The costs and benefits of product configuration projects in engineer-to-order companies -
DTU Orbit (12/10/2019)

The costs and benefits of product configuration projects in engineer-to-order companies
In recent decades, many engineering-oriented companies have gained significant benefits from the use of product
configurators, including higher product specification quality, fewer specification errors, faster quote creation and higher
quote accuracy. On the other hand, many companies also experience great difficulties in realising such benefits within
reasonable costs, which in many cases makes them abandon such projects. Although the literature provides a variety of
methods to support the development and implementation of product configurators, it remains unclear how to estimate the
costs and benefits for different scenarios — and, from there, how to define a profitable project scope. To address this
issue, this paper develops a framework to support the estimation of costs and benefits of configurator projects in
connection with their scoping. The framework includes models of the relationships between costs and benefits of product
configurators at three different abstraction levels: product family level, product part level, and product detail level. The
framework is investigated through studies of five configurator projects, which include descriptions of the total costs and
benefits of these projects. The numbers from the projects studied support the hypothesised cost-benefit models. The
studies also show that there can be great variety with regard to break-even points, as one of the configurator projects
became profitable after only 12 months, while two projects had yet to become so after five years.

General information
Publication status: Published
Organisations: Department of Mechanical Engineering, Engineering Design and Product Development, Operations
Management, Management Science, Department of Technology, Management and Economics, University of Southern
Denmark
Corresponding author: Haug, A.
Contributors: Haug, A., Shafiee, S., Hvam, L.
Pages: 133 - 142
Publication date: 2019
Peer-reviewed: Yes

Publication information
Journal: Computers in Industry
Volume: 105
ISSN (Print): 0166-3615
Ratings:
BFI (2019): BFI-level 2
Web of Science (2019): Indexed yes
Original language: English
Keywords: Product configuration, Product configurator, Mass customisation, Cost-benefit analysis, Configurator scope,
Engineer to order (ETO)
DOIs: https://doi.org/10.1016/j.compind.2018.11.005
Source: Bibtex
Source ID: urn:310d22271f1dc5c60f0ba3d3e47fe45964
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review