

# **INTEGRATING RECOMMENDER SYSTEMS INTO THE STRATEGIC DECISION ARCHITECTURE OF ORGANIZATIONS: A MANAGERIAL PERSPECTIVE ON E-COMMERCE**

**Bucur Milancovici<sup>\*1</sup>, Suzana Monica Veress<sup>2</sup>, Raluca Simina Bilți<sup>3</sup>**  
*<sup>1)2)3)</sup> "Aurel Vlaicu" University of Arad, Arad, Romania.*

## **Abstract**

This paper examines the strategic integration of recommender systems within organizational decision-making architectures, with a focus on managerial implications in the e-commerce sector. Anchored in strategic management theory, the study conceptualizes recommender systems as components of organizational intelligence that shape managerial cognition, resource allocation, and long-term competitive positioning. Drawing on established analytical frameworks—including SWOT analysis, Porter’s Five Forces, and the Resource-Based View (RBV)—the paper identifies the strategic determinants that condition the adoption and optimization of recommender systems. The analysis develops an integrative conceptual framework linking algorithmic capabilities to strategic choices, competitive dynamics, and value creation. Emphasis is placed on governance mechanisms, ethical alignment, and data-driven leadership as prerequisites for sustainable competitive advantage. By repositioning recommender systems from operational tools to strategic infrastructures, the study contributes to strategic management research on digital transformation and algorithmic decision support.

## **Keywords**

Strategic management; recommender systems; managerial decision-making; e-commerce; organizational intelligence; digital strategy; competitive advantage

## **JEL Classification**

M10, M15, M31, L81

---

---

\* Corresponding author, **Bucur Milancovici** – [bucur.milancovici@gmail.com](mailto:bucur.milancovici@gmail.com)