



**Legal review of e-commerce:
Building sustainable business in the digital era**

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Abstract:

Advances in information technology have facilitated the digitalization of several industries, including trade, by enabling more efficient communication and data exchange. Previous research has shown that the expansion of e-commerce presents legal challenges, particularly in terms of the application of exemption clauses by commercial actors. Therefore, the expansion of digital commerce must be consistent with the principles set out in Law Number 7 of 2014 concerning Trade and Law Number 11 of 2008 concerning Electronic Information and Transactions (ITE), as amended by Law Number 19 of 2016 and Law Number 1 of 2024. Both regulations provide the legal basis that must be implemented to provide fairness and legal certainty in e-commerce transactions. This study takes a normative legal approach and incorporates qualitative legal analysis of relevant legal standards. The research presented provides a critical perspective on the need for appropriate and enforceable legislative restrictions to protect the interests of all parties involved in e-commerce.

Keywords:

E-Commerce, sustainable business, digital era, technology, normative juridical.

Resumen:

Los adelantos en la tecnología de la información han facilitado la digitalización de varios sectores, incluido el comercio, al permitir una comunicación y un intercambio de datos más eficientes. Investigaciones anteriores han demostrado que la expansión del comercio electrónico plantea cuestiones jurídicas, en particular en lo que respecta a la aplicación de

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cláusulas de exoneración por parte de los agentes comerciales. Por lo tanto, la expansión del comercio digital debe ser coherente con los principios establecidos en la Ley n.º 7 de 2014 sobre Comercio y la Ley n.º 19 de 2016 sobre Modificaciones a la Ley n.º 11 de 2008 sobre Información y Transacciones Electrónicas (ITE). Ambas normativas proporcionan los fundamentos jurídicos que deben aplicarse para garantizar la equidad y la seguridad jurídica en las transacciones de comercio electrónico. Este estudio adopta un enfoque jurídico normativo e incorpora un análisis jurídico cualitativo de las normas jurídicas pertinentes. La investigación presente proporciona un punto de vista crítico sobre la necesidad de restricciones legislativas precisas y aplicables para proteger los intereses de todas las partes implicadas en el comercio electrónico.

Palabras clave:

Comercio electrónico, negocios sostenibles, era digital, tecnología, normativa jurídica.

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1. INTRODUCTION

The rapid development of digital technology has transformed global trade through the widespread adoption of e-commerce. The integration of digital platforms into traditional business models has broadened market access, enhanced efficiency, and reshaped customer behavior worldwide. However, this digital transformation also introduces complex legal challenges that affect the long-term sustainability of e-commerce ecosystems. To ensure fair, secure, and sustainable digital markets, comprehensive and adaptive legal frameworks are required to address critical issues such as platform liability, digital contract validity, electronic transaction security, personal data protection, taxation, and consumer rights.

One of the main advantages of e-commerce is its ability to reduce operational costs. For example, reduced distribution costs, savings on human resources for administrative tasks, and reduced need for physical infrastructure such as physical warehouses. In this case, e-commerce contributes to increased operational efficiency, allowing companies to allocate their resources more wisely and focus on activities that add more value. In addition to efficiency, e-commerce also plays a role in increasing business productivity. The automation process integrated into the e-commerce platform enables companies to accelerate various stages of business operations, such as inventory management, payment transaction processing, and customer service. With more efficient and automated management, companies can save time, which in turn increases their productivity (Turban *et al.* 2018).

E-commerce also allows for greater data collecting on consumer behavior, market trends, and marketing campaign efficacy. This data, which was previously impossible to access in traditional business models, may now be used for detailed analysis to assist businesses in making strategic decisions. Consumer transaction data can be utilized to customize product offerings, improve customer experience, and create more targeted and successful marketing tactics. Although e-commerce has numerous advantages, its implementation creates its own set of obstacles. Companies must handle data security concerns, improve payment methods, and manage increased competition. To remain relevant to market developments, organizations must invest in the appropriate IT infrastructure and upgrade their systems (Kotler and Keller 2016).

Legal examinations of e-commerce are crucial for addressing issues such as data verification, intellectual property protection, and user authentication. A study published in the *Electronic Markets* journal, “E-commerce Ecosystems as Catalysts for Sustainability: A Multi-case Examination”, highlights that the rapid expansion of e-commerce requires robust legal frameworks capable of overseeing the multifaceted challenges inherent in digital transactions (Helmer *et al.* 2025). Without clear and enforceable regulations, businesses may become vulnerable to financial disputes, misleading practices, and reputational damage, ultimately undermining their long-term sustainability.

