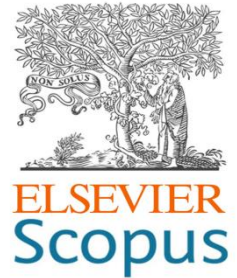




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## Qur'anic Principles and Contemporary E-commerce in Indonesia: Implications for Islamic Economic Development in the Industry 4.0 Era

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**Abstract:** For Muslims, the Qur'an functions as a primary and enduring source of law that governs all dimensions of life, including economic exchange in increasingly digital markets. This article examines how Qur'anic principles and classical fiqh doctrines can be applied to contemporary e-commerce practices in Indonesia and how such an application may support the development of the Islamic economy in the context of the Fourth Industrial Revolution (Industry 4.0). The study adopts a qualitative design and draws on a structured review of Qur'anic verses related to trade and ethics, authoritative classical works on Islamic commercial law, modern fatwas, and recent empirical and policy-oriented studies on digital trade in Indonesia. Particular attention is devoted to the fiqh analysis of online transactions through the lens of the as-salam contract and other relevant contractual forms, including agency (wakālah), brokerage (samsārah), and deferred sale (bay' bi-ta'jīl). The analysis suggests that e-commerce is, in principle, permissible (mubāḥ) provided that it meets the core conditions of a valid Islamic sale: clear specification of the subject matter, price, and delivery terms; the absence of ribā, excessive gharar, and maysir; and the exclusion of intrinsically prohibited goods and services. The article further argues that digital instruments such as payment gateways, electronic signatures, escrow arrangements, and certification mechanisms can enhance, rather than weaken, Sharī'ah compliance when embedded in an appropriate regulatory and supervisory framework. Overall, the study contends that a coherent Qur'an-based legal and ethical architecture for e-commerce can strengthen transactional



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trust, broaden the participation of Muslim consumers and entrepreneurs, and contribute to a more inclusive and resilient Islamic digital economy in Indonesia.

**Keywords:** e-commerce; Qur'an; Industry 4.0; Islamic economics; as-salam contract; Indonesia.

## 古兰经原则与当代印尼电子商务：工业4.0时代伊斯兰经济发展的启示

**摘要：**对于穆斯林而言，《古兰经》是规范生活各个层面的首要且恒久的法源，其中当然包括在愈发数字化的市场环境中进行的经济交换。本文考察古兰经原则及传统伊斯兰教法（fiqh）教义在印尼当代电子商务实践中的适用路径，并探讨这种适用如何在第四次工业革命（工业4.0）背景下支撑伊斯兰经济的发展。研究采取定性研究设计，系统梳理与贸易和伦理相关的古兰经经文、经典伊斯兰商法权威著作、当代有关电子商务的教法判例（fatwa），以及关于印尼数字贸易的最新实证研究与政策研究。文章重点从萨拉姆合同（as-salam）视角，对网络交易进行教法分析，并结合代理（wakālah）、居间/经纪（samsārah）以及延期付款买卖（bay' bi-ta'jil）等相关合同形式进行对比论证。分析表明，只要电子商务交易符合伊斯兰有效买卖的核心条件——包括对标的、价格与交付条款作出清晰约定，杜绝利巴（ribā，高利）、过度格拉尔（gharar，不确定性）与迈西尔（maysir，赌博），并排除一切本质上被禁止的商品与服务——原则上即可视为允许（mubāh）。文章进一步指出，在适当的监管与教法监督框架之下，支付网关、电子签名、第三方托管（escrow）安排及认证机制等数字工具，不但不会削弱沙里亚（Shari'ah，伊斯兰教法）合规性，反而可以增强其实现效果。总体而言，本文主张，通过构建一套以《古兰经》为基础的电子商务法律与伦理体系，可以强化交易信任，扩大穆斯林消费者与企业家的参与度，并有助于推动印尼伊斯兰数字经济实现更加包容且具有韧性的增长。

**关键词：**电子商务；《古兰经》；工业4.0；伊斯兰经济；萨拉姆合同；印度尼西亚

### 1. Introduction

Over the past two decades, rapid advances in digital technologies and the diffusion of the internet have reshaped how people learn, work, communicate and consume across the globe. Digital platforms are now embedded in everyday routines, a process dramatically accelerated by the COVID-19 pandemic, when face-to-face interactions in schools and workplaces were abruptly replaced by online arrangements supported by tools such as Zoom, Google Meet and other virtual platforms [7,12,23,35]. In many countries, including Indonesia, this shift has normalised internet-based modes of interaction not only in education, but also in job search, professional collaboration and routine household activities [12,20,23,35].

These developments form part of a broader transformation often described as the Fourth Industrial Revolution (Industry 4.0), characterised by cyber-physical systems, big data, automation and pervasive connectivity, and, in some policy discourses, by the

aspiration to move towards a Society 5.0 that integrates digital innovation with societal problem-solving [5,9,11,23,25]. Within this landscape, digital business models and internet-mediated services have proliferated. Small and medium-sized enterprises increasingly rely on cloud platforms and data-driven processes, while consumers adopt app-based services such as ride-hailing, delivery and other platform-enabled offerings [3,7,26,37]. These trends are particularly pronounced in large emerging economies like Indonesia, where rapid smartphone diffusion and comparatively affordable data access have supported the emergence of a vibrant digital ecosystem.

