

Two-way substitution effects on inventory in configure-to-order production systems - DTU Orbit (08/11/2017)

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In designing configure-to-order production systems for a growing product variety, companies are challenged with an increased complexity for obtaining high productivity levels and cost-effectiveness. In academia several optimization methods and conceptual frameworks for substituting components, or increasing storage capacity have been proposed. Our study presents a practical framework for quantifying the impact of a two-way substitution at different production stages and its impact on inventory utilization. In a case study we quantify the relation between component substitution, and inventory capacity utilization, while maintaining the production capacity as well as the external product variety.

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