Expert evaluations emphasize the critical significance of legislative frameworks in promoting sustainable e-commerce practices. Shumin Wang, Yincheng Li, and Muhammad Bilawal Khaskheli argue in the *Sustainability* journal (Wang *et al.* 2024) that

implementing novel legal processes is critical to ensuring the long-term development of digital commerce. This viewpoint is consistent with the rising realization that legal infrastructures must evolve with technology advancement in order to successfully support sustainable and resilient business models.

Despite widespread acknowledgment of its significance, the establishment of comprehensive legal frameworks for e-commerce continues to encounter substantial challenges. The rapid evolution of digital markets frequently surpasses the pace of legislative development, resulting in regulatory gaps that undermine effective governance. Moreover, the inherently global nature of e-commerce platforms complicates issues of jurisdiction and enforcement. As highlighted in the *International Journal of Sustainable Development and Planning* (Herbert 2024), inconsistencies in international e-commerce regulations present major obstacles to forming a cohesive and harmonized legal landscape. Overcoming these challenges necessitates coordinated efforts among policymakers, legal scholars, and industry stakeholders to align regulatory approaches and foster sustainable practices in the digital economy.

Tasya Syafiranita further argues that the number of internet users has increased swiftly and dramatically in tandem with the broader changes brought about by the digital transformation period. Advances in information technology have digitized almost every industry, including trade, by making communication and data sharing more convenient. However, these improvements have had severe implications, most notably an increase in cybercrime. As a result, the law is vital in resolving and mitigating these difficulties (Ramli *et al.* 2020).

Another study, conducted by Elina L. Sidorenko, underlines the importance of establishing cohesive, universal, and comprehensive legal safeguards in light of the digital economy's rapid growth. Such frameworks must incorporate effective legal assurances governing the use of digital technology, with the goal of reducing the risks associated with digitalization while justifying the emergence of new tangible and intangible assets. In response, both international organizations and individual nations are working on legal solutions to adapt legislation to the growing usage of new digital technology. However, Sidorenko points out that these approaches still confront substantial hurdles. On the one hand, many proposed plans are sectoral and focus on specific aspects of digitization; on the other hand, some policies prioritize political agendas over a coherent, future-oriented global legal framework (Sidorenko and von Arx 2020).

Previous study on business actors' civil liability to consumers in relation to exoneration agreements in e-commerce suggests that liability provisions in the Indonesian legal system should be clearly regulated. The report underlines the importance of establishing clear and enforceable standards for all parties involved in digital transactions, which will help to develop sustainable business practices in the digital era. A normative legal approach is taken, with data analysed using qualitative juridical approaches.

Cyberlaw is an important example of how the law works in the digital age, particularly in establishing long-term economic structures. This legal review aims to completely explore the regulatory elements controlling the implementation of e-commerce, as well as to provide an analytical viewpoint on how legal instruments might help to develop a sustainable digital business environment. This study uses a critical and regulation-oriented

approach to strengthen the legal foundation of e-commerce in Indonesia, improve consumer protection, increase business certainty, and support the long-term viability of the digital ecosystem in the modern day.

2. RESEARCH METHODOLOGY

This study takes a normative juridical approach with a descriptive-analytical specification. The normative juridical technique is used to investigate the legal norms and laws governing e-commerce in the context of developing sustainable digital business practices. Meanwhile, the descriptive-analytical specification enables the researcher to convey and critically assess secondary legal facts while preserving their substance.

The data used are secondary legal materials, such as e-commerce rules, business regulations, and pertinent e-commerce case studies. These documents were reviewed qualitatively using legal interpretation and a hierarchy-based assessment, taking into account the hierarchy of laws and regulations to guarantee that no legal standards contradicted each other. This analytical technique improves legal certainty and validity in the regulatory framework.

3. RESULTS AND DISCUSSION

Digital transformation has changed the landscape of commerce in Indonesia, particularly through e-commerce platforms that allow consumers to access a variety of digital products such as music, e-books, and streaming services. However, characteristics of digital products that differ from those of physical products, such as limited availability and access, create challenges in consumer protection. The penetration of the internet in Indonesia has reached more than 70%, yet the regulations that exist are insufficient to protect consumers' rights in terms of ownership, access, and use of digital products.

