Industry 4.0 in Logistics and Supply Chain Management Using Topic Modeling Method

M. Abdirad and K. Krishnan

Department of Industrial, Systems, and Manufacturing Engineering
Wichita State University
Wichita, KS, USA

Corresponding author's Email: Mxabdirad@wichita.edu

Abstract: "Industry 4.0" is a recent concept that focuses on automation, digitalization, and data exchange in industries. Its goal is to achieve a smart factory to reduce lead time and improve productivity in the system. This concept is leading to changes in manufacturing, the supply chain (SC), and logistics. The role of Industry 4.0 in supply chain management (SCM) is a new and critical subject with a need for more research. A few studies have started reviewing the existing works on Industry 4.0; however, they do not focus on its role in SCM. This paper presents a systematic review and synthesis of the current literature on Industry 4.0 in SCM. The goal here is the following: (1) to summarize the existing knowledge on Industry 4.0 in SCM, and (2) to analyze the content of research papers using topic modeling (TM) techniques. Current shortcomings and future research directions are also discussed.

Keywords: Industry 4.0, Supply Chain, Logistic, Internet of Things