How will MFCA make Usefulness on Sustainable Engineering? : Based on practical experiences in Japanese and Southwestern Asian companies

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Abstract

In Japan, we have introduced Material Flow Cost Accounting (MFCA) into industrial manufacturers since 2000. We have made many case studies of MFCA in Japanese manufacturers. We found new usefulness of MFCA on production management. MFCA could show a material efficiency (material loss) in manufacturing process on mass balance, quit different from conventional cost effectiveness. Some Japanese companies have used MFCA to improve material efficiency in own process and in supply chain. As a result, they could make cost reduction on production engineering. These successful results have made some influences to companies abroad, especially in Southeastern Asian countries. Some Southeastern Asian companies have used MFCA to get good results like Japanese. We have analyzed and compared between Japanese and Southwestern case examples. We found some differentials of practical usefulness of MFCA analysis between Japanese and Southwestern Asian companies. In Japan, MFCA companies usually need a new/innovative technology to improve material efficiency. Because they have thought that they already have a stable and high-sophisticated production system. But many Southwestern Asian companies, especially SMEs, don’t have a stable and high-sophisticated production system. This paper will discuss about different usefulness and possibilities of MFCA between Japanese and Southwestern Asian companies.

Keywords
Material Flow Cost Accounting (MFCA), Cleaner Production, Kaizen, Innovative Engineering, Sustainability

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Biography

Asako KIMURA is currently a Professor and Director of the Education Program on Master's degree and Ph.D. at Kansai University, Osaka JAPAN. She holds a Doctor of Business Administration degree from Kwansei Gakuin University, Kobe, JAPAN. She joined Kansai University as Associate Professor in 2008 and became Professor in 2014. Previously, she was an Associate Professor at Kyushu Sangyo University, Fukuoka JAPAN and a visiting scholar at University of Exeter Business School, UK. Her recent main work is Nakajima, M., and A. Kimura. (2014), “Challenges to Implement Material Flow Cost Accounting (MFCA) in Supply Chain Management: Through Case Study on a Buyer-Suppliers Workshop”, *The Journal of Cost Accounting Research*, 38(1), pp.59-69 (only in Japanese, 2014 Prize of Japan Cost Accounting Association).