One of the most visible manifestations of this transformation is the rise of e-commerce. As part of the wider digital economics, e-commerce leverages internet infrastructure to enable communication, coordination and transactions between geographically dispersed economic actors [4,16,19,33]. Online marketplaces, social-commerce platforms and firm-specific websites allow producers and retailers to reach consumers far

beyond local markets, while recommendation systems, digital wallets and increasingly sophisticated logistics solutions are reshaping how goods and services are searched for, priced, paid for and delivered [16,19,32,33]. In practice, e-commerce has become central to retail and service provision in many urban and peri-urban areas, restructuring supply chains and intensifying competition between small, medium and large firms [16,19,33,37].

At the same time, the expansion of e-commerce raises important regulatory, ethical and socio-economic questions. Conventional trade historically relied on physical encounters between buyers and sellers, tangible inspection of goods and immediate exchange of payment and delivery. By contrast, e-commerce replaces direct interpersonal interactions with digitally mediated communication, platform-governed rules and electronic records, including electronic signatures and click-through agreements [8,19,26,32]. While these arrangements can deliver significant efficiency gains, they also generate new vulnerabilities related to information asymmetries, consumer protection, data privacy, fraud and the exclusion of digitally marginalised groups [4,8,26,32,40]. As a result, the design of e-commerce platforms and the legal frameworks that regulate them has become crucial for ensuring fairness, transparency and trust in digital transactions.

For Muslim-majority societies, these developments intersect with an established body of Islamic economic thought grounded in the Qur'an and the Sunnah. Over recent decades, Islamic economics and finance have evolved into a distinct field that seeks to operationalise Qur'anic and Prophetic principles—such as the prohibition of *ribā* (usury), *gharar* (excessive uncertainty) and *maysir* (gambling), and the promotion of justice, transparency and social welfare—in contemporary economic institutions and financial products [1,2,13,15,24,28,30,38]. The literature has extensively analysed Islamic banking, Islamic capital markets, social finance instruments and the broader ethical foundations of economic activity [1,13,15,24,28,30,38]. Yet, compared with these sectors, e-commerce has received less systematic attention, particularly with regard to how concrete digital transaction mechanisms map onto classical Islamic contracts and their associated rules.

From a Sharia perspective, therefore, e-commerce cannot be evaluated solely in terms of technical efficiency or macroeconomic contribution. It must also be assessed in light of Qur'anic guidance on market conduct, contractual fairness and the protection of weaker parties [1,2,10,13,15,30]. Classical *fiqh* offers a rich repertoire of contracts such as *bay'*, *salam*, *istiṣnā'*, *wakālah* and *ju'alah* that regulate price certainty, delivery timing, agency relationships and the allocation of risk. The central challenge for

contemporary Islamic economics is to determine under what conditions internet-based transactions can be analogised to these contracts, and when new commercial practices might contravene established prohibitions or ethical norms [2,10,13,15]. Existing studies on Islamic law and online buying and selling provide important doctrinal insights, but they often address specific legal questions without fully situating e-commerce within the broader socio-technical dynamics of Industry 4.0 and the policy agenda surrounding the Islamic economy [10,20,24,28,30].

Indonesia offers a particularly salient setting for this discussion. As the world's largest Muslim-majority democracy, with a rapidly growing digital sector and a long-standing commitment to building its Islamic economic and financial architecture, Indonesia sits at the crossroads of digitalisation and Islamic economic development [2,24,28,30]. On the one hand, policy makers and industry actors promote digitalisation as a driver of growth, financial inclusion and competitiveness. On the other hand, religious authorities, regulators and scholars are tasked with ensuring that this digital transition remains consistent with Qur'anic values and the broader objectives of Sharia (*maqāṣid al-sharī'ah*), including justice, welfare and moral integrity [1,2,13,24,28,30].

Within this macro context, the present study focuses on a more specific question: how can Qur'anic principles be applied to contemporary e-commerce practices in Indonesia, and what does this imply for the development of the Islamic economy in the Industry 4.0 era? More precisely, the article aims to analyse the extent to which prevalent e-commerce models and digital transaction mechanisms can be accommodated within the framework of classical Islamic contracts and ethical injunctions, and identify the conditions under which e-commerce may be considered permissible (*mubāh*) or problematic from a Sharia perspective [1,2,10,13,15,30].

By pursuing these aims, the study seeks to bring normative Islamic economic theory into closer alignment with the rapidly evolving realities of digital trade and to generate conceptually rigorous, policy-relevant insights for the development of Indonesia's Islamic economy.

## 2. Literature Review

### 2.1. E-Commerce

The contemporary e-commerce literature is vast but uneven, combining technical, legal and socio-economic perspectives with varying degrees of conceptual clarity. At the most general level, e-commerce is typically defined as a set of trading and service-provision activities conducted through digital networks, in which core transactional functions information search, contract formation, payment and sometimes delivery are at least

partly digitised [4,8,19,32,33]. This broad definition goes beyond the narrow understanding of e-commerce as “online shopping” and encompasses business models built around digital intermediation, platform governance and data-driven customer analytics [19,32,37].

A substantial strand of research focuses on the antecedents of e-commerce adoption and use. Studies in Jordan and other emerging economies highlight the roles of organisational readiness, perceived usefulness, trust in institutions and the broader enabling environment in shaping intentions to use digital trade platforms [4,7]. Work in China and elsewhere shows how e-commerce can enhance resilience and flexibility in food supply chains during crises such as COVID-19, but also reveals that benefits are distributed unevenly across firm size, region and socio-economic status [16,26]. At the same time, research on consumer protection underscores persistent vulnerabilities related to information asymmetry, unfair contract terms and weak enforcement in digital environments, especially where regulatory frameworks lag behind technological change [8,26].