The intangible nature of digital products often causes uncertainty for consumers in terms of ownership and full control. A case in 2021 in Indonesia illustrates this situation, when consumers filed complaints because access to paid streaming content was unilaterally terminated by the platform without adequate notification or solution. This case highlights a gap in regulations that protect consumer rights in the ownership and access to digital products in Indonesia, which differs from the protection afforded to physical products.

In the provisions of Indonesian national law, the Information and Electronic Transactions Law (ITE Law) functions as a legal umbrella that provides a secure and transparent basis for interactions between business actors and consumers in e-commerce transactions. However, alongside rapid technological developments, the legal challenges faced by this regulation have also become increasingly complex. Critical issues such as personal data breaches, online fraud, and other forms of cybercrime indicate that existing regulations must continually be revised and aligned with evolving digital practices. Accordingly, the application of relevant legal principles is essential to evaluate whether the current regulatory framework sufficiently protects stakeholders and supports the development of sustainable e-commerce.

In the digital era, information and communication technology has rapidly developed and transformed various aspects of human activity, particularly in the business sector. This transformation is driven by the ease of access, wider product availability, and competitive pricing offered by online platforms. One of the most significant technological developments in the business field is electronic commerce (e-commerce), which enables business transactions to occur without traditional face-to-face interactions or the use of cash. Instead, sellers are represented through digital systems operating on computer networks, and buyers interact directly with these systems rather than with physical vendors.

E-commerce has significantly enhanced business efficiency, as productivity has become essential in today's digital economy. Prior to the emergence of online transactions, business processes relied heavily on manual work, physical documentation, and in-person communication, all of which were time-consuming and costly. Through e-commerce, however, business transactions can now be conducted more rapidly, securely, and efficiently, resulting in improved operational performance for both consumers and business actors.

However, although e-commerce offers significant advantages, its implementation also presents a number of challenges. Companies are required to address data security issues, strengthen secure payment systems, and cope with increasingly intense market competition. Accordingly, businesses must invest in proper technological infrastructure and continuously update their systems to remain relevant to market demands. At the same time, the advancement of e-commerce has introduced new legal and technological problems, particularly concerning data privacy, cybersecurity vulnerabilities, and unequal access to digital technology. These challenges extend to consumer protection, as not all users possess sufficient knowledge about online transactions. Limited access to secure Internet banking services, low digital literacy, and public unfamiliarity with online trade practices continue to hinder the effective protection of consumers in the e-commerce environment.

However, this digital transformation also introduces challenges concerning consumer rights, privacy protection, data security, product quality, and dispute resolution mechanisms. Ensuring consumer safety is a central aspect of e-commerce, as secure and reliable transactions are fundamental to building consumer trust. In this context, data security plays a crucial role, requiring the implementation of advanced encryption systems and secure multi-party computation technologies to safeguard personal and financial information. Despite the increasing use of these security measures, challenges in consumer protection within the digital environment persist. These include inadequate law enforcement, limited regulatory and institutional resources, and low levels of consumer awareness regarding safe online transactions. Therefore, achieving effective consumer protection in the digital era requires comprehensive policy reform, greater investment in digital security infrastructure, and stronger coordination among regulators, businesses, and consumers.

In the digital business era, consumer-related crimes are not the only legal challenges that develop. Copyright infringement, trademark counterfeiting, and product design imitation are examples of intellectual property breaches that are becoming more common. Although many manufacturers now use e-commerce platforms, fraud and illegal behaviors continue to occur in these digital marketplaces. These issues are exacerbated by ineffective preventative measures, low public awareness, and insufficient consumer and corporate

education, all of which impede early detection and prevention of such crimes. Furthermore, cross-border transactions, technological complexity, and jurisdictional limits all make it difficult to implement laws and defend intellectual property rights in digital contexts. As a result, e-commerce platforms may unwittingly create opportunities for cybercrime and digital fraud to spread. To reduce intellectual property infringement and consumer-related crimes in online transactions, it is necessary to strengthen monitoring systems, improve digital literacy, and improve legal enforcement.

The rise of e-commerce in the digital age has prompted many producers to conduct their operations via online platforms. E-commerce offers convenience, variety, and accessibility by allowing customers to browse, compare, and buy products and services at any time and from any location. In an e-commerce transaction, vendors make offers by exhibiting their goods or services on specifically created websites or platforms intended to attract potential customers. Internet users (netizens) can freely browse these virtual storefronts, compare products, and make purchases based on their needs and interests.

