

出國報告（出國類別：國際研討會）

參加2014年第六屆作業與供應鏈管理學  
術研討會心得報告

服務機關：國立嘉義大學企業管理學系

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報告日期：2015年3月9日

## 摘要

本人於 2014 年 12 月 9 日至 2014 年 12 月 13 日到印尼峇里島參加年度盛會 2014 第六屆作業與供應鏈管理學術研討會(OSCM)，並於該研討會擔任主持人並發表兩篇論文：

(1) A Hybrid Metaheuristic for the Multiple-Choice Multidimensional Knapsack Problem (運用混合型啟發式演算法求解單一選擇多維背包問題)，(2) Setting Price and Inventory for Retail Chains of Fashion Apparel (零售連鎖商店流行性商品之定價與存貨管理)。本屆研討會由 Department of Industrial Engineering, Sepuluh Nopember Institute of Technology (ITS), Surabaya, Indonesia 舉辦。會議的主題為“作業與供應鏈管理在使世界更舒適、永續及肩負社會責任所扮演之角色”。本出國報告含參加該研討會之目的、參加與發表論文過程、心得感想、以及相關建議事項。

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## 壹、目的

2014 年第六屆作業與供應鏈管理學術研討會亞洲作業與供應鏈管理年度盛會，提供學者、業界及其他相關人員共同來分享資訊以及研究的成果。而本次研討會為第六屆的學術研討會，之前五屆分別在 Bali, Indonesia (2005), Thailand (2007), Malaysia (2009), Maldives (2011), 及 New Delhi, India (2013) 舉行。本次研討會係由本屆研討會由 Department of Industrial Engineering, Sepuluh Nopember Institute of Technology (ITS), Surabaya, Indonesia 舉辦。其研討會和期刊(Operations and Supply Chain Management)的主題主要涵蓋於作業與供應鏈管理。本人藉由參與此研討會以掌握最新之研究趨勢，並且與亞洲及全球學者進行交流和切磋，今年非常幸運能在此研討會上發表兩篇論文並受邀擔任主持人。

## 貳、過程

本會議於 2014/12/10 下午領取註冊資料，12/11-12 整天進行各項議題 5 個 Parallel sessions 約 100 篇論文之報告，12/13 進行會議參訪，詳如附錄二。

大會在主席 Professor Nyoman Pujawan 致詞後正式宣布開始，會議的主題為“作業與供應鏈管理在使世界更舒適、永續及肩負社會責任所扮演之角色”。首先在 12/11 來自荷蘭 Rotterdam School of Management, Erasmus University 的 Professor René B.M. de Koster 發表一專題演講，講題為行為對作業上之績效的影響（“The impact of behavior on operational performance”），事實上行為對作業管理的影響不可小覷，以往作業管理都假設人是理性的，只要有適當之激勵管理，都可以去適當的預測其績效，但實證上已有很多例證無法被適當的解釋，所以行為作業管理已愈來愈重要（詳見 Gino, F., & Pisano, G. (2008). Toward a theory of behavioral operations. *Manufacturing & Service Operations Management*, 10(4), 676-691）。

為了幫助博士生及年輕學者，大會特地於 12/11 邀請了北美兩位知名學者包括 Professor Suresh Sethi (University of Texas at Dallas, USA) 及 Professor Yossi Aviv (Olin Business School, Washington University, USA) 舉辦一場與研究職涯相關之座談會 (Workshop for Doctoral and Emerging Scholars)，座談會照片如附錄一圖 4。

本人於此會議先後發表兩篇論文(如附錄一圖 8)，第一篇為 “A Hybrid Metaheuristic for the Multiple-Choice Multidimensional Knapsack Problem (運用混合型啟發式演算法求解單一選擇多維背包問題)”，其中英文摘要如下：

本文研究了多項選擇多維背包問題 (MMKP)，它是著名的多維背包問題的一個變形問題，屬於 NP-Hard 問題，找到任何最佳化的算法未必是有效的。結合啟發式和精確算法混合方法最近因其成效愈來愈普及。各種混合方法已被開發用於許多 NP-Hard 的問題，本研究利用 LP 鬆弛問題及其縮減成本選擇變數來最佳化局部問題，結果非常具有潛力。

” This paper studies the multiple-choice multidimensional knapsack problem (MMKP), a variant of the well-known multidimensional knapsack problem. Belonging to the class of NP-hard problems, finding a solution for MMKP by any exact algorithms may not be efficient. Hybrid approach that combines heuristic and exact algorithm has gained its popularity recently. Various hybrid approaches have been developed for NP-hard problems and promising results are reported. Motivating by the success of such approaches, this project develops a hybrid approach for solving MMKP. Specifically, an LP relaxation of the MMKP problem is generated iteratively. Based on the reduced costs obtained from the LP relaxation problem, a set of variables is chosen in which these variables are fixed to their exact values. The reduced problem is then solved to optimality using CPLEX; and a new LP relaxation problem is developed by selecting one of the branching nodes generated by CPLEX. This process is repeated until the stopping criterion is met. To evaluate the effectiveness of the proposed hybrid approach, numerical experiments are performed.