From a business-model perspective, the literature largely maintains the classical typology of business-to-consumer (B2C), business-to-business (B2B) and consumer-to-consumer (C2C) transactions, while recognising that platform-based ecosystems increasingly blur these boundaries [8,19,32]. B2C models cover retail provision of goods and services to individual consumers, B2B focuses on inter-firm exchanges, and C2C refers to peer-to-peer sales often mediated by third-party platforms or auction mechanisms [8,19]. Recent contributions emphasise that this taxonomy needs to be complemented by attention to the infrastructural layer payment systems, logistics networks, recommender engines and cloud-based data architectures which shapes market power, switching costs and the distribution of risks and rewards among actors [19,27,32,33].

A growing body of work examines the technological underpinnings of e-commerce, including hybrid recommender systems and data analytics that seek to personalise customer experiences and optimise conversion rates [19,27,32,33]. While such technologies can increase efficiency and perceived value, critical accounts warn that they also reinforce platform dominance, entrench opaque algorithmic decision-making and raise new questions around privacy, manipulation and digital exclusion [8,19,26,32]. In addition, research on small and medium-sized enterprises suggests that integration into digital ecosystems is far from automatic; firms face significant barriers related to skills, infrastructure, cybersecurity and the costs of compliance with platform rules and cross-border regulations [7,26,37].

The normative assessment of e-commerce remains contested. Many economic and management studies foreground its potential advantages: lower

transaction and search costs, expanded market reach, more efficient supply chains and new opportunities for entrepreneurship and innovation [7,16,19,33,37]. Some authors also note societal benefits, such as reduced physical travel, new employment niches and possibilities for knowledge sharing, though the empirical evidence for broad-based welfare gains is mixed and context-dependent [7,16,21,26]. At the same time, critical scholarship highlights a series of disadvantages: the individualisation and depersonalisation of market interactions, heightened risk of fraud and misrepresentation, gaps in legal protection, and the absence of universally enforced quality and safety standards in many jurisdictions [8,21,26,29].

From an Islamic legal and ethical perspective, e-commerce has begun to attract more systematic attention, but the literature is still relatively sparse compared with work on Islamic banking and finance. Studies on online buying and selling from the standpoint of Islamic law typically affirm the permissibility of e-commerce in principle, while stressing that the validity of contracts depends on meeting classical requirements regarding clarity of subject matter, price, delivery and the avoidance of *ribā*, *gharar* and *maysir* [1,2,10,13,15,24,28,30]. One line of analysis classifies e-commerce transactions according to their proximity to established contracts such as *bay‘*, *salam*, *istiṣnā‘* and *wakālah*, raising questions about how far the spatial and temporal separation between payment and delivery mediated by banks, platforms and logistics providers remains compatible with classical doctrines [2,10,13,15]. Yet much of this work is doctrinal and case-based; comprehensive empirical studies of how Muslim consumers, firms and platforms actually negotiate Sharia-compliant practices in digital markets remain limited.

Taken together, the literature provides rich descriptive and normative material on e-commerce, but it also exhibits clear gaps. Empirical research is heavily concentrated in a few countries and sectors; many studies are cross-sectional and adoption-focused, with less attention to long-term distributional effects, regulatory capacity or the interaction between religious norms and platform governance [4,7,8,16,19,26,33]. This study builds on these insights while addressing the specific question of how Qur’anic principles can inform the design and evaluation of e-commerce in a Muslim-majority context.

## 2.2. Era 4.0

Debates on e-commerce are embedded in a wider discourse on the Fourth Industrial Revolution (Industry 4.0) and related concepts such as Education 4.0 and Society 5.0 [5,9,11,23,25]. Industry 4.0 is generally understood as the integration of cyber-physical systems, the Internet of Things, advanced robotics, big data

analytics and artificial intelligence into manufacturing and service processes, enabling new forms of automation, connectivity and real-time decision-making [5,9]. While early policy discussions were strongly shaped by German industrial strategies, the concept has since been adopted and reinterpreted across a variety of national contexts, often serving as a catch-all label for quite heterogeneous transformations [5,9,22,23].

In the education field, the notion of Education 4.0 emphasises the need to align curricula, pedagogy and assessment with the competencies demanded by digitally intensive economies, including data literacy, complex problem-solving and collaboration in hybrid human-machine environments [20,23]. Case studies in higher education show that digital technologies can support more flexible, student-centred learning, but they also reveal persistent structural inequalities in access to devices, connectivity and institutional support [20,23,35]. Similarly, research on Islamic educational institutions in the 4.0 era documents both the opportunities and tensions that arise when traditional forms of religious instruction encounter digital tools and platforms [20].

Japan's Society 5.0 discourse is often presented as a normative extension of Industry 4.0, framing digital technologies as instruments for achieving a "super-smart", human-centred society in which innovation is explicitly directed towards solving social and environmental problems [11,25]. Critical analyses, however, caution that the rhetorical emphasis on human-centricity and inclusiveness may not automatically translate into practice, particularly where existing power asymmetries, governance deficits and commercial interests shape how technologies are developed and deployed [11,25].

