GREEN MOBILE COMMERCE ADOPTION IN VIETNAM: OPPORTUNITIES, CHALLENGES

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ABSTRACT

Green mobile commerce, or green m-commerce, has emerged as a competitive alternative for online shoppers due to the quick development of mobile technology and growing environmental concerns. Eco-friendly practices are being incorporated into mobile commerce (M-commerce) more and more as environmental concerns grow globally. The potential and difficulties of introducing green mobile commerce in Vietnam—a nation with a high smartphone penetration rate and rising environmental consciousness—are examined in this article. The study highlights current problems like inadequate infrastructure, low environmental literacy, and a lack of green consumer behavior while discussing the forces of technology, society, and regulations. Recommendations for businesses, academics, and political decision-makers to support a sustainable digital economy are included in the paper's conclusion.

Keywords: Mobile commerce, green m-commerce, digital transformation, sustainability.

1. INTRODUCTION

Vietnam's electronic commerce (EEC) continues to grow impressively, averaging 18-25 percent per annum. The size of the e-commerce market exceeded $25 billion in 2024, a 20 percent increase from 2023, and represents about 9 percent of total retail sales of goods and revenues from consumer services at national level. Vietnam has seen rapid growth in mobile users in recent years and is considered to be one of the fastest growing countries in the world for smartphones.

Approximately 70 percent of Vietnamese people, or over 70 million people, used smartphones in 2023. Vietnam had a 79.1 percent internet penetration rate as of early 2024, with 78.44 million internet users. By early 2024, Vietnam had 168 million mobile connections, or 169.8% of the country's total population [1]. With the advent of 3G, 4G, and soon to be 5G packages, mobile internet has become widely available, which has encouraged the use of mobile apps for online shopping. In Vietnam, the number of mobile broadband subscriptions increased by 10% from 2023 to 2024, reaching 94 per 100 residents [2]. Vietnam's internet user base is also expected to grow steadily between 2024 and 2029, surpassing 100 million users by that year [3].

Businesses are increasingly investing in mobile app development with user-friendly interfaces and convenient features in order to support users' shopping activities through the use of e-commerce applications. Vietnam has advanced digitally, as evidenced by the fact that, as of February 2025, 80 million of its 100 million inhabitants were online. The

widespread use of smartphones has fueled this development, with the majority of Vietnamese users relying on their phones as their main internet access device [4].

2. LITERATURE REVIEW

2.1. The concept of mobile commerce

The mobile commerce (m-commerce) model is a concept that is gradually becoming popular along with the emergence and development of smartphones and mobile devices. By using wireless devices that support network connectivity and online transactions, the mobile e-commerce model has experienced strong growth [5].

M-commerce involves the use of wireless devices such as mobile phones, smartphones, and PDAs, along with wireless networks, to access information and conduct transactions that add value through the exchange of information, goods, and services [6]. M-commerce refers to conducting any transaction, involving the transfer of ownership or rights to use goods and services, which is initiated and/or completed by using mobile access to computer-mediated networks with the help of an electronic device [7].

M-commerce, also known as mobile commerce, is an online channel for selling and purchasing goods, services, and information via smartphones, tablet PCs, iPads, and laptop computers that use wireless technology [8]. Mobile commerce can be viewed as the next generation of e-commerce that allows consumers to perform many, if not all, transactions that can be carried out through traditional desktop e-commerce. It offers consumers convenient, always-available access to products and services, regardless of time or location. This also benefits online businesses, as they now have near-constant access to a large number of mobile users [9].

The development of an m-commerce business starts from the premises of the pre-existence of a relatively sophisticated infrastructure of networks, servers and mobile devices capable of interconnecting databases, security applications, search engines, electronic catalogues, electronic shopping carts and applications for electronic payment processing [10].

Therefore, M-commerce, a term derived from e-commerce, focuses on the ability to buy, sell, advertise, and conduct business activities while on the move. Technology enabling such activities is constantly evolving. Initially associated with laptops, mobile commerce is now mainly linked to smartphones and tablets. Recently, businesses have also had the opportunity to track mobile commerce via smart watches and smart glasses. Therefore, the main criterion that define a process as mobile commerce is the ability to use wireless devices for business transactions while on the move.

2.2. Green mobile ecommerce

Green consuming behavior is a complicated concept, including the overall decisions related to the collection, consumption and elimination, services and time [11]. Researching in this field not only focuses on capturing the psychology and decision-making process of consumers, but also to impact on the cost, which helps businesses increase their markets and achieve sustainable development. Specifically, the behavior of consumers through the search, purchase, use, evaluation and removal of products and services to meet their needs.

