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Alireza Fallahpour, Ezutah Udoncy Olugu, Siti Nurmaya Musa, Kuan Yew Wong, Samira Noori

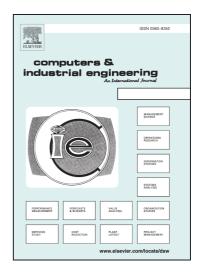
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A decision support model for sustainable supplier selection in sustainable supply chain

management

Full author names: Alireza Fallahpour\*1, Ezutah Udoncy Olugu<sup>1</sup>, Siti Nurmaya Musa<sup>1</sup>, Kuan Yew

Wong<sup>2</sup>, Samira Noori<sup>1</sup>

Full institutional mailing addresses: <sup>1</sup>Department of Mechanical Engineering, Faculty of Engineering,

University of Malaya, Kuala Lumpur, Malaysia.

<sup>2</sup>Department of Manufacturing and Industrial Engineering, Faculty of Mechanical Engineering,

Universiti Teknologi Malaysia, 81310 UTM Skudai, Malaysia.

Alireza Fallahpour: alirezafallahpour@siswa.um.edu.my;

Fallahpour.a@gmail.com;

+60173274393; +989030522113

Ezutah Udoncy Olugu: olugu@um.edu.my; +603-79675330

Siti Nurmaya Musa: nurmaya@um.edu.my; +603-79675317

Kuan Yew Wong: wongky@mail.fkm.utm.my; +60 7-5534691

Samira Noori: n.samira326@gmail.com

**Abstract** 

This study is aimed at developing the most important and applicable criteria and their corresponding

sub-criteria for sustainable supplier selection through a questionnaire-based survey. In addition, a

hybrid model is proposed to identify the most sustainable supplier with respect to the determined

attributes using an Iranian textile manufacturing company as case study. The first contribution of the

research is developing a comprehensive list of sustainability criteria and sub-criteria and incorporating

them into a questionnaire and distributing the questionnaire to academics and practitioners for

establishing the importance and applicability of these criteria and sub-criteria. In order to demonstrate

the robustness of the data obtained from the questionnaire, different established statistical tests

(Cronbach's alpha and Mann-Withney U-Test) were applied. The results show that economic aspect is

still the most essential aspect, followed by environmental aspect and finally social aspect. The second

contribution is the development of a new hybrid model by integrating fuzzy preference programing, as

one of the newest and most accurate fuzzy modification of Analytical Hierarchy Process, with Fuzzy

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