

**Majors: SCM  
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**“IMPLEMENTATION OF AI-BASED OPERATIONS IN THIRD  
PARTY LOGISTICS:  
A STUDY OF ORGANIZATIONAL READINESS AND OPERATIONAL  
EFFICIENCY AT TRADE EXPEDITORS PAKISTAN (TEP)”**



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**ABSTRACT**

The rapid advancement of digital technologies has significantly transformed the logistics and supply chain industry. Among these technologies, Artificial Intelligence (AI) has emerged as a powerful tool for improving operational efficiency, enhancing decision-making, and reducing costs. This study examines the potential implementation of AI-based operations in third-party logistics, with a focus on Trade Expeditors Pakistan (TEP).

The primary objective of this research is to assess the organizational readiness of TEP for AI adoption and to evaluate its impact on operational efficiency. A quantitative research approach was used, and data was collected through a structured questionnaire distributed among employees of the organization. The survey focused on key areas such as AI awareness, operational efficiency, readiness for technological adoption, perceived benefits, and implementation challenges.

The findings of the study indicate that while employees demonstrate a moderate level of awareness and willingness to adopt AI technologies, there are gaps in technical skills, infrastructure, and data integration capabilities. The organization shows moderate readiness for AI implementation, with strong potential for improvement through strategic planning and investment in technology.

Based on the analysis, an AI-based operational framework is proposed to enhance logistics performance, particularly in transportation planning, shipment tracking, and decision-making processes. The study concludes that the adoption of AI can significantly improve operational efficiency and provide a competitive advantage to TEP in the logistics industry.

**Keywords:** Artificial Intelligence, Logistics, Third-Party Logistics, Operational Efficiency, AI Readiness, Supply Chain Management

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