Experimental results show that the proposed hybrid approach provides promising results. “

發表時在座約有十來位研究者，聽眾反應良好，限於時間，僅有一位學者提問。本人也受邀擔任本場（Parallel Sessions II Supply Chain Model）之主持人。該場其他主題包括：

- 一、The effect of random yield of product returns to the pricing decisions for short life-cycle products in a closed-loop supply chain,
- 二、Modeling value at risk (var) policies for two parallel flights owned by the same airline,
- 三、Research on manufacturer’ s aftermarket service competition strategy outside the warranty period,
- 四、Analysis of optimality and development of priority dispatching method to minimize total tardiness for unrelated parallel machines scheduling.

第二篇為” Setting Price and Inventory for Retail Chains of Fashion Apprael (零售連鎖商店流行性商品之定價與存貨管理) “，其中英文摘要如下：

定價是收益管理一個非常重要的驅動因素，特別是對於時尚的服裝零售商。在這篇文章中，我們研究了一個具有多個門市店，多週期設定降價的定價方案。我們也要確定從配送中心到各門市和價格在各時間段的每個商店的庫存分配。這個問題可以通過動態規劃確切解決。然而，由於該問題的複雜性，我們設計一種迭代啟發式算法,直到存貨分配或價格向量收斂為止。

“Pricing is a very important driver in revenue management, especially for fashion apparel retailers. In this article, we examine markdown pricing schemes for a multi-store, multi-period setting. We are to determine the inventory allocation from the distribution center to each of the outlets and the price for each store in each of the periods. The problem can be solved exact only by dynamic programming. However, due to the problem’ s complexity, we design an iterative

heuristic. Inventory allocation is first determined by given price vectors across multiple periods in each of the outlets, and then the price vectors are selected by considering the mean demand of each store in each period. The heuristic iterates itself until either the inventory allocation or price vectors converge. “

發表時在座約有二十位研究者，聽眾反應相當熱絡，有三位學者提問。該場(Parallel Sessions V)其他主題包括：

- 一、Vehicle scheduling and routing at a cross-docking warehouse: a metaheuristic-based approach,
- 二、Strategic Idling and Dynamic Scheduling in an Open-shop Service Network,
- 三、Shift scheduling model designed to level workloads of employees,
- 四、Modified particle swarm optimization for solving multiobjective limited-wait hybrid flow shop scheduling problem.

此外，大會於 12/12 舉行閉幕大會及頒獎儀式，頒發三篇最佳論文及最佳評論者。活動中並穿插一些民俗表演（如附錄一圖 2），讓與會學者對印尼峇里島的文化有更進一步的體驗。

## 參、心得及建議

能夠在第六屆作業與供應鏈管理學術研討會發表本人的兩篇研究成果，擔任主持人，並與世界各地的學者們互動是難能可貴的經驗，能夠藉由此研討會進一步了解到目前最新的作業與供應鏈管理發展趨勢，且能在相關的學科上提升教學的品質，也啟發未來研究的靈感，收穫滿行囊。

感謝科技部以及本校對參與國際研討會並發表論文所給予的支持與補助，才能讓我有

機會參與此一盛會，進行學術上的交流與經驗分享。建議科技部繼續爭取相關的預算，鼓勵國內學者踴躍參加各種性質的國際性研討會，為臺灣爭取學術知名度，也讓學者了解研究趨勢、與世界接軌，站穩國際舞台。



## 肆、附錄



圖 1：大會晚宴主席致詞



圖 2：大會晚宴民俗表演



圖 3：大會晚宴後主席與貴賓合影



圖 4：大會主席與貴賓主持座談



圖 5：與會學者合影一



圖 6：與會學者合影二



圖 7：與部分學者合影



圖 8：本人發表論文

## 附錄：會議手冊

### PRESENTATION GUIDELINES

1. Presentation materials should be in the form of a power point presentation for about 20 minutes presentation and then a few minutes for Q & A.
2. Please upload your presentation material in the provided laptop before your presentation (during the break). There will be a room assistant in each presentation room that will help you with transferring / copying your presentation file. We will provide a laptop in each room and do not encourage participants to use their own laptop.
3. Please report to the session chair before the session starts.

#### Note:

If you plan to attend but your paper is not in the schedule (or you plan not to attend but your paper is in the schedule), please let us know: [oscm2014@gmail.com](mailto:oscm2014@gmail.com) or contact session chair [pujawan@ie.its.ac.id](mailto:pujawan@ie.its.ac.id).

We take the liberty to appoint session chairs. Please check if your name is appointed as a session chair.

## CONFERENCE PROGRAM (DRAFT)

### The 6<sup>th</sup> International Conference on Operations and Supply Chain Management (OSCM)

Sanur Paradize Plaza Hotel, Bali, 10 – 13 December 2014

## Day 1, 10 December 2014

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17.00 – 20.30 Registration (**We encourage registration to be on 10<sup>th</sup> December to avoid long queue in the morning of 11<sup>th</sup> December**).

