul Wahid, Department of Thermo Fluids, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia, Johor Bahru, Malaysia

ID 108 Safe human-machine centered design of an assembly station in a learning factory environment

Rafael Rojas, Erwin Rauch, Patrick Dallasega and Dominik T. Matt, Industrial Automation and Engineering (IEA), Faculty of Science and Technology, Free University of Bolzano, Bolzano, Italy

ID 109 Five Segment Model of Resource Circulation Considering Shortcut Transitions

Takaaki Kawanaka, Institute for Innovation in International Engineering Education, Graduate School of Engineering, The University of Tokyo

Hiroshi Yamashita, Department of Commerce, Meiji University, Kanda-Surugadai, Chiyoda-ku, Tokyo, Japan

Shoichi Kaneko, Faculty of Management Information, Yamanashi Gakuin University, Sakaori, Kofu city, Yamanashi, Japan

ID 110 Validity and Reliability Analysis of Safety Climate Factors at Small and Medium-sized Enterprises (SMEs) Wood Based Furniture

Alfian Destha Joanda and Bambang Suhardi, Faculty of Industrial Engineering, Sebelas Maret University (UNS), Jl. Ir Sutami No.36A Jebres, Surakarta, Indonesia

ID 111 Using discrete event simulation to evaluate the performance of lean manufacturing implementation: A case study of an electronic manufacturer company

Ahmad Nazif Noor Kamar and Cheng Jack Kie, Faculty of Industrial Management, Universiti Malaysia Pahang, Kuantan, Pahang, Malaysia

ID 112 Privatization and productive efficiency in an international Stackelberg mixed duopoly

Fernanda A. Ferreira and Flávio Ferreir, Polytechnic Institute of Porto, School of Hospitality and Tourism, Portugal

ID 114 Analysis of a Customer Relationship Management Tool in a Shipping Company

Teresa Pereira and Joana Foris, Institute of Engineering of Porto of Polytechnic Institute of Porto, ISEP/P.Porto, Research Center of Mechanical Engineering (CIDEM) Rua Dr. António Bernardino de Almeida, Porto, Portugal

ID 115 Empirical analysis of bankrupt companies using linear and nonlinear techniques in Japanese Stock Markets

Masanobu Matsumaru, Department of Industrial Engineering and Management of Faculty of Engineering, Kanagawa University, Kanagawa, Japan

ID 116 Performance Metric Development to Visualize Setup Losses in Wire Bond Process

Puvanasvaran A. Perumal, Yoong Sai Sieng and Tay Choo Chuan, Technical University of Malaysia Malacca, Durian Tunggal, Malacca, Malaysia

ID 117 Prediction Model of Tensile Strength Property in Friction Stir Welding Using Artificial Neural Network (ANNs)

Hwi Chie Ho, Armansyah, Gatot Suharjanto, Industrial Engineering, Faculty of Engineering, Bina Nusantara University, Jakarta, 11480, Indonesia

ID 118 Resource management using simulation at the airport

MA Nang Laik, Senior Lecturer, School of Business, Singapore University of Social Sciences, Singapore
Murphy Choy, Heriot-Watt University, Edinburgh Business School, Edinburgh, Scotland, United Kingdom

ID 119 Understanding Self-Responsibility in Employability Competencies Development as the Key for Engineering Graduates to survive in the labour market

Daudi Lazarus, Department of Electrical and Information Engineering, Pontianak State Polytechnic, Indonesia
Timothy Ferris, Cranfield University, UK

ID 120 Self-Responsibility in Employability Competencies Development: Perceptions from Australian Engineering Student and Alumni

Daudi Lazarus, Department of Electrical and Information Engineering, Pontianak State Polytechnic, Indonesia

ID 121 Redesigning Of Lamp Production Assembly Line

Bung Wai Kit and EzutahUdoncyOlugu, Faculty of Engineering, Mechanical Engineering Department, UCSI University, Kuala Lumpur

ID 122 Simulation to Improve the Performance of a Real World Warehouse in India

AswinChandran, Deepak Hari, Gautham Krishnan and Joice Jacob, Department of, Mechanical Engineering, Sree Chitra Thirunal College of Engineering, Trivandrum, Kerala, India

ID 123 A Fuzzy Supplier Selection Model considering Social Responsibility in Supply Chain

Abolfazl Aliakbari, Faculty of Industrial and Mechanical Engineering, Qazvin Branch, Islamic Azad University, Qazvin, Iran
Mehdi Seifbarghy, Department of Industrial Engineering, Alzahra University, Tehran, Iran
Davar Pishva, Faculty of Asia Pacific Studies, Ritsumeikan Asia Pacific University, Beppu, Japan

ID 124 Reliability Centered Maintenance and Reliability Centered Spares for Maintenance and Spareparts Policies: Case Study Goss Universal Printing Machine in Printing Company

Judi Alhilman and F. Tatas Dwi Atmaji, School of Industrial and Systems Engineering, Telkom University, Bandung, West Java, Indonesia

ID 125 Design of multiattribute EWMA chart

Mohammad Shamsuzzamana and Salah Haridyb, Sustainable Engineering Asset Management (SEAM) Research Group, Department of Industrial Engineering and Engineering Management, University of Sharjah
Linda Zhang, IESEG School of Management (LEM-CNRS), Lille-Paris, France

ID 126 Single Vendor-Single Buyer Integrated Inventory Model for Deteriorating Items Considering Carbon Emission

Yosef Daryanto and Hui-Ming Wee, Department of Industrial & System Engineering, Chung Yuan Christian University, Chungli, Taiwan

ID 127 Vendor Development Program: An empirical validation of vendor performance through Business Excellence Framework.

Zarak Sh. Zamrah and Safian Sharif, Department of Mechanical Engineering, University of Technology Malaysia, Skudai, Johor, Malaysia

ID 128 Bullwhip Effect Measures in a Non-Stationary Seasonal Supply Chain

Narayan Kumar and Cherian Samuel, Department of Mechanical Engineering, IIT (BHU) Varanasi, India

ID 129 Selection of Best Professional Institute in India: The Student Perspective

Manish Kumar, Cherian Samuel, Vinaytosh Mishra, Anand Jaiswal, Department of Mechanical Engineering, IIT (BHU) Varanasi, India

ID 131 How the Reverse Channel Strategy is Affected by EPR Policies and Asymmetric Information

Yang Liu and Yang Zhang, Department of Industrial Engineering, Tsinghua University, Beijing, P.R. China

ID 132 A structured literature review of the Supply Chain practices in Food Processing Industry

Rahul S Mor, Arvind Bhardwaj, Sarbjit Singh, Department of Industrial and Production Engineering, National Institute of Technology, Jalandhar, India

ID 133 Sustainable City Logistics through Shared Resource Concepts

Patrick Dallasega, Thomas Stecher, Erwin Rauch and Dominik T. Matt Industrial Automation and Engineering (IEA), Faculty of Science and Technology, Free University of Bolzano, Bolzano, Italy

ID 136 Sustainability in Municipal Water Utilities Operations: Among Regions and Scales

Marga Gumelar, Faculty of Economics and Business, Universitas Padjadjaran, Bandung, Jawa Barat, Indonesia

ID 137 Supplier Selection of Technical Goods Using AHP Methods

Fatkhor Rozi and Evy Herowati, Industrial Engineering, Engineering Faculty, University of Surabaya, Surabaya, Indonesia

ID 138 A Framework for Evaluating the Performance of Supply Chain Risk in E-commerce

Abraham Stefanus and Markus Hartono, Industrial Engineering, Engineering Faculty, Universitas, Surabaya, Surabaya, Indonesia

ID 139 An Analytical Model on Time Series Data in Inland Prefecture of Japan

Shoichi Kaneko, Faculty of Management Information, Yamanashi Gakuin University, Kofu, Yamanashi, JAPAN
Takaaki Kawanaka, Institute for Innovation in International Engineering Education, The University of Tokyo, Tokyo, JAPAN
Nyunho Jung, Faculty of Business, Aichi Shukutoku University, Nagoya, JAPAN
Hiroshi Yamashita, Department of Commerce, Meiji University, Tokyo, JAPAN
Masanobu Matsumaru, Mechanical and Industrial Engineering Department, Kanagawa University, Kanagawa, JAPAN

ID 140 Development of Quality Management System in the Process Planning Maintenance Risk-Based in Government Building

