



A STUDY OF REAL ESTATE BUSINESS THROUGH E-COMMERCE AND ITS DAY-TO-DAY CHALLENGES

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ABSTRACT

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The digitalization of industries has significantly transformed the real estate sector, primarily through the integration of e-commerce platforms. This review paper examines the evolution of real estate practices via e-commerce, analyzes the day-to-day operational challenges, and outlines potential future research directions. While the convenience and reach of online platforms have enhanced customer experience and market transparency, they have also introduced complexities such as data security, platform usability, and regulatory compliance. A series of conceptual models are presented to provide a visual framework for understanding the transformation and challenges of e-commerce in real estate.

INTRODUCTION

The real estate industry has traditionally relied on in-person interactions, property visits, and complex legal documentation. However, with the rise of digital platforms and e-commerce technologies, the dynamics of real estate transactions have shifted dramatically. E-commerce has made property searches, price comparisons, and transaction finalizations more accessible to a global audience. The pandemic accelerated the need for digital solutions, prompting stakeholders to adopt platforms that offer virtual tours, digital payments, and document e-signing features (Kok et al., 2021). The digitization not only meets customer expectations for convenience and speed but also expands market reach and operational scalability for real estate professionals.

E-Commerce in Real Estate: An Overview

E-commerce in real estate refers to the use of digital platforms to facilitate buying, selling, renting, and managing properties. Websites and mobile apps enable users to view high-definition photos, 360-degree virtual tours, and compare property features from any location. Digital payment gateways and cloud-based document storage allow for seamless financial and legal transactions (Xie et al., 2022).

Key Features Include:

- Property listing platforms (e.g., Zillow, MagicBricks)
- Virtual and augmented reality tools for tours
- AI-enabled recommendation engines

- Digital document management systems
- Secure online payment integrations

Day-to-Day Challenges in E-Real Estate

Despite these advancements, real estate e-commerce faces numerous operational hurdles that affect stakeholders daily.

Data Security and Privacy

The volume of sensitive information handled through online transactions—including personal IDs, financial data, and legal documents—makes platforms prime targets for cyberattacks. Developers must implement advanced encryption, two-factor authentication, and routine audits to mitigate risks (Lee & Lim, 2020).

Digital Literacy and Usability

Platform complexity can alienate certain user demographics. Especially in developing regions, limited access to high-speed internet or lack of familiarity with digital interfaces poses a challenge (Chakraborty et al., 2020). User-centric design and inclusive training programs can enhance adoption.

Regulatory and Legal Constraints

Legal compliance varies widely by jurisdiction. For instance, digital signatures may not be valid in certain regions, or zoning laws may limit what information can be disclosed online (Morris & Young, 2019).

Market Transparency and Information Overload

Excessive or poorly structured information may confuse users. Many platforms focus on quantity over quality, leading to decision fatigue or misinformation (Zhou et al., 2021).

Technological Enablers and Innovations

Artificial Intelligence (AI)

AI assists in automating customer support, price prediction, and lead qualification. Chatbots can handle routine queries, while machine learning algorithms tailor property suggestions based on user behavior (Li & Wang, 2021).

Blockchain

This technology enhances trust by enabling secure, tamper-proof records of ownership, transaction histories, and smart contracts. It minimizes fraud and reduces transaction time (Tan et al., 2020).

Virtual Reality (VR) and Augmented Reality (AR)

VR allows potential buyers to explore properties virtually, saving time and travel costs. AR can enhance in-person visits by overlaying renovation ideas or furnishing options on real structures.

Future Research Directions

To further improve the integration of e-commerce in real estate, future research should examine:

Cross-Border Transactions

Globalization enables international investments. Research is needed on how platforms cater to international buyers, including language translation, currency conversion, and legal intermediation.

Ethical Use of AI

AI raises concerns about data privacy, discrimination, and algorithmic bias. Studies should explore frameworks to govern responsible AI use in property platforms.

Sustainable Digital Real Estate

Digital real estate operations also have an environmental impact due to energy-intensive servers and data centers. Research can explore green alternatives.

User Behavior Analytics

Understanding how users interact with platforms—click paths, bounce rates, and conversion funnels—can help optimize UX and marketing strategies.

CONCLUSION

E-commerce is reshaping the real estate sector by enabling faster, broader, and more convenient transactions. However, this transformation is not without its challenges. Stakeholders must address cybersecurity, usability, legal compliance, and technological ethics to fully leverage the benefits of digital platforms. With targeted research and strategic innovation, e-commerce can enhance the resilience, inclusivity, and efficiency of the global real estate industry.

Conceptual Model 1: E-Commerce Integration in Real Estate

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Conceptual Model 2: Day-to-Day Challenge Framework

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Conceptual Model 3: Tech Enablers in Real Estate E-Commerce

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Conceptual Model 4: Future Research Roadmap in E-Real Estate

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Conceptual Model 5: End-to-End Digital Real Estate Ecosystem

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