Impact of Machine learning on Healthcare Supply Chain Management

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ABSTRACT

This paper includes contributions of Machine learning in Healthcare supply chain management (SCM) through a systematic review of the existing literature.This study aims to determine the present and possible ML strategies that can enhance both the study and practice of SCM in order to fill the current scientific gap of machine learning in healthcare SCM. There were also gaps in the literature that needed to be filled through scientific investigation. To locate and assess papers, a set of inclusion and exclusion criteria is utilized.

My GitHub link: http://www.https://github.com/Anurag321-collab.

KEYWORDS

Machine learning, Healthcare Supply chain management, Systematic literature review, Machine learning approach

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1 INTRODUCTION

A larger emphasis on services has grown as the supply chain management (SCM) and information technology disciplines have lately evolved. With a significant tendency for ICT applications across the healthcare industry, the healthcare industry is an important area within services. However, little is known about the current status of research in healthcare SCM and hospital technical applications. This paper aims to create a noble approach for current health care managers of hospitals by reviewing previous frameworks done in this field, in response to the scarcity of focused studies on the Healthcare Service Industry Supply Chain Management (HCSCM), and the various evolving ICT applications within the healthcare supply chain.

To conduct our research, we have conducted pilot search to know potential research questions.

RQ1. A Supply Chain Perspective on Reducing Health-Care Cost.
RQ2. How machine learning impacts healthcare Supply chain manangement.

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2 METHODOLOGY

This study used a comprehensive, evidence-based literature review strategy. We followed a five-step process, which included a pilot search in the first phase to obtain a better grasp of the present literature, develop criteria for literature selection, and formulate the research topic and subsequent steps. As a result, we used a five-step systematic review process.

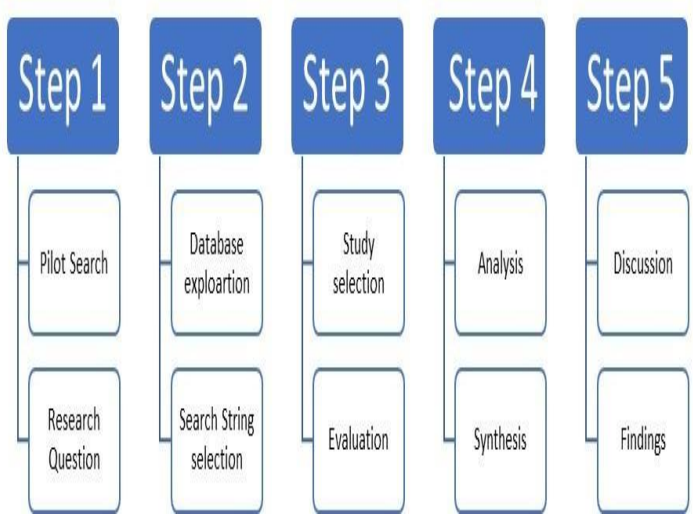

Fig. 1: Process of systematic literature review

3 SEARCH CRITERIA FOR LITERATURE REVIEW

3.1 Databases

IEEE Taylor Francis ,Science Direct Research Gate, EBSCO JSTOR, Web Articles.

3.2 keywords

"Healthcare in Supply chain" "Supply chain management" "Machine learning in Supply chain" "Machine learning in Healthcare"

4 STUDY SELECTION AND EVALUATION

To guarantee that publications using various taxonomies were detected, the primary search phrases were fairly broad. We found 21 articles using the inclusion and exclusion criteria from the pilot

search. The first criterion focuses on the literature's time range which is between 2011 and 2019, because the majority of papers, as well as a considerable number of new trends and applications, have developed during this time. The second criterion focuses on relevance and quality: only peer-reviewed journal and conference papers were considered for the review, excluding book reviews, chapters, case reports, discussions, and news articles; additionally, each paper was read by two authors to ensure that it met the re- quired standards of quality.

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