Green consuming behavior is a conscious decision-making process of consumers about the purchase of environmental and environmental products and services, considering the solid and ecological factors [12]. Green consumption refers to consumption behaviors that

reduce environmental pressure, including buying cars with lower energy consumption, choosing public transportation, saving water, and supporting recycling of product packaging, etc. [13].

In recent years, the integration of sustainability into mobile commerce (m-commerce) practices has gained significant attention. Green m-commerce adoption refers to the implementation of environmentally friendly strategies within mobile commerce platforms, including energy-efficient app design, eco-friendly packaging, sustainable logistics, and digital payment systems that reduce paper and plastic use.

2.3. Characteristics and limitations of M-commerce devices

According to [14], mobile commerce has several distinct characteristics and limitations:

First, mobile devices tend to have limited storage capacity. A typical smartphone or tablet possesses less than 10% of the storage space available on desktop or laptop computers.

Second, mobile devices are equipped with significantly smaller display screens to enhance portability. This requires that websites, applications, and mobile commerce platforms be specifically designed to accommodate smaller screen sizes while maintaining essential usability.

Third, mobile devices are expected to operate on battery power for extended periods. This feature is critical for the devices to be considered truly mobile. However, prolonged and continuous use of processing power can rapidly drain the battery.

Fourth, mobile devices have limited processing capacity and RAM (Random Access Memory). These devices are not equipped to handle heavy computational tasks like desktop or laptop computers. Their processors are designed to be self-cool without fans, allowing devices to remain thin and conserve battery life. As a result, many traditional software applications cannot run efficiently on mobile devices.

Fifth, internet traffic via mobile devices is constrained by the fact that many users rely on mobile networks. Although newer generations of smartphones and tablets are optimized to handle faster internet traffic, including 5G speeds or up to 100 GB per second, both devices and networks still face limitations in handling large-scale data transmission.

Sixth, mobile operating systems are intentionally designed to be lightweight, minimizing the use of processors and RAM. While this enhances energy efficiency, it also reduces the availability of advanced tools and options typically found on desktop or laptop systems.

Finally, mobile devices are equipped with a wide range of features not traditionally found on desktop or laptop computers, such as high-resolution cameras, Global Positioning Systems (GPS), Near Field Communication (NFC), SMS messaging, calling capabilities, and access to vast app libraries through mobile app stores.

2.4. The Unified Theory of Acceptance and Use of Technology (UTAUT)

In today's rapidly evolving technological landscape, the acceptance of new technologies has emerged as an important area of study. As various aspects of daily life become increasingly shaped by new technology, it is vital to comprehend how users embrace and adopt these innovations. This necessity has led to the creation of numerous theoretical frameworks that are essential for explaining user acceptance. Notable among these are the Technology Acceptance

Model (TAM) established by Davis in 1989, the Theory of Planned Behavior (TPB) proposed by Ajzen in 1991, the Innovation Diffusion Theory (IDT) introduced by Rogers in 1962, and the Unified Theory of Acceptance and Use of Technology (UTAUT) developed by [15]. The UTAUT is particularly distinguished as it combines critical elements from existing models to deliver a robust framework for understanding how users accept technology.

Even though the studies have developed the ideas and advantages of mobile commerce. To determine the elements influencing the use of e-commerce appropriate for each situation, it is crucial to synthesize overview and experimental research.

3. METHODOLOGY

This study belongs to the hermeneutics class. This study uses secondary data and qualitative analysis techniques. International journals and textbooks are reviewed and analyzed by the author to find out the characteristics and limitations of mobile commerce, thereby giving opinions for discussion and recommendations.

4. RESULTS

4.1. Mobile platform business in Vietnam

According to VECOM (2024), 19% of surveyed enterprises reported having developed mobile versions of their websites. Among them, large enterprises have a significantly higher adoption rate compared to SMEs. Furthermore, 20% of surveyed enterprises also stated that they have applications for selling products on mobile devices. This rate is significantly higher for large enterprises compared to SMEs. The report shows that the average time customers spend per visit on mobile e-commerce websites or mobile e-commerce applications is mostly under 10 minutes, and 47% of enterprises reported having functionality that allows buyers to complete the entire shopping process through a mobile app, and 43% allow it through a mobile website version. 37% of enterprises have implemented promotional programs specifically for customers who use mobile e-commerce applications to purchase their products.