Riany Aldesty and Yusuf Latief, Construction Management from Department of Civil Engineering, University of Indonesia

ID 141 Early Project-Management Performance and Project Outcomes Correlate

Hong Long Chen, Department of Business and Management, National University of Tainan, Tainan, Taiwan

ID 143 Detecting Amorphous And Its Effects during Education at Professional Training Department

Dr.K.M. Cyrus and Abbas Ahmadi, Industrial Engineering Faculty, Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran

Dr.R. Labbafi, Science and Research Branch, Islamic Azad University, Tehran, Iran

ID 144 Supply chain coordination with contracts under bilateral asymmetric information

Yang Liu and Yang Zhang Department of Industrial Engineering, Tsinghua University, Beijing, USA

ID 145 A model for Turnaround Maintenance Planning for a Network of Plants

Umar Al-Turki, Salih Duffuaa, and Mohamed Idris, Systems Engineering Department, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia

ID 146 Review of Maritime Inventory Routing Problems

Stefanus Soegiharto, Teuku Yuri M. Zagloel and Sunaryo, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Depok, Indonesia

ID 147 Evaluating Maintenance Policies and Implementation Strategies to improve Building Functional Performance in Government Building: a case study in Jakarta, Indonesia

Fahry Adam, Yusuf Latief, Department of Civil Engineering, Universitas Indonesia, Depok, Indonesia

ID 149 Effect of Culture on Consumer Switching: Moderating role of Involvement and Value of Services

Anjali Sharma and R.R.K. Sharma, Dept. of Industrial & Management Engineering, Indian Institute of Technology-Kanpur

ID 150 Development of Quality Management System in the Process Implementation Maintenance Risk-Based in Government Building

Khairina and Yusuf Latief , Department of Civil Engineering, Universitas Indonesia, Depok, West Java, Indonesia

ID 154 Modeling of Multimodal Transportation Problem Considering Carbon Emission

Thina Ardliana, Shipbuilding Institute of Polytechnic Surabaya, Doctoral Student at Industrial Engineering Department, Sepuluh Nopember Institute of Technology, Surabaya, Indonesia

I Nyoman Pujawan and Nurhadi Siswanto, Industrial Engineering Department, Sepuluh Nopember Institute of Technology, Surabaya, Indonesia

ID 155 Development of Building Information Modelling (BIM) Model to Enhance Services in Maintenance of Public Building

Ulfa Fatmasari and Yusuf Latief, Construction Management of Civil Engineering Department, University of Indonesia, Depok, Jawa Barat, Indonesia

ID 156 Scheduling security personnel for Multiple Security Gates

Abdulaziz S Alzahrani and Hesham K. Alfares, Systems Engineering Department, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia

ID 157 An Ant Colony Optimization Heuristic for Solving the Two-Dimensional Level Packing Problems

AzzaGaber, RaafatElshaer and MahassenKhater, Industrial Engineering Department, Faculty of Engineering, Zagazig University, Zagazig, Egypt

ID 159 Conceptual Framework to Develop E-Maintenance of Government Building Based on BIM

Anita Handayani Putri and Yusuf Latief, PhD Student Department of Civil Engineering Faculty of Engineering Universitas Indonesia, Jakarta Indonesia

ID 160 Impact of the truck wave region to the aerodynamics of saloon car

Dr. Dani Harmanto, Research for Advanced Design and Simulation, University of Derby, Derby, United Kingdom

ID 162 Ergonomics-based Kansei Engineering and Kano Model for public services excellence

Markus Hartono, Department of Industrial Engineering, University of Surabaya, Jalan Raya Kalirungkut, Tenggiling, Surabaya, Indonesia

ID 163 The Development of Risk-Based Standardized WBS (Work Breakdown Structure) for Cost Estimation of Concrete Precast Bridge Construction

Remi Fitriadi Kurnia and Yusuf Latief, Department of Civil Engineering, University of Indonesia, Depok, Indonesia

ID 164 Optimisation nozzle design for mixing fluid using Computational Fluid Dynamics

Thomas Chenery, BEng (Hons) Mechanical Engineering, University of Derby, Derby, United Kingdom

Dr. Dani Harmanto, Research for Advanced Design and Simulation, University of Derby, Derby, United Kingdom

ID 165 A Conceptual Framework for Combining Artificial Neural Networks with Computational Aeroacoustics for Design Development

Claire McKee, Dani Harmanto and Amanda Whitbrook, School of Engineering and Technology, University of Derby, Kedleston Road, Derby, UK

ID 166 Market Mavens in the E-World

R.R.K. Sharma and Vinayak Drove, Department of Industrial Management and Engineering, Indian Institute of Technology Kanpur, Kanpur, U.P., INDIA

Tushar Mangal, Department of Civil Engineering, Indian Institute of Technology Kanpur, Kanpur, U.P., INDIA

ID 167 Development Standardized WBS (Work Breakdown Structure) for Scheduling Planning Based on Risk in Steel Bridge Projects Construction

Salman Al Farizi and Yusuf Latif, Project Management from Department of Civil Engineering, Universitas Indonesia

ID 169 Development of Standard Operational Procedures for Maintenance and Supervision of Repair Works on Government Building at Risk Based

Prisca Anggia Putri, Magister Program Student Civil Engineering Universitas Indonesia, Jakarta, Indonesia

Yusuf Latief, Professor Civil Engineering Universitas Indonesia, Jakarta, Indonesia

ID 170 Effect on the hardness paving block by adding gomuti and pumice stone

Zainur Rochman, BEng (Hons) Civil Engineering, Universitas Narotama, Jalan Klampis Semalang, Surabaya, Indonesia

Dr. H. Sri Wiwoho Mudjanarko ST., MT, Pro-Vice Chancellor, Universitas Narotama, Jalan Klampis Semalang, Surabaya, Indonesia

Dr. Dani Harmanto, Research for Advanced Design and Simulation, University of Derby, Derby, United Kingdom

ID 171 Artificial Bee Colony Algorithm for Solving Shelf Space Allocation Model

Mohamed Grida, Raghda Roshdy, and Gamal Nawara, Department of Industrial Engineering, Zagazig University

ID 172 Identifying factors that facilitates functioning of Virtual Teams in Supply Chain with Differing Strategy Orientation.

R.R.K. Sharma and Vinayak Drove, Sanjay Mittal Chair Professor (HAG Scale), Department of Industrial Management and Engineering, Indian Institute of Technology Kanpur, Kanpur, U.P., INDIA

Ateequr Rahman, Office of the Dean of Academic Affairs, Indian Institute of Technology, Kanpur, India

ID 173 The Well-Being Situation Of Existing Working Of Selected Rice Mills Situated In Sylhet City, Bangladesh

Iqbal and A.B.M Abdul Malek, Department of Industrial and Production Engineering, Shahjalal University of Science and Technology, Sylhet, Bangladesh

ID 174 Impact of Order Picking Regions on the Performance of Routing Picking Policies

Hala Ahmed, Raafat Elshaer, and Mahassen Khater, Industrial Engineering Department, Faculty of Engineering, Zagazig University, Zagazig, Egypt

ID 177 Application of Hidden Markov Model in Crude Oil Price Forecasting

Abdul Talib Bon and Nuhu Isah, Faculty of Technology Management, Business and Entrepreneurship University Tun Hussein Onn Malaysia, Parit Raja, Batu Pahat, Johor, Malaysia

ID 179 Maintenance System of Universal Goss Printing Machine based on failure data using RCM and RCS method

Fransiskus Tatas Dwi Atmaji, Telkom University, Indonesia
Judi Alhilman, ITTELKOM, Indonesia

ID 180 A Framework of Wireless Maintenance System Monitoring Based Cloud Technology

Fransiskus Tatas Dwi Atmaji, Telkom University, Indonesia
Judi Alhilman, ITTELKOM, Indonesia

ID 182 Management of Toxic and Hazardous Chemicals from Electronic Devices Using Supply Chain Concept

Shahrin Iqbal, Department of Electrical and Electronic Engineering, Shahjalal University of Science and Technology, Sylhet, Bangladesh
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ID 183 A Model for Optimizing Remanufacturing Quality Strategy by Considering Quality Loss Function

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Nani Kurniati and Udisubakti Ciptomulyono, Department Industrial Engineering, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia

