

AI-Enabled Educational Service Delivery and Students' Eudaimonic Well-Being: A Service Marketing Perspective on Sustainable Institutional and Societal Value

1. Research Background and Theoretical Motivation

The rapid integration of artificial intelligence (AI) into higher education is transforming the design, delivery, and experience of educational services. Universities increasingly deploy AI-enabled tools such as adaptive learning systems, predictive analytics, intelligent tutoring, and generative AI platforms to enhance personalization and efficiency. However, systematic reviews of AI in education show that research remains predominantly focused on performance metrics, implementation challenges, and adoption processes (Chiu et al., 2023). While these studies provide valuable insights into technological effectiveness, they offer limited integration with broader frameworks of experiential value and well-being.

From a service marketing perspective, this instrumental focus is theoretically insufficient. Higher education constitutes a high-involvement, credence-based service in which value unfolds cumulatively over time (Khatri et al., 2022). According to Service-Dominant Logic (SDL), value is not embedded in outputs but co-created through resource integration and value-in-use (Vargo & Lusch, 2021). Within this framework, AI is not a neutral efficiency tool but an operant resource whose impact depends on how it is embedded in service delivery and enacted by frontline actors.

Concurrently, contemporary marketing scholarships have undergone a paradigmatic shift toward transformative perspectives that evaluate services according to their contribution to individual and systemic well-being (Ostrom et al., 2021; Bakrim et al., 2025). Consumer well-being research conceptualizes well-being as multidimensional and embedded in lived service experiences (García-Rodríguez et al., 2025; Rani et al., 2025). Eudaimonic well-being encompassing meaning, autonomy, competence, and personal growth—has been identified as especially relevant in transformative service contexts such as education (Alwani et al., 2025).

Empirical evidence in higher education further demonstrates that the quality and caring nature of the educational service experience significantly influences students' well-being and relational outcomes (Teeroovengadum et al., 2024). Yet, despite these developments, little research integrates AI-enabled educational service delivery with consumer eudaimonic well-being within a coherent service marketing framework.

This research addresses this theoretical fragmentation by examining how AI-enabled educational service delivery shapes students' eudaimonic well-being and, through it, generates sustainable relational, institutional, and societal value.

2. Research Objective and Central Question

The primary objective of this study is to develop and empirically test a service marketing model that explains the mechanisms through which AI-enabled educational service delivery influences students' eudaimonic well-being and translates into sustainable institutional and societal outcomes.

The central research question guiding the study is:

How does AI-enabled educational service delivery influence students' eudaimonic well-being and, through it, generate sustainable value for educational institutions and society?

This question responds directly to calls within Transformative Service Research (TSR) to evaluate service systems not solely by operational performance but by their contribution to human flourishing and systemic well-being (Ostrom et al., 2021; Bakrim et al., 2025).

3. Conceptual Framework

The proposed model is based on Service-Dominant Logic (SDL), Transformative Service Research (TSR), and recent consumer well-being studies. Instead of seeing artificial intelligence as just a technological advancement, the model views AI-enabled educational service delivery as a key part of the educational service ecosystem. Its value comes from integrating resources and real experiences.

AI-Enabled Educational Service Delivery → Perceived Service Experience / Value-in-Use

The first relationship suggests that AI-enabled educational service delivery influences students' perceived service experiences and the value they find in them. SDL argues that value doesn't exist in outputs but arises from how resources are integrated in practice (Vargo & Lusch, 2021). Recent studies in service research show that using technology changes how services are delivered and

experienced (Ostrom et al., 2021). Evidence indicates that technology-driven service interactions affect how consumers feel about control, personalization, and quality (McLean & Osei-Frimpong, 2024). In education, numerous reviews reveal that AI is increasingly woven into learning processes, which shapes how students perceive their teaching and learning environments (Chiu et al., 2023). Thus, AI-enabled teaching practices are likely to influence students' views on service quality and value by affecting personalization, responsiveness, and interaction.

