

# Chapter 13

## The Features of AI in Modern Business

**Wasin Alkishri**

 <https://orcid.org/0000-0003-0833-5633>

*Arab Open University, Oman*

**Mahmood Al-Bahri**

*Sohar University, Oman*

**Jabar H. Yousif**

*Sohar University, Oman*

**Eimad Abusham**

*Sohar University, Oman*

**Yousuf Al Husaini**

 <https://orcid.org/0000-0002-8516-1641>

*Arab Open University, Oman*

### **ABSTRACT**

*Artificial intelligence (AI) is transforming the technology industry, reshaping business operations, competition, and growth. This chapter explores AI's diverse applications, from enhancing operational efficiency to revolutionizing customer service, decision-making, and innovation. AI processes vast amounts of data, uncovering patterns and generating actionable insights. Predictive analytics helps businesses anticipate customer behavior, market trends, and operational challenges. AI-driven automation reduces costs and frees human resources for creative roles, boosting productivity. Customer engagement has evolved with AI tools like chatbots, virtual assistants, and recommendation engines, enabling personalized interactions and marketing. However, challenges such as ethics, data privacy, and workforce upskilling remain. Businesses must balance AI adoption with transparency and accountability to drive sustainable growth and competitiveness.*

DOI: 10.4018/979-8-3373-0608-7.ch013

## I. EXECUTIVE SUMMARY

Artificial intelligence (AI) has emerged as a transformative force in the technology industry, reshaping the way businesses operate, compete, and grow in the modern world. This chapter debates AI's diverse features and its applications, which have turned into indispensable parts of modern business practices. Starting from operational efficiency, AI has emerged to revolutionize customer service and has become the cornerstone of innovation, decision-making, and value creation across industries. Business integration of AI is characterized by the capability of processing and analyzing a large volume of data, discovering patterns, and creating actionable insights. Nowadays, predictive analytics powered by AI is utilized by businesses to anticipate customer behavior, market trends, and operational challenges, and to make informed strategic decisions. AI-driven automation has streamlined many repetitive and manual tasks, helping organizations cut down on costs and unlock human resources for high-value, creative roles. This approach has formed a new standard in productivity and operational excellence by implementing automation with augmentation.

Customer engagement has been profoundly transformed with AI tools like chatbots, virtual assistants, and recommendation engines. These systems provide real-time, personalized interactions that boost customer satisfaction and loyalty. AI's ability to analyze sentiment and predict customer needs has enabled businesses to create personalized marketing campaigns, fostering deep connections with their target audience in a short time while maintaining confidentiality. AI in supply chain management enhances logistics, powers demand forecasting, facilitates on-time delivery, reduces wastage, and optimizes utilization. Such capabilities are highly useful to industry verticals like e-commerce and retail to improve their inventory management and drive sales growth. Besides, AI has also become pivotal in cybersecurity through the detection and prevention of potential threats in real-time and the protection of sensitive business and customer data.

This chapter also highlights how AI fosters innovation by facilitating rapid prototyping, generative design, and idea generation. This, from a business perspective, means shorter product development cycles and a fast response to ever-changing market demands. The scalability of AI solutions ensures that they will be effective whether the enterprise is operating on a small or large scale, thereby democratizing tools traditionally only within reach of very large organizations.

This is not to say that AI does not have its challenges for modern businesses. Ethical issues surrounding the technology, data privacy, and the need to upskill the workforce—all compete for equal attention. Thus, businesses need to strike a balance between leveraging AI capabilities and maintaining transparency, fairness, and accountability in operations. This chapter shows how AI, through its automation, data analytics, personalization, security, and innovation capabilities, among others, has transformed modern businesses. By adopting AI responsibly, organizations can unlock unprecedented opportunities that will ensure they lead in growth and agility, and increase competitiveness and technology-driven innovation. This extensive exploration is needed to provide readers with a critical understanding of the features of AI and its implications for modern businesses, thus laying the foundation for informed adoption and sustainable innovation.

32 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:  
[www.igi-global.com/chapter/the-features-of-ai-in-modern-business/379387](http://www.igi-global.com/chapter/the-features-of-ai-in-modern-business/379387)

## Related Content

---

### Driving IT Architecture Innovation: The Roles of Competing Organizational Cultures and Collaborating Upper Echelons

Sibylle Mabry (2010). *International Journal of E-Adoption* (pp. 1-18).

[www.irma-international.org/article/driving-architecture-innovation/44959](http://www.irma-international.org/article/driving-architecture-innovation/44959)

### Examining e-Adoption of Agricultural Systems by Farmers in Central Nigeria

Kenneth David Strang, Narasimha Rao Vajjhalaand Nankyer Sarah Bitrus (2019). *International Journal of E-Adoption* (pp. 31-40).

[www.irma-international.org/article/examining-e-adoption-of-agricultural-systems-by-farmers-in-central-nigeria/234295](http://www.irma-international.org/article/examining-e-adoption-of-agricultural-systems-by-farmers-in-central-nigeria/234295)

### E-Commerce: The Influence of Hedonic and Utilitarian Motivations on Generations X, Y, and Z

Ana Pinto de Limaand Nicolau Almeida Monteiro (2022). *Impact of Digital Transformation on the Development of New Business Models and Consumer Experience* (pp. 129-148).

[www.irma-international.org/chapter/e-commerce/299774](http://www.irma-international.org/chapter/e-commerce/299774)

### Applying the AHP Model to Explore Key Success Factors for High-Tech Startups Entering International Markets

Yi-Fen Chen, Chia-Wen Tsaiand Hsiu-Jung Liu (2019). *International Journal of E-Adoption* (pp. 45-63).

[www.irma-international.org/article/applying-the-ahp-model-to-explore-key-success-factors-for-high-tech-startups-entering-international-markets/223145](http://www.irma-international.org/article/applying-the-ahp-model-to-explore-key-success-factors-for-high-tech-startups-entering-international-markets/223145)

### An Efficient and Simple Algorithm for Matrix Inversion

Ahmad Farooqand Khan Hamid (2010). *International Journal of Technology Diffusion* (pp. 20-27).

[www.irma-international.org/article/efficient-simple-algorithm-matrix-inversion/41011](http://www.irma-international.org/article/efficient-simple-algorithm-matrix-inversion/41011)