4.2. Forms of website and mobile app advertising

Social networks (Facebook, Instagram, Zalo, etc.) have remained the primary tool used by enterprises for advertising. Specifically, according to the 2023 survey data, 54% of participating enterprises with websites/mobile applications stated that they advertised their channels through social networks. This is followed by advertising on search engines such as Google, Bing, and Yahoo (accounting for 27%). Additionally, 24% of enterprises reported not engaging in advertising activities yet. Moreover, Social networks are still considered the most effective channel for selling goods and services through online channels (34% of enterprises highly rate the effectiveness achieved through social networks). Channels such as e-commerce platforms, websites, and mobile applications also deliver relatively good effectiveness, with rates of high evaluation from enterprises at 23%, 24%, and 23% respectively [1].

4.3. Factors influence the implementation of M-commerce

M-commerce offers almost continuous access to many mobile device users. This study integrates key factors into the Technology Acceptance Model, including perceived security, subjective norms, innovativeness, and self-efficacy. The results show that both self-efficacy and innovativeness positively influence perceived ease of use, which in turn significantly affects perceived usefulness. Furthermore, subjective norms, perceived ease of use, perceived usefulness, and perceived security have a positive relationship with users' intention to use M-commerce [9]. While [16] showed that perceived usefulness, perceived ease of use, trust, cost, and privacy are statistically significant factors influencing m-commerce adoption. Several limitations of m-commerce include small screen design that limits product display, lack of standardized security protocols, environmental factors that affect device performance, high power consumption, and potential health risks such as explosion or electromagnetic exposure [17]. M-commerce represents a significant advancement in internet commerce; trust remains a major barrier to its adoption and development. Their study focused on building a conceptual framework to identify and explain the development of trust in m-commerce using the means-end chain theory [18].

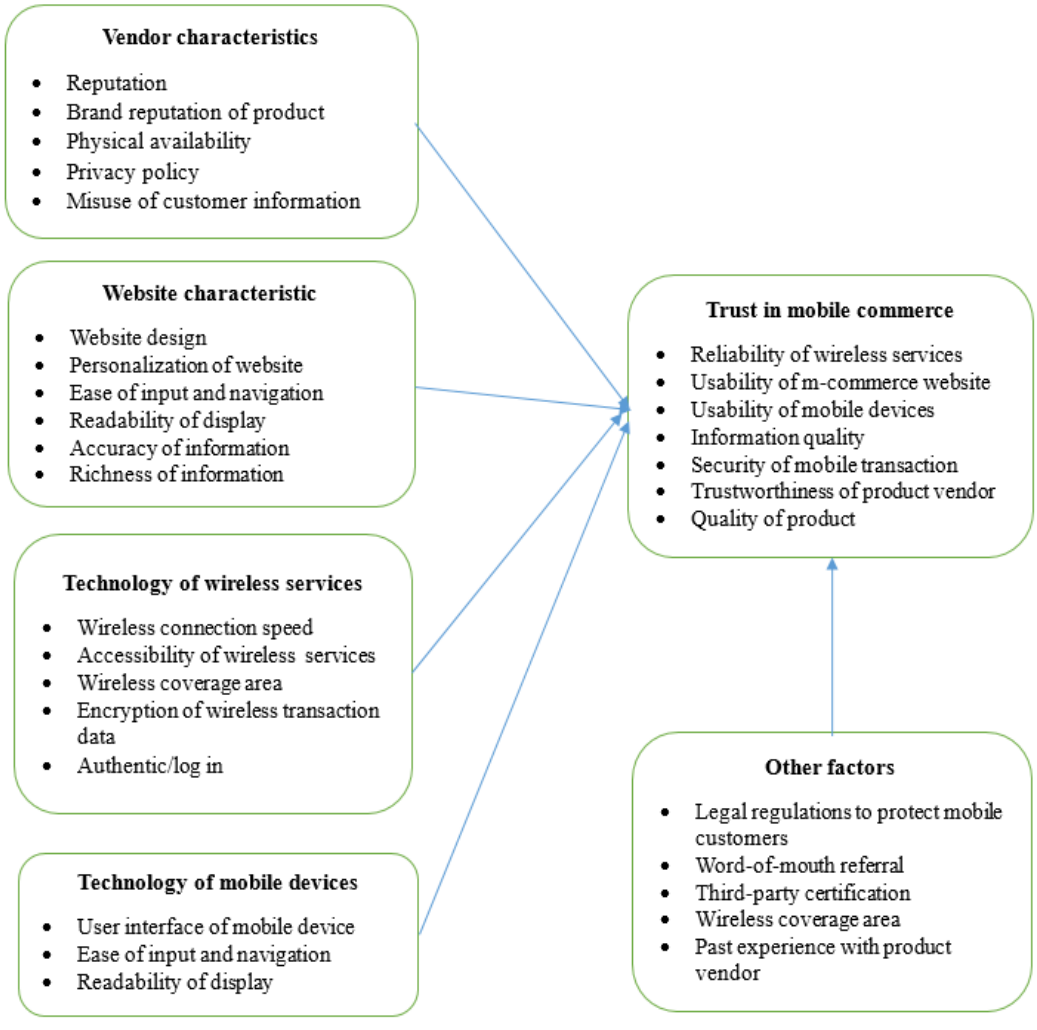

Figure 1. Proposed framework for trust in mobile commerce [18]

