Assessing the cost saving potential of shared product architectures - DTU Orbit (20/10/2019)

Assessing the cost saving potential of shared product architectures

This article presents a method for calculating cost savings of shared architectures in industrial companies called Architecture Mapping and Evaluation. The main contribution is an operational method to evaluate the cost potential and evaluate the number of product architectures in an industrial company. Experiences from the case company show it is possible to reduce the number of architectures with 60% which leads to significant reduction in direct material and labor costs. This can be achieved without compromising the market offerings of products. Experiences from the case study indicate cost reductions between 0.5% and 2% of turnover. The main implication is that the method provides a quantitative basis for the discussion on whether or not to implement shared product architectures. This means a more fact-based approach is introduced.

General information
Publication status: Published
Organisations: Department of Mechanical Engineering, Engineering Design and Product Development, Department of Management Engineering, Management Science
Contributors: Mortensen, N. H., Hansen, C. L., Løkkegaard, M., Hvam, L.
Pages: 153-163
Publication date: 2016
Peer-reviewed: Yes

Publication information
Journal: Concurrent Engineering: Research and Applications
Volume: 24
Issue number: 2
ISSN (Print): 1063-293X
Ratings:
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 1.45 SJR 0.549 SNIP 1.098
Web of Science (2016): Impact factor 1
Web of Science (2016): Indexed yes
Original language: English
Keywords: Product architecture, Manufacturing architecture, Modularization, Concurrent engineering
Electronic versions:
DOIs:
10.1177/1063293X15624133
Source: FindIt
Source ID: 277685344
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review