## Accepted Manuscript

Building an innovation-based supplier portfolio: The use of patent analysis in strategic supplier selection in the automotive sector

Alexander Trautrims, Bart MacCarthy, Chetan Okade

PII: S0925-5273(17)30152-4

DOI: 10.1016/j.ijpe.2017.05.008

Reference: PROECO 6713

To appear in: International Journal of Production Economics

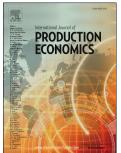
Received Date: 17 April 2016

Revised Date: 15 March 2017

Accepted Date: 10 May 2017

Please cite this article as: Trautrims, A., MacCarthy, B., Okade, C., Building an innovation-based supplier portfolio: The use of patent analysis in strategic supplier selection in the automotive sector, *International Journal of Production Economics* (2017), doi: 10.1016/j.ijpe.2017.05.008.

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.



#### BUILDING AN INNOVATION-BASED SUPPLIER PORTFOLIO: THE USE OF PATENT ANALYSIS IN STRATEGIC SUPPLIER SELECTION IN THE AUTOMOTIVE SECTOR

### Alexander Trautrims<sup>1</sup>, Bart MacCarthy<sup>2</sup>, Chetan Okade<sup>3</sup>

 <sup>1</sup> Operations Management and Information Systems, Nottingham University Business School, NG8 1BB, Nottingham, United Kingdom <u>alexander.trautrims@nottingham.ac.uk</u>
<sup>2</sup> Operations Management and Information Systems, Nottingham University Business School, NG8 1BB, Nottingham, United Kingdom

 <u>bart.maccarthy@nottingham.ac.uk</u>
<sup>3</sup> Nottingham University Business School, NG8 1BB, Nottingham, United Kingdom

#### Abstract

With an increasing proportion of external spend allocated to a smaller number of suppliers in their supply base, car manufacturers rely more and more on the performance of key supply chain partners outside their own organisational boundaries, particularly for product innovation. The identification and selection of innovative suppliers for strategically important supply categories require tools to determine which supply categories are supplier innovation-led and which suppliers are the most innovative. Here we discuss the use of patent analysis to identify product categories where supplier-led innovation is important and which suppliers are leading innovation. We use data from the US patent office to analyse two important product innovation supply categories – car body technologies and car seats – from a leading premium automotive producer's supply portfolio. From the patent filings data we identify the innovation activities of car manufacturers and suppliers in each category over an eleven years period. It is evident from the analysis that innovation in car body technologies is dominated by the car manufacturers whereas innovation in car seats is strongly supplier-led. The results of the patent analysis are then used to develop and discuss supply management options for the case company. Insights gained from patent analysis can be used to support procurement and sourcing processes at different levels: to identify innovation-active product categories at a supply portfolio level; to assess the innovativeness of potential suppliers at a product category level; and to identify which tier in a supply chain is active in product innovation at a supply chain level. Broader issues on the potential of patent analysis to inform and support procurement and sourcing processes are discussed.

Keywords: supplier management, supplier portfolio, supplier selection, innovation, patents

Download English Version:

# https://daneshyari.com/en/article/7355384

Download Persian Version:

https://daneshyari.com/article/7355384

Daneshyari.com