ID 184 The Role of Organization's Continuous Commitment in Mediating Relationship between Strategic Evaluation and Organizational Performance in Libya's Industrial Sector'

Abdul Talib Bon and Ahmed Alghazali Mohammed Alghannai' Faculty of Technology Management and Business' Universiti Tun Hussein Onn Malaysia, Parit Raja, Johor Malaysia

ID 186 Stakeholders Analysis of Performance Improvement Project on Integrated Development Public Space Child Friendly (RPTRA) In Jakarta Timur

E. R. Gloria Febriani, Civil Engineering

ID 187 Standard Operational Procedure to an Effective Reserve Goods Procurement Based on Risk: the Government Building's Project

Sindi Ajeng Hadiyanti and Yusuf Latief, Department of Civil Engineering, University of Indonesia, Depok, Indonesia

ID 188 Development of Risk-Based Standardized WBS (Work Breakdown Structure) for Safety Planning of Cable Stayed Bridge Project

Gilang Satrio and Prof. Dr. Ir. Yusuf Latief, MT., Department of Civil Engineering , University of Indonesia, Depok, Jawa Barat, Indonesia

ID 189 Integration Process Models of Quality, Safety, Health and Environment Management Systems to Achieve Sustainability Construction

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Yusuf Latief, Professor Civil Department Faculty of Engineering University of Indonesia, Jakarta, Indonesia

ID 190 Development of Standard Operational Procedure (SOP) of Risk-Based Fire Emergency Response on Government Building

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ID 192 Impact of climate on water stress in the vegetative development of the cultivated table vine of Vitis vinifera ssp sativa in Algeria

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ID 205 Additive and Digital Manufacturing: Implications for Organizational Strategy and Structure

Somen Dey and R.R.K. Sharma, Department of Industrial and Management Engineering, Indian Institute of Technology Kanpur, Kanpur, India

ID 206 Exploring the Synergistic Nature of Combinations of Various Functional Flexibility of Manufacturing Organizations

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ID 207 Analysis of the Operations Management Strategy of a Telecommunication Company in Malaysia

Habibah Norehan Haron, Universiti Teknologi Malaysia

ID 208 Characterization And Modeling of Rheological Behavior of a System of Mud a Reverse Emulsion

Mellak Abderrahmane, Boumerdes University, Algeria

Kaddour El Heit, Université Mouloud MAMMERI, Algeria

Khaled Benyounes, University M'Hamed Bougara of Boumerdes, Algeria

ID 209 Studies of the Loss of Circulation during Drilling Oil Wells

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EL HEIT University Mouloud Mammeri, Tizi Ouzou, Algeria

ID 210 Simulation Model of Risk Based Contingency Costs Estimated In Industrial Building Projects with Design Build Contract

Filbert Reginald, Civil Engineering, Project Management

ID 214 Engineering Accreditation: Assessing and Documenting Students Competencies in their Respected Disciplines

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ID 215 Business Strategy with Exploratory & Exploitative Innovation: The Analytics Role from SMAC Technology

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ID 217 A Framework Towards Successful Business Incubator for Indonesian Public Universities: A Pilot Review

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ID 218 Reduce Turnaround Time through Waste Elimination

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ID 219 Agent-Based Conceptual Model of Coordination Collaborative Production Planning In Divergent Two-Tier Supply Chain

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ID 221 A Mathematical Model for Outbound Truck Scheduling with Multiple Trips in Multi-Door Cross Docking System

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ID 231 Analytical Hierarchy Process (AHP) Application of Selecting Corn Waste Production

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ID 232 Impact of capacity loss factors in front-of-line IC packaging on production performance: a case study

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ID 233 Prediction of Relative Permeability from Experimental Resistivity Index and Capillary Pressure Data

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ID 234 The Influences of Salary Level, Employee Satisfaction, and Organizational Commitment on Turnover Intention

Luhur Prayogo and Zulfa Fitri Ikatrinasari, Industrial Engineering Department, Mercu Buana University, Jakarta, Indonesia

ID 235 Incorporating repeat purchasing in Innovation Diffusion Model Using Stochastic Differential

Kuldeep Chaudhary, Kalyani Kumar and Sunita Mehta, Department of Applied Mathematics, Amity Institute of Applied Sciences, Amity University, Noida, India

ID 242 STRATEGIES FOR CORE ESTABLISHMENT IN IRANIAN BANKING INDUSTRIES

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ID 251 The Effects of Steam Commingled Injection in Heavy Oil Production from FNE and Bamboo Sudanese Fields (Steam Adsorption and Distribution Challenges)

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ID 252 An Interplay between Employee Psychological Capital, Organizational Fit, and Work Well-Being on Organizational Commitment: An Empirical Study on E-Commerce Industry in Indonesia

Rizal Nangoy and Mohammad Hamsal, Doctor of Research in Management, Binus University, Jakarta, Indonesia

ID 253 Creating Innovative Work Behavior: The Roles of Self Efficacy, Leader Competency, and Friendly Workplace

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ID 262 Milk agro- alimentary chain sustainable development strategy in the conditions of the Ecuadorian Amazon region

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Magdalena Beatriz Cárdenas Uribe, Manuel Lázaro Pérez Quintana, Luis Bravo Sánchez and Nelly Manjarrez Fuentes, Career Agro industrial Engineering, Amazon State University, Puyo, Ecuador

ID 263 STRATEGIC BUSINESS TRANSFORMATION THROUGH LEAN SIX SIGMA

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ID 264 Development of Standardized WBS (Work Breakdown Structure) Based on Risk for Cost Control of Steel Bridge Construction Project

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ID 274 Working with Millennial Generation: How to Manage Team Engagement to Achieve Excellent Service (Case Study: Tanah Abang Main Branch, Private Bank ABC)

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ID 275 Lean Assessment in a Cross-Docking Distribution Center

Ammar Mohamed Aamer, Faculty of Engineering and Technology, Sampoerna University, Jakarta, Indonesia

ID 285 Contribution to the integrated evaluation of business management

Hidelvys Cantero Cora, Elisa Leyva Cardeñosa and Daideé Caridad Ibarra Miranda, Universidad de Holguín, Cuba

ID 292 Comparing the Business Process in Creative Industry at Bandung

Iston Dwija Utama and Chyintia Ika Ratnapuri, Creativepreneur Department, Bina Nusantara Bandung, School of Creative and Technology, Bandung, West Java, Indonesia

ID 293 Other Income from Building a Franchise System: Insight from the Franchisor

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ID 294 On the Locations of Electric Vehicle Charging Facilities using a Geographic Information System

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Yoichi Shimakawa, Department of Computer Science & Technology, Salesian Polytechnic, Tokyo, Japan

Hiroyuki Goto, Department of Industrial & System Engineering, Hosei University, Tokyo, Japan

ID 295 The effect of Third Parties Fund, Non-Performing Loan, Capital Adequacy Ratio, Loan to Deposit Ratio, Return On Assets, Net Interest Margin and Operating Expenses Operating Income on Lending (Study in Regional Development Banks in Indonesia)

Sugeng Riadi, Program Doktor Manajemen, Pascasarjana Universitas Mercubuana, Universitas Mercubuana, Jakarta, Indonesia

ID 301 Conceptual Development of Land Value Capture (LVC) Model in Indonesia Infrastructure Project to Increase Project Benefits

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ID 302 Scaling up Model for Developing Second-Generation (2G) Bioethanol by using Palm Empty Fruit Bunches Feedstock

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ID 304 On Quantitative Analysis of the Positive and Negative Feelings in the Menu Selection Behavior of the Consumers

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ID 305 Applicability of ARIMA models for investigating the effects of Technology spillover on Car Manufacturing Companies' performance

Mohammadhossein Khorshidnam, Arya Karami and Kaveh Mohammad Cyrus, Industrial Engineering Department, Amirkabir University of Technology, Tehran, Iran

ID 306 Green Manufacturing Adoption on SME: A review of theories

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ID 307 Consumer Switching Behavior in E-Services: Organizational and Technological antecedents through relational paradigm

Anjali Sharma and R.R.K. Sharma, Dept. of Industrial & Management Eng., Indian Institute of Technology-Kanpur, U.P., India

ID 308 Strategy for Capability Development of Knitting Small Medium Enterprises Using SWOT Analysis