However, one of the most significant concerns confronting these platforms is the growing worry about data security, security breaches, fraudulent activities, product quality issues, and cross-border legal disputes. To overcome these threats, extensive laws and regulations are needed to safeguard consumer privacy and combat cybercrime. Privacy and data security must be addressed, necessitating more robust cyber-security measures. Furthermore, recent e-commerce advances include the introduction of digital payment systems like e-wallets, which provide consumers with a broader range of payment possibilities. Transaction security is enhanced by innovative technological elements that reduce the danger of fraud. Given these possible concerns, consumer protection in the digital age becomes an absolute necessity for ensuring safe, fair, and trustworthy e-commerce activities.

Efforts to address e-commerce crimes must include both preventative and repressive tactics. One preventive approach is to create tight verification methods for sellers and products sold on digital platforms, which may minimize the circulation of fraudulent or counterfeit goods. Equally crucial is the usage of rating and review systems that allow for clear consumer input, assisting other users in making informed purchasing decisions. Furthermore, digital platforms should build partnerships with law enforcement and consumer protection organizations to ensure effective fraud detection. In terms of data protection, e-commerce companies must emphasize user privacy by securing personal and transactional information using high-level encryption standards. The use of two-factor authentication can also provide an extra layer of security during login and transaction operations. Most importantly, consumer education is critical in combating cyberfraud, particularly by raising public awareness about the dangers of disclosing personal information irresponsibly. As a result, effective consumer protection in the digital age necessitates not only technology security measures, but also active public engagement underpinned by sufficient legal and institutional frameworks.

Several main factors contribute to the e-commerce sector's rapid expansion, including greater internet access, widespread smartphone use, and the development of novel digital payment systems. Although this advancement opens up immense economic potential and increases market access, it also exposes consumers to new risks in the digital economy. These dangers include cyberfraud, deceptive advertising, counterfeit items, and poor

complaint resolution methods. Beyond personal data breaches, cyber fraud has emerged as a major issue in e-commerce transactions. This crime can take the shape of illicit financial transactions, identity theft, or digital extortion carried out by illegally accessing consumers' devices or accounts. As a result, consumers suffer not only financial losses, but also lost faith in digital commerce platforms.

Another obstacle in digital consumer protection regulations in Indonesia is the weak enforcement of existing regulations and the lack of clarity regarding the rights and obligations of consumers and digital service providers. For example, some e-commerce platforms or digital service providers have terms and conditions that are not always clearly understood by consumers, such as usage regulations that restrict the downloading or use of content on certain devices. These terms are often included in long and complicated terms of service, making it difficult for consumers to fully understand their rights before making a transaction.

The regulatory framework governing e-commerce in Indonesia is primarily based on Law No. 1 of 2024 (Second Amendment to Law No. 19 of 2016), Law No. 11 of 2008 concerning Electronic Information and Transactions (ITE Law), and Government Regulation No. 80 of 2019 on Trade Through Electronic Systems (PMSE Regulation), which contains more specific provisions on commercial activities conducted via electronic platforms. These regulations compel e-commerce business operators to provide clear and accurate information about their items, pricing, transaction terms and conditions, and available customer complaint procedures. Furthermore, consumers are entitled to legal protection under Law No. 8 of 1999 on Consumer Protection, which ensures the right to safety, comfort, and compensation in the event that corporate actors violate or fail to comply with their legal obligations. As a result, e-commerce platforms and business owners must not only follow the principles of transparency and accountability, but also ensure that consumer rights are respected throughout the transaction process.

Furthermore, personal data protection in e-commerce transactions is governed by Law No. 27 of 2022 on Personal Data Protection (PDP Law), which specifies how electronic system providers must acquire, process, store, and distribute customer data. Under this law, firms must get consumers' explicit agreement before collecting or using their personal information for any reason. Furthermore, e-commerce companies are legally required to protect consumer data by using suitable security measures, such as encryption systems and other technical protections, to prevent unauthorized access, data manipulation, or security breaches. These laws underline the significance of transparency and responsibility in data handling, hence increasing customer trust in digital commercial activity.