The academic literature highlights several recurring challenges associated with the 4.0 era. First, there is an implementation gap: while policy documents emphasise speed, connectivity and innovation, many organisations especially small and medium-sized enterprises and public institutions lack the infrastructure, skills and change-management capacity required to realise these ambitions [5,7,22,26,37]. Second, the benefits and burdens of digitalisation are unevenly distributed, amplifying concerns about job displacement, surveillance, mental health and new forms of precarity [9,21,35,36]. Third, much of the discussion remains technologically deterministic, treating digitalisation as an inevitable trajectory rather than a contested socio-political process that could be steered towards alternative goals [5,9,11,25].

Despite these critiques, the 4.0 framework remains influential in shaping the agenda for digital transformation in education, industry and public administration [5,20,22,23]. For Muslim-majority societies such as Indonesia, this raises specific questions about how Industry 4.0 and Society 5.0 narratives can be

reconciled with Islamic ethical commitments, including justice, stewardship of resources and the protection of vulnerable groups [1,2,13,24,28,30]. The e-commerce sector is one of the arenas where these tensions become particularly visible, as digital infrastructures mediate access to markets, information and economic opportunities.

### 2.3. Islamic Economy

Islamic economics has developed over several decades as a distinct, though internally diverse, field of inquiry that seeks to articulate an economic framework grounded in Qur'anic and Prophetic principles while engaging with contemporary economic realities [1,2,13,15,24,28,30,38]. Early and influential definitions often associated with scholars such as S.M. Hasanuzzaman, M.A. Mannan, Khurshid Ahmad, M. Nejatullah Siddiqi and M. Akram Khan tend to frame Islamic economics as a social science concerned with how human beings organise the allocation and use of scarce resources in accordance with Sharia, with the ultimate aim of achieving *falah* (success) in this world and the hereafter [1,2,13,30]. These formulations stress that economic activities cannot be normatively neutral: they are embedded in a wider moral universe in which justice, accountability and worship are intertwined.

Subsequent scholarship has both refined and problematised these early definitions. Some authors argue that brief textbook formulations risk remaining either too close to conventional economic models, merely adding Islamic terminology, or too abstract and a priori, offering idealised visions of an Islamic economic order with limited operative guidance for policy and institutional design [13,15]. In response, more recent work emphasises "ethical endogeneity": the idea that Sharia values should shape not only the goals but also the internal mechanisms and incentive structures of economic institutions, rather than being appended as ex-post constraints or corporate social responsibility add-ons [13,15,24,28,38]. This shift is visible in studies that explore how Islamic banking, social finance and governance structures might internalise concerns for distributive justice, environmental stewardship and social welfare [1,24,28,30,38].

Within this broader literature, several core principles recur. First, resources are viewed as a trust (*amānah*) from God, implying both rights of utilisation and duties of stewardship. Second, private ownership is recognised but circumscribed by social obligations and limits on harmful accumulation or exploitation. Third, cooperation, mutual assistance and risk-sharing are emphasised over purely individualistic competition. Fourth, certain income-generating practices most notably *ribā*, excessive *gharar* and *maysir* are categorically prohibited, while instruments such as *zakat*

and waqf are envisaged as mechanisms for redistribution and social solidarity [1,2,13,24,28,30,38].

At the same time, critical reviews of Islamic economics caution against treating these principles as self-executing. Empirical studies of Islamic financial institutions reveal tensions between ideal normative models and market-driven practices, including tendencies towards replication of conventional products, limited attention to environmental and social outcomes, and challenges in operationalising maqāsid al-sharī'ah in concrete decision-making [15,24,28,38]. Some authors argue that without robust institutional frameworks, accountability mechanisms and participatory governance, Islamic economic discourse risks being co-opted as a form of ethical branding rather than driving substantive transformation [13,15,24,28].

The literature also grapples with the relationship between Islamic economics and broader debates in social science. On the one hand, there is a strong emphasis on the distinctiveness of the Islamic worldview and its implications for concepts like rationality, welfare and justice [1,2,13,30]. On the other hand, comparative and interdisciplinary studies increasingly seek to situate Islamic economics within global discussions on sustainable development, human rights, environmental law and alternative economic paradigms, including critical perspectives on growth, inequality and financialisation [15,18,21,30,38]. This creates an opening for more nuanced analyses of how Islamic economic thought can contribute to, and be challenged by, contemporary debates on the ethics of digital transformation, including in sectors such as e-commerce and platform economies.

For the purposes of this study, an important implication of the Islamic economics literature is that economic arrangements including digital markets and e-commerce platforms should be evaluated not only in terms of efficiency or growth, but also with reference to their contribution to justice, trust, social cohesion and the protection of vulnerable actors [1,2,13,24,28,30,38]. This perspective underpins the subsequent analysis of e-commerce practices in Indonesia in light of Qur'anic principles, classical contract typologies and the maqāsid al-sharī'ah, and highlights the need to move beyond purely technical or legalistic treatments towards a more integrated ethical and institutional assessment.

