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EFFECTS OF INDUSTRY 4.0 TECHNOLOGIES ON PRODUCTION MANAGEMENT  
PROCESSES: A THEORETICAL FRAMEWORK

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ABSTRACT

With Industry 1.0, mechanical production systems have emerged by way of water and steam power. With Industry 2.0, mass production has emerged through electrical energy. With Industry 3.0 was provided automation of production processes by means of electricity and information technologies. With industry 4.0, intelligent factories have emerged via Cyber-Physical Systems. Industry 4.0 aids to organize and manage production processes by connecting products and machines via the internet. Industry 4.0; It includes components such as big data, autonomous robots, simulation, horizontal and vertical integration, internet of things, cyber security, additive manufacturing, augmented reality, cloud computing. This study aims to examine the possible effects of these components/technologies on the production processes. In this study, a literature review was conducted in order to create a theoretical framework on the issue. As a result, some benefits emerge with the use of industry 4.0 technologies in production processes. These; It can be said as increasing flexibility in production, improving quality standards, increasing efficiency, increasing productivity, providing mass customization, and contributing to the optimization of production activities.

**Keywords:** Industry 4.0, Production Management, Smart Factory

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