



The future of analytics in digital marketing and electronic commerce: how digitalization and sustainability affect consumers, firms, and policymakers

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Digital marketing and electronic commerce are undergoing continuous transformation, primarily driven by the rapid pace of digitization and technological advancement (Kannan 2017; Bala and Verma 2018; Gruntkowski and Martinez 2022; Statista 2023). At the same time, broader environmental and geopolitical developments, such as the intensifying consequences of climate change, global crises, and armed conflicts, are exerting profound effects on economic systems worldwide (Guenette et al. 2022; Pereira et al. 2022). In recent years, a growing body of literature has addressed various dimensions of digitalization (e.g., Roggeveen and Sethuraman 2020; Brüggemann and Olbrich 2022) and sustainability (e.g., Rita and Ramos 2022). In light of these trends, the dual imperatives of digitalization and sustainability have become increasingly central to both academic and practical discourse (Escursell et al. 2021; Rita and Ramos 2022; Rajguru and Brüggemann 2024).

Amidst these developments, the pace of change in markets, technologies, and societal expectations continues to accelerate. Consequently, the need for forward-looking, future-oriented research in digital marketing and electronic commerce is more critical than ever. Consumers, firms, and policymakers play pivotal roles in shaping these transformations, whether through shifting demand patterns, strategic business responses, or evolving regulatory frameworks. To

better understand and navigate this complex and dynamic environment, future research must consider both the individual perspectives of these stakeholder groups and the interplay between them.

From a practical standpoint, firms are challenged to adapt to rising consumer expectations that increasingly emphasize ethical, transparent, and environmentally responsible business practices. Consumers, in turn, influence market dynamics through their preferences and behaviors, which are shaped by societal narratives, personal values, and policy incentives. Policymakers play a crucial role in enabling sustainable and inclusive transformation by creating frameworks that integrate sustainability into economic and technological agendas. Especially in times of global uncertainty (UNDP 2023), such policy interventions form the foundation for coordinated stakeholder action and are essential to realizing the long-term potential of digital commerce for societal well-being.

Against this backdrop, this Special Issue presents a curated set of contributions that examine the future of digital marketing and electronic commerce from the perspectives of consumers, firms, and policymakers. While each of these perspectives offers unique and valuable insights, their interconnections are particularly important for understanding how digitalization and sustainability can be jointly addressed. The seven papers featured in this issue represent high-quality research that contributes to shaping a more sustainable and digitally empowered future, offering diverse methodological approaches and applications in marketing analytics.

The first paper, by Kotrba et al. (2025), examines the impact of environmental, social, and governance (ESG) factors on firm performance in digital versus traditional sectors. The authors find that ESG activities yield greater benefits for firms operating in digital environments, highlighting sector-specific differences with important strategic implications for both business leaders and policymakers.

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The second paper, by Schultz and Kaiser (2025), explores how consumer value dimensions influence the adoption of digital assistants in mobile and conversational commerce. Drawing on consumption value theory and the technology acceptance model, the study underscores the importance of trust and perceived usefulness in shaping attitudes and behavioral intentions toward chatbots and voice assistants.

The third paper, by Ramos et al. (2025), applies time series analysis and deep learning techniques to examine structural trends in the U.S. e-commerce sector. By analyzing variables such as sales, employment, labor hours, and producer prices, the study shows that deep neural networks outperform traditional models, offering valuable insights for strategic forecasting in digital markets.

The fourth paper, by Rohden et al. (2025), investigates the impact of low-immersive 3D digital content on consumer satisfaction and purchase intentions. Based on two experimental studies, the findings reveal that enjoyment, surprise, and perceived augmentation quality significantly enhance consumer responses, even in the absence of augmented or virtual reality devices.

The fifth paper, by Khan et al. (2025), examines the determinants of funding success and default risk in peer-to-peer (P2P) lending platforms. Through a systematic literature review and social network analysis, the study identifies social capital and income as key drivers of lending outcomes, contributing to improved creditworthiness assessment in digital lending contexts.

The sixth paper, by Dao et al. (2025), explores how the credibility of doctors and celebrities in cosmetic surgery livestreams influences viewers' trust and adoption intentions. Using a mixed-methods approach grounded in source credibility and signaling theory, the study finds that doctor credibility enhances cognitive trust and utilitarian value, while celebrity endorsements foster emotional engagement and hedonic value.

The seventh paper, by Westland (2025), investigates the influence of customer review sentiment on sales in the U.S. beverage market, using jello shots as a case study. Applying Natural Language Processing (NLP) to over 15,000 reviews, the study shows that emotional tones, particularly anger, disgust, joy, and trust, significantly impact sales outcomes, with negative sentiments proving more influential than star ratings.