### 3. Method

This research will be carried out using a qualitative approach, specifically a doctrinal and comparative literature review (*library research*). The data sources used in this study come from various results of previous studies and studies that still have relevance to the contents of this research, including verses from the Qur'an, Hadith, classical *fiqh* literature, and

contemporary academic articles on e-commerce and Islamic economics. Selection Criteria for Research Objects The criteria used for selecting the research objects (literature and previous studies) were based on three pillars: (1) thematic relevance to the intersection of e-commerce and the 4.0 Era; (2) doctrinal relevance to Islamic law (Sharia), specifically texts discussing *muamalah* (transactions) and *as-salam* contracts; and (3) contextual relevance to the development of the Islamic economy in Indonesia. Priority was given to sources published in the last five years to maintain the currency of the 4.0 Era discussion. This method was chosen because it is expected to obtain a more concise understanding of problems regarding opportunities and challenges, self-critical that is built, sophisticated in the complexity and ambiguity of the discussion.

## 4. Result and Discussion

### 4.1. The Role of the Al-Quran as a Source of Sharia Economic Law

Islam has regulated and determined the Qur'an as the primary reference, which scientifically has the highest position in aqidah and sharia. Al-Qur'an, as a law source in Sharia economics, is embodied in the rules contained in the Qur'an. As stated in surah Al-Jumu'ah verse 10 below:

*“And when the prayer has been concluded, disperse within the land and seek from the bounty of Allāh, and remember Allāh often that you may succeed”.*

Al-Qur'an is humankind's last holy book revealed to the Prophet Muhammad SAW. However, not everyone understands the message of its contents because not all contents of the Qur'an can be read in one go. Some verses are pretty straightforward when explaining something, but several verses in the Qur'an are challenging to understand and require more effort. Special interpretation is needed to be able to grasp the meaning and messages contained in the Qur'an. 19 This is because many verses from various philosophies or asababun nuzul influence the verse's primary meaning. Below is an explanation of examples of verses from the Koran regarding economic activity in Islam.

Islam regulates all economic activities with the term muamalah. Muamalah is one of the discussions in the Qur'an as a means of human relations with fellow human beings that prioritizes the principle of mutual help (ta'awun) to meet all their needs. One means to meet needs is trade routes, or in Islam, it is called tijarah.

The Qur'an mentions in detail verses related to tijarah, such as QS an-Nur verse 37, QS at-Taubah verse 24, QS ash-Shaff verse 10, QS al-Baqarah verse 282, QS an-Nisa' verse 29, Q.S. Fathir verse 29, QS al-Jumu'ah verse 11, and QS al-Baqarah verse 16.2. The definition

of *tijarah* in general, namely business activities between humans (*muamalah*). Prioritizing justice in doing business is a value contained in *tijarah* (QS Al-Baqarah: 282, An-Nisa: 29, and an-Nur: 37), which explains the mechanisms of buying and selling, trade payables, leasing, and other transactions. This paragraph also includes accounting values, notaries, and a general discussion of Sharia business.

*Tijarah* is a *muamalah* activity carried out between humans by prioritizing the principles of justice in Islam. *Tijarah* includes the mechanism of buying and selling, trade payables, leasing, and other transactions. The principle of justice referred to is contained in QS an-Nisa' verse 29, namely:

*"O you who have believed, do not consume one another's wealth unjustly [179] but only [in lawful] business by mutual consent. And do not kill yourselves [for one another]. Indeed, Allāh is to you ever Merciful"*.

Islam regulates all provisions in trade, namely that it must fulfill the element of willingness or consensual between the two parties. In addition, it must also fulfill the element of freedom, meaning that there is no coercion from any party. When the element of willingness is fulfilled in a sale and purchase transaction, the sale and purchase will go well and create harmony in the business world. In addition, legal elements such as goods used as objects of trade transactions must be *halal*, meaning that the goods or something is far from being *gharar*, *usury*, *vanity*, or even illegal in terms of acquisition or illegal in processing. In buying and selling, what must be prioritized is that the goods being traded are *halal*. In the Qur'an, some verses explain buying and selling, namely QS al-Baqarah verse 254:

*"O you who have believed, spend from that which We have provided for you before there comes a Day in which there is no exchange [i.e., ransom] and no friendship or intercession. And the disbelievers - they are the wrongdoers"*.

Based on this explanation, it can be understood that the Qur'an is a basis for implementing Islamic economics so that it follows Islamic teachings. The meaning is following Islamic teachings as stated in Q.S. An-Nisa verse 29 that Sharia economics must be based on mutual consent through legal trade according to Islamic law. Such economic practice seems to be something that must be understood by all economic actors, especially in conditions like today. Sharia economy will be able to be recognized by the whole community at large if it reveals its identity as a form of *muamalah* following the provisions of Islamic law.

The Qur'an is also the primary source of economic processes such as e-commerce. The existence

of the Koran as a source of law makes e-commerce a legal and lawful financial transaction like transactions with other Sharia principles. E-commerce is also part of the latest innovations in the economic sector, which have been running for a long time in several countries, including Indonesia. The source of Sharia fintech law is as mentioned in Q.S. Al-Maidah verse 1, namely:

*"O you who have believed, fulfill [all] contracts"*.

In addition, there is also a source of law, namely in Q.S Al-Isra verse 34, which explains that:

*"And fulfill [every] commitment. Indeed, the commitment is ever [that about which one will be] questioned"*.

These two verses become a basis and foundation that as long as the principles of the transaction are fulfilled, the provisions are generally regulated in the Qur'an. Although generally conventional transactions and e-commerce transactions have differences, the buying and selling guidelines that are carried out remain the same, namely the existence of trustworthiness or trustworthiness. In running the wheels of the economy, e-commerce is a breakthrough that uses information technology and online transaction services based on mutual trust or trust.

