

The Role of Artificial Intelligence and Data Analytics in Co-Creation and Co-Production Processes of Service Firms

RAFAEL TOASSI CRISPIM

UNIVERSIDADE DE SÃO PAULO (USP)

CARLAI DE OLIVEIRA NETTO

UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL (UFRGS)

PAULO ANTÔNIO ZAWISLAK

UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL (UFRGS)

EDUARDO PINHEIRO GONDIM DE VASCONCELLOS

FACULDADE DE ECONOMIA, ADMINISTRAÇÃO E CONTABILIDADE DA UNIVERSIDADE DE SÃO PAULO - FEA

The Role of Artificial Intelligence and Data Analytics in Co-Creation and Co-Production Processes of Service Firms

Introdução

The article addresses the role of Artificial Intelligence (AI) and Data Analytics in co-creation and co-production of innovations in service companies. Focusing on Brazilian startups and SMEs, the study investigates how these technologies are applied to improve internal processes and create value for customers. The barriers and opportunities encountered in the use of these technologies are also analyzed, offering a broad view of digital maturity and the interactions of these companies with external agents.

Problema de Pesquisa e Objetivo

The study seeks to answer what is the role of data analytics and AI-based systems in services' co-creation and co-production processes. We aim to contribute to the literature on service innovation as it addresses how new digital technologies strengthen the relational nature of service provision and offering development.

Fundamentação Teórica

The paper initially discusses the relevance of knowledge for service innovation in the digital era. Then we briefly explain why co-creation and co-production are key processes for service firms. Finally, we also explain how AI and data analytics technologies act as enablers of new sources of knowledge and, therefore, of value generation for service firms.

Metodologia

The research is qualitative and exploratory, using multiple case studies of nine Brazilian startups and SMEs from various service sectors. Companies were selected based on theoretical sampling, considering the level of digital maturity and frequency of interactions with external agents. In-depth interviews with managers or founders and analysis of secondary data were the main sources of data collection, analyzed using content analysis technique with AtlasTI software.

Análise dos Resultados

The results show that companies use AI and Analytics mainly to improve co-production processes, personalizing and making service delivery more efficient. However, the use of these technologies in co-creation is still limited due to challenges such as data quality and consistency, technological complexity, and market maturity. In essence, our results support that the emphasis of co-creation/co-production processes is on direct interaction with consumers despite digital technologies, indicating an approach more focused on experiences rather than on automated solutions.

Conclusão

The study concludes that AI and Data Analytics play a significant role in co-production but face barriers for broader adoption in co-creation. Overcoming these challenges requires strategic investments and building trust among stakeholders. Despite the difficulties, there are clear opportunities to improve collaborative processes and generate value with the use of these technologies.

Referências Bibliográficas

Flavián, C., Pérez-Rueda, A., Belanche, D., & Casaló, L. V. (2022). Intention to use analytical artificial intelligence (AI) in services—the effect of technology readiness and awareness. *Journal of*

Service Management, 33(2), 293-320. Gallouj, F., & Weinstein, O. (1997). Innovation in services. *Research Policy*, 26(4-5), 537-556. Vargo, S. L., Fehrer, J. A., Wieland, H., & Nariswari, A. (2024). The nature and fundamental elements of digital service innovation. *Journal of Service Management*, 35(2), 227-252.