

## An intelligent fast sales forecasting model for fashion products

**Autores:** Yu, Yong<sup>1</sup>

Choi, Tsan-Ming [tcjason@inet.polyu.edu.hk](mailto:tcjason@inet.polyu.edu.hk)

Hui, Chi-Leung<sup>1</sup>

**Fuente:** Expert Systems with Applications. Jun2011, Vol. 38 Issue 6, p7373-7379. 7p.

**Tipo de documento:** Article

**Descriptores:** \*FASHION

\*SALES forecasting

\*SUPPLY & demand

\*NEURAL networks (Computer science)

\*MACHINE learning

\*STATISTICS

\*UNCERTAINTY (Information theory)

\*ARTIFICIAL intelligence

**Palabras clave proporcionadas por el autor:** Artificial neural network  
Extreme learning machine  
Sales forecasting

**Resumen:** Abstract: Sales forecasting is crucial in fashion business because of all the uncertainty associated with demand and supply. Many models for forecasting fashion products are proposed in the literature over the past few decades. With the emergence of artificial intelligence models, artificial neural networks (ANN) are widely used in forecasting. ANN models have been revealed to be more efficient and effective than many traditional statistical forecasting models. Despite the reported advantages, it is relatively more time-consuming for ANN to perform forecasting. In the fashion industry, sales forecasting is challenging because there are so many product varieties (i.e., SKUs) and prompt forecasting result is needed. As a result, the existing ANN models would become inadequate. In this paper, a new model which employs both the extreme learning machine (ELM) and the traditional statistical methods is proposed. Experiments with real data sets are conducted. A comparison with other traditional methods has shown that this ELM fast forecasting (ELM-FF) model is quick and effective. [Copyright &y& Elsevier]

*Copyright of Expert Systems with Applications is the property of Pergamon Press - An Imprint of Elsevier Science and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use. This abstract may be abridged. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material for the full abstract. (Copyright applies to all Abstracts.)*

**Afiliaciones del autor:** <sup>1</sup>Institute of Textiles and Clothing, Faculty of Applied Science and Textiles, The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong

**ISSN:** 0957-4174

**DOI:** 10.1016/j.eswa.2010.12.089

**Número de acceso:** 58100621