

Jorge Luis García Alcaraz  
Cuauhtémoc Sánchez-Ramírez  
Alfonso Jesús Gil López *Editors*

# Techniques, Tools and Methodologies Applied to Quality Assurance in Manufacturing

 Springer


# Techniques, Tools and Methodologies Applied to Quality Assurance in Manufacturing

Jorge Luis García Alcaraz ·  
Cuauhtémoc Sánchez-Ramírez ·  
Alfonso Jesús Gil López  
Editors


# Techniques, Tools and Methodologies Applied to Quality Assurance in Manufacturing


 Springer

*Editors*

Jorge Luis García Alcaraz   
Department of Industrial Engineering  
and Manufacturing  
Universidad Autónoma de Ciudad Juárez  
Ciudad Juárez, Chihuahua, Mexico

Division of Research and postgraduate  
Studies  
Instituto Tecnológico de Ciudad Juárez  
Ciudad Juárez, Chihuahua, Mexico

Alfonso Jesús Gil López   
Department of Economics and Business  
University of La Rioja  
Logroño, La Rioja, Spain

Cuahtémoc Sánchez-Ramírez   
Division of Research and Postgraduate  
Studies  
Instituto Tecnológico de Orizaba  
Tecnológico Nacional de México  
Orizaba, Mexico

ISBN 978-3-030-69313-8

ISBN 978-3-030-69314-5 (eBook)

<https://doi.org/10.1007/978-3-030-69314-5>

© Springer Nature Switzerland AG 2021

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

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

# Towards an Analysis of the Relationship Between Quality Management and Project Management



Alfonso J. Gil, Mara Mataveli, and Jorge Luis García Alcaraz

**Abstract** A firm benefits mainly through the success of its projects; therefore, it is important to have the right project management that includes quality management measures. This work aims to examine the relationships between project management and quality management. First, the tools for project management and quality management are studied, and, second, the contents of research on quality management and project management are examined through the database Scopus. Similar features are checked in the quality and project management models. Specific variety is credited in quality research related to project management. Some gaps are found in the literature on quality management related to project management. The most important conclusions are pointed out.

**Keywords** Quality management · Total quality management · Project management · Scopus

---

A. J. Gil (✉) · M. Mataveli

Departamento de Economía y Empresa, Universidad de La Rioja, Calle Cigüeña 60, Logroño, La Rioja, Spain

e-mail: [alfonso.gil@unirioja.es](mailto:alfonso.gil@unirioja.es)

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

Division of Research and postgraduate Studies, Instituto Tecnológico de Ciudad Juárez, Ciudad Juárez, Chihuahua, Mexico

© Springer Nature Switzerland AG 2021

J. L. García Alcaraz et al. (eds.), *Techniques, Tools and Methodologies*

*Applied to Quality Assurance in Manufacturing*,

[https://doi.org/10.1007/978-3-030-69314-5\\_6](https://doi.org/10.1007/978-3-030-69314-5_6)