According to [19], there are six sets of factors' effects on the specific steps taken by SMEs in Romani to implement m-commerce. The study concluded that the environmental and competitive pressure factor is the most positive influence on the dependent variable of m-commerce implementation, followed by employee IT skills. Furthermore, the study found that the following factors had a positive impact on the dependent variable when it came to m-commerce implementation: perceived direct benefits; government and management support; elements related to m-commerce transaction security; the availability of adequate information technology resources to carry out m-commerce activities; customer pressure; and market consulting, design, and development of electronic information.

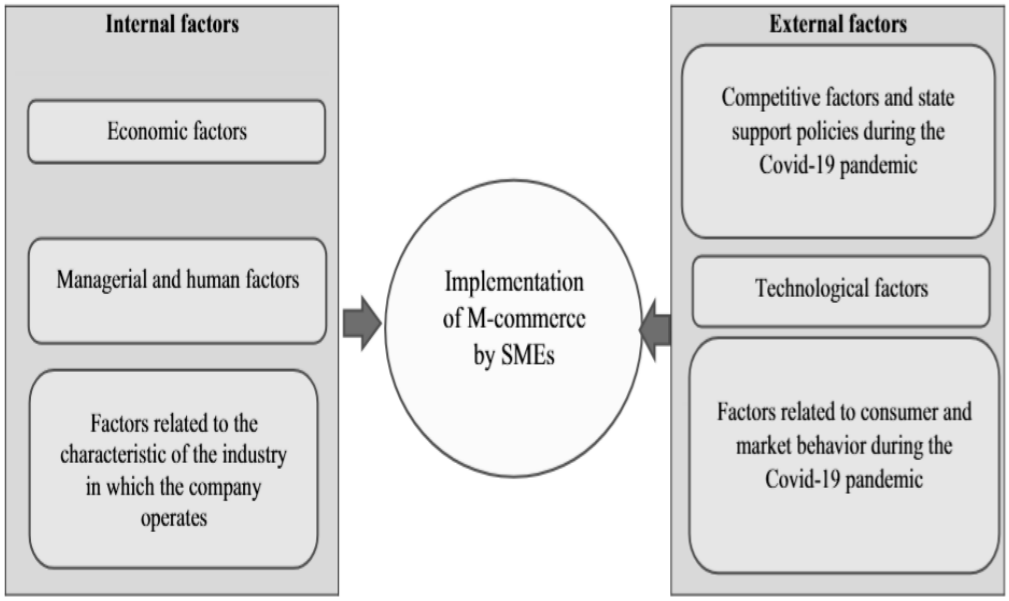

Figure 2. Factors influencing the implementation of m-commerce by Romanian SMEs [19]

The research of [20] shows that India appears to be leading the transition from e-commerce to mobile commerce adoption. Mobile apps and websites are offered in various sectors of health, travel, shopping, ticketing, and lifestyle, promising tremendous opportunities for consumers and businesses. This study identifies the key factors that influence e-commerce transaction decisions and explains their relevance. The significant censorship impact of demographics and types of mobile commerce services, namely banking, ticketing, and shopping, is analyzed on user behavioral intent in a single framework. The data collection was done through a questionnaire that asked respondents to describe their behavior in their most recent online transactions in terms of UTAUT model aspects in three specific areas: m-banking, m-ticketing, and m-shopping. The structured equation model has been used to analyze the causal relationship between variables. The significance of the study will help to understand the factors that influence the adoption of various e-commerce services by consumers in India. However, this study only discussed a few of the UTAUT variables, which may not be able to explain all aspects of m-commerce adoption such as cultures, psychological and technical dimensions such as facilitating conditions, stress, habit, trust, security, quality, enjoyment and other essential elements of user's behavioral intention.

