



Research Center
Finance & Information Management



Project Group
Business & Information
Systems Engineering

Structuring the Anticipated Benefits of the Fourth Industrial Revolution

by

Annabelle Geißler, Björn Häckel, Christian Voit, Jochen Übelhör

May 2019

to be presented at: 25th Americas Conference on Information Systems (AMCIS),
Cancún, Mexico, 2019

University of Augsburg, D-86135 Augsburg
Visitors: Universitätsstr. 12, 86159 Augsburg
Phone: +49 821 598-4801 (Fax: -4899)

University of Bayreuth, D-95440 Bayreuth
Visitors: Wittelsbacherring 10, 95444 Bayreuth
Phone: +49 921 55-4710 (Fax: -844710)

WI-991



Universität
Augsburg
University



UNIVERSITÄT
BAYREUTH



Structuring the Anticipated Benefits of the Fourth Industrial Revolution

Completed Research

Annabelle Geißler

FIM Research Center
annabelle.geissler@fim-rc.de

Christian Voit

Fraunhofer FIT Project Group BISE
christian.voit@fit.fraunhofer.de

Björn Häckel

University of Applied Sciences Augsburg
bjoern.haeckel@hs-augsburg.de

Jochen Übelhör

FIM Research Center
jochen.uebelhoer@fim-rc.de

Abstract

The digitalization of production facilities and the accompanying changes are anticipated to transform entire industries posing a fierce pressure on companies to deal with these developments regarding their information technology management. To lay the foundation for the development of corresponding business strategies, we structure benefits of Industry 4.0 through a structured literature review and categorize them using an established framework for IS benefits. Benefits for companies arise within four dimensions and concern various issues ranging from production related benefits to superordinate benefits affecting the business model. To conclude, managerial implications resulting from dependencies and the variety of benefits are presented.

Keywords

Industry 4.0, benefits framework, organizational perspective, structured analysis.