In the provisions of Indonesian national law, a review of Law Number 11 of 2008 on Electronic Information and Transactions (ITE Law) reveals a significant link to e-commerce because the legislation handles several critical aspects of digital commercial activity. First, the ITE Law governs personal data protection, as stated in Article 27B, highlighting the need of electronic system providers safeguarding personal information. Second, the law establishes a framework for combatting fraud and the selling of unlawful items through e-commerce platforms. Third, it protects transaction security by mandating the legitimacy, dependability, and accuracy of information shared during online commercial transactions. Fourth, it strengthens consumer rights protection, with a focus on openness, responsibility, and legal remedy for customers who conduct business online.

Furthermore, the ITE Law states that service providers that fail to secure personal data may face administrative and criminal penalties, which strengthens consumer protection in the digital economy. The government's role in prevention and enforcement is further bolstered by Article 40, which demands state oversight, law enforcement, and intervention to ensure the security and fairness of electronic transactions.

The government is responsible for providing safe information technology infrastructure, protecting the public interest from the misuse of electronic systems, and ensuring proper data protection for institutions that keep sensitive information. To achieve these goals, relevant authorities must establish robust electronic document management systems that include user data backup methods to prevent data breaches and information misuse. In addition to the government's role, the community has a significant obligation to promote legal protection for victims of e-commerce fraud, as outlined in Article 41 of the ITE Law. Public participation can take several forms, including responsible and educated use of information technology, the establishment of independent institutions that promote mediation and dispute resolution, and actively educating internet users about potential cybercrime hazards.

Article 29 paragraph (1) of the ITE Law forbids the broadcast of incorrect information that could affect consumers. Violations of this article carry criminal consequences, including up to six years in prison or a one billion rupiah fine. This legislation is intended to prohibit misleading digital information, deceptive advertising, and fraudulent behaviors that may occur during electronic transactions. The newly added Article 38 creates an online dispute resolution procedure for disputes involving electronic transactions. This system allows consumers and business actors to settle conflicts more quickly and efficiently, while prioritizing consumer protection, openness, and justice throughout the resolution process. With this modification, the ITE Law provides greater legal clarity in electronic commercial transactions, as well as a higher sense of security for both consumers and enterprises, especially since the digital world presents increasingly complicated issues.

The rise of e-commerce in Indonesia has an impact on consumer rights and welfare by raising legal knowledge, reinforcing consumer protection rules, and stressing service and product quality. The most important component in this regard is data security, which is being improved through tougher cybercrime prevention measures. Several clauses in the ITE Law provide legal certainty in electronic transactions. Articles 5 and 6 acknowledge electronic information and documents as legitimate legal evidence. Articles 11 and 12 govern the usage and legal validity of electronic signatures. Articles 13 and 14 control electronic certification and certification authority, respectively, while Articles 15 and 16 specify standards for the installation of electronic systems. These provisions provide business actors with assurance while executing electronic transactions.

Furthermore, the ITE Law forbids some conduct that could impair digital transactions. Articles 27, 28, and 29 ban illegal electronic content, such as immoral material, gambling, insults/defamation, threats, blackmail, and false information. Other prohibited behaviors include: unlawful access (Article 30), illegal interception (Article 31), data interference (Article 32), system interference (Article 33), and device misuse (Article 34) (Sari *et al.* 2024). These laws are intended to reduce digital misconduct and protect consumers in online contexts. Despite these legal foundations, the execution of the ITE Law confronts challenges, mainly due to a lack of understanding and awareness among the public and

corporate actors about the technical and legal matters governed by the legislation. Improving education, outreach, and regulatory guidance is thus required to ensure effective enforcement and stronger consumer protection in Indonesia's rapidly expanding e-commerce industry.

Many consumers are uninformed of their rights when making online purchases, and a large percentage of corporate actors do not completely comply with the rules of the ITE Law. As a result, consumers are often placed in a disadvantaged position without adequate legal protection. To protect consumer interests, business actors must fulfill their obligations as sellers and refrain from engaging in illegal conduct. This obligation is reflected in Article 8 of the Consumer Protection Law, which requires business actors to present products that at least correspond to their description, refrain from selling defective or contaminated goods, and provide clear and accurate product information to potential buyers.

