Overcoming Barriers in Supply Chain Management through Technological Innovation

Sana Tarun

Student

Global Institute of Business Studies, Bengaluru, India

Abstract*: SCM is considered planning, executing, and monitoring of all activities encompassing procurement, manufacturing, and the distribution of goods and services. The effective implementation of SCM can affect not only the overall performance of an organization but also reduce the overall costs, satisfy customers, and build brand credibility. The newer sets of technologies have come to fruition with AI, IoT, and blockchain that promise supply chain visibility, predictive analytics, and even the operationalization.*

Relevance to Startups: Whereas big companies like Amazon and Zara have exploited these technologies to attain competitive advantage, startups lag behind in adopting the technologies. The main constraints include lack of finance, absence of technical capabilities, and organizational resistance. All these constraints have restricted startups from utilizing technologies to process things, cut costs, and deliver excellent customer services. In most cases, startups have remained on the receiving end in their industries.

Objective of the Study: The study explores the challenges in adopting technological innovations in SCM in startups and further analyses strategies to bridge this gap. Using company experiences such as that of Amazon, Zara, and Grofers, this research is targeted towards generating practical insights for startups, policymakers, and industry leaders. Findings are expected to help further in identifying the use of technology in effective, robust, and scalable design of supply chains.

Abstract: SCM is the back bone to modern businesses to streamline processes toward customer satisfaction. AI, IoT, and blockchains, in fact have given a new and enhanced capability edge to SCM, along with increased ease and flexibility to manage the streams. However, financial with the functional difficulty of complexity is the significant issue that a start-up is dealing with these technologies, except with the psychological fears of risk, and normalise thinking when applying them. It was the research approach taking into account an IRT model to study hurdles based on cases taken of Amazon, Zara, and Grofers. The paper discusses ways of overcoming this resistance to technology use by educating the client base, pilot launching, and incorporating policies to have an incentive effect. Then the results are provided on how to help startups and policy-makers ensure a smoother technology adoption in SCM..

Keywords: Supply Chain Management, Digital Transformation, AI, Blockchain, Startups, Innovation Resistance Theory, Logistics, Technology Adoption