



THE ROLE OF ARTIFICIAL INTELLIGENCE IN VALUE CO-CREATION: A THEORETICAL PERSPECTIVE FROM SERVICE MARKETING

Dr. G. Arun Kumar

Associate Professor, Department of Business Administration,
Vijayanagara Sri Krishnadevaraya University, Ballari, Karnataka

Article DOI: <https://doi.org/10.36713/epra27703>

DOI No: 10.36713/epra27703

ABSTRACT

Artificial Intelligence (AI) is reshaping service marketing by transforming customer-firm interactions into intelligent, data-driven, and personalized engagements. While existing research primarily emphasizes operational efficiency and automation benefits, limited attention has been paid to AI's theoretical role in value co-creation within service ecosystems. Grounded in Service-Dominant Logic (SDL), Relationship Marketing Theory, and Technology Acceptance Theory (TAM), this conceptual paper develops an integrative framework explaining how AI capabilities facilitate value co-creation. The study conceptualizes AI as an operant resource that enhances interactive intelligence, predictive analytics, personalization capability, and adaptive learning, thereby strengthening customer engagement and relational outcomes. The paper proposes a structured set of theoretical propositions linking AI capabilities to customer engagement, co-creation outcomes, relational performance, and firm performance. The study contributes to service marketing literature by extending SDL into AI-mediated service ecosystems and provides managerial insights for designing AI-enabled relational strategies. Directions for empirical validation and future research are also discussed.

KEYWORDS: Artificial Intelligence, Value Co-Creation, Service-Dominant Logic, Customer Engagement, Relationship Marketing, Technology Acceptance.

1. INTRODUCTION

The rapid advancement of Artificial Intelligence (AI) technologies has significantly altered the landscape of service marketing. AI-enabled tools such as chatbots, recommendation engines, predictive analytics, and machine learning algorithms have redefined how organizations interact with customers. Rather than merely automating processes, AI increasingly participates in customer journeys by personalizing experiences and anticipating needs. In service marketing theory, value is not embedded in products but co-created through interactions among actors within a service ecosystem. As AI becomes an intermediary in these interactions, it plays a crucial role in shaping value co-creation dynamics. Despite growing practical implementation, theoretical integration of AI into value co-creation frameworks remains underdeveloped. This study aims to develop a conceptual framework that explains how AI contributes to value co-creation in service marketing by integrating established theoretical perspectives.

2. LITERATURE REVIEW

2.1 Artificial Intelligence in Marketing

Artificial Intelligence (AI) has emerged as a transformative force in marketing, enabling firms to move from descriptive analytics to predictive and prescriptive intelligence. AI systems such as machine learning algorithms, natural language processing, and deep learning applications facilitate data-driven decision-making and hyper-personalization (Huang & Rust, 2021). According to Davenport, Guha, Grewal, and Bressgott (2020), AI enhances marketing functions across three levels: automation, augmentation, and autonomy. While automation improves efficiency, augmentation enhances human decision-making, and autonomy enables AI to independently perform strategic tasks. However, most existing studies emphasize performance efficiency rather than relational and co-creative dimensions. Chintagunta, Hanssens, and Hauser (2016) argue that analytics-driven marketing enhances customer insights but requires theoretical grounding to explain long-term relational outcomes. Similarly, Wedel and Kannan (2016) highlight that AI-driven analytics transforms customer engagement but needs integration with behavioral and service theories.

2.2 Service-Dominant Logic and AI Integration

Service-Dominant Logic (SDL), proposed by Vargo and Lusch (2004, 2016), posits that value is co-created through interactions among actors within a service ecosystem. Customers are operant resources who actively participate in value creation. AI can be conceptualized as a technological operant resource that enhances resource integration capabilities. Payne, Storbacka, and Frow (2008) emphasize that co-creation involves customer participation, organizational processes, and relational experiences. AI facilitates these processes by enabling real-time feedback loops and adaptive responses. Recent conceptual discussions suggest that digital technologies reshape service ecosystems by intensifying actor-to-actor engagement (Lusch & Nambisan, 2015). AI-mediated interactions extend SDL by introducing algorithmic actors into the ecosystem, thereby expanding the traditional human-centric co-creation model.