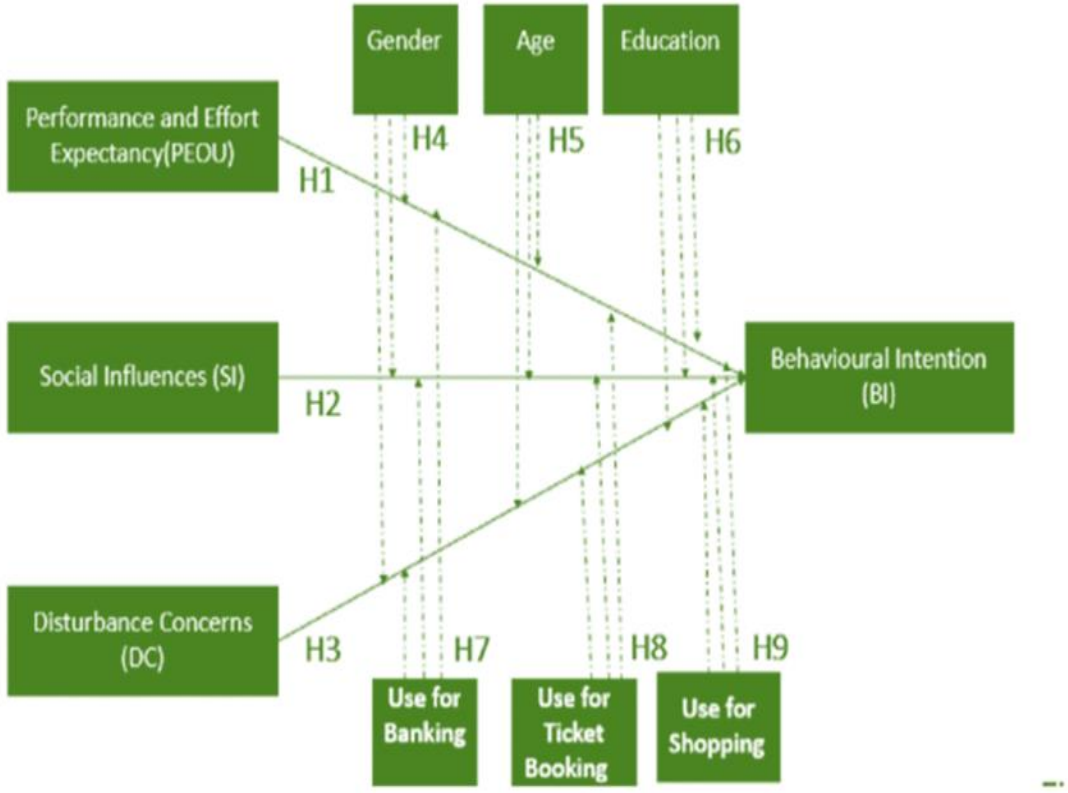

Figure 3. Factors affecting intent to use mobile commerce services in India [20]

The mobile commerce firms have boosted green innovation through the development of green training and green supplier development programs. The four independent types of variable structures that have an impact on the development of green innovation in mobile commerce firms were distinguished. The four categories of construction are (1) business environmental factors, (2) green training, (3) green supplier development, and (4) technological factors [21].

In Vietnam, a conceptual framework for examining the key factors influencing Vietnamese SMEs' adoption of m-commerce presented by [22]. The suggested framework was created after a thorough analysis of the relevant literature on organizational M-commerce adoption studies. It is possible to analyze the current trends of m-commerce adoption in Vietnamese SMEs, identify the key factors that influence m-commerce adoption in Vietnamese SMEs, and discuss specific recommendations for enhancing m-commerce adoption in Vietnamese SMEs within this suggested framework. Particularly in the context of developing nations, the suggested framework advances knowledge of SMEs' adoption of m-commerce.

