

The Relationship between Quality Management and Innovativeness: An Empirical Study

Randy W. Triana-Garcia

Professor of Project Management
Corporación Universitaria Minuto de Dios - UNIMINUTO
Neiva, Colombia
rtrianagarc@uniminuto.edu.co

Birasnav Muthuraj

Professor of Management
Southern Connecticut State University
New Haven, Connecticut, USA
muthurajb1@southernct.edu

Cristian Rincón-Guio

Professor of Industrial Engineering
Corporación Universitaria Minuto de Dios - UNIMINUTO
Bogotá, Colombia
cristian.rincon.g@uniminuto.edu

Abstract

This study aims to explore the relationship between four key elements of quality management: teamwork, feedback, motivational barriers, and need analysis, and their contribution to improve innovativeness in the Colombian educational context. Drawing on the concepts of control and learning in the quality management theory and using publicly available responses collected from the Colombian teachers who participated in the TALIS 2018 survey, this research study examines how teachers perceive these elements within their institutions and their potential impact on fostering innovativeness among teachers. The study adopts an empirical approach to analyze these relationships, employing a descriptive and inferential statistical framework to uncover patterns and correlations. By focusing on the school practices in Colombia, the research seeks to provide insights into how quality management practices can drive innovation in educational settings. Findings identify specific patterns in the implementation of these practices and their relationship with innovativeness among teachers, offering actionable recommendations for improving teaching strategies in education to improve quality. This study contributes to the broader understanding of management's role in teaching and learning, offering valuable implications for policymakers and practitioners in developing countries. The novelty of this work lies in its analyses of TALIS data to assess quality management practices and their direct influence on fostering innovation.

Keywords

Quality Management, Innovativeness, Education, TALIS 2018, Colombian Education.

Biographies

Randy W. Triana-Garcia is a Professor of Project Management at Corporación Universitaria Minuto de Dios – UNIMINUTO. He holds a specialization in Project Management with a focus on Business Intelligence at the Politécnico Grancolombiano and is a Business Administrator currently pursuing a master's degree in business intelligence from Corporación Universitaria Minuto de Dios – UNIMINUTO. In addition, he has completed complementary certifications in Marketing and Digital Transformation, Organizational Management, and Virtual Learning Environments. Randy possesses a versatile professional background, characterized by strategic thinking, leadership, and a results-oriented mindset. He has experience in both the private and public sectors. In the private sector, he has successfully driven administrative processes across higher education, commercial, and logistics industry. In the public sector, he has played a crucial role in supporting the supervision of contribution and service contracts, ensuring compliance with technical, operational, and financial obligations while maintaining high-quality reporting standards. As an academic, Randy has taught postgraduate courses in Project Formulation, Strategic Management, Financial Risk Management, Investment Decisions, and Money and Capital Markets. He has also contributed to academia as an advisor and evaluator of graduate projects, supporting research development and the creation of investment strategies. Beyond academics, Randy engages in consultancy and research, focusing on business management and digital innovation. His passion for the arts, particularly dance and music, has honed his skills in leadership, empathy, and collaboration. His current research interests center on business intelligence, strategic project management, and the development of digital solutions to enhance decision-making and organizational resilience.

Birasnav Muthuraj is a Professor of Management at Southern School of Business. He is also the Director of Experiential Education at Southern School of Business. Prior to joining the faculty at Southern School of Business, he was a faculty at New York Institute of Technology, New York. Leveraging his more than twelve years of teaching experience, he develops experiential business courses, organizes experiential education programs with industries, and engages Southern undergraduate and graduate students and global students to attain experiential learning goals. In particular, he is proud of an experiential learning activity, Explore California during Spring Break, which provides opportunities for students to visit more than ten manufacturing and service industries located throughout California and address the challenges faced by these industries. His research findings appeared in high quality widely recognized journals such as Journal of Business Research, Computers & Industrial Engineering. His findings have also been briefed for top-level managers in practitioner journals such as Strategic Direction. He has presented his research findings in reputed conferences organized by Decision Sciences Institute, Production and Operations Management Society, and British Academy of Management. He and his colleagues received a best paper award in the 19th Global Conference on Flexible Systems Management. His research proposals attracted many national and international research grants. In specific, he won 2012 Emerald/EFMD MENA Management Research Fund for his research proposal. He and his colleagues received 2020 Fulbright-Hays Program Grant for their work, Academia and Society – Collaboration Across Borders: A Virtual Exchange Program. His team has also received several research grants from Mallah Family Foundation, New Jersey. He received his PhD in Management Studies from Indian Institute of Technology Roorkee. His consulting experience ranges from national to multinational manufacturing and service industries. Teaching Interests: Operations Management, Supply Chain Management, Quantitative Methods. Research Interests: Green Supply Chain Management, Social Capital in the Buyer-Supplier Relationship, Total Quality Management, Leadership.

Cristian Rincón-Guio is a university researcher and lecturer specializing in Management, Operations, Production, and Project areas. Currently pursuing a PhD in Engineering with a focus on Industry and Organizations at the Universidad Nacional de Colombia, he holds a Master's degree in Hydrocarbon Industry Management from the Universidad de Viña del Mar, and a specialization in Project Management from UNIMINUTO. With extensive experience in academia and industry, Cristian has been recognized as an Associate Researcher by Colombia's Ministry of Science, Technology, and Innovation (Minciencias). He serves as a peer reviewer for academic journals and national research projects and has participated in evaluation processes for Colombia's Ministry of Education. His research contributions have been published in high-impact international journals such as the Journal of Industrial Integration and Management. His work explores diverse topics, including resilience in manufacturing strategy, sustainability in agribusiness, and logistics 4.0. Cristian has also presented findings at esteemed conferences, including the International Conference on Industrial Engineering and Operations Management. As an educator, Cristian designs and delivers courses in Operations Management, Supply Chain Optimization, and Project Evaluation, with a strong emphasis on fostering critical thinking and innovative problem-solving skills. He has developed methodologies and active learning strategies to enhance student engagement, focusing on bridging theory with practical applications. His

current research interests include green supply chain management, technological innovation, and strategies for resilient manufacturing in volatile and uncertain environments.