2.3 Customer Engagement and AI

Customer engagement refers to cognitive, emotional, and behavioral investment in brand interactions (Brodie et al., 2011). AI-powered personalization enhances engagement by delivering contextually relevant experiences. Lemon and Verhoef (2016) argue that customer experience across touchpoints determines engagement strength. AI improves omnichannel consistency and predictive responsiveness. Grewal, Hult, Kopalle, and Karahanna (2020) note that intelligent retail systems strengthen customer participation through interactive technologies. However, engagement outcomes depend on perceived authenticity and transparency. Over-automation may reduce emotional connection if customers perceive interactions as impersonal.

2.4 Relationship Marketing and Trust in AI

Relationship Marketing theory emphasizes trust, commitment, and long-term relational exchange (Morgan & Hunt, 1994). AI systems influence relational trust through personalization accuracy and reliability. According to Huang and Rust (2021), AI enhances relationship quality when customers perceive it as competent and supportive. However, algorithmic opacity can reduce trust if customers do not understand decision-making processes. Palmatier, Dant, Grewal, and Evans (2006) found that relational investments strengthen loyalty outcomes. AI-enabled proactive communication can function as a relational investment, increasing perceived firm responsiveness.

2.5 Technology Acceptance and AI Adoption

Technology Acceptance Theory (Davis, 1989) explains adoption through perceived usefulness and perceived ease of use. In AI-driven services, customers evaluate: Algorithm transparency, Data privacy assurance, Perceived intelligence, Ease of interaction. Gefen, Karahanna, and Straub (2003) extended TAM by incorporating trust as a determinant in online environments. In AI contexts, trust becomes central to co-creation participation. Recent studies emphasize algorithmic fairness and ethical transparency as determinants of AI acceptance (Grewal et al., 2020).

3. OBJECTIVES OF THE STUDY

The primary objectives of this conceptual study are:

- To examine AI as an operant resource within service marketing ecosystems.
- To integrate Service-Dominant Logic, Relationship Marketing Theory, and Technology Acceptance Theory into an AI-based co-creation framework.
- To conceptualize the mechanisms through which AI enhances customer engagement and relational outcomes.
- To propose theoretical propositions for future empirical validation.

4. RESEARCH METHODOLOGY

This study adopts a conceptual research design. The methodology involves:

1. Systematic review of scholarly literature on AI in marketing.
2. Theoretical synthesis of Service Dominant Logic and Relationship Marketing.
3. Conceptual model development based on logical argumentation.

Secondary data sources include peer-reviewed journal articles, books, and conference proceedings indexed in reputed academic databases.

5. SCOPE OF THE STUDY

This study is conceptual in nature and focuses on:

- AI applications within service industries (banking, retail, hospitality, healthcare).
- Customer-firm interactions mediated by AI technologies.

- Theoretical integration rather than empirical testing.

The study does not include primary data collection but proposes a framework for future empirical research.

6. CONCEPTUAL FRAMEWORK DEVELOPMENT

6.1 AI Capabilities as Operant Resources

AI contributes through four major capabilities:

1. Interactive Intelligence – real-time, two-way communication.
2. Predictive Analytics – anticipation of customer needs.
3. Personalization Capability – tailored offerings and experiences.
4. Adaptive Learning – continuous improvement through data feedback.

6.2 Proposed Theoretical Model

AI Capabilities → Customer Engagement → Value Co-Creation → Relational Outcomes → Firm Performance

6.3 Research Propositions

P1: AI interactive intelligence positively influences customer engagement.

P2: AI personalization capability enhances perceived value and participation willingness.

P3: Predictive analytics increases proactive customer involvement.

P4: Customer engagement positively influences value co-creation outcomes.

P5: Technology acceptance (perceived usefulness and transparency) moderates the relationship between AI capabilities and engagement.

P6: AI-enabled value co-creation positively affects customer loyalty and trust.

P7: Enhanced relational outcomes positively influence firm performance indicators such as retention and customer lifetime value.