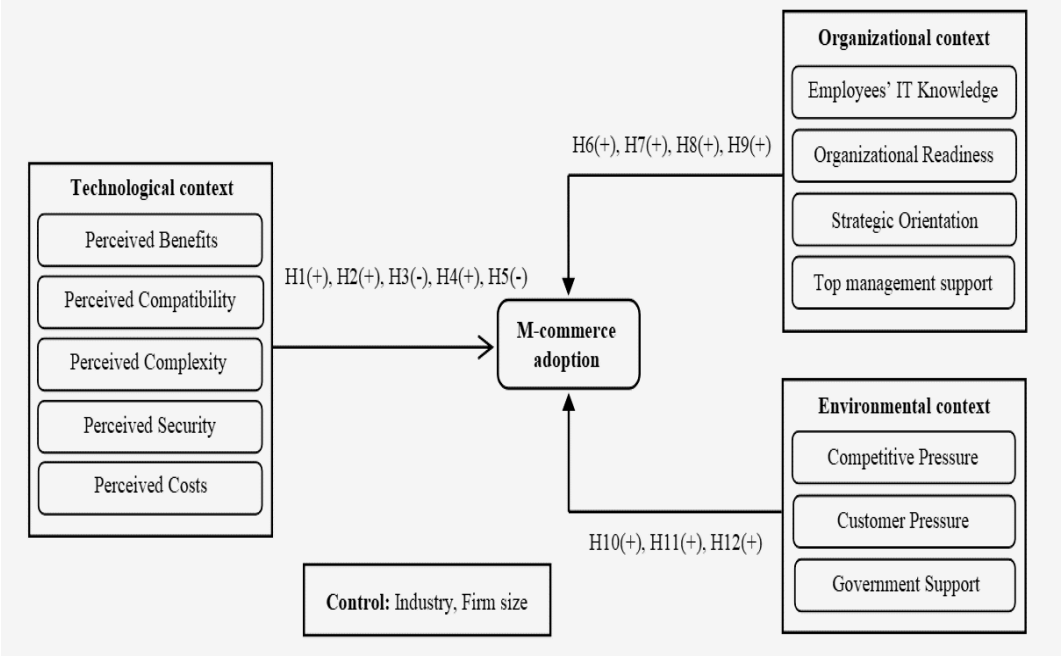

Figure 4. A conceptual framework for mobile commerce adoption in Vietnamese SMEs [22]

5. THE SWOT ANALYSIS FOR GREEN M-COMMERCE IN VIETNAM

SWOT analyses are strategic planning methods used to assess strengths, weaknesses, opportunities and threats in a project or business. It identifies internal and external factors which are favorable or unfavorable to the achievement of this objective. The SWOT analyses of m-commerce to identify its weaknesses and threats so that more research can be motivated and more successful in driving m-commerce.

5.1. Strengths

- Strong growth of e-commerce.
- Government support.
- Increasing environmental awareness.
- Vietnam's strong commitment to the 2030 Agenda for Sustainable Development, with a national action plan and a roadmap to implement the Sustainable Development Goals (SDGs) by 2030.
- The national strategy for green growth (2021–2030, vision to 2050) and action plans emphasize the development and improvement of environmental protection institutions and policies.

5.2. Weaknesses

- Underdeveloped technological infrastructure.
- Limited awareness of green mobile commerce.
- Challenges in managing and protecting personal information.
- High operational and investment costs (logistics, marketing, technology, websites, and mobile apps).

- Diversity of mobile device types and differences in user interfaces require flexibility and in-depth technical knowledge.

5.3. Opportunities

- For businesses, mobile commerce also opens opportunities to reach many potential customers from social networking channels, especially young people - a group with a high rate of smartphone and mobile internet use.
- Potential for international cooperation.
- Growing public awareness and education on sustainability.
- Continuous upgrades in mobile technologies and features enhance the mobile shopping experience.
- Artificial Intelligence (AI) and Big Data are being used to personalize shopping experiences and suggest products based on user preferences and behavior.

5.4. Threats

- Competition from traditional e-commerce platforms.
- Rapid technological changes.
- Difficulties in maintaining long-term sustainability.
- Security and privacy concerns are critical issues in mobile commerce.
- Cost challenges affecting website/app operation, including logistics investment, customer acquisition (marketing, promotions), and technology development.

As a result of robust government backing, a burgeoning e-commerce industry, and rising environmental consciousness, green mobile commerce adoption in Vietnam offers a promising route to sustainable economic growth. To fully realize its potential, however, issues like a lack of robust technology infrastructure, high operating costs, and data privacy concerns must be resolved. Through the utilization of opportunities such as international collaboration, AI-powered personalization, and mobile technology advancements, Vietnam can establish itself as a pioneer in environmentally conscious digital commerce. The long-term viability of green mobile commerce initiatives will depend on stakeholder collaboration and strategic planning to overcome threats.

6. DISCUSSION AND CONCLUSION

In the context that the world is aiming for sustainable green growth and striving to use environmentally friendly solutions, limiting climate change, not only the agricultural sector but all other sectors such as industry, services, trade, etc. have shifted their priorities to green production models and methods.

Currently, the growth of m-commerce is considered an inevitable evolution of e-commerce and is gradually becoming a major trend in Vietnam, driven by the strong increase in smartphone ownership and the number of internet users. However, to capitalize on these opportunities, businesses must address challenges related to competition, security, and technical infrastructure.