Endang Chumaidiyah, Rio Aurachman and Bobby Sahera Industrial Engineering Department of Industrial and System Engineering Faculty, Telkom University, Indonesia

ID 310 Productivity Improvement with Short-Term Quantitative Forecasting Method Case Study on ABC Store – Tokopedia and Bukalapak

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ID 311 Integrated Scheduling and Transportation System Incorporating Energy Consumption: Models Development In the Case of Perishable Goods

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ID 313 Overall Equipment Effectiveness (OEE) at the Laboratory of Structure Testing

Rahmat Nurcahyo, Faisal, Muhammad Dachyar and Muhammad Habiburrahman, Department of Industrial Engineering, Faculty of Engineering, University of Indonesia, New Campus UI, Depok, Indonesia

ID 314 The Effect of Service Quality on Student's Satisfaction At Technical Education And Vocational Training

Rahmat Nurcahyo, Fauzia Rizkiana Aji, Djoko Sihono Gabriel and Muhammad Habiburrahman, Department of Industrial Engineering, Faculty of Engineering, University of Indonesia, New Campus UI, Depok, Indonesia

ID 315 Criteria Affecting the Selection of Logistics Service Provider for Retail Small and Medium Enterprise in Thailand

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ID 316 The Implementation of Material Flow Cost Accounting Analysis to Determine the Optimal Sample Size and Lot Size in Serial Multi-stage Processes

Suteerat Supakulwattana and Wichai Chattinnawat, Department of Industrial Engineering, Chiang Mai University, Chiang Mai, Thailand

ID 320 Implications of Human Resource Management against Organizational Culture, Work Motivation, Job Satisfaction and Employee Performance at State Own Enterprise Hospitals in Indonesia (Empirical Study on the 5 Biggest Pertamina Hospitals in Indonesia)

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ID 321 Modeling for Sustainable Supply Chain Management Level and its Impact on Company's Performance

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ID 322 The dynamic of rice production in Kalimantan Selatan: A policies study

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ID 325 Improvement optimization for DMAIC methodology: A Case study

Gamal Mohamed Nowara, Mohammad Abdel Halim Mansour and Islam sharafeldin, Industrial Engineering Department, Zagazig University, Cairo, Egypt

ID 326 **PERT-Type System Application on Food Industry to Reduce CIP Cycle Time**

Rianita Puspa Sari and Razan Nayif Hasanain, and Ade Momon Subagyo, Department of Industrial Engineering, State University of Singaperbangsa Karawang , Karawang, Jawa Barat, Indonesia

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Mohammad Hassan Abolbashari, Omar Khadeer Hussain and Elizabeth Chang, School of Business, University of New South Wales, Canberra, BC , Australia

ID 328 **Aircraft Taxiing Strategy**

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ID 329 **Incubation framework for a new startup: A case study in Thailand**

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ID 330 **Selection of Product Design Prominent Factors Using Analytic Hierarchy Process for Developing Countries**

Farhad Ahmed and Dr. A.R.M. Harunur Rashid, Department of Mechanical and Chemical Engineering, Islamic University of Technology, Gazipur, Bangladesh

ID 331 **Management of the Ground Engaging Tools through Using Classification and Forecast**

Ilyas Masudin and Gilang Yandeza, Department of Industrial Engineering, Universitas Muhammadiyah Malang, Jalan Raya Tlogomas, Malang, Jawa Timur

ID 332 **Educational Program Planning Using Project Management Techniques**

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ID 333 **Distribution Network Design for an Oil Blending Company**

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Nadjib Brahimi, Department of Supply Chain Management, Rennes School of Business, Rennes, France

ID 334 **A Critical Evaluation of Climate-Related Risks Associated with Oil and Gas Industry in Libya**

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ID 335 Portable Inflated Solar Power Cold Storage House Technology as a supporting facility to increase the production and marketing of fishery fishermen

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ID 336 Gender Leadership And Inequality Study on Higher Education in Indonesia

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ID 337 Model of Mix-Used Central Feasibility Investment Model Support for Increasing Local Government Revenue

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ID 338 Safety Culture Assessment in the Air Traffic Control Sector

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ID 340 Integration Model of Maritime and Tourism in the Regional Areas to Enhancing Economy in the East Indonesia

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ID 341 Calibration system for costs reduction: Case study in the maquiladora industry.

Karina C. Arredondo-Soto, Maria del Socorro Cruz-Castillo, Teresa Carrillo-Gutierrez, Marcela Solis-Quinteros and Luis A. Avila-

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ID 342 Framework of improving the quality and lower the cost build for the real estate industry in Indonesia

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ID 343 Increasing the productivity of health facilities in urban areas in México

Adrián Aguado, Sandra Garza, Jenny Díaz-Ramírez and Johana González, Department of Industrial Engineering, Universidad de Monterrey, San Pedro Garza García, N.L, MX

ID 344 A Model for Tuna-Fishery Policy Analysis: Combining System Dynamics and Game Theory Approach

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ID 345 Inbound Logistics in Sub-Saharan Africa: A Case Study on Current Practices and Challenges

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ID 346 Sustainable Warehousing: A Case Study on Practices, Outcomes and Barriers in the Asia Pacific

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ID 347 Implementation and Configurations Open Source ERP in e-Commerce Module using ASAP (A Case Study on SME)

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ID 363 Sensitivity Analysis of the Gas Compressibility Factor

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ID 364 Risk Analysis Related to Costing and Scheduling of Construction Projects

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ID 365 An Optimal Integrated Maintenance Policy for a Pro-rata Warranty Model

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ID 366 Risk Assessment at Heritage Sites: A Case Study of Tripoli Old City, Libya

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ID 367 Calculation of EUR form Oil and Water Production Data

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ID 370 Integrated Management Framework for Carbon capture and storage (CCS)

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ID 398 Risk Assessment of EPS in Building and Construction Projects: A New Technology in the Libyan Market

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ID 399 FinTech as Innovative Technology in Banking Services Process

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ID 400 Statistical Basketball Player Analysis

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ID 401 Some obstacles that affect the TQM implementation in Bangladeshi RMG Sector: An empirical study

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ID 402 Modeling and Simulation of Queuing Systems Using Stochastic Petri net and Arena Software: A Case Study

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ID 403 Environmental Sustainability and Waste Management Practice in Nigeria: Reconnoitering Local Training and Beneficiations

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Dr. Walter Musakwa, Department of Town and Regional Planning, University of Johannesburg, South Africa

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ID 404 Exploring, Monitoring of Ecological Conservation Practice for Awareness and Sustainability in Aba, Nigeria

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ID 405 Cogitating Sustainability on Ethical Code Enactment: Comparing Social Work Administrators' Habitus and Gender Parity Outcomes

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ID 406 Inventory-Transportation Model Considering Carbon Cap

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ID 407 Evaluating the impact of Quality Assurance and Control on the Performance of South African Food Manufacturing Industry

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ID 408 Assessing the performance of the South African automobile manufacturing companies by means of quality management practices

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ID 409 Causes of food crisis in the Southern African Development Community

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ID 410 The Analysis of Manufacturing System Utilization by Using Queuing and Taylor Theories

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ID 411 Analysis of Accident in Construction Projects

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ID 412 Sustainable Performance Measurement Using Sustainable Value Stream Mapping: A Case Study on One of Palm Oil Companies in Indonesia

Elisa Kusriani and Rangga Primadasa, Magister of Industrial Engineering and Industrial Engineering Department, Indonesian Islamic University

ID 413 The Cars' Brand Country of Origins Impact to Brand Personality Based on Consumer's Involvement Level: Experimental Investigation Evidence for Country of Manufacturing Effect

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ID 414 Growth Analysis of Indonesia Crude Palm Oil Industry on Manufacturing Industry and Macroeconomic Period 1997 - 2015

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ID 415 Influence of Critical Plasma Spray Parameter on Characteristics of Nanostructured Yttria Stabilized Zirconia Coatings

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ID 416 Measuring the effectiveness of Total Productive Maintenance in the South African food manufacturing industry

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ID 418 Optimization using Decisions Analysis and Linear Programming at PT GMS

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ID 419 Integrating Affective Requirements in Car Design Methodologies

Rosemary R. Seva, Ronald S. Mariano and Alma Maria Jennifer A. Gutierrez, Industrial Engineering Department, De La Salle University - Manila, Philippines