7. FINDINGS

Based on the integrative theoretical synthesis, the following conceptual findings emerge:

Finding 1: AI as an Operant Resource in Service Ecosystems

AI functions beyond automation; it acts as an operant resource that enhances knowledge integration and interactive capabilities. This extends SDL by incorporating technological intelligence as a co-creative actor within the service ecosystem.

Finding 2: Customer Engagement as a Central Mediator

Customer engagement mediates the relationship between AI capabilities and value co-creation. AI-driven personalization and predictive responsiveness increase cognitive and emotional investment, which strengthens participatory behaviors.

Finding 3: Technology Acceptance as a Boundary Condition

Perceived transparency, fairness, and usefulness moderate AI's impact on engagement. Without trust, AI capabilities may fail to generate co-creative outcomes.

Finding 4: AI Strengthens Relational Outcomes Through Proactive Service

Predictive analytics enables firms to anticipate customer needs, shifting marketing from reactive to proactive service. This enhances satisfaction, trust, and loyalty—key relational constructs in relationship marketing theory.

Finding 5: Human–AI Collaboration Enhances Value Co-Creation

Theoretical analysis suggests that optimal value co-creation occurs when AI augments rather than replaces human interaction. Hybrid intelligence models strengthen relational depth.

Finding 6: Strategic Performance Implications

AI-enabled co-creation improves: Customer lifetime value, Retention rates, Cross-selling opportunities and Brand advocacy. Thus, AI contributes to sustainable competitive advantage when integrated within relational strategy rather than cost efficiency orientation

8. CONCLUSION

Artificial Intelligence is not merely an automation tool but a strategic enabler of value co-creation within service ecosystems. By integrating Service-Dominant Logic, Relationship Marketing, and Technology Acceptance perspectives, this study develops a comprehensive theoretical framework explaining AI's role in enhancing customer engagement and relational performance. The model provides a foundation for future empirical studies



and offers managerial guidance for designing AI-driven service strategies. As AI technologies continue to evolve, understanding their relational implications becomes critical for sustainable competitive advantage.

9. REFERENCES

1. Huang, M. H., & Rust, R. T. (2021). A strategic framework for artificial intelligence in marketing. *Journal of the Academy of Marketing Science*, 49(1), 30–50.
2. Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing*, 80(6), 69–96.
3. Payne, A. F., Storbacka, K., & Frow, P. (2008). Managing the co-creation of value. *Journal of the Academy of Marketing Science*, 36(1), 83–96.
4. Vargo, S. L., & Lusch, R. F. (2016). Institutions and axioms: An extension of service-dominant logic. *Journal of the Academy of Marketing Science*, 44(1), 5–23.
5. Verhoef, P. C., Kooge, E., & Walk, N. (2016). *Creating value with big data analytics*. Routledge.
6. Wedel, M., & Kannan, P. K. (2016). Marketing analytics for data-rich environments. *Journal of Marketing*, 80(6), 97–121.
7. Brodie, R. J., Hollebeek, L. D., Juric, B., & Ilic, A. (2011). Customer engagement: Conceptual domain and research directions. *Journal of Service Research*, 14(3), 252–271.
8. Chintagunta, P. K., Hanssens, D. M., & Hauser, J. R. (2016). Marketing science and big data. *Marketing Science*, 35(3), 341–354.
9. Davenport, T., Guha, A., Grewal, D., & Bressgott, T. (2020). How artificial intelligence will change the future of marketing. *Journal of the Academy of Marketing Science*, 48(1), 24–42.
10. Gefen, D., Karahanna, E., & Straub, D. (2003). Trust and TAM in online shopping. *MIS Quarterly*, 27(1), 51–90.
11. Grewal, D., Hulland, J., Kopalle, P. K., & Karahanna, E. (2020). The future of technology and marketing. *Journal of the Academy of Marketing Science*, 48(1), 1–8.
12. Lusch, R. F., & Nambisan, S. (2015). Service innovation: A service-dominant logic perspective. *MIS Quarterly*, 39(1), 155–175.
13. Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20–38.
14. Palmatier, R. W., Dant, R. P., Grewal, D., & Evans, K. R. (2006). Factors influencing effectiveness of relationship marketing. *Journal of Marketing*, 70(4), 136–153.