## Day 2, 11 December 2014

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07.30 – 08.15 Registration

08.15 – 08.45 Balinese Dance as a mark of Conference Opening

Opening speech from Conference Chair, **Prof. Dr. I Nyoman Pujawan, CSCP**

Opening speech from Rector of ITS, **Prof. Dr. Triyogi Yuwono**

08.45 – 09.35 Keynote Speech I: **Professor Dr. René B.M. de Koster, Rotterdam School of Management, Erasmus University, The Netherlands**

**“The impact of behavior on operational performance”.**

09.35 – 10.15 Keynote Speech II: **Walter Kuijpers, Deloitte Consulting’s SE Asia “Journey to supply chain reengineering – opportunities and challenges”**

10.15 – 10.30 Morning break

## Parallel Sessions I, 11 December 2014, 10.30 – 12.30

<b>Room I: Sustainable Supply Chain</b> <b>Chair: Kamrul Ahsan (Victoria University, Australia)</b>	<b>Room II: Production &amp; Quality Management</b> <b>Chair: CharoENCHAI Khompatraporn (KMUTT, Thailand)</b>	<b>Room III: Logistics Management</b> <b>Chair: Rajesh Piplani (NTU, Singapore)</b>	<b>Room IV: Agriculture &amp; Food SC</b> <b>Chair: Per Engelseth (Molde University, Norway)</b>
<p>Toward a Conceptualization of Sustainable Supply Chain Integration [Geevaneswary Saththasivam and Yudi Fernando]</p> <p>A literature review on the closed loop supply chain and its impact on the forward Bullwhip effect [Locadia Linda Tombido, Imam Baihaqi and Nurhadi Siswanto]</p> <p>INITIAL GREEN SUPPLY CHAIN MANAGEMENT MAPPING FOR DAIRY INDUSTRY ON SMEs LEVEL [Agustina Eunike, Ishardita P Tama, Yeni Sumantri and Rahmi Yuniarti]</p> <p>DOES INTERNET OF THINGS MODERATE THE IMPACT OF GREEN SUPPLY CHAIN INTEGRATION ON GREEN SUPPLY CHAIN AGILITY? [Yudi Fernando and Joey-Soo-Yee Phuah]</p> <p>Determinants of Sustainability in Supply Chains [Tarig Eltayeb and Nour Alhadi]</p>	<p>Multi-Objective Optimization of Energy Consumption In Hot-rolled Steel Supply Chain in Thailand [Krit Lerdleuchachai, Tuanjai Somboonwiwat and CharoENCHAI Khompatraporn]</p> <p>A robust Machine Layout under demand uncertainty [Kai Hashimoto, Shunichi Ohmori and Kazuho Yoshimoto]</p> <p>An Integrated Production-inventory Model for Food Products Using a Shelf-life Based Price Function [Gusti Fauza, Yousef Amer, Sang-Heon Lee and Hari Prasetyo]</p> <p>IMPROVING PERFORMANCE OF SUPPLY CHAIN IN PORT BY SIX SIGMA METHODOLOGY APPROACH [Asep Ridwan and Bernd Noche]</p> <p>The Impact of Power Distance and Individualism on Total Quality Management: An Empirical Research on Indonesian Manufacturing Firms [Didik Wahjudi, Moses L. Singgih, Patdono Suwignjo and Imam Baihaqi]</p>	<p>COORDINATION MECHANISM OF CONTAINER FLOW FOR IMPORT PROCESS: A CONCEPTUAL MODEL [Femi Yulianti, Senator Nur Bahagia, Andi Cakravastia and Rajesri Govindaraju]</p> <p>ALLEVIATING TRAFFIC CONGESTION AROUND OUR CITIES; HOW CAN SUPPLY CHAINS ADDRESS THE ISSUE? [John Hopkins and Judy McKay]</p> <p>The Global Logistics Network Design Problem with Rules of Origin [Yohei Shinkawa, Shunichi Ohmori and Kazuho Yoshimoto]</p> <p>THE GROWTH OF THIRD PARTY LOGISTICS INDUSTRY: A LITERATURE STUDY AND RESEARCH AGENDA [Erna Mulyati, Budi Santoso Wirjodirdjo and Imam Baihaqi]</p> <p>Assessing Logistic Strategy for Service quality at selected agglomerated stores in Thane city and suburban Mumbai in India [Parvathi Venkatesh]</p>	<p>AGRIBUSINESS PERFORMANCE MEASUREMENT SYSTEM : SUPPLY CHAIN AND ENABLING ENVIRONMENT PERFORMANCE [Alexis Nsamzinshuti and Alassane B. Ndiaye]</p> <p>Production System in Food Industry: A Literature Study [Endang Retno Wedowati, Moses Laksono Singgih and I Ketut Gunarta]</p> <p>DESIGNING AN INTEGRATED FOOD SUPPLY CHAIN WITH CROSS-DOCKING: A SOCIAL NETWORK APPROACH [Prashant Barsing, Yash Daultani, Omkarprasad S Vaidya and Sushil Kumar]</p> <p>DEVELOPMENT AND IMPLEMENTATION OF A FRUITS ELECTRONICS TRACEABILITY SYSTEM IN FRESH FRUITS SUPPLY CHAIN [Iwan Vanany, Ronny Mardiyanto, Royyana Muslim Ijtihadie and Kuntoro Boga Andri]</p> <p>ACTORS INTERACTION ON PRICE TRANSMISSION IN RICE SUPPLY CHAIN [Maria Widyarini and Togar Simatupang]</p>

