

A pragmatic approach to product costing based on standard time estimation

A pragmatic approach to product costing based on standard time estimation

Jianxin Jiao (The Hong Kong University of Science and Technology, Kowloon, Hong Kong)

Mitchell M. Tseng (The Hong Kong University of Science and Technology, Kowloon, Hong Kong)

International Journal of Operations & Production Management

ISSN: 0144-3577

Publication date: 1 July 1999

Abstract

Proposes a pragmatic approach to product costing. The approach involves two stages, namely the preparatory stage and the production stage. In the preparatory stage, standard routings are first extracted from existing products. A generic activity hierarchy is established according to the analysis of standard routings, where cost drivers for each activity are identified and summarized by appropriate Cost-related Design Features (CDFs). Then the Maynard Operation Sequence Technique (MOST) is employed to analyze each operation of standard routings to determine the associated standard time. Historical cost data are analyzed to induce the relationships between the CDFs and standard time, namely Time-Estimating Relationships (TERs). By allocating plant-wide overhead costs to standard routings, the unit price of standard time is established to indicate Cost-Estimating Relationships (CERs). A library of material costs is also summarized from existing products. In the production stage, CDFs are first induced from the schematic of a new design. Then a "dummy process plan" for this design can be inferred and used to retrieve the associated TERs to determine its time estimate. Once a standard time has been estimated, CERs can be applied to compile the total product cost by adding the estimated material costs. A case study conducted in an electronics enterprise is also reported.

Keywords

Product costs Cost estimating Activity-based costing Time

Citation

Jiao, J. and Tseng, M.M. (1999), "A pragmatic approach to product costing based on standard time estimation", *International Journal of Operations & Production Management*, Vol. 19 No. 7, pp. 738-755. <https://doi.org/10.1108/01443579910271692>

 Download as .RIS

Publisher: MCB UP Ltd

Copyright © 1999, MCB UP Limited

To read the full version of this content please select one of the options below

You may be able to access this content by logging in via Shibboleth, Open Athens or with your Emerald Account.

To rent this content from Deepdyve, please click the button.

If you think you should have access to this content, click the button to contact our support team.



© 2020 Emerald Publishing Limited