#### **4.2. E-Commerce Transactions and As-Salam Transactions**

Transaction (contract) is an essential element in an engagement. In Islam, the issue of transactions is very strict in its application, and this proves that the existence of transactions should not be dismissed in any field of human life (Muslims) because of the importance of transactions in an agreement.

Islamic trading explains that there are physical transactions by presenting the object during the transaction or without presenting the object ordered, but with the condition that the nature of the object must be stated concretely, either delivered immediately or submitted later until a specific deadline, as in *as-salam* transactions and *al-istisna* transactions. A cash/immediate payment system is utilized for *as-salam* transactions, but the delivery of products is suspended. While the *al-istisna* transaction is a type of transaction with a payment system that is immediate or delayed based on the agreement, the shipment of products is suspended.

The *as-salam* transaction – also called *assalaf* – like other models of buying and selling transactions, existed even before the arrival of the Prophet Muhammad. This is a form of relief in *muamalah* and makes it easy for humans to interact with others, especially on the issue of exchanging assets, such as buying and selling with debt. In *as-salam* transactions,

there is a reflection of mutual help that can benefit both parties. The buyer can buy goods at a lower price so that the seller can receive money faster than the delivery. This payment means additional capital is obtained, which helps manage and develop the business. As-salam transactions are permissible based on the Qur'an and As-Sunnah. Ibn' Abbas said: "I testify that the salaf that is guaranteed for a certain time has been made lawful by Allah in His Book and permitted by Him". Then he read the word of God: "O you who believe if you don't make a transaction in cash for the specified time, you should write it down."

When Rasulullah SAW arrived in Medina, people used to pay in advance (salaf) for fruits for one year or two years. Then he said: "Whoever performs salaf, let him do it with clear measurements and scales until a certain time limit." At first inspection, the implementation of e-commerce business transactions resembles as-salam transactions in terms of payment and delivery of commodities used as transaction objects. Therefore, the parties involved in the transaction, the transaction agreement statement process, and the transaction object can be observed to determine whether e-commerce transactions conducted over the internet can be aligned with the principles of transactions that exist in as-salam transactions.

In e-commerce transactions via the internet, payment orders (payment instructions) involve several parties other than the buyer (cardholder) and the seller (merchant). The parties are payment gateways, acquirers, and issuers. In online transactions, it is a must to have other parties involved. Because e-commerce transactions through internet media are a form of transaction carried out by parties who in transactions do not meet each other face-to-face or do not even know each other because they transact in virtual or virtual worlds. Therefore, to ensure reliability, trust, confidentiality, validity, and security, e-commerce transactions in their implementation require supporting services.

In this case, the payment gateway can be considered a witness in a transaction that authorizes payment instructions and monitors online transaction processes. The acquirer needs this payment gateway to support the ongoing authorization process and monitor the ongoing transaction process. Payment gateways are usually operated by acquirers or third parties who process payment instructions. In this case, the payment gateway has obtained a digital certificate issued and managed by a trusted third party, known as a Certification Authority (CA), such as VeriSign, Mountain View, Thawte, i-Trust, and so on. This digital certificate is owned as proof that he has the rights or permission for electronic transaction services.

Apart from payment gateways, the presence of acquirers and issuers is also a must. An acquirer is a financial institution, in this case, a bank, trusted by

merchants to process and receive online consumer payments. And an issuer is a financial institution or bank that issues bank cards (credit cards or debit cards) that consumers trust to make payments in online transactions. Each acquirer and issuer represents merchants and consumers in making payments online.

In as-salam transactions, the presence of witnesses and representatives is not required, but if they are present, the transaction will not be harmed or voided. In fact, the presence of witnesses is highly recommended. Because it is anticipated that disputes will arise in the future, whether on purpose by one party or because the other forgot, this clause is included. Moreover, every transaction will always be affected by the encompassing circumstances and conditions. In transactions conducted in a more formal manner, it is obligated and entails a high level of risk; for the benefit of the parties involved, it is strongly advised to have administration and witnesses present when conducting a transaction.

In making a transaction, the consumer is asked to fill in payment information (which is usually accompanied by entering a secret code) on the purchase slip form provided by the merchant's website, which is then authorized through the payment gateway. From this authorization, it can be seen that he is the rightful owner and has the authority to use it. On the seller's side, the merchant has a digital certificate from the CA, which guarantees the identity of the party that he exists and has the authority to make online transactions. And the most crucial thing in carrying out online transactions is that both parties must understand (at least know) the operation of computers and the internet, and this is not possible for people who do not have perfect skills, as children who have no sense or madmen do. As is the case in as-salam transactions, each party involved in the transaction must fulfill the conditions for the validity of the transaction itself. Buyers and sellers must fulfill the conditions of having perfect skills and authority to carry out transactions.

Consumers and merchants meet in cyberspace, namely the internet, through a server rented from an ISP. Usually, it will be preceded by an offer from the merchant. Then, through a website owned by the merchant, consumers can see a list or catalog of goods sold and a description of the products sold. Agreement statements can be made via chat, video conference, e-mail, or the merchant's website.

Agreement statements in e-commerce transactions are, in principle, the same as agreement statements in as-salam transactions. However, agreement statements are expressed through electronic media and the internet in online transactions. Although the statement of agreement is made in various ways, the most important thing is that the statement's meaning can be understood by both parties making the transaction so that it can be used as a manifestation of the willingness

of both parties. And before the statement of agreement occurs, various considerations must be made based on accurate information and managed adequately and correctly because this contains a high-risk element, although it can be minimized with existing supporting infrastructure.

