Jorge Luis García Alcaraz
Leonardo Rivera Cadavid
Rosa Guadalupe González-Ramírez
George Leal Jamil
Mario Gustavo Chong Chong *Editors*

Best Practices in Manufacturing Processes

Experiences from Latin America

Springer

Editors
Jorge Luis García Alcaraz
Universidad Autónoma de Ciudad Juárez
Ciudad Juárez, Chihuahua, Mexico

Leonardo Rivera Cadavid
Ciudad Universitaria Meléndez
Universidad del Valle
Valle del Cauca, Colombia

Rosa Guadalupe González-Ramírez
Universidad de Los Andes
Santiago, Chile

George Leal Jamil
Informações em Rede Consultoria e Treinamento Ltda
Belo Horizonte, Minas Gerais, Brazil

Mario Gustavo Chong Chong
Universidad del Pacífico
Lima—Jesús María, Peru

ISBN 978-3-319-99189-4 ISBN 978-3-319-99190-0 (eBook)
https://doi.org/10.1007/978-3-319-99190-0

Library of Congress Control Number: 2018951699

This Springer imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Chapter 21
The Role of Knowledge Transfer in Supply Chain Flexibility and Performance

José Roberto Díaz-Reza, Valeria Martínez-Loya, Jorge Luis García Alcaraz and Ismael Canales-Valdiviezo

Abstract This chapter proposes a structural equation model to analyze four latent variables: internal knowledge transfer, external knowledge transfer, supply chain flexibility, and supply chain performance. These variables are interrelated through three research hypotheses. The model is validated with data obtained through a questionnaire that was administered to 269 Mexican manufacturing companies. Then, the hypotheses are tested at a 95% confidence level using partial least squares. The results indicate that internal knowledge transfer has the most important direct effect on supply chain flexibility and the highest indirect effect on supply chain performance.

Keywords Knowledge transfer · Structural equation modeling
Supply chain

21.1 Introduction

In today's volatile environments, knowledge has become an essential constructive and active organizational element within companies, due to its power and influence at an operational and administrative level (Kathiravelu et al. 2014). For this reason, companies are constantly taking advantage of the maximum level of knowledge they have, or they seek to acquire and/or generate new, so they can compete and survive in global markets (Samuel et al. 2011). Knowledge transfer is an important

J. R. Díaz-Reza (✉) · I. Canales-Valdiviezo
Department of Electrical Engineering and Computational, Universidad Autónoma de Ciudad Juárez, Av. Del Charro 450 Norte. Col. Partido Romero, Juárez, Chihuahua, Mexico
e-mail: al164440@alumnos.uacj.mx

V. Martínez-Loya · J. L. García Alcaraz
Department of Industrial Engineering and Manufacturing, Universidad Autónoma de Ciudad Juárez, Av. Del Charro 450 Norte. Col. Partido Romero, Juárez, Chihuahua, Mexico

J. L. García Alcaraz et al. (eds.), *Best Practices in Manufacturing Processes*,
https://doi.org/10.1007/978-3-319-99190-0_21