This Special Issue is associated with the 5th Digital Marketing and eCommerce Conference (DMeC 2024) in Barcelona, Spain. The conference brought together leading scholars to present innovative research and exchange insights on the evolving landscape of e-commerce and digital marketing. It also served as a vital platform for discussing practical challenges, recent breakthroughs, and interdisciplinary collaboration, underscoring the importance of joint efforts in shaping the future of this rapidly developing field.

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References

- Bala, M., and D. Verma. 2018. A critical review of digital marketing. *International Journal of Management, IT & Engineering* 8 (10): 321–339.
- Brüggemann, P., and Olbrich, R. (2023). The impact of COVID-19 pandemic restrictions on offline and online grocery shopping: New normal or old habits?. *Electronic Commerce Research*, 23(4), 2051–2072.
- Dao, H. M., M. L. Bui, D. Hoang, and L. F. Martinez. 2025. Doctor and celebrity credibility: their dual impact on livestream viewers' trust and service adoption intentions. *Journal of Marketing Analytics*. <https://doi.org/10.1057/s41270-025-00411-9>.
- Escursell, S., P. Llorach-Massana, and M. B. Roncero. 2021. Sustainability in e-commerce packaging: A review. *Journal of Cleaner Production* 280 : 124314.
- Gruntkowski, L. M., and L. F. Martinez. 2022. Online grocery shopping in Germany: Assessing the impact of COVID-19. *Journal of Theoretical and Applied Electronic Commerce Research* 17 (3): 984–1002.
- Guenette, J. D., P. G. Kenworthy, and C. M. Wheeler. 2022. Implications of the War in Ukraine for the Global Economy.
- Kannan, P. K. 2017. Digital marketing: A framework, review and research agenda. *International Journal of Research in Marketing* 34 (1): 22–45.
- Khan, S., R. Singh, and J. Bhattacharjee. 2025. Factors affecting the probability of funding success and default risk of borrowers in P2P lending: A social network analysis approach. *Journal of Marketing Analytics*. <https://doi.org/10.1057/s41270-025-00395-6>.
- Kotrba, V., J. Menšík, and L. F. Martinez. 2025. ESG consequences for companies in the digital environment: Insights from sector-specific performance across the EU-27. *Journal of Marketing Analytics*. <https://doi.org/10.1057/s41270-024-00370-7>.



- Pereira, P., F. Bašić, I. Bogunovic, and D. Barcelo. 2022. Russian-Ukrainian war impacts the total environment. *Science of the Total Environment* 837 : 155865.
- Rajguru, K., and P. Brüggemann. 2024. Sustainability meets metaverse: A conceptual framework of sustainable dimensions of the metaverse. *Journal of Consumer Behaviour* 23 (5): 2720–2729.
- Ramos, F. R., L. M. Martinez, L. F. Martinez, R. Abreu, and L. Rubio. 2025. Mapping e-commerce trends in the USA: A time series and deep learning approach. *Journal of Marketing Analytics*. <https://doi.org/10.1057/s41270-025-00392-9>.
- Rita, P., and R. F. Ramos. 2022. Global research trends in consumer behavior and sustainability in E-commerce: A bibliometric analysis of the knowledge structure. *Sustainability* 14 (15): 9455.
- Roggeveen, A. L., and R. Sethuraman. 2020. How the COVID-19 pandemic may change the world of retailing. *Journal of Retailing* 96 (2): 169.
- Rohden, S. F., D. Subbotin, and L. B. Espartel. 2025. Consumer responses to 3D experiences: The role of enjoyment, surprise, and augmentation quality. *Journal of Marketing Analytics*. <https://doi.org/10.1057/s41270-025-00394-7>.
- Schultz, C. D., and S. Kaiser. 2025. Consumer value dimensions in conversational and mobile commerce. *Journal of Marketing Analytics*. <https://doi.org/10.1057/s41270-025-00383-w>.
- Statista. 2023. eCommerce worldwide. <https://www.statista.com/outlook/dmo/e-commerce/worldwide#revenue>
- UNDP. 2023. How can we emerge stronger from today's multiple crises? <https://www.undp.org/policy-centre/governance/events/how-can-we-emerge-stronger-todays-multiple-crises>
- Westland, J. C. 2025. Review valence impact on jello shot sales. *Journal of Marketing Analytics*. <https://doi.org/10.1057/s41270-025-00412-8>.

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