These duties are reinforced by Article 1491 paragraph (2) of the Civil Code, which requires vendors to guarantee that their items do not include hidden faults that would justify canceling the transaction or causing harm to the buyer. Thus, the regulatory framework emphasizes the importance of sellers ensuring product transparency, safety, and conformance in commercial transactions, including those conducted through digital marketplaces. Furthermore, Law No. 1 of 2024 amends the ITE Law and introduces substantial reforms that increase consumer protection in electronic transactions, particularly in terms of personal data security and the integrity of digital commercial activities (Azi *et al.* 2024). These revisions are intended to provide better legal certainty and accountability for businesses working in the digital world.

One critical unused article is Article 26A, which needs each electronic framework organizer that manages individual information to preserve the privacy, judgment, and accessibility of such information with satisfactory and up-to-date innovation. This article also emphasizes that organizers who come up short in ensuring individual information may be subject to regulatory sanctions and, in some instances, criminal sanctions. This can be a step forward in making strides in customer security, particularly in the midst of the expanding number of information spill cases that have hurt numerous parties. However, challenges in implementing and enforcing this article in the field remain, especially related to the technical capacity of electronic system organizers and the effectiveness of government supervision.

In addition, the revised Article 38 introduces a faster and more efficient online dispute resolution mechanism, providing a practical legal path for consumers to resolve e-commerce disputes without having to go through a lengthy court process. This article emphasizes that consumer rights must be prioritized within the debate determination handle, and any activities that are negative to buyers must be tended to promptly. Whereas this online debate determination is a critical highlight to ensure shoppers within the computerized age, its victory depends generally on the legitimate foundation in put and the preparation of debate determination institutions to handle cases that will be expansive and complex. In cases not overseen appropriately, this instrument dangers being less successful than ordinary court forms, particularly in dealing with complex cases. Buyers, too, confront issues in e-commerce, to be specific, with numerous cases of information protection infringement; notices shown are fake, fake items, and troublesome to resolve the debate.

So, a few issues that happen in e-commerce can prevent the realization of the complete potential of computerized commerce, usually a basic issue within the computerized period.

E-commerce businesses are also subject to Value-Added Tax (VAT) and Income Tax (PPH), as stipulated in Government Regulation No. 80 of 2019, which mandates that e-commerce entrepreneurs obtain business licenses and comply with tax regulations. Furthermore, intellectual property rights are protected under Law No. 20 of 2014 on Copyright and Law No. 13 of 2016 on Patents, ensuring that digital assets such as logos, designs, software, and trademarks are safeguarded from copyright infringement.

Numerous innovations that signaled the beginning of the fourth industrial revolution are now being used in a variety of fields. A significant factor driving this fourth industry is the integration of physical, biological, and digital advancements. Numerous industries and facets of human existence will undergo systemic changes as a result of this fourth industrial revolution. The fourth industrial revolution in this digital age promises long-term advantages in the form of productivity and efficiency in addition to promoting the development of new markets. The Industrial Revolution 4.0 is a significant advancement in the industrial sector where new digital business models are created by fully utilizing information and communication technology to attain maximum efficiency. As the Industrial Revolution 4.0 progresses, businesses want workers with new capabilities that may not have been available in the past. There will be chances for some occupations to proliferate while other occupations can see a decrease. According to a World Economic Forum (2018) survey, four technologies—cloud computing, big data analytics, artificial intelligence, and high-speed mobile Internet—will rule the market in 2018–2022. These four technologies are thought to have a significant impact on how the company's business develops.

Meanwhile, the era of Company 5.0 was also developed at the time and was first introduced by Japanese Prime Minister Shinzo Abe to balance technological advancement with integrated social issues. Along with technology's quick development, its application has started to play a bigger part in human life; in this case, digital technology is applied and focused on human life. Society 5.0 is a super smart company with technology that is Megadroned or Internet of Things (IoT) based on each industry and all social segments. Based on the development of Industrial Revolution 4.0 and the introduction of this company 5.0, of course, it cannot be separated from the legal aspects needed to adjust it. According to Cicero, "ubi societas ibi ius" (where society exists, there is law), so the presence of law is essential for governing human existence, including in the Industrial Revolution 4.0 and the birth of this 5.0 society.

There are 4 (four) factors driving the digital transformation. These factors are (Muis 2019):

- (a) regulatory changes;
- (b) changing competitive landscape;
- (c) shift/change to a digital form of industry;
- (d) changes in consumer behavior and expectations

Digital transformation focuses on optimizing processes, accelerating workflows, and making them more efficient. This makes it easier for your team to save time in completing their

tasks while creating digital workflows or digital workflows more efficiently (Manerep and Albert 2020).

