Staff Competence Model in Implementation of Quality Management 4.0 at Telecommunications Industry: Literature Review

Arissa Dwi Pangestu  
Undergraduate Program in Industrial Engineering Department, Faculty of Engineering  
Universitas Sebelas Maret Surakarta, Jl. Ir. Sutami, 36 A, Surakarta, Indonesia  
arissadwi@student.uns.ac.id

Retno Wulan Damayanti2,3  
2Industrial Engineering Study Program, Faculty of Engineering  
3Center of Technology Development and Industrial Collaboration, Institute for Research and Community Service  
Universitas Sebelas Maret  
Surakarta, Indonesia  
2rwd@ft.uns.ac.id; 3retnowulan@staff.uns.ac.id

Fakhrina Fahma  
Industrial Engineering Study Program, Faculty of Engineering  
Universitas Sebelas Maret  
Surakarta, Indonesia  
fakhrinafahma@staff.uns.ac.id

Abstract

In the era of industrial development 4.0, it is undeniable that the existence of digital and communication technology is an important element. The demands of the development of industry 4.0 and changes in people’s behavior in communicating provide new challenges for companies engaged in the telecommunications industry. One of the efforts of telecommunications industry to respond for this situation is by adjusting the quality management system that is being implemented to keep it in tune with these changes. The implementation of upgraded quality management or termed quality management 4.0, is important for telecommunications industry to meet customer expectations in the industrial era 4.0. One of the guidelines for the implementation of quality management that is often used is ISO 9001:2015. However, some companies experience difficulties in implementing ISO 9001:2015, due to the inadequate level of performance of human resources in carrying out their functions and obligations. This encourages the need for companies to measure the performance of their staff in order to evaluate and improve the system that is run and can be used as the basis for the company in improving the quality of staff performance. This research aims to formulate a model of staff competency in the successful implementation of ISO 9001:2015 with an industrial 4.0 concept approach in telecommunications industry. The selection of research variables was carried out by elaborating the criteria for quality management ISO 9001:2015 with indicators on growth skills for industry 4.0.

Keywords  

Biographies

Arissa Dwi Pangestu is an undergraduate student of the Industrial Engineering Department of Universitas Sebelas Maret, Surakarta, Indonesia. Her research interests are in the lean manufacturing, operations management, and six sigma applications.

© IEOM Society International
**Retno Wulan Damayanti** is an associate professor of industrial engineering, Engineering Faculty, Universitas Sebelas Maret, Surakarta, Indonesia. She received a Doctoral degree from Industrial Engineering, Universitas Gadjah Mada, Indonesia, in 2021. Since 2005, she joined as a lecturer at Industrial Engineering and a researcher at Quality System Laboratory, Faculty of Engineering, Universitas Sebelas Maret Surakarta. Currently, she is the head of the Center of Technology Development and Industrial Collaboration, Institute for Research and Community Service of Universitas Sebelas Maret Surakarta. Her research interests are Quality System, Project and Megaproject Management, Leadership, Complexity Management, and Qualitative Comparative Analysis.

**Fakhrina Fahma** is an associate professor and teaching staff at the Department of Industrial Engineering, Faculty of Engineering, Universitas Sebelas Maret. She obtained her Bachelor of Agroindustrial Technology from IPB University. In 2001, she completed her master's program in Industrial Engineering Department of Institut Teknologi Sepuluh Nopember (ITS). She is also a doctoral student of Industrial Engineering Department of Universitas Sebelas Maret. Her research interests are Quality System and Standardization.