ID 420 The Prediction of Needs of Humanitarian Aids Logistics for Merapi Eruption Victims in Sleman Yogyakarta

Naniek Utami Handayani, Dyah Ika Rinawati, Diana Puspita Sari and Projo Mukti Rifa'i, Department of Industrial Engineering, Faculty of Engineering, Diponegoro University, Semarang, Indonesia

ID 421 Case study on strategic development of genuine leather bags using canvas business model

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ID 422 Simulation Analysis of Segmented CONWIP: Application to Reentrant Flow Lines

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ID 423 Dynamics of a Small Scaled Men-Owned Business

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ID 424 Knowledge Management Enabler and Operational Performance in Indonesia Automotive Component Industry

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ID 425 Improvement of Safety Maturity Model Affected by Policy and Institution to Build Safety Culture in Construction Sector

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ID 428 Automatic Bicycle Gearshift: A Disruptive Innovation and Design Thinking Perspective

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ID 429 Project Risk Management: The Role of Stakeholder Analysis

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ID 430 Development of Management System Audit Integration on Quality Management System, OH&S Management System, and Environmental Management System in Construction Project Management

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ID 431 Industrial Systems Engineering on Physical and Digital Banking: A Service Innovation and Ambidexterity Perspective

Khristian Edi Nugroho Soebandrija, Faculty Member of Industrial Engineering Department, Faculty of Engineering, Bina Nusantara University, Jakarta, Indonesia

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Gamawan Ananto and M. Shafry Firasyidnan, Bandung State Polytechnic for Manufacturing (POLMAN), Jl.Kanayakan 21, Bandung, Indonesia

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Hendro Budiyanto and Sri Witjaksono W, Program Doctoral Management SDM, Fakultas Pascasarjana, Universitas Mercu Buana, Jakarta, Indonesia

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Abdelaziz Berrado, EMI, Morocco

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Hifzan Ilyana binti Mohd Amin, Faculty of Engineering, Universiti Teknologi Malaysia, Skudai, Johor, Malaysia

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Houda TAHRI and Omar DRISSI KAITOUNI, IMOSYS, Engineering, management and optimization of systems, Mohammadia School of Engineers, Avenue Ibn sina B.P. 765 Agdal Rabat, Morocco

ID 443 LIFE CYCLE VALUE STREAM MAPPING (LC-VSM): The Application in Two Botle Drinking Water Companies

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ID 445 The relationship between Information Technology and Halal Logistics

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ID 446 Designing Training and Development Program for Competence Global Supply Chain Managers: A Depth Structured Interview

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ID 447 Indicators to Measure a Smart Education: An Indonesian Perspective

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ID 448 Using MCDM approaches to rank different locations for harnessing wind energy to produce hydrogen

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ID 449 Location optimization of hybrid solar- wind plants by using FTOPSIS method

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ID 450 Establishing wind farm for desalting sea water to produce hydrogen

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Abbas Mahmoudabadi, Mehrastan University, Gilan, Iran

ID 454 Risk assessment study within manufacturing/remanufacturing system through maintenance actions

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ID 455 Quality Assessment of Nylon Filament Yarn Product Using DMAIC Method and Failure Mode and Effect Analysis (FMEA) Method

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ID 456 Innovation Network Analysis to Support Innovation Capabilities of Kakao, Sengon and Porang (KaSePo) Cluster in Madiun Regency

Yudha Adi Kusuma and Bambang Syairudin, Industrial Engineering Department, Sepuluh Nopember Institute of Technology

ID 457 Procurement Performance Measurement: Opportunities and Challenges

Elisa Kusrini, Magister of Industrial Engineering and Industrial Engineering Department, Indonesian Islamic University

ID 458 Quality Management Strategy for Indonesian Aircraft MRO Companies Based on Kano Model, QFD Matrix, and AHP

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ID 459 Core Competence Strategy Development of Batik Products in Pekalongan City

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Norzima Zulkifli and Mohd Zahreen Firdaus Mustapha, Department of Mechanical and Manufacturing Engineering, University of Putra Malaysia

ID 462 The Influence of Nonlinear Loads on Optimal Operation Control of Electrical Distribution System

Agus Ulinuha, Department of Electrical Engineering, Universitas Muhammadiyah Surakarta, Surakarta, Central Java, Indonesia

ID 463 Manufacturing Capability, Sustainability Strategy, and Manufacturing Performance of Indonesia Automotive Manufacturer

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ID 464 Simultaneous consideration of assemblability and disassemblability for fastening method selection

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ID 465 Performance Improvement of Corporate Travel Agent Using Business Intellegence

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ID 467 The Integration of Kano's Model and Quality Function Deployment: A Case Study for Design of An Alternative Energy Utilization

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ID 469 An Empirical Testing on Quality Label Equity Model

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ID 470 Revolutionize Supply Chain Collaborations through Cloud Implementation

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ID 471 Investigating the benefits and challenges of the implementation of ISO 9001 and ISO 14001 in the aerospace industry

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ID 473 Designing Nonconforming Services (NCS) Control System for ISO 9001 Implementation

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ID 474 Designing Customer Satisfaction Measurement System for a SME Laundry Services Company

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ID 475 Ultradiscrete exponential Newell-Whitham model: A cellular-automaton model for traffic flow

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ID 476 Design of Customer-driven Facility Management System for Universities

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ID 477 Unemployment Rate And Economic Growth Modelling With Generalized Spatial Three Stage Least Square (GS3SLS) in East Java

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ID 478 Implementation and Management of ERP Systems: A Literature Review

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ID 479 Supplier selection through Attractive criteria: a Fuzzy Kano based integrated MCDM approach

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ID 480 The airport connectivity of medium airports in Thailand

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ID 481 Model Scheduling with Dynamic Trip for Public Transportation

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ID 482 Prediction of project completion time using robust time series regression

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ID 483 Evaluation of Combustion Performance of Waste Tyre Pyrolysis Oil on Variable Compression Ratio, Single Cylinder Diesel Engine

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ID 484 Discrete Wavelet Packet Based Spectrum Sensing in Cognitive Radio using an Improved Adaptive Threshold

Dibal Peter Yusuf, Elizabeth Onwuka, and Caroline, Alenoghena, Telecommunications Engineering Department, Federal University of Technology Minna
James Agajo, Computer Engineering Department, Federal University of Technology Minna

ID 486 Application of Reliability Engineering Method in Sugar Refinery Industry

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ID 487 Value Chain Analysis for Determining Innovation Priority in Batik Small Medium Industry

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ID 490 Toward a Conceptual Framework of Piper retrofractum Supply Chain Performance

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ID 491 Analysis Implementation Effectiveness of ISO / IEC 17025 on Testing Laboratory

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ID 493 A green design chain collaboration model for TFT-LCD industry

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ID 497 Spatial Information and Geoadditive Model for Small Area Statistics

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ID 498 Design Mitigation of Blood Supply Chain Using Supply Chain Risk Management Approach

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ID 499 Analysis of Key Factors for Airport Service Quality: A Case Study of Three Regional Airports in Thailand

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ID 500 A Predictive Model of Motorcycle Accident Involvement Using Structural Equation Modeling Considering Driver Personality and Riding Behavior in Metro Manila

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ID 501 Bayes Spatio-temporal Models for East Java Poverty Analysis with R-INLA

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ID 502 Managing Project Scope Creep: An Exploratory Study

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Mohsin Malik, The University of Melbourne, Australia

ID 503 Relationship between Risk Factors and Risk Information Sharing at SME's In Bandung

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ID 504 Supplier Relationship Management Based On Process Capability Index for Multiple Characteristics

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ID 505 Optimization of Supply Chain Network Design for Multiple-Channel Distribution

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ID 506 The Influence of Culture, Job Satisfaction and Motivation on the Performance Lecturer / Employees

Linda Theresia, A H Lahuddin and Gadih Ranti, Industrial Engineering Department, Institut Teknologi Indonesia
Ramon Bangun, Faculty of Administrative Science, Universitas Indonesia

ID 507 Digital Terrestrial TV in Philippines: What is in for the media consumer?