**Room V: Contemporary Issues**

**Chair: Ahmad Aberesi (RMIT, Australia)**

RETAILERS CLUSTERING TO MINIMISE  
PROFIT GAP AMONG DISTRIBUTOR  
CENTRES USING GENETIC ALGORITHM  
[M. Ridwan Purnomo]

Routing order pickers in a warehouse  
using heterogeneous picker tools and  
split picking [Muhammad Nashir  
Ardiansyah]

Oil Field Crew Scheduling using  
Mathematical Modelling [Vaibhav Gupta  
and Mukund Murari Singh]

Challenges of the Zimbabwean  
NatPharm based, public-sector  
humanitarian logistics and supply chain  
of HIV and Aids commodities. [Tatenda  
Talent Chingono and Charles Mbohwa]

Model for Equity in Humanitarian Relief  
Supply Chain [Hiroto Soeta and  
Yasutaka Kainuma]

A macro and micro-level evaluation of  
stakeholders' collaboration strategies  
for sustainable city logistics operations  
[Taiwo Adetiloye and Gul Pervez]

## Parallel Sessions II, 11 December 2014, 13.30 – 15.30

Room I: Sustainable Supply Chain Chair: Blanka Tundys (University of Szczecin, Poland)	Room II: Supply Chain Model Chair: Vincent Li (National Chiayi University, Taiwan)	Room III: Supply Chain Collaboration Chair: Togar Simatupang (ITB, Indonesia)	Room IV: Agriculture & Food SC Chair: Duangpun Kritchanhai (Mahidol University, Thailand)
<p>Construction of green supply chain for organic products [Blanka Tundys and Andrzej Rzeczycki]</p> <p>ESTIMATE THE PATH COEFFICIENT LINKING BETWEEN CO-PRODUCTION ON SUSTAINABLE INNOVATION PERFORMANCE [Yudi Fernando, Eugene-Eu-Chun Lee, Ika Sari Wahyuni-Td and Tim Walters]</p> <p>THE IMPACT OF ENVIRONMENT DEGRADATION ON THE SIDOARJO SHRIMP INDUSTRY SUPPLY CHAIN [Achmad Room Fitrianto]</p> <p>SIMULATED ANNEALING FOR GREEN VEHICLE ROUTING PROBLEM [Vincent F. Yu, Nur Mayke Eka Normasari, Candra Bachtiyar and Sukoyo]</p> <p>Commodity Production, Consumption, and Distribution with Coordination of Soft Factors and Hard Factors [Mohammed Forhad, Kazi Anowar Hussain, Islam Mohammad Khairul and Manik Mondal]</p>	<p>A Hybrid Metaheuristic for the Multiple-Choice Multidimensional Knapsack Problem [Chi-Leung Chu and Vincent Li]</p> <p>THE EFFECT OF RANDOM YIELD OF PRODUCT RETURNS TO THE PRICING DECISIONS FOR SHORT LIFE-CYCLE PRODUCTS IN A CLOSED-LOOP SUPPLY CHAIN [Shu San Gan, Nyoman Pujawan, Suparno and Basuki Widodo]</p> <p>MODELING VALUE AT RISK (VAR) POLICIES FOR TWO PARALLEL FLIGHTS OWNED BY THE SAME AIRLINE [Oki Anita Candra Dewi, Ahmad Rusdiansyah and Naning A. Wessiani]</p> <p>RESEARCH ON MANUFACTURER'S AFTERMARKET SERVICE COMPETITION STRATEGY OUTSIDE THE WARRANTY PERIOD [Xumei Zhang, Xiuzhou Zhang and Molin Liu]</p> <p>ANALYSIS OF OPTIMALITY AND DEVELOPMENT OF PRIORITY DISPATCHING METHOD TO MINIMIZE TOTAL TARDINESS FOR UNRELATED PARALLEL MACHINES SCHEDULING [Victor Suhandi]</p>	<p>ORGANISATIONAL CHALLENGES IN INTEGRATING CUSTOMER COLLABORATION PROCESSES AND PRACTISES IN SUPPLY CHAIN [Merja Airola and Jukka Hemilä]</p> <p>COLLABORATIVE PRODUCTION DISTRIBUTION NETWORK MODEL FOR AUSTRALIAN SMMES: RESEARCH CHALLENGES FOR THEIR COMPETITIVENESS [Mohammad Rizal Firmansyah and Yousef Amer]</p> <p>SUPPLY CHAIN COLLABORATION FOR ENSURING RETAIL PRODUCT AVAILABILITY AT GLAXOSMITHKLINE [Meinar Dyan and Togar Simatupang]</p> <p>SUPPLIER-CUSTOMER COLLABORATION IN EMBEDDED SYSTEMS ENGINEERING PROCESSES – PRINCIPLES AND CASE STUDY [Jukka Hemilä, Merja Airola and Juha Vanhanen]</p> <p>FRAMEWORK FOR COLLABORATION AMONG PORT STAKEHOLDERS: LITERATURE REVIEW AND CASE STUDY [Adi Budipriyanto, Budisantoso Wirjodirdjo, Nyoman Pujawan and Saut Gurning]</p>	<p>A Synchronization Algorithm of Seeding and Planting Scheduling with Sales Planning for Contract Farming of Fresh Vegetable Supply Chain [Ahmad Rusdiansyah and Dewie Saktia Ardiantono]</p> <p>Can an underachiever become competitive? The case of the Romanian Food Industry [Marian Liviu Mocan, Attila Turi, Gilles Goncalves and Sorin-loan Maistor]</p> <p>SOFT AGENT BASED MODELING FOR AGRI-FOOD SUPPLY CHAIN COORDINATION [Yuanita Handayati, Togar Simatupang and Tomy Perdana]</p> <p>ANALYSING RISKS IN MILK SUPPLY CHAIN: A PRELIMINARY FINDING [Andre R Daud]</p> <p>LOCAL FOOD PRODUCTION, CUSTOMER PREFERENCES AND LOGISTICAL CONSEQUENCES [Per Engelseth and Blen Delelegne]</p>

