## Accepted Manuscript

Supply Chain Performance Measurement and Evaluation: A Mixed Sustainability and Resilience Approach

M.J. Ramezankhani, S. Ali Torabi, F. Vahidi

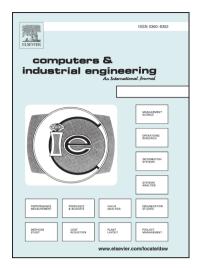
PII: S0360-8352(18)30469-8

DOI: https://doi.org/10.1016/j.cie.2018.09.054

Reference: CAIE 5439

To appear in: Computers & Industrial Engineering

Received Date: 1 June 2018
Revised Date: 16 August 2018
Accepted Date: 30 September 2018



Please cite this article as: Ramezankhani, M.J., Ali Torabi, S., Vahidi, F., Supply Chain Performance Measurement and Evaluation: A Mixed Sustainability and Resilience Approach, *Computers & Industrial Engineering* (2018), doi: https://doi.org/10.1016/j.cie.2018.09.054

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

## ACCEPTED MANUSCRIPT

# Supply Chain Performance Measurement and Evaluation: A Mixed Sustainability and Resilience Approach

M.J. Ramezankhani, S. Ali Torabi<sup>1</sup>, F. Vahidi

School of Industrial Engineering, College of Engineering, University of Tehran, Tehran, Iran

#### **Abstract**

In recent years, governments and social bodies have imposed mandates to tackle environmental and social issues. Furthermore, responding effectively to supply chain disruptions prevented many businesses from bankruptcy and complete shutdown. Therefore, adopting sustainability and resilience concepts at an operational level have recently become an inevitable necessity for business supply chains in order to survive in the tough rapid-changing competitive market environment. This paper proposes a novel dynamic network data envelopment analysis framework as a comprehensive performance management system to dynamically assess a supply chain's performance from both sustainability and resilience viewpoints over the course of time. The proposed model is also associated with a hybrid method using Quality Function Deployment (QFD) together with Decision Making Trial and Evaluation Laboratory (DEMATEL) to systematically select the best sustainability and resilience factors, which are then used in the data envelopment analysis model. The proposed framework is applied to an automotive manufacturing sector to demonstrate its capabilities and effectiveness.

**Keywords:** Supply chain performance management; Sustainability; Supply chain resilience; Dynamic network data envelopment analysis; QFD; DEMATEL.

<sup>1</sup> Corresponding author Tel.: +98 21 61114267; fax: +98 21 88013102;

*E-mail addresses*: ramezankhani@ut.ac.ir (M.J. Ramezankhani); satorabi@ut.ac.ir (S. Ali Torabi); f.vahidi@ut.ac.ir (F. Vahidi);

#### Download English Version:

# https://daneshyari.com/en/article/11263646

Download Persian Version:

https://daneshyari.com/article/11263646

<u>Daneshyari.com</u>