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ID 508 Integration of Maintenance and Quality Control Policy Based On Variable Sampling Plan Using Process Capability Index

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ID 509 Business Strategy with Uncertainty and Performance

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ID 510 Confucianism Culture Study in Improving the Performance of Employees

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ID 511 The Impact of Integrated Management System Implementation on Operational Performance in Industry

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ID 512 Model development of Multi depot SDVRPTW using Tabu Search algorithm

Ali Alhureibi, Amelia Santoso and Dina Natalia Prayogo, Industrial Engineering, Engineering Faculty, Universitas Surabaya, Surabaya, Indonesia

ID 513 Conceptual Model for Online Marketing Strategy to Success in the Survival Phase of Small Firms

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ID 514 A Simulation Approach for Determining Delivery Time in a Waste Materials Based Make-To-Order Manufacturing Company

Nur Indrianti, Bachtiar Rakagandhi and Tri Wibawa, Department of Industrial Engineering, Universitas Pembangunan Nasional "Veteran" Yogyakarta, Yogyakarta, Indonesia

ID 515 A Framework for Evaluating the Performance of Supply Chain Risk in E-commerce

Abraham Stefanus and Markus Hartono, Industrial Engineering, Engineering Faculty, Universitas Surabaya, Surabaya, Indonesia

ID 517 A FEA-based feasibility study on the replacement of student wooden desks and chairs with a plastic arm chair.

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ID518 Finite element analysis on Nitric Acid Compressor Expansion (NACE) turbine

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ID519 Design for manufacture and assembly of a paper cup making machine in a developing nation

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ID 522 A cloud based architecture for Automatic Feature Recognition in Distributed manufacturing environment

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ID 524 The Performances of Process Capability Indices in the Six-Sigma Competitiveness Levels

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ID 531 Implementation of Horizontal Strategy for Conglomerate firms: The Role of Five-Factor Model

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ID 532 Equal Distribution of Shortages in Supply Chain Problem of Food Corporation of India

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ID 534 The Application of Lean Six-Sigma for Improvement in Bead Manufacturing Process throughout Cooperative and Work Integrated Education Program (CWIE)

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ID 535 The Application of Design of Experiment for Improvement on Filtration Process of Thickness Chicken Soup Manufacturing throughout Cooperative and Work Integrated Education Program (CWIE)

Manufacturing throughout Cooperative and Work Integrated Education Program (CWIE)

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ID 536 Model of Integration of Lean Tools and Knowledge Management to improve the production process in a Metal-mechanic company

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ID 537 An Energy Audit to Minimize Waste Energy in Weaving AJL 2 Departement PT. Daya Manunggal Textile

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ID 538 **Extended Statistical JAVA Gaming Simulation**

Timothy Liu, Mason Chen, and Joseph Jang, Lynbrook High School, Milpitas Christian School, and Monta Vista High School, San Jose, CA, USA

ID 539 **Increasing Value Added in an automotive assembly line. A case study.**

Michelle Eugenia Sánchez Barrientos, Valeria Argumedo Hinojosa, Fabiola Mercedes Arango García, Teresa Verduzco-Garza and Jesús Vázquez, Fernando González-Aleu, Department of Engineering, Universidad de Monterrey, Nuevo León, México

ID 540 **The Integrated Method of Warehouse Layout and Labor Scheduling to Reduce Overtime**

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ID 541 **Fuzzy House of Risk (FHOR) to Manage Supply Chain Risk**

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ID 542 **Comparison Method of Spatial Autoregressive Probit Estimation**

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ID 544 **Geographically Weighted Zero-Inflated Poisson Regression (GWZIPR) for Excess Zero Problems and Heterogeneity of Spatial Data: Application for Number of Diphtheria Disease Cases in West Java Province in 2014**

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ID 545 **Computerized Maintenance Management System for the Philippine's Railway Transit**

Beatrice Michaela L. Felipe, Maria Patricia B. Javier and Rene D. Estember, School of Industrial Engineering and Engineering Management, Mapua University, Manila, Philippines

ID 546 **Development of Ergonomics Intervention in Manual Material Handling to Prevent Work Related Musculoskeletal Disorder**

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ID 547 **A Review on the Reliability, Availability and Maintainability (RAM) Approaches In Conceptual Process Design**

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ID 548 **Fault Feature Extraction And Diagnosis of Gear Transmission System Using EMD and Machine Learning Approach**

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ID 551 **Feasibility of using a hybrid Photovoltaic-Wind Power Plant to Produce Hydrogen for Hendijan in the Southwest of Iran**

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ID 552 An optimization model of renewable electricity price and construction of new wind power plants for Kermanshah, Iran

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ID 553 Implementing Fuzzy Rank Function Model for a New Supply Chain Risk Management

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ID 554 Identifying the effective factors for implementing solar water heaters (SWH) for Yazd, Iran

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ID 555 Cost Estimation Model of Structural Steel for Super Structure of Wellhead Platform in Oil and Gas Industry

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ID 556 System Dynamics Approach to Supply Chain Performance Measurement in Small and Medium Enterprise

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ID 681 Methods to mitigate supply chain risks related to freeze-dried fruit importation to South Africa

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ID 683 The fight against HIV/AIDS IN Zimbabwe: A comparative study with South Africa

Tatenda Talent Chingono, University of Johannesburg, South Africa

ID 684 South African Humanitarian logistics aspects of emergency preparedness against Natural Disasters

T Chingono and C Mbohwa, University of Johannesburg, South Africa

ID 685 Xenophobia in South Africa and its relation to Humanitarian Logistics

T Chingono and C Mbohwa, University of Johannesburg, South Africa

ID 687 Relationship between Safety Climate Factors and Safety Performance in Chemical Industries

Shalini Tayaparan, Jafri Mohd Rohani, Khidzir Zakaria, Fatin Amrina A Rashid and Mohd Izuddin M Ithnan, Department of Materials, Manufacturing & Industrial Engineering, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia, 81310 Skudai, Johor Bahru, Malaysia

ID 688 Effects of Inlet Flow Rate and Penstock's Geometry on the Performance of Gravitational Water Vortex Power Plant

Md. Mizanur Rahman, Tan Jian Hong and Fadzlita Mohd. Tamiri, Faculty of Engineering, Universiti Malaysia Sabah, Kota Kinabalu, Sabah, Malaysia

ID 690 A Comparative Study of Physical and Mechanical Properties of Wood Plastic Composite Produced from Different Agriculture Residues

Noor Afifah Ariffin, Nurain Nabila Haslizam, Saidatul Asyilah Samsurrijal, Mohamad Ali Selimin, Norpadzlihatun Manap, and Lee Te Chuan, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia (UTHM), Parit Raja 86400, Batu Pahat, Johor, Malaysia

Hasan Zuhudi Abdullah, Maizlinda Izwana Idris, Faculty of Mechanical and Manufacturing Engineering, Universiti Tun Hussein Onn Malaysia (UTHM), Parit Raja 86400, Batu Pahat, Johor, Malaysia

ID 691 Stylish Coffee Table Influence by Modular Concept for Student Center

Muhammad Fikri Bin Harun, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Malaysia

Juliana Abdul Halip Furniture Design and Manufacturing Department Universiti Tun Hussein Onn Malaysia Parit Raja, 86400 Batu Pahat, Malaysia

ID 692 Conceptual Design of Modern Minimalist Dining Table Inspired by British Military Uniform

Nur Afiqah Mohd Ramli, Mohamad Ali Selimin, Abdullah Al Rashid Ab Hamid, Abdul Talib Bon, Wan Nuraini Rahim, and Juliana Abdul Halip, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia, Parit Raja, 86400 Batu Pahat, Johor, Malaysia

ID 693 The Effectiveness of Conveyor Layout affected Production Output using Arena Simulation Software

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ID 694 Application of Queuing Theory Model and Simulation to Patient Flow at the Outpatient Department

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ID 695 Continuous Improvement Behaviours in Malaysian Manufacturing Companies

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Jane Goodyer, School of Engineering and Advanced Technology, Massey University, Palmerston North, New Zealand

ID 696 Assessment of the Willingness to Adopt and Benefits of Adopting Light Gauge Steel (LGS) for Construction Projects

Oluwaseun S Dosumu, Clinton Aigbavboa, Wellington Thwala and Unathi Mboya, Sustainable Human Settlement and Construction Research Centre, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

ID 697 Material Procurement Model Considering Life Time and Minimum Order Quantity

Dadang Arifin and Cantri Charisma, Industrial Engineering Department of Universitas Jenderal Achmad Yani, Indonesia