**Room V: Contemporary SC Issues**  
**Chair: Guy Maltais (Université de Sherbrooke, Canada)**

A Case Study – Monitoring and Evaluation framework for social sector relief project [Waqar Mirza and Nadeem Ehsan]

UNDERSTANDING THE AGRIBUSINESS CLUSTER DEVELOPMENT USING SYSTEM THINKING: A CASE STUDY OF RED CHILI IN WEST JAVA [Tomy Perdana, Eddy Renaldi, Trisna Insan Noor and Dwi Purnomo]

An Application of Supply Chain Operation Reference (SCOR) and Analytical Hierarchy Process (AHP) Models in a Supermarket [Charles Sitompul]

Assembly Line Research: a review of key issues and methods [Glauco Silva, Dalvio Tubino and Silene Seibel]

Key Factors of Emergency Relief Logistics Practice in Indonesian Local Board for Disaster Management [ Bartholomeus Tandigala, Suryadi Hadi and Elimawaty Rombe]

15.30 – 15.45 Afternoon Break

15.45 – 17.30 Workshop for Doctoral and Emerging Scholars

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Speaker I: **Professor Dr. Suresh Sethi, University of Texas at Dallas, USA**

Speaker II: **Professor Dr. Yossi Aviv, Olin Business School, Washington University, USA**

17.45 – 19.00 Formation of OSCM Board Members

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## **Day 3, 12 December 2014**

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08.00 – 08.30 Registration

08.30 – 09.30 Keynote speech II: **Professor Dr. Mahender Singh, CEO/Rector of Malaysia Institute for Supply Chain Innovation (MISI)**