Money with a known amount and currency used is used as payment/price in e-commerce transactions. Money used as payment/price is delivered through representatives/intermediaries of each party in the transaction, which are issuers and acquirers. Payment is immediately made following the agreed amount and currency after the authorization process is successfully carried out. Companies and banks usually use various ways to prove to consumers that the payment process has been carried out properly, such as e-mail notifications, sending electronic documents via e-mail or related sites containing sale and purchase “minutes” and purchase receipts detailing the type of product or services purchased along with details regarding the method of payment that has been made or the recording of payment transactions by the bank whose reports will be provided periodically at the end of the month. The price, in this case, is an asset that has value and benefits according to syara’ for the parties to the transaction, and payment is paid immediately/first and can be determined and known by the parties involved in the transaction following the provisions of the as-salam transaction.

Regarding commodities used as one of the transaction objects in e-commerce transactions, they can be anything (both legal and illegal commodities to be traded according to Islam), depending on the merchant’s offer. This is because the internet has been associated as a media without borders. Dimensions of space, bureaucracy, time, stability, and structural walls that have existed in the real world are easily penetrated by information technology. Therefore, in addition to legal commodities, according to Islam, some commodities, such as liquor, are illegal to be traded. This depends on the consumer in observing what type of commodity and how to buy it. At the same time, the provisions in assalam transactions require that the commodity used as the object of the transaction is legally traded, according to Islam. So far, it can be observed that if the commodity in e-commerce is a commodity that is legal according to Islam to be traded, it is following one of the provisions in the as-salam transaction.

The commodities traded in e-commerce can be in the form of digital commodities and non-digital commodities. Digital commodities such as electronic newspapers, e-books, digital libraries, virtual schools, computer application software programs, and so on can be delivered directly via the internet to consumers, for example, by downloading the product. Unlike non-digital commodities, commodities cannot be delivered directly via internet media; instead, they are sent via

courier services in accordance with the agreed-upon specifications, delivery time, and location.

Thus, if the commodity being traded is digital, it cannot be categorized/equated with an as-salam transaction. Because in an as-salam transaction, the commodity is handed over later/the delivery is postponed. In digital commodities, commodities are handed over directly to consumers via internet media and received now at the time of the transaction. It is different with non-digital commodities, commodities cannot be delivered directly to consumers via the internet but must be sent via courier services, which in this case means that the delivery commodities are not delivered at the time of the transaction or, in other words, the commodities are postponed until the agreed deadline. This means that non-digital commodities have fulfilled one of the provisions in the as-salam transaction: the suspension of the delivery of commodities. Before placing an order in an e-commerce transaction, the consumer can first see and find out about commodity information offered by the merchant by browsing the website provided by the merchant.

After selecting the desired type of goods, a clearer description of the selected goods will be found, including important information about the product (such as prices and pictures of the goods), the item’s rating value is obtained from an automatic poll about the item filled in by previous buyers (whether the item is good, good enough, or even disappointing), specifications (product reviews) about the item, and menus of other related products. This explains the commodities used as transaction objects in e-commerce transactions in accordance with the provisions of the as-salam transaction that commodities can be known and identified clearly.

Furthermore, in terms of an as-salam transaction, the commodity that is used as one of the objects of the transaction must be in the hands of and is recognized as a debt, although it does not have to be with the seller at the time the transaction takes place, but must be available at the specified time. In e-commerce transactions, even though it cannot be identified with certainty, at least the digital certificate provided by the CA to the merchant’s website can be used as a guarantee that he has been recognized as a “merchant” in cyberspace and has commodities to be traded/capable of fulfilling achievements following by agreement between the two parties to the transaction. In addition, the merchant also provides services to every consumer to submit complaints or questions through consumer support which can be accessed at any time via e-mail, telephone, and so on.

For non-digital commodities, before the transaction takes place, an agreement has been made regarding the deadline for the delivery of the commodity. The consumer can determine the desired delivery time limit as the merchant provides the form

that the consumer must fill in. After filling out the form, the merchant will calculate the number of commodities and the price and shipping costs the consumer must pay. From this, it can be seen that the suspension of the delivery of commodities in e-commerce transactions can be known and clear and determined following the agreement of the two parties who transact following the provisions of the as-salam transaction.

### 4.3. E-Commerce Transactions in Indonesia

The Internet has expanded rapidly, not only in developed nations but also in developing nations such as Indonesia. In recent years, the growth of the e-commerce industry or online purchasing and selling in Indonesia has been phenomenal. This is due to the fact that Indonesia has one of the highest internet penetration rates in the globe. This opens up opportunities to develop business via the internet, especially e-commerce, which has been predicted as the “next big business of the future”.

In 2015, there were 93,4 million internet users in Indonesia, with 77 percent searching for product information and purchasing online. In 2016, there were 8.7 million online consumers who conducted transactions worth approximately \$4.89 billion. The advent of the internet, which subsequently gave rise to e-commerce, is a promising business alternative because e-commerce offers merchants and customers many advantages. E-commerce has become the foundation of a new era of business in Indonesia, as a result of developments in main economies. An online bookstore, namely Sanur, pioneered the existence of e-commerce in Indonesia. The idea for the first emergence of an e-commerce business in the form of an online bookstore was inspired by a similar type of business, namely Amazon. Sanur is the first bookstore in Indonesia to sell books via the internet. Then came the next Indonesia Interactive. I-2 was built as a portal and provided a virtual shopping mall. I-2 is growing, with several online stores selling books, computers, and more.