ID 698 Soft Innovation Strategy as a Booster in the Creative Industry (Survey at Bandung as Creative City in Indonesia)

Eriana Astuty, Business and Management Faculty, Universitas Widyatama, Jalan Cikutra 204 A, Bandung
Agus Rahayu, Disman and Lili Adi Wibowo, Doctoral Program of Management, Universitas Pendidikan Indonesia, Jalan Setiabudhi 229, Bandung

ID 699 Building a Safety Culture in the Construction Sector: A Model to Assess the Safety Maturity of a Company

Johan Santoso, Yusuf Latief and Rossy Armyrn Machfudiyanto, Department of Civil Engineering, Universitas Indonesia, Depok, Indonesia

ID 701 Use of Social Media as a medium for disclosing Corporate Social Responsibility (CSR) Disclosures in India

Mr. Giftson and Shekar Babu, Department of Management, Amrita Vishwa Vidyapeetham University, Bangalore, India

ID 702 Social Media and Luxury Fashion in India: Use of Social Media by Brands

Arunima Kailthya and Shekar Babu, Department of Management, Amrita Vishwa Vidyapeetham University, Bangalore, 560035, India

ID 703 Corporate Social Responsibility (CSR) Disclosures using Social Media in India

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ID 704 Use of Social Media for CSR and Sustainability: A Systematic Review of Literature

Amrit Perish and Shekar Babu, Department of Management, Amrita Vishwa Vidyapeetham University, Bangalore, India

ID 705 Corporate Social Responsibility (CSR) and Financial Performance: A Study of Indian Companies

Harsha Vinay and Shekar Babu, Department of Management, Amrita Vishwa Vidyapeetham University, Bangalore, India

ID 707 A Cold-inflow Free Solar Chimney Dryer for Seaweed Drying in Sabah, Malaysia

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ID 708 Assessment Project Management (PM) Roles Responsible for Abandonment of Construction Projects

Oluwaseun S. DOSUMU and Clinton, AIGBAVBOA, Sustainable Human Settlement and Construction Research Centre, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

ID 709 Procurement Related Risks in the Gauteng Public Sector

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ID 710 Self-Assessment and Quality Awards Models: A review of practice and process

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ID 711 Measuring the Value Added and Business Strategy: A Case of Property Corporations in Indonesia Stock Exchange

Katharina Priyatningsih, H. Suryana, Agus Rahayu and Lili Adi Wibowo, Indonesia University of Education, Bandung, Indonesia

ID 713 Building Student Satisfaction at Private Higher Education through Co-creation with Experience Value as Intervening Variables

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ID 714 The Influence of Distinctive Capabilities and Innovation Management on Business Performance of Technology Information Digital Industry In Indonesia

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ID 715 The Relationship between the 'Big Five' Personality and Career Success

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ID 716 Shopping Centre Classification Scheme: A Comparison of International Case Studies

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ID 717 Implementation of Lean in Excavator Bucket Manufacturing Industry

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ID 718 Implementation of Production Planning Tools in Sugar Industry

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ID 719 Budget Airline Operations Optimization using Linear Programming

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ID 728 Optimization of Distribution Channel Vehicle Routing Problem with Time Windows using Differential Evolution Algorithm: A Case Study in Newspaper Industry

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A Framework for Evaluating the Performance of Supply Chain Risk in E-commerce

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Abstract

The perceived risk is found to be a barrier for e-commerce application. It has been widely demonstrated in previous studies that the e-commerce is closely related with risk assessment. Taking into account of the scope of supply chain management, the activities of e-commerce system mostly deal with information flow, rather than either product or service flows. With regard to the rapid growth of e-commerce, there is imbalance between preparation and mitigation activities. More specifically, there is no formal model which shows supply chain risk in the e-commerce system, regarded as the research gap. Hence, one way to analyze and map out complex system as potential risk is to make Supply Chain Risk Management (SCRM) framework. This study is conducted to develop a framework about SCRM in the e-commerce area. Taking a case study on e-commerce based company, the SCRM framework is developed incorporating 8 perceived risk model in e-commerce: such as financial, social, time, performance, physical, privacy, security, and psychological risk. The expected contribution in theory and practice is discussed.

Keywords

Supply Chain Risk Management, framework, e-commerce

1. Introduction

At the moment, global competition is tight and supply chain be continues to be long and more complex (Tummala & Schoenherr, 2011). Not achieving the desired supply chain performance is expected to increase, especially because the risks. Supply chain risk can be defined as an explanation in terms of the causes of abnormality that affect the management of the supply chain efficiently (Ghadge et al, 2012).Companies are important to adapt the strategy of abnormalities especially on their network. Risk involved in supply chain as well as the relative the damage can be seen from the recalls and lawsuits for car toy (Story, 2007), animal food (FDA, 2008), and recently withdrawal one of the products Samsung in 2016.

According to Djojosoedarso (2003) risk management is the implementation of the functions management in risk reduction, especially risk faced by organization / company, the family and social. Function management it includes activities plan, organizing, composing, lead, and supervise (including evaluate) risk reduction programs.

Risk management is a process identification, set risk, and shape a strategy for managing them through resources available. Strategy that can be used among other: transfer risk on other parties, avoid the risk, reduce ill effects from risk, and receive a portion nor the whole a consequence of certain risks. Supply chain risk management (SCRM) is an integrated the concept of between supply chain and risk management where the collaboration between partner supply chain in application of the process risk management (Brindley , 2004) .Today supply chain risk management requiring attention serious risk because were often happens and had an impact long-term on performance company management . SCRM Activity covering activity identification , assessment , and mitigation systematically to disorder in a web of logistics to the objective to reduce a negative impact on network performance supply chain (Paul , 2014) .SCRM demanding company to have a good performance , especially in the reliability , in responding to speed , exactness in procurement , exactness in the fulfillment of demand , flexibility , the cost , the accuracy of lead time of activity logistics (Zaroni , 2015) .

E-commerce played an important role in the strategy everyday business, and that role will continue to increase every year (Reinsch, 2005). E-commerce involve electronic transfers, electronic data exchange, automatic inventory management system, and collection systems automated data. According to Wong (2010), e-commerce is the purchase, sales, and marketing goods and services through an electronic system. With the development of e-commerce which is quite rapid, existing risk will be identified.

The best way to analyze and develop a complex system is to set it in meaningful structure (Zwass , 1996) . Developing framework is expected to help map complex problem as on risk e-commerce. Of various research on risk management has conducted, found that framework about risk management still limited number of, especially if associated with e-commerce. The SCRM framework is developed incorporating 8 perceived risk model in e-commerce: such as financial, social, time, performance, physical, privacy, security, and psychological risk (Xiao, 2004). This study is conducted to develop a framework about SCRM in the e-commerce area.

2. Literature review and hypotheses development

Hypotheses about E-commerce Performance will be proposed according to the current research on the relationship between SCRM and E-commerce

2.1 Perceived risk as E-commerce barriers

Researchers in psychology and other disciplines have widely studied the risk theory. Bauer (1967) introduced the notion of perceived risk. He suggested, “Consumer behavior involves risk in the sense that any action of a consumer will produce consequences that he cannot anticipate with anything approximating certainty, and some of which are likely to be unpleasant” (Bauer, 1967). Stone and Gronhaug (1993), in their studies on perceived risk, showed the existence of an important difference between how the risk concept is introduced and adopted in consumer behavior research and how risk concept is conceived and used in other disciplines such as economics, psychology, statistical decision theory and game theory. They pointed out that, in other disciplines, “the concept of risk is related to choice situations involving both potentially positive and potential negative outcomes” (Weber and Bottom, 1989; Stone and Gronhaug, 1993) while in studying perceived risk in consumer behavior, however, “the focus has primarily been on potentially negative outcomes only” (Stone and Gronhaug, 1993). In the context of E-commerce adoption, when studying perceived risk, the focus is primarily on potentially negative outcomes or potential losses/harms. Perceived risk is defined as a person’s perception on the possibility of having negative outcomes or suffering harm or losses associated with E-commerce.

2.2 Perceived SCRM development

Taking into account of the scope of supply chain management, the activities of e-commerce system mostly deal with information flow, rather than either product or service flows. Xiao (2004) have developed 8 perceived risk model in e-commerce: such as financial, social, time, performance, physical, privacy, security, and psychological risk. E-commerce is a part of SCM since e-commerce mostly deal with information flow. The framework will then be developed variables and indicators to measure the perceived SCRM.