09.30 – 09.45 Morning Break



## Parallel Sessions III, 12 December 2014, 09.45 – 11.45

<b>Room I: IT and IS for SCM</b> <b>Chair: Tore Markeset (University of Stavanger, Norway)</b>	<b>Room II: Supply Chain Model</b> <b>Chair: Erwin Widodo (ITS, Indonesia)</b>	<b>Room III: Inventory &amp; Warehouse</b> <b>Chair: Benny Tjahjono (Cranfield University, UK)</b>	<b>Room IV: Product Design</b> <b>Chair: George Hadjinicola (University of Cyprus, Cyprus)</b>
<p>A CASE STUDY ON PROCESS MINING IMPLEMENTATION IN MODELLING SUPPLY CHAIN BUSINESS PROCESS: A LESSON LEARNT [Mahendrawathi Er and Hanim Maria Astuti]</p> <p>Information system challenges in managing asset integrity of petroleum production facilities [Mayang Kusumawardhani and Tore Markeset]</p> <p>MOBILE-APP DEVELOPMENT FOR BIODIESEL TRACKING SYSTEM AND SUPPLY CHAIN MONITORING [Muhammad Iman Santoso and Bern Noche]</p> <p>Raspberry Pi and Sensor Networking for African Health Supply Chains [Anna-Mara Schoen, Liliane Streit-Juotsa and Dorit Schumann-Boelsche]</p> <p>RETHINKING THE USE OF VEHICLE TELEMATICS DATA: USING MULTI ADAPTIVE REGRESSION SPLINES MODEL FOR PREDICTING THE SEAPORTS' SERVICE RATE [Meditya Wasesa, Andries Stam and Eric van Heck]</p>	<p>A heuristic algorithm for vehicle routing problem with outsourcing options [Kazuki Yamada, Shunichi Ohmori and Kazuho Yoshimoto]</p> <p>MODELLING REVENUE SHARING CONTRACT OF FRESH VEGETABLES BETWEEN URBAN FARMING COOPERATION AND RETAILERS [Ahmad Rusdiansyah and Winda Narulidea]</p> <p>Production and Transportation System Flexibility Modeling [Reina Angkiriwang, Nyoman Pujawan and Budi Santosa]</p> <p>MODEL OF CROP PRODUCTION PLANNING CONSIDERING CROP ROTATION [Ahmad Rusdiansyah and Virhanty Ernita Sukma P.]</p> <p>A lower bound analysis for the flowhop scheduling problem with minimization of makespan [Carlos Ernani Fries and Bruno De Sousa Alves]</p>	<p>Developing Inventory Management in the Hospital [Duangpun Kritchanhai and Watcharaphong Meesamut]</p> <p>INTEGRATION OF REAL-TIME DEMAND INFORMATION AND SPARE PARTS DISTRIBUTION PLANNING FOR THE OPTIMIZATION OF SPARE PARTS SUPPLY IN AFTER-SALES SERVICE NETWORKS [Martin Thormann]</p> <p>Inventory model for food products considering investment in preservation technology to reduce the quality loss [Gusti Fauza, Yousef Amer, Sang-Heon Lee and Hari Prasetyo]</p> <p>Increasing the Warehouse Productivity through Process Improvement [Yan Weng Tan, Alan Chee Wee Tay and Govardhana Rao Banna]</p> <p>The Bullwhip Effect in Retail Supply Chains: An Analysis of Stock Ordering Policy and ICT Logistics Systems [Surahman Surahman and Himanshu Shee]</p>	<p>PRODUCT-SERVICE MODULE MIX OPTIMIZATION FOR PRODUCT-SERVICE SYSTEM WITH MULTI-SEGMENT [Rosita Surjani, Dina Prayogo, Udisubakti Ciptomulyono and Maria Anityasari]</p> <p>A Product and Service Design Method [George Hadjinicola, Christakis Charalambous and Andreas Soteriou]</p> <p>Analysing New Product Development Process in Company X using Lean Product Development Approach [Resa Christa Nugraha, Dewanti Anggrahini and Putu Dana Karningsih]</p> <p>CLAIMS, COMPLAINTS AND INNOVATION AS ALTERNATIVE PRODUCT ATTRIBUTES IN QFD-KANO'S MODEL CATEGORIZATION [M. Suef]</p> <p>Analyzing Bolt-loosening Mechanisms in Automobiles through CAE and Real-world Testing to Improve Mathematical Simulation-based Product Design and Development Methods [Ryota Nomura and Kakuro Amasaka]</p>

**Room V: Contemporary SC Issues**

**Chair: Ioannis Manikas (University of Greenwich, UK)**

Supply chain synergies in post-merger environments: the case of the UK Food Industry [Ioannis Manikas and Farzeen Jaswal]

The applicability of Life Cycle Assessment of Bio-fuels in South Africa [Tatenda Talent Chingono and Charles Mbohwa]

The application of green supply chain management: case study in electronic waste informal sectors in Surabaya City, East of Java-Indonesia [Dino Rimantho, Muhammad Hatta and Rini Prasetyani]

MODEL DEVELOPMENT TO DETERMINE THE ESTABLISHMENT LOCATION OF NEW MODERN MARKETS THAT MINIMIZE THE EROSION OF TRADITIONAL MARKETS' EXISTENCE [Febrianus D. Wibisono and Senator Nur Bahagia]

DESIGNING EARLY WARNING SYSTEM AND SPREAD HANDLING OF DENGUE DEMORRHAGIC FEVER (DBD) USING SYSTEM DYNAMICS APPROACH AND KNOWLEDGE SHARING [Anny Maryani, Arief Rahman and Nurul Hudaningsih]