Perceived Service Experience → Students' Eudaimonic Well-Being

The second relationship states that students' perceived service experiences affect their eudaimonic well-being. Contemporary consumer well-being research sees well-being as a complex outcome resulting from a series of market interactions rather than just single transactions (García-Rodríguez et al., 2025; Rani et al., 2025). Studies in higher education show that the quality and care involved in the educational service experience greatly affect students' well-being (Teeroovengadum et al., 2024). Similarly, Khatri et al. (2022) suggest that students' well-being is influenced by the overall service environment, including relationships, institutions, and experiences. Eudaimonic well-being, which encompasses meaning, autonomy, skill, and personal growth, is particularly significant in education due to its long-term impact (García-Rodríguez et al., 2025; Rani et al., 2025).

Eudaimonic Well-Being → Sustainable Relational Outcomes

The third relationship sees eudaimonic well-being as a key factor in fostering sustainable relational outcomes, such as identifying with the institution, advocacy, and long-term involvement. Research in higher education shows that student well-being is linked to persistence, engagement, and attachment to the institution (Khatri et al., 2022). Teeroovengadum et al. (2024) demonstrate that well-being supports positive relationships within higher education services, reinforcing the idea that psychological well-being strengthens the bonds between students and institutions. Additionally, studies on technology-driven service experiences indicate that psychological reactions to service shape behaviors and relationships (McLean & Osei-Frimpong, 2024). By identifying eudaimonic well-being as a mediating factor, the model connects with modern consumer well-being concepts that view flourishing as a crucial link between service experiences and long-term behavioral intentions (García-Rodríguez et al., 2025).

Sustainable Relational Outcomes → Institutional and Societal Value Creation

The last relationship broadens the model to include value creation at both the institutional and societal levels. Transformative Service Research highlights that individual service interactions can lead to broader systemic outcomes in well-being (Ostrom et al., 2021). Bakrim et al. (2025) further this systemic view by arguing that service ecosystems enhance collective well-being when personal experiences lead to stable relationships and institutions. From a macromarketing viewpoint, consumer well-being has wider societal effects since improvements in individual well-being support social sustainability and broader value (Sirgy, 2020). Therefore, sustainable relational outcomes driven by students' eudaimonic well-being are expected to benefit both institutional sustainability and societal well-being.

4. Methodology

To empirically test the proposed framework, the study adopts a multi-method research design.

Study 1: Quantitative Survey

A large-scale survey will be conducted among higher education students exposed to AI-enabled teaching practices. The instrument will measure:

- Perceived AI-enabled educational service delivery
- Perceived service experience and value-in-use
- Eudaimonic well-being (meaning, autonomy, competence, personal growth)
- Sustainable relational outcomes

Measurement of well-being will be grounded in contemporary multidimensional frameworks (García-Rodríguez et al., 2025; Rani et al., 2025), while the educational service context will draw upon established research in higher education consumer well-being (Khatri et al., 2022; Teeroovengadam et al., 2024).

Structural Equation Modeling (SEM) will be employed to test both measurement and structural models simultaneously. SEM is appropriate for analyzing complex latent constructs and mediation mechanisms within higher education service research (Teeroovengadam et al., 2024). Bootstrapping procedures will assess indirect effects to examine the mediating role of eudaimonic well-being.

Study 2: Experimental Design

To strengthen causal inference, a scenario-based experimental study will manipulate levels of AI integration (e.g., AI-augmented human teaching vs. highly automated AI-led instruction). Participants will be randomly assigned to conditions to test causal effects on perceived autonomy, competence, meaning, and overall well-being.

This design allows examination of how different configurations of AI-enabled service delivery influence eudaimonic well-being, thereby validating the theoretical mechanisms proposed in the conceptual model.