M-commerce is not the same as a commercial website. Despite the variations between the online and mobile experiences, the brand and customer service guidelines are still clear. Consequently, businesses must consider developing new products. Current customers must come first for business. The reason for this is that these clients are readily convinced to

download the m-commerce app. However, encouraging people to install apps is one thing; keeping them to continue using them is quite another. Thus, efficient supply chains and sales operations are essential for assisting customers in making profitable purchases and maintaining their loyalty. Additionally, shopping channels are integrated rather than distinct in the digital mobile market. This requires companies to develop real-time integration for both their mobile applications and sales websites.

In mobile commerce, privacy and security concerns are vital. Personal information leaks and cyber-attacks can cause serious harm to both consumers and businesses. Businesses and e-commerce platforms must thus make security investments and follow data protection laws when deploying mobile commercial applications. However, this means that companies must spend a lot of money on safeguards for the commercial information system. Additionally, companies must update their mobile applications frequently to guarantee that customers have a positive shopping experience. As a result, operating costs significantly affect how efficiently the business operates.

With several bank payment applications, electronic payment methods are becoming increasingly popular. Consumers are still wary of this payment method's security and convenience, though. Furthermore, there are still a lot of shortcomings that have not been fixed, and the management of the financial aspect is not comprehensive or consistent, particularly in the cross-border electronic payment transaction. Online payment is a crucial prerequisite for e-commerce on mobile applications to advance. To achieve this, specific agents and actions should be taken to progressively alter consumer awareness and payment habits regarding non-cash payments.

Legal regulations pertaining to e-commerce in general and mobile commerce in particular must be finished quickly to satisfy the demands of e-commerce development in the context of the Industrial Revolution 4.0. To facilitate, encourage, and support e-commerce activities on mobile applications, it is imperative that policies and legal documents be reviewed, supplemented, and improved upon. As of right now, Vietnam does not have an e-commerce law. This results in numerous shortcomings in the way mobile commerce is managed, particularly regarding the safety of consumer communications. As a result, consumers' use of mobile commerce is still not entirely secure.

Future studies should examine how consumers behave in green m-commerce or evaluate how government regulations affect their uptake. Buying eco-friendly products and staying away from items that damage the environment are known as "green purchasing" in m-commerce. Additionally, it's important to pinpoint the main drivers, enablers, and obstacles influencing consumers' decisions to buy eco-friendly goods or mobile apps and offer potential justifications for discrepancies in green buying patterns.

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REFERENCES

1. VECOM - Vietnam E-Business Index (EBI) 2024. https://vecom.vn/bao-cao-chi-so-thuong-mai-dien-tu-viet-nam-ebi-2024
2. Ministry of Science and Technology (MST) Portal - Vietnam to hit 100 million Internet users by 2029. https://english.mic.gov.vn/vietnam-to-hit-100-million-internet-users-by-2029-197241129085702984.htm

3. Ministry of Science and Technology (MST) - Vietnam's internet future promises many breakthroughs thanks to new technology (2024). https://mic.gov.vn/tuong-lai-internet-viet-nam-hua-hen-nhieu-dot-pha-nho-cong-nghe-moi-197241226094328104.htm
4. Minh-Ngoc Nguyen - Ownership of devices among internet users in Vietnam in 2024, by device (2025). https://www.statista.com/statistics/804059/digital-device-usage-among-adults-by-device-vietnam/
5. Tran Thi Thap, Nguyen Tran Hung - Basic E-commerce. Information and Communications Publishing House 2020.
6. Sadi, A.H.M. Saifullah and Noordin, Mohamad Fauzan - Factors influencing the adoption of m-commerce: an exploratory analysis. In: 2011 International Conference on Industrial Engineering and Operations Management (2011), Kuala Lumpur, Malaysia.
7. Khalifa, M., Cheng, S. K. N. & Shen, K. Ning. - Adoption of mobile commerce: A confidence model. Journal of Computer Information Systems **53** (2012) 14-22. https://ro.uow.edu.au/dubaipapers/197
8. Laudon, K. C., & Traver, C. G. - Electronic Commerce 2016: Business. Technology. Society (12th Edition). Boston: Pearson Education Inc., 2016, 26-36.
9. Mollick, J.; Cutshall, R.; Changchit, C.; Pham, L. - Contemporary mobile commerce: Determinants of its adoption. J. Theor. Appl. Electron. Commer. Res **18** (2023) 501-523. https://doi.org/10.3390/jtaer18010026
10. Eliza Nichifor, Adrian Trifan & Elena Mihaela Nechifor - Artificial Intelligence in Electronic Commerce: Basic Chatbots and Consumer Journey, the Amfiteatru Economic Journal, Academy of Economic Studies - Bucharest, Romania **23** (56) (2021) 1-87.
11. Sheth, Jagdish. New areas of research in marketing strategy, consumer behavior, and marketing analytics: the future is bright. Journal of Marketing Theory and Practice **29** (2012) 1-10. https://doi.org/10.1080/10696679.2020.1860679
12. Venkatesh, Viswanath and Thong, James Y.L. and Xu, Xin - Unified theory of acceptance and use of technology: A synthesis and the road ahead (May 1, 2016). Journal of the Association for Information Systems **17** (5) (2016) 328–376. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2800121
13. Kazdin AE. Psychological science's contributions to a sustainable environment: Extending our reach to a grand challenge of society. American Psychologist **64** (5) (2009) 339. https://doi.org/10.1037/a0015685
14. Safieddine F. - M-Commerce. In S. Kadry, and A. El-Hami (Ed.), Innovations in E-Systems for Business and Commerce. London, UK. CRC Routledge Publishing. 2016. https://doi.org/10.1201/9781315207353-7
15. Venkatesh, Viswanath & Morris, Michael & Davis, Gordon & Davis, Fred. User Acceptance of Information Technology: Toward a Unified View. MIS Quarterly **27** (2003) 425-478. https://psycnet.apa.org/doi/10.2307/30036540
16. Nassuora, Ayman - Understanding factors affecting the adoption of M-commerce by consumers. Journal of Applied Sciences **13** (2013) 913-918. https://scialert.net/abstract/?doi=jas.2013.913.918
17. Tran Van Hoe - Basic E-commerce. Vietnam National Economics University Publishing House 2007.

