

## Adaptive Architecture in Health Care Management: Articulation of Knowledge and Service Quality in Complex Scenarios

**Author:** Delifredd Josefina Zambrano Carrasquel,  
MSc.

Petrocasa

Email: delifrrddz@gmail.com

ORCID Code 0009 0007 2242 4698

Main Research Line: Solid, Effective, and  
Transparent Management. Thematic Axis:  
Knowledge Management

**How to cite this article:** Delifredd Josefina Zambrano Carrasquel “Adaptive Architecture of Healthcare Management: Articulation of Knowledge and Service Quality in Complex Scenarios” (2025), (1,16)

Received: 09/15/2025 Revised: 09/22/2025 Accepted: 09/30/2025

### ABSTRACT

This bibliographical study analyzes adaptive architecture in health care management, articulating knowledge to improve service quality in complex contexts. Inspired by challenges such as pandemics, it proposes a framework where uncertainty drives collaborative innovation. From this perspective, it explores constructs such as complexity, dynamic systems, transdisciplinarity, and emergent quality, advocating for overcoming rigid approaches to foster resilience in public health. The overall objective was to analyze how adaptive architecture integrates epistemological and practical knowledge to improve service quality in uncertain environments, identifying patterns that transform challenges into equitable and sustainable strategies. Regarding the methodology, bibliographical documentary research was used, compiling sources from databases such as PubMed and Google Scholar. It included thematic delimitation, searches based on relevance criteria ( $\leq 15$  years old), rigorous selection, descriptive-interpretative analysis using thematic coding, and synthesis for an emerging theoretical framework. Techniques such as bibliographic records and cross-validation ensured rigor, allowing iterations to integrate new findings. The results were: complexity drives intuitive strategies, dynamic management strengthens alliances, transdisciplinarity resolves contradictions, and quality emerges from collaborations. Comparisons reveal that adaptive approaches overcome rigidity, reducing fragmentation. Regarding the discussion: The results confirm that adaptive models mitigate inefficiencies compared to linear approaches, although they face institutional resistance. Transdisciplinarity fosters holistic perspectives but requires empirical validation. It is concluded that adaptive architecture transforms complexities into opportunities, recommending transdisciplinary policies and emerging metrics for universal health, with future hybrid research.

**Descriptors:** Architecture, adaptive, management, healthcare, knowledge, quality, service complexity

**Biographical Note:** Bachelor's degree in Nursing. Master's degree in public health management. Currently pursuing a PhD in Advanced Management. Barrio Adentro: 18 years of service. Petrocasa: 14 years of service. Corpoelec: 4 years of service.