There are many reasons why business activities are more effective and efficient to go digital, at least because the rest of the world is now doing it. Every new start-up business strategy will immediately implement digital in this modern era because old processes have begun to be abandoned for new business models. This modern business can be superior in terms of operational efficiency. In difficult times like today, using digital technology can provide significant benefits for business activities as a whole. Business digital transformation is more complicated than just switching to email from postal mail. Technology is being used in this shift to enhance stakeholder management, supply chains, customer experience, and general corporate operations. Therefore, we mean it when we talk about digital transformation. We must also get ready for a complete corporate transition if we are to adopt digital technology fully.

Although IT technology has existed for decades for decades, the concept of digital conversion is relatively new. This concept appeared in the 1990s with the introduction of the consumer internet. Since then, digitization has impacted every aspect of human life, affecting the way we work, shop, travel, educate, manage, and live.

The practice of digital conversion is often used in the context of trade. The advent of digital technology has spurred the development of new revenue streams and business models. The transition is accelerated by emerging technologies like cloud computing, artificial intelligence (AI), and the Internet of Things (IoT), while basic technologies such as management and analysis of data are necessary to analyze large quantities of data due to Digital conversion. Digital transformation is not only related to technology. This is a relationship between people, business, and technology and is guided by a broader trade strategy. The convergence brings life to digital companies, allowing organizations to provide digital experience, digital activities, and digital innovation. Digital companies can innovate quickly and take advantage of innovation to provide digital products and customer value services.

The digital process is almost always faster than analog; for example, related to contract signing, an analog system takes time and relatively high costs for the contract signing process, but through digital signing, a business contract does not require a significant amount of time, effort, and funds, and everything becomes easier. Quickly finalized, so it is very effective and efficient. However, in practice, it is necessary to provide legal provisions that regulate it so that all parties' rights are protected and avoid the impact of unlawful acts that can harm the parties (Danrivanto 2015).

In Indonesia, the applicable legal provisions governing public activities using digital media are Law Number 11 of 2008, which was later amended by Law Number 19 of 2016 and Law Number 1 of 2024 concerning Information and Electronic Transactions, Law Number 11 of 2020 concerning Job Creation (known as name Omnibus Law), Government Regulation Number 71 of 2019 concerning Electronic System and Transaction Operations. However, even though there are several regulations that regulate digital transformation in Indonesia today, there are still things that have not been accommodated by these legal regulations. The absence of legal regulations related to the practice of digital transformation causes a legal vacuum, especially when disputes arise, so law enforcers must explore values

that grow and develop in society through interpretation and legal construction efforts so that legal vacuums can be resolved and the parties involved in disputes this digital transformation law still protects its rights and creates legal order (Mochtar 1976).

4. CONCLUSION

In the digital business era, compliance with legislation governing electronic transactions, consumer protection, personal data security, taxation, and intellectual property rights is critical, particularly for e-commerce platforms. Sustainable e-commerce development necessitates that businesses adhere to these standards while preserving consumer trust through transparent transactions, strong data protection, and high-quality service delivery. Although e-commerce provides several potential for innovation and market expansion, its rapid growth also creates complicated legal and regulatory hurdles. A comprehensive and enforceable legal framework is required to provide consumer protection, data privacy, cybersecurity, fair competition, and regulatory compliance in the digital economy.

Businesses in the e-commerce sector must implement strong digital security measures to prevent data breaches and cyberattacks that could hurt both their business and their customers. They must also follow licensing processes and pay taxes in order to operate legally and avoid potential punishments. Beyond technical innovation, encouraging competitiveness through responsible use of technology must be supplemented with adherence to changing regulatory norms. Integrating legal compliance into company models not only increases long-term consumer trust, but it also reduces risks and promotes responsible digital entrepreneurship. In Indonesia, the viability of e-commerce firms is determined not only by technological innovation and marketing techniques, but also by compliance with different legislative requirements. Consumer protection, personal data security, electronic contracts, digital transactions, fair competition, taxation, and reporting requirements are all critical regulatory components. In the provisions of Indonesian national law, the Electronic Information and Transactions Law (ITE Law), the Personal Data Protection Law (PDP Law), and related regulations provide the legal framework for a secure and sustainable digital economy. Compliance with these standards is thus critical for developing a dependable and sustainable e-commerce ecosystem.

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