18. Siau K., Sheng H., Nah F. - Development of a framework for trust in mobile commerce. SIGHCI 2003 Proceedings **6** (2023). https://aisel.aisnet.org/sighci2003/6
19. Iuga, I.C., Wainberg, D. - Factors that influence the implementation of M-Commerce by Romanian SMEs during the COVID-19 pandemic. Journal of the Knowledge Economy **15** (2024) 4571–4604. https://doi.org/10.1007/s13132-023-01215-x
20. Misra, R., Mahajan, R., Singh, N., Khorana, S. & Rana N.P. - Factors impacting behavioural intentions to adopt the electronic marketplace: findings from small businesses in India. Electronic Markets **32** (2022) 1639–1660. https://doi.org/10.1007/s12525-022-00578-4
21. Dincă VM, Bogdan A, Vasiliu C, Zamfir F. - The influence of Romanian mobile commerce companies on developing green innovation. Sustainability **13** (18) (2021) 10075. https://doi.org/10.3390/su131810075
22. Ngoc Tuan Chau, Hepu Deng - Critical determinants for mobile commerce adoption in Vietnamese SMEs: A Conceptual Framework. Procedia Computer Science **138** (2018) 433-440. https://doi.org/10.1016/j.procs.2018.10.061

TÓM TẮT

THƯƠNG MẠI DI ĐỘNG XANH TẠI VIỆT NAM: CƠ HỘI VÀ THÁCH THỨC

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Do sự phát triển nhanh chóng của công nghệ di động và sự quan tâm ngày càng tăng đến các vấn đề về môi trường, thương mại di động xanh đang trở thành một lựa chọn cạnh tranh cho người tiêu dùng trực tuyến. Lĩnh vực thương mại di động đang áp dụng các thực hành thân thiện với môi trường khi các vấn đề liên quan đến môi trường trở thành mối quan tâm hàng đầu trên toàn cầu. Bài viết này xem xét các cơ hội và thách thức của thương mại di động xanh tại Việt Nam, một quốc gia có tỷ lệ sử dụng điện thoại thông minh cao và nhận thức môi trường ngày càng tăng. Sự thiếu hoàn thiện của cơ sở hạ tầng, sự thiếu hiểu biết về môi trường và sự thiếu phổ biến của hành vi tiêu dùng xanh là một số vấn đề nổi bật hiện nay được nghiên cứu này chỉ ra. Bên cạnh đó, các vấn đề liên quan đến các yếu tố xã hội, công nghệ và chính sách có thể ảnh hưởng đến sự phát triển của thương mại di động xanh tại Việt Nam cũng được thảo luận. Phần kết luận đưa ra một số khuyến nghị đến các doanh nghiệp, giới học thuật và nhà hoạch định chính sách để thúc đẩy nền kinh tế số bền vững tại Việt Nam.

Từ khóa: Thương mại di động, thương mại di động xanh, chuyển đổi số, bền vững.