## Parallel Sessions IV, 12 December 2014, 13.00 – 15.00

<b>Room I: Design Aspects</b> <b>Chair: Budi Santosa (ITS, Surabaya)</b>	<b>Room II: Supply Chain Model</b> <b>Chair: Oded Berman (University of Toronto, Canada)</b>	<b>Room III: Supply Chain Risk</b> <b>Chair: Ioannis Manikas (Univ. of Greenwich, UK)</b>	<b>Room IV: Data, Information, Knowledge</b> <b>Chair: Hasan Akpolat (University of Technology Sydney, Australia)</b>
<p>Creating a Vehicle Proportion, Form, and Color Matching Model [Shuntaro Toyoda and Kakuro Amasaka]</p> <p>THE DEVELOPMENT OF USABILITY MEASUREMENT MODEL CONSIDERING COGNITIVE AND AFFECTIVE ASPECTS AND CULTURAL DIMENSION AS MODERATION [Heru Prastawa, Udisubakti Ciptomulyono, Moses L Singgih and Markus Hartono]</p> <p>IMPROVING THE QUALITY OF SMARTFREN MOBILE BROADBAND SERVICE BY USING QFD (QUALITY FUNCTION DEPLOYMENT) [Yanuar Tri Sulistyono and Siska Noviaristanti]</p> <p>Process Re-engineering of Inflight Service Cart Door Assembly [Govardhana Rao Banna, Alan Teik Cheng Lim and Rama Bhupal Reddy Kotireddy]</p> <p>The Potential for Bio-ethanol Production in the Kwa-Zulu Natal Province, South Africa [Tatenda Talent Chingono, Charles Mbohwa and Anup Pradhan]</p>	<p>An Approach to Improve Routing Decisions in Queueing Networks [Thunyarat Amornpetchkul]</p> <p>DEVELOPMENT OF PARTICLE SWARM OPTIMIZATION ALGORITHM TO OPTIMIZE DISPERSION BATCH ON PRODUCTION PROCESS [Misra Hartati, Iwan Vanany and Budi Santosa]</p> <p>Simulation Model to Optimize the Supply Chain Configuration for Mitigating Risks with Common Parts [Tomotake Kurosawa, Shunichi Ohmori and Kazuho Yoshimoto]</p> <p>RESEARCH ON MANUFACTURER'S PRICE AND SERVICE STRATEGY UNDER GRAY-MARKET CONSIDERING GOVERNMENT SUPERVISION [Xin Yin, Bin Dan and Haiyue Zhang]</p> <p>On-line vehicle routing problem with heterogeneous vehicles, time windows, and road network constraints [Suprayogi and Muhammad Nashir Ardiansyah]</p>	<p>MANAGING RISK IN SUPPLY NETWORKS: A CONCEPTUAL INVESTIGATION [Yash Daultani, Prashant Barsing, Omkarprasad S Vaidya and Sushil Kumar]</p> <p>Managing Risk in Supply Chain: A Framework for Supply Chain Risk Mitigation Decision-making [Anggriani Profita, Iwan Vanany and Nurhadi Siswanto]</p> <p>Qualitative Impact Assessment of Disruptions (Political) on the Textile Supply Chain Performance [Muhammad Asif, Prem Chhetri and Rajiv Padhye]</p> <p>Modelling and Managing Supply Chain Risks: A case study in an Indonesian Manufacturing Company [Putu Karningsih, Wiwin Widiastih, Ibnu Hisyam and Bustanul Noor]</p> <p>THE SUPPLY CHAIN UNCERTAINTY AND RISK MEASUREMENT DEVELOPMENT [Michael Wang, Ferry Jie and Ahmad Abareishi]</p>	<p>A STUDY ON KNOWLEDGE-RICH CRITICAL ELEMENTS WITHIN SRI LANKAN MANUFACTURING SUPPLY NETWORKS (L D C S Layangani, Lee E J Styger and Amal S Kumarage)</p> <p>The Relationship between Knowledge Management Process Capabilities and Supply Chain Relations Quality [Ahmad Jafarnejad, Gama HNNR, Rohollah Ghasemi and Farzad Bahrami]</p> <p>A FRAMEWORK FOR MANAGEMENT OF AIRCRAFT ENGINEERING KNOWLEDGE [Rafed Zawawi and Hasan Akpolat]</p> <p>BIG DATA ANALYTICS IN SUPPLY CHAIN MANAGEMENT: TRENDS AND RELATED RESEARCH [Ivan Varela Rozados and Benny Tjahjono]</p> <p>FACTORS AFFECTING THE USE OF FIRST LEVEL OF HOSPITAL INFORMATION TECHNOLOGY IN SURABAYA [Amak Mohamad Yaqoub]</p>

**Room V: Human Aspects in OSCM**

**Chair: Martha Caro [Pontificia  
Universidad Javeriana, Colombia]**

An Integrated Modeling of Human,  
Machine, and Environmental Aspects in  
Supply Chain Planning and Operations  
using Fuzzy Logic [Parama Kartika Dewa,  
I Nyoman Pujawan and Iwan Vanany]

Human Error Before and After the  
Implementation of Mechanized Sorting  
System in a Distribution Center [Martha  
Caro, Tatiana Segura and Leonardo  
Quintana]

HUMAN FACTORS AFFECTING MATERIAL  
HANDLING IN A WAREHOUSE [Eko  
Nurmianto, Udisubakti Ciptomulyono,  
Suparno and Sudiyono Kromodihardjo]

WORKFORCE SCHEDULING MODEL  
CONSIDERING ERGONOMIC FACTORS  
[Dyah Santhi Dewi, Sri Gunani Partwi  
and Danang Setiawan]

Supply Chain Optimization in Oil  
Industry (Case Study of Crude Oil Supply  
Chain in Pertamina Refinery Unit V  
Balikpapan) [Fikhi Adrian and Togar  
Simatupang]