5. Expected Outcomes

It is expected that AI-enabled educational services will positively affect students' views on their service experience when AI improves personalization and supports human interaction. These enhanced service experiences are likely to boost students' overall well-being. Eudaimonic well-being is thought to be an important link between AI-enabled services and lasting relationship outcomes. Students who feel a greater sense of meaning, autonomy, and personal growth are more likely to show stronger ties to the institution, intentions to advocate, and long-term involvement. On a broader scale, overall improvements in relationship stability and student well-being are expected to help with institutional sustainability and create greater social value. This aligns with TSR's logic of moving from individual impacts to larger effects (Bakrim et al., 2025).

6. Contributions

This study improves service marketing by connecting AI-based service delivery with consumer well-being in a high-involvement service setting. It broadens service dominant logic by examining AI as a resource in educational service ecosystems (Vargo & Lusch, 2021). It also adds to theory on service research by linking service design choices to well-being outcomes (Ostrom et al., 2021; Bakrim et al., 2025). For managers, this research offers advice for higher education institutions that want to connect AI use with long-term relationships and growth goals instead of just focusing on efficiency. On a societal level, this study adds to discussions on responsible AI use by presenting

educational AI as a valuable service resource, which should be assessed based on its impact on human flourishing and overall well-being.

References

Alwani, S., El Hedhli, K., Chebat, J. C., & Sirgy, M. J. (2025). Brand social sustainability and consumer behavior: A systematic literature review. *International Journal of Consumer Studies*, 49(1), 1–22. <https://doi.org/10.1111/ijcs.12903>

Bakrim, S., Cheung, M. F. Y., & Frow, P. (2025). Transformative services and systemic well-being: Toward a better service ecosystem. *Systems Research and Behavioral Science*, 42(1), 1–15. <https://doi.org/10.1002/sres.2921>

Chiu, T. K. F., Xia, Q., Zhou, X., Chai, C. S., & Cheng, M. (2023). Systematic literature review on opportunities, challenges, and future research recommendations of artificial intelligence in education. *Computers and Education: Artificial Intelligence*, 4, 100118. <https://doi.org/10.1016/j.caeai.2022.100118>

García-Rodríguez, A., Martínez-Fernández, V. A., & Ruiz-Real, J. L. (2025). Sustainable consumption for a better life: Consumer well-being as a research agenda. *International Journal of Consumer Studies*, 49(1), 1–19. <https://doi.org/10.1111/ijcs.12908>

Khatri, R., Agarwal, S., & Gupta, S. (2022). Well-being of higher education consumers: A review and research agenda. *International Journal of Consumer Studies*, 46(5), 1864–1880. <https://doi.org/10.1111/ijcs.12755>

McLean, G., & Osei-Frimpong, K. (2024). Revealing the double-edged sword: Technology and consumer well-being in service encounters. *Psychology & Marketing*, 41(1), 1–15. <https://doi.org/10.1002/mar.21823>

Ostrom, A. L., Frow, P., Anderson, L., Payne, A., Davey, J., & Harris, L. (2021). Service research priorities: Managing and delivering service in turbulent times. *Journal of Service Research*, 24(2), 151–168. <https://doi.org/10.1177/10946705211005755>

Rani, S., Agarwal, S., & Verma, S. (2025). Integrating consumer well-being concepts: A review and research agenda. *International Journal of Consumer Studies*, 49(1), 1–18. <https://doi.org/10.1111/ijcs.12915>

Sirgy, M. J. (2020). Macromarketing metrics of consumer well-being: An update. *Journal of Macromarketing*, 40(4), 409–426. <https://doi.org/10.1177/0276146720942650>

Teeroovengadam, V., Ringle, C. M., Nunkoo, R., & Coates, H. (2024). Quality of higher education experience, satisfaction, and well-being: Genuinely caring for our students-consumers. *Journal of Marketing for Higher Education*, 34(2), 1012–1034. <https://doi.org/10.1080/08841241.2023.2281396>

Vargo, S. L., & Lusch, R. F. (2021). Service-dominant logic 2025. *International Journal of Research in Marketing*, 38(1), 46–67. <https://doi.org/10.1016/j.ijresmar.2020.06.001>