Several factors still hamper the development of e-commerce in Indonesia. Among them is the factor of security guarantees. A survey of Indonesian users showed that the main thoughts still embedded in their minds when making transactions on the internet were security issues in payments. And also, in Indonesia, the culture of using credit cards is still small and is still a rare item and a status symbol, because of that, many e-commerce sites in Indonesia that, besides offering online payment methods with credit/debit cards, also offer other payment methods, such as cash on delivery (COD). Or it could also be that the website page only offers the types of products to be sold while transactions and payments are made offline or contact via telephone as in a normal buying and selling transaction. In general, e-commerce transaction mechanisms in Indonesia can be categorized as online transactions and payments,

online transactions and payments made after the goods are received, and transactions and payments made in the real world.

Thus, in e-commerce in Indonesia, the applied transactions are not only as-salam transactions but also ordinary buying and selling transactions and Alitishnâ transactions. If transactions and payments are made immediately online and involve non-digital commodities legally traded according to Islam, they are the same as as-salam transactions. However, if the commodities being traded are digital commodities, they are basically the same as regular buying and selling because consumers can receive commodities directly via the internet. In the mechanism of transactions and payments made offline in the real world, namely by making website pages only to offer the types and catalogs of products to be sold, this is the same as in ordinary buying and selling. Meanwhile, the online transaction mechanism with the cash-on-delivery payment system can be categorized into al-istishnâ transactions.

## 5. Conclusion

Legal transactions conducted through e-commerce can, in principle, be regarded as permissible under Sharia on the basis of *maslahah* (public interest), insofar as they respond to legitimate needs generated by technological change and are designed to minimise both technical vulnerabilities and departures from Sharia rules. From a doctrinal standpoint, many online sale-and-purchase arrangements can be read by analogy to the classical contract of *bay' al-salam* (forward sale), with one key continuity: goods and services that are explicitly prohibited in Islam remain unlawful irrespective of the medium through which the transaction is concluded. When conducted online, e-commerce transactions may reproduce the core legal structure of *salam* advance payment, precise specification of the subject-matter and deferred delivery while differing in the range and form of commodities that can serve as the object of sale. On this basis, e-commerce is acceptable from an Islamic legal perspective to the extent that it satisfies the established conditions of trade in Islam, especially those governing *salam*, and excludes commodities that are not lawfully tradable.

This analogy, however, is neither unlimited nor mechanically applicable. In contemporary e-commerce, the object of sale may be any item listed on a platform, including products that are clearly illicit under Sharia, such as alcohol or other prohibited goods, whereas *salam* presupposes that the goods are Islamically lawful. Commodities that are intrinsically forbidden cannot be brought within the scope of *salam* and remain impermissible regardless of how the transaction is structured. Furthermore, e-commerce embraces both tangible and digital goods. For non-digital goods with

delivery postponed to a future date, the *salam* analogy is often appropriate, provided that the usual requirements of detailed specification, price certainty and agreed delivery time are fulfilled. By contrast, where digital goods are delivered instantaneously such as software licences, downloadable content or access codes the transaction more closely resembles a spot sale than *salam*, because there is no temporal gap between contract conclusion and delivery. Not all e-commerce arrangements should therefore be subsumed under *salam*; the appropriate contractual characterisation hinges on the timing and modality of delivery, as well as on the nature of the commodity itself.

The study's main scholarly contribution is to develop a Sharia-based legal framework for modern e-commerce by working through a careful and differentiated analogy with the classical *salam* contract. The article traces how key technological components of contemporary e-commerce—payment gateways, digital certificates, online payment authorisation and related infrastructures can be aligned with traditional *salam* requirements regarding price certainty, detailed description of the subject-matter and the provision of enforceable guarantees. This doctrinal–technical linkage is particularly relevant for the Indonesian context, as it offers a structured basis on which financial regulators, Sharia supervisory boards and industry practitioners can assess and design e-commerce models that aspire to Sharia compliance.

Several policy implications follow. For regulators, and especially for the Indonesian Sharia National Council (DSN–MUI), there is a strong case for issuing a dedicated fatwa on e-commerce that explicitly integrates analogies to *salam* and *istisnā'* for appropriate transaction types. Such guidance could help reduce *gharar* (excessive uncertainty) and enhance legal certainty for market participants. For e-commerce platforms, the priority should be to consolidate transparency and accountability: ensuring that product specifications are comprehensive, accurate and easily accessible; and embedding robust Sharia-compliant procedures for complaints, refunds and dispute resolution. In doing so, platforms would give concrete institutional form to the Qur'anic principle of mutual consent (*tarāḍin*) between contracting parties.

The analysis also points to at least two promising avenues for further research.

First, empirical work is needed to examine consumer trust, perceptions of fairness and satisfaction with explicitly Sharia-compliant e-commerce platforms in Indonesia, and to compare these outcomes with user experiences on conventional platforms.

Second, more fine-grained comparative legal studies of e-commerce, *salam* and *istisnā'* contracts particularly for customised or made-to-order goods, whether digital or non-digital would help clarify the outer limits of classical analogies and support the

development of a more coherent and practically usable framework for digital Islamic commerce.

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