

Sustainable Enterprise Architecture: Management Approaches and Green Computing Adoption in the Logistics Industry

Saravana Kumar Ganesan

Research Scholar, School of Commerce and Management, Nirwan University, Jaipur, India

Dr. Ruchi Sharma

Assistant Professor, School of Commerce and Management, Nirwan University, Jaipur, India

Abstract:

In the Logistics sector, researchers are trying to study and examine the influence of various management approaches on the adoption of Sustainable Enterprise Architecture (SEA) and green computing practices.

In growing conditions, logistics companies need to incorporate SEA to integrate ESG needs into their IT processes and operations. The research focuses on the impact of adopting technology on the implementation and institutionalization of SEA initiatives and green computing technologies. This study specifies the importance of governance mechanisms like the Architecture Review Board (ARB) to facilitate the incorporation of sustainability considerations into enterprise architecture decisions and change management practices.

For long-term sustainability objectives, IT and business strategies must be aligned with effective governance structures under strong management to promote transparent and collaborative organizational function.

Empirical data for this research were gathered through a tailored questionnaire distributed to logistics practitioners, yielding a 78% valid response rate. The analysis used primary data with secondary sources, including ESG databases and sustainability benchmarks, to substantiate the findings. From the consolidated results, it is observed that logistics organizations under S&P 500 focus on establishing practices involving the Utilization of managed cloud-hosting services and the implementation of green software design principles.

In conclusion, the research outcomes prove that major logistics giants have started incorporating structured governance, green IT practices, and a dedicated commitment to sustainability to optimize the efficacy of SEA and green computing within the logistics sector.

Keywords:

Enterprise Architecture, Green Computing, Green Software, Sustainability Management, Technical Adoption.