PROCEEDINGS

INTERNATIONAL CONFERENCE ON
OPERATIONS AND SUPPLY CHAIN MANAGEMENT
Bali-Indonesia, December 15-17, 2005

HOSTED BY:
DEPARTMENT OF INDUSTRIAL ENGINEERING
Sepuluh Nopember Institute of Technology (ITS)
SURABAYA - INDONESIA

ISBN 979-545-039-5
Welcome Address from Conference Co-Chairs

Proceedings
International Conference on
Operations and Supply Chain Management

ISBN 979-545-039-5

Bali International Convention Center
The Westin Resort, Nusa Dua – Bali
15 – 17 December 2005

This conference would not have been possible without contributions of many individuals and organizations. The support from advisory and review committee have played fundamental roles in making sure the conference, in particular the accepted papers, are of high quality. We would also like to thank the plenary speakers, Professor Kai Mortensen from DK, Germany and Professor Eric Van Wassenhove from INSEAD for their willingness to address the audience in the plenary sessions. Thanks also to Professor M. Nair, Rector of the Sepuluh Nopember Institute of Technology for his support and encouragement. All members of the local committee have been instrumental in bringing this conference to a success. We are also grateful to a number of supporting organizations, including IICMS, EUROMA, MBORMS, and many others for their financial support.

Edited by
Nyoman Pujawan
Nani Kurniati
Iwan Vanany
Syariuddin M. Parenreng

Dr. Nyoman Pujawan
Sepuluh Nopember Institute of Technology, Surabaya – Indonesia

Dr. Suhartaya

Department of Industrial Engineering
Sepuluh Nopember Institute of Technology, Surabaya – Indonesia
December 2005
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Suhaiza Zailani, Universiti Sains Malaysia
WEDNESDAY, 14 DECEMBER 2005

17.00 – 20.00 Registration [Jakarta Room]

THURSDAY, 15 DECEMBER 2005
[in Jakarta Room for Registration and Plenary Sessions]

08.00 – 09.00 Registration

09.00 – 09.30 Opening ceremony
Welcome address from conference co-chairs
Welcome address by Rector of Sepuluh Nopember Institute of Technology (ITS)

09.30 – 10.30 Plenary Speech I
Model Driven Management for Networked Enterprises
Prof. Dr.-Ing. Kai Mertins, FhG-IPK Berlin, Germany

10.30 – 11.00 Break

11.00 – 12.00 Plenary Speech II
Closed-loop supply chains: practice and potential
Prof. Luk Van Wassenhove, INSEAD

12.00 – 13.00 Lunch Break

13.00 – 14.45 Parallel Sessions I

14.45 – 15.15 Break

15.15 – 17.00 Parallel Sessions II

18.30 – 21.00 Gala Dinner
**FRIDAY, 16 DECEMBER 2005**

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<td>10.15 – 11.15</td>
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<td>Panelist I: Prof. Charles Corbett, University of California, Los Angeles</td>
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<td>Diffusion of ISO 9000 and ISO 14000 through global supply chains</td>
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**SATURDAY, 17 DECEMBER 2005**

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**CONFERENCE TOUR**  
(Time estimate: 06.30 – 17.00)
### Track: Planning and Forecasting --- Chair: So Young Sohn

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<td>Supply Chain Management Strategic Planning: A review</td>
<td>Noor Ajian Mohd Lair, Lee Luong, Romeo Marian, Sang-Heon Lee</td>
<td>University of South Australia</td>
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<td>University of South Australia</td>
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<td>The effect of forecasting and information sharing in SCM for multi-generation products</td>
<td>So Young Sohn, Michael Lim</td>
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<td>Exploitation of grey functions in forecasting series with limited history: an improved grey theory approach</td>
<td>Li Zhou, Stephen M. Disney</td>
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<td>Production Planning Using Hybrid Analytical and Simulation Methods : A Case Study</td>
<td>Ig. Joko Mulyono</td>
<td>Widya Mandala Surabaya Catholic University</td>
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<td>Economic Kanban quantity and withdrawal lot size using optimal and meta-heuristic methods</td>
<td>G.A. Widya Adana, H.M. Wee, S. Chiamsin, A. Pinnoi</td>
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### Track: Sustainable SC, Chair: Maria Anityasari

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<td>Design and analysis of a closed-loop supply chain Network for lead-acid battery recycling</td>
<td>Hailun (Helen) Zhang, R. S. Lashkari</td>
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<td>Comparative assessment to identify the characteristics of collectors in reverse logistics</td>
<td>Jessica Hanafi, Sami Kara, H. Kaebemick</td>
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<td>Reuse in action: a study of &quot;trade-in&quot; practices of electrical appliances in Indonesia</td>
<td>Maria Anityasari, Hartmut Kaebemick, Han Bao</td>
<td>The University of New South Wales</td>
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<td>A Proposal of Design Concept and Supply Chain for the Energy Saving Era</td>
<td>Satoshi Watanabe, Fukuya Ishino, Koudai Aman, Mikihiro Murao</td>
<td>Waseda University</td>
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<td>Waseda University</td>
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<tr>
<td>Humanitarian Disaster Management: Logistics in High Gear</td>
<td>Luk Van Wassenhove</td>
<td>INSEAD</td>
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COMPARATIVE ASSESSMENT TO IDENTIFY THE CHARACTERISTICS OF COLLECTORS IN REVERSE LOGISTICS

Jessica Hanafi
Life Cycle Engineering and Management Research Group, School of Mechanical and Manufacturing Engineering, The University of New South Wales, Sydney 2052, Australia
Email: j.hanafi@student.unsw.edu.au

Sami Kara
Life Cycle Engineering and Management Research Group, School of Mechanical and Manufacturing Engineering, The University of New South Wales, Sydney 2052, Australia
Email: s.kara@unsw.edu.au

H. Kaebernick
Life Cycle Engineering and Management Research Group, School of Mechanical and Manufacturing Engineering, The University of New South Wales, Sydney 2052, Australia

ABSTRACT
Product take-back legislations introduced by governments around the world shift this responsibility from consumers to manufacturers. As a result, manufacturers have to collect products at the end-of-life and control their recovery or disposal. Product recovery which encompasses reuse, remanufacturing and materials recycling, requires a structured reverse logistic network in order to collect products efficiently at the end of their life cycle. This paper presents the current practices of reverse logistics activities in different countries and how they reacted towards the take-back legislations. Issues related to the effectiveness of these collection programs were also discussed. Comparative studies for different countries were conducted to identify the characteristics of the existing collection programs. The findings indicate that social issues contribute to the success of these collection programs. Furthermore, the methods, which are implemented in the developed countries, may not be successful in developing countries due to the social structure of the country. However, education and communication will increase the successfulness of the programs in all cases.

Keywords: Reverse Logistics, Collection programs, Recycling