## Parallel Sessions V, 12 December 2014, 15.15 – 17.00

<b>Room I: Global Issues</b> <b>Chair: Marian Liviu Mocan (Politehnica University Timisoara, Romania)</b>	<b>Room II: Supply Chain Model</b> <b>Chair: Shunichi Ohmori (Waseda University, Japan)</b>	<b>Room III: Purchasing / Supply Management</b> <b>Chair: Violeta Roso (Chalmers University of Technology, Sweden)</b>	<b>Room IV: General Supply Chain Issues</b> <b>Chair: Parvathi Venkatesh (Mulund College, India)</b>
<p>A Process-based Model for Product Returns Services in an E-tailing Environment [Kamrul Ahsan and Shams Rahman]</p> <p>Relocation of car manufacturers: wise solution or costly setback ? [Marian Liviu Mocan, Attila Turi, Gilles Goncalves and Sorin-loan Maistor]</p> <p>MAPPING THE SOURCES OF EXPORT COMPETITIVE ADVANTAGE IN WOOD FURNITURE VALUE CHAIN [Eko Liquiddanu, Senator Nur Bahagia, Lucia Diawati and Tota Simatupang]</p> <p>IMPROVEMENTS IN MOVEMENT OF EMPTY CONTAINERS THE CASE OF THE PORT OF GOTHENBURG [Violeta Roso, Nils Andersson, Joakim Widstrand and Kent Lumsden]</p> <p>Lean Knowledge Transfer - A Case Studies Analysis [Effi Latiffianti and Adewole Akanni]</p>	<p>Vehicle scheduling and routing at a cross-docking warehouse: a meta-heuristic-based approach [Rajesh Piplani and Dwi Agustina]</p> <p>Setting Price and Inventory for Retail Chains of Fashion Apprael [Yat-Wah Wan, Vincent Li and Yicheng Lin]</p> <p>Strategic Idling and Dynamic Scheduling in an Open-shop Service Network [Oded Berman, Opher Baron, Dmitry Krass and Jianfu Wang]</p> <p>Shift Scheduling Model Designed to Level Workloads of Employees [Kazuki Fujita and Kakurou Amasaka]</p> <p>MODIFIED PARTICLE SWARM OPTIMIZATION FOR SOLVING MULTI-OBJECTIVE LIMITED-WAIT HYBRID FLOW SHOP SCHEDULING PROBLEM [Fiqihesa Putamawa and Budi Santosa]</p>	<p>THE DYNAMIC SUPPLIER SELECTION PROBLEM (DSSP): REVIEW AND RESEARCH OPPORTUNITIES [Purnawan Adi Wicaksono, I Nyoman Pujawan and Erwin Widodo]</p> <p>PURCHASING MANAGEMENT AND REDUCING THE USE OF EXPRESS DELIVERY IN OFFSHORE PETROLEUM LOGISTICS [Per Engelseth, Mads Løkås, Lene Edvardsen, Marlene Carlsen and Linda Ingebrigtsen]</p> <p>Purchasing social responsibility in Malaysia: Activities in labour and health &amp; safety [Saw Khuan Loo and Ellisha Nasruddin]</p> <p>REARRANGING CRITERIA FOR SUPPLIER SELECTION: A STUDY ON A NEWLY ACQUIRED MANUFACTURING COMPANY [Yuliani Dwi Lestari]</p> <p>Sourcing Strategy for Maintenance Support Services in Petroleum Production Facilities [Mayang Kusumawardhani and Tore Markeset]</p>	<p>A PURPOSED CONCEPTUAL FRAMEWORK OF CONTACT CENTRE SERVICE EXCELLENCE BASED ON CONTENT ANALYSIS [Surya Dharamdass and Yudi Fernando]</p> <p>Research design for industrial service studies [Mayang Kusumawardhani and Tore Markeset]</p> <p>A New Framework of Value Chain Thinking for Business Development [Rizky Ginardy and Togar Simatupang]</p> <p>System dynamics approach for eco-tourism policy: An Indonesian case in Malang regency [Erwin Widodo, Tri Achmadi and Friska Hanna Tarida]</p> <p>SMEs COMPETITIVENESS ANALYSIS IN THE GLOBAL ENVIRONMENT USING AN INTEGRATED SWOT-PORTER'S FIVE FORCES MODEL: CASE STUDY OF AUSTRALIAN MANUFACTURING SMEs [Mohammad Rizal Firmansyah and Yousef Amer]</p>

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**Room V: General Supply Chain Issues**

**Chair: Imam Baihaqi (ITS, Surabaya)**

Managing the supply chain - an additive manufacturing perspective (Jyri Vilko, Antti Salminen, Patricia Nyamekye and Heidi Piili)

PROSIM – A PRODUCTION SIMULATION  
[Guy Maltais and Michel Berthiaume] –  
**workshop**

## 16.30 – 18.00 Forum for PhD Program Coordinator

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If you are representing your PhD program (as Director / Coordinator) and wish to join the forum please let us know via email: [pujawan@ie.its.ac.id](mailto:pujawan@ie.its.ac.id) and cc to [oscm2014@gmail.com](mailto:oscm2014@gmail.com)

## 19.00 – 21.30 Gala Dinner

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- Award for Best Papers and Best reviewers
- Announcements
- Balinese Kecak Dance and others

# Day 4, 13 December 2014

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### 08.00 – 19.00 Conference Tour.

Bus will pick you up at the hotel. The bus will depart at 08.00 to visit temple, Bedugul (Lake Bratan), Alas Kedaton, and Tanah Lot to see the sunset from a beautiful beach. The group is expected to arrive at the hotel at 19.00.