World Academy of Science, Engineering and Technology International Journal of Mathematical and Computational Sciences Vol:14, No:12, 2020

Continuous Improvement as an Organizational Capability in the Industry 4.0 Era

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Abstract : Continuous improvement is becoming increasingly a prerequisite for manufacturing companies to remain competitive in a global market. In addition, future survival and success will depend on the ability to manage the forthcoming digitalization transformation in the industry 4.0 era. Industry 4.0 promises substantially increased operational effectiveness, were all equipment are equipped with integrated processing and communication capabilities. Subsequently, the interplay of human and technology will evolve and influence the range of worker tasks and demands. Taking into account these changes, the concept of continuous improvement must evolve accordingly. Based on a case study from manufacturing industry, the purpose of this paper is to point out what the concept of continuous improvement will meet and has to take into considering when entering the 4th industrial revolution. In the past, continuous improvement has the focus on a culture of sustained improvement targeting the elimination of waste in all systems and processes of an organization by involving everyone. Today, it has to be evolved into the forthcoming digital transformation and the increased interplay of human and digital communication system to reach its full potential. One main findings of this study, is how digital communication systems will act as an enabler to strengthen the continuous improvement process, by moving from collaboration within individual teams to interconnection of teams along the product value chain. For academics and practitioners, it will help them to identify and prioritize their steps towards an industry 4.0 implementation integrated with focus on continuous improvement.

Keywords: continuous improvement, digital communication system, human-machine-interaction, industry 4.0, team performance

Conference Title: ICSRD 2020: International Conference on Scientific Research and Development

Conference Location : Chicago, United States **Conference Dates :** December 12-13, 2020