Table.1 Definition of Eight dimension of Risk in E-commerce (Xiao, 2004)

Financial Risk	The possibility of suffering monetary losses .
Social Risk	The possibility of having the losses related to the influences of social value and views from friends or family.
Time Risk	The possibility of having the feeling of losses of time as spending too much time in E-commerce.
Performance Risk	The possibility that the actual products or services are not performing as desired and are far from expected.
Physical Risk	The possibility of having potential physical harms.
Psychological Risk	The possibility of feeling psychological uncomfortable.
Privacy Risk	The possibility of suffering the losses due to the misuse of personal information by Internet stores.
Security Risk	The possibility of suffering the losses due to the misuse of personal information by third parties.

2.3 Customer trust as E-commerce Performance indicator

Trust has direct effect on intention to purchase online (Oliveira et al, 2017). Building trust in the digital age is very important. By building trust in customers, they will gladly use the products or services they offer, in this case, help grow the company's business. Since the e-commerce business is hardly face-to-face, the e-commerce company's performance is strongly influenced by trust. How well their growth will be influenced by consumer trust, it will be an indicator of its performance. There are 3 sources influence the dimension of consumer trust: competence, integrity and benevolence (Oliveira et al, 2017)

2.4 Relationship between Perceived SCRM and E-commerce Performance

The bigger risk perception the greater the consumer the potential involvement on the purchase (Engel et al, 1995). Consumers were being in an arena thought of the risks that may be will be faced when consume a product. Risk contemplated by consumers because consume a product or service will coloring behavior buying them .In other words, risk to be wrong or factor under consideration by the consumer for decryption the purchase of a product .When perception to high risk, is motivation whether to avoid purchase and use or risk to minimize through the search for and evaluation alternative after purchase in the decision making. Consumer perceptions of products and their risk perceptions of online shopping will significantly affect consumer online shopping decisions when they are considering buying certain physical goods. (Xiao, 2004). Thus, companies must improve consumer perceptions about the product and reduce the perceived risk consumers in e-commerce environments. Risk reduction activities in perceived SCRM conclusion will help companies gain consumer trust. Based on the literature that has conducted research on the relationship of perceived SCRM with performance, the hypotheses for this research:

H1. Perceived SCRM positively influence on E-commerce performance

3. Research methodology

This is a theoretical research, so the result is the result of the overall the study literature and collecting data have not done. This research will focus on develop framework about SCRM in e-commerce area. The framework will develop the relationship between the 8 perceived risk of SCRM and e-commerce area i.e. financial, social, time, performance, physical, privacy, security, and psychological risk, and competence, integrity, and benevolence.

4. Analysis and result

Modeling for perceived SCRM and e-commerce performance has been illustrated in the model. Indicators of each construct based on the relationship will be described.

4.1 Proposed framework

The relationship between SCRM and e-commerce is presented based on the relationship between several literature review indicators

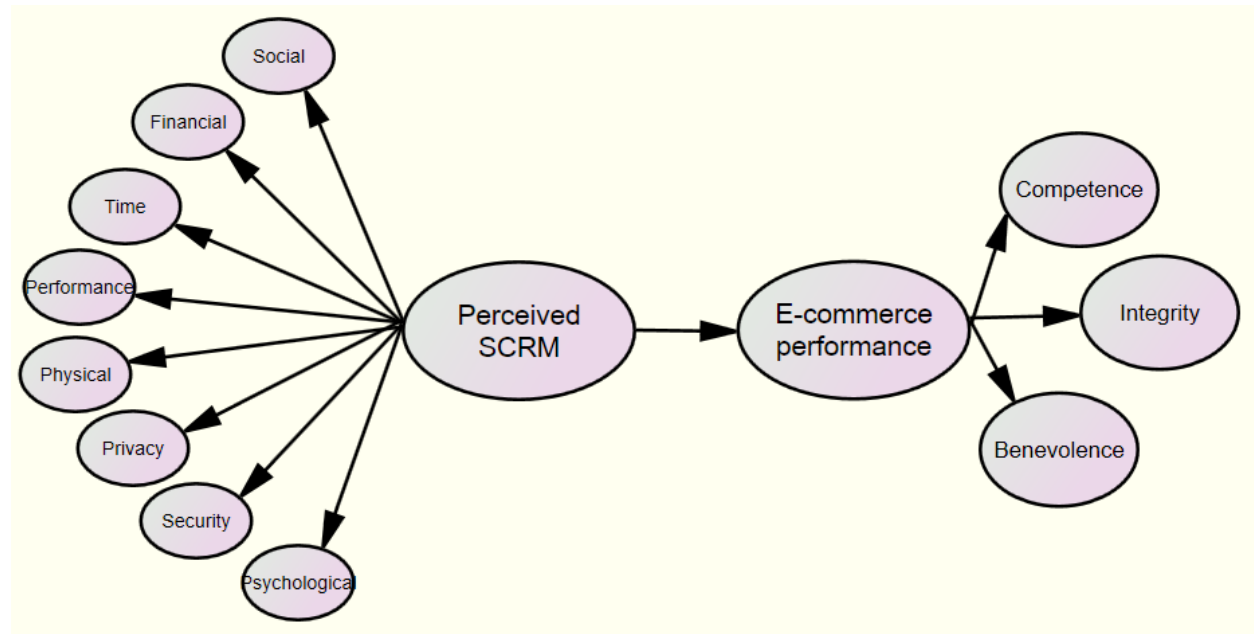


Figure 1. Proposed Model

4.2 Construct between framework

Perceived SCRM in e-commerce consist of 8 constructs. Construct of Perceived SCRM will be explained in Table 2

Table 2. Perceived SCRM in E-commerce

Construct	Code	Description
Financial Risk	FR1	E-commerce would be a bad way to manage my money as it may cause me some monetary losses
	FR2	If I accepted E-commerce methods, I would be not safe and I would be concerned that I may have financial losses through this service.
Social Risk	SR1	The thought of E-commerce causes me concern because some friends would think I was just being showy.
	SR2	My experience of E-commerce action would cause me to be thought of as being foolish by some people whose opinion I value.
Time Risk	TR1	I am concerned that I would have to spend too much time searching the information I need on E-commerce website.
	TR2	I am concerned that I would have to spend too much time learning how to use the systems on E-commerce website.
Performance Risk	PF1	I worry about whether the E-commerce will really perform as well as it is supposed to.
	PF2	I worry about whether the E-commerce will guaranteed that I will get the right products at the right time.
Physical Risk	PH1	It may do harm to me physically if I spend too much time in front of computer.
	PH2	I become concerned about some uncomfortable physical side-effects associated with this E-commerce.
Psychological Risk	PS1	The thought of E-commerce makes me feel psychologically uncomfortable
	PS2	The thought of E-commerce causes me to experience unnecessary tension.
Privacy Risk	PR1	I may suffer from privacy risk.
	PR2	I worry that E-commerce platform share my private information without my consent in the future.
Security Risk	SE1	I do not have confidence in the security of my online transaction.
	SE2	I worry that the information I provide during my transaction will reach inappropriate parties during storage in E-commerce databases.

E-commerce Performance Indicator consist of 3 Constructs. Construct of E-commerce Performance Indicator will be explained in Table 3.

Table 3. E-commerce Performance Indicator

Constructs	Code	Description
Competence (CM)	CM1	Company has sufficient capacity to do their work
	CM2	Company has sufficient experience in marketing the products/services they offer
	CM3	Company has all the resources necessary to perform their activity successfully
Integrity (IT)	IT1	Company usually fulfill its commitments
	IT2	Company offer is true and honest
	IT3	Company never make false statements
Benevolence (BN)	BN1	Company address their user needs
	BN2	Company is concerned about their users present and future interest/benefits
	BN3	Company wouldn't doing anything to their user intentionally

5. Conclusions and Recommendation

This study shows how perceived risk as e-commerce barrier can have an effect on e-commerce performance. It is obvious that consumers would have to look for evidence of the quality in means other than the physical inspection of the goods on offer. In this aspect, perceived risk as e-commerce barrier is given particular attention. E-commerce Performance Indicators consist of 3 constructs and there are 9 indicators for measuring those constructs. Future research is expected to use a variety of methodologies and further research and development on the relationship between SCRM and e-commerce.

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