

Proposed Tactical Model for the Implementation of Industry 4.0 for the Generation of Competitive Advantage in Ecuadorian SMEs

Marcelo Aragón

Universidad de Cuenca, Ecuador

Corresponding author's Email: marce_sicha@outlook.es

Abstract: The world of business has changed and will continue to change by leaps and bounds, customers are not the same, seek to interact in the process and design of products or services, however, processes in industries especially SMEs in underdeveloped countries are maintained since the last century, which highlights the lack of development of new technologies in industries. At the beginning of a new industrial revolution (fourth industrial revolution) worldwide based on the massive use of the internet and digitalization, SMEs in our country must begin to transform the way to optimize their processes and the way to satisfy their customers, in a more dynamic, flexible and efficient way. The objective of the following research work is to determine the network of adaptability of technological trends coined in Industry 4.0 that will guarantee a competitive advantage over other industries in Ecuadorian SMEs. The proposal of the model is based on eight technologies present as fundamental pillars within the fourth industrial revolution, divided into three segments. First segment: known as support technologies (Cloud computing - Cybersecurity - Network 4.5G-5G) are responsible for security, storage, connectivity and data availability. Second segment: application technologies (IoT - Big Data - Augmented Reality), guarantee the management of data for decision making in real time. Third segment: complementary technologies (additive manufacturing - collaborative robotics). It was possible to conclude that the transformation to industry 4.0 is possible in Ecuadorian SMEs at a low initial cost and the technology that serves to take the first step of transformation is the XaaS (anything as a service) due to its low cost and the momentum that is having in our country.

Keywords: Industry 4.0, fourth industrial revolution, SaaS, SME, flexibility, data