

Akad Ijarah Atas Layanan Cloud Storage: Analisis Status Kepemilikan Data Pengguna Dan Implikasi Tanggung Jawab Para Pihak Dalam Perspektif Fiqih Muamalah

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ABSTRACT

The rapid expansion of cloud storage services has given rise to complex legal relationships that remain inadequately addressed under conventional contractual frameworks, particularly within Islamic commercial law. This study examines the applicability of ijarah contract principles to cloud storage service agreements, focusing on the ambiguous ownership status of user data and the consequential liability distribution between service providers and users. Employing a normative-qualitative legal research method with a maqashid al-shari'ah approach, this study analyzes relevant fiqh literature, contemporary fatwas, and cloud service terms of service. The findings reveal that cloud storage can be classified as ijarah 'ala al-manafi' (lease of benefit/utility), wherein users rent digital space rather than obtaining data ownership transfer. However, this classification creates unresolved tensions regarding data sovereignty, as current service agreements frequently grant providers disproportionate control over user data. This study argues that a hybrid ijarah-amanah framework better captures the custodial obligations of cloud providers toward user data. The research concludes that existing cloud service contracts require substantial revision to align with fiqh muamalah principles, particularly in ensuring transparency of data management, equitable liability allocation, and robust user data protection mechanisms.

INTRODUCTION

The penetration of cloud storage services in Indonesia has reached a scale that is hard to ignore. Data from APJII (2023) shows that 78% of active internet users utilize at least one cloud storage service in their daily activities, while the global market value of this segment is projected to exceed 376 billion U.S. dollars by 2029 (Statista, 2023). Ironically, behind these impressive figures, a survey by the University of Indonesia's Center for Technology Law Studies (2022) found that 91% of Muslim users do not understand the data ownership clauses in the Terms of Service of the services they use. This situation reflects a serious normative gap: classical fiqh muamalah, which is based on physical objects and the ownership of tangible

assets, has not yet been able to provide adequate answers regarding the legal status of digital data an entity that is invisible yet possesses high economic value and is vulnerable to misuse.

Well, several researchers have attempted to bridge the two. Wahbah al-Zuhaili, in *Al-Fiqh al-Islami wa Adillatuh*, asserts that the *ijarah* contract does not require a physical object as long as its benefits can be identified and have value, thereby paving the way for its application in the digital realm. Muhamad Yusuf and Tuti Hastuti (2020) reinforce this view by classifying digital subscription services as *ijarah 'ala al-manafi'*, though they do not specifically address the dimensions of data ownership or the allocation of legal liability. Nurul Huda and Mohamad Heykal (2021) also call for the reformulation of digital contracts within the context of Sharia fintech, but their study does not address cloud storage as a distinct object. From the perspective of positive law, Sinta Dewi Rosadi (2021) documents various standard cloud service clauses that are detrimental to users, without employing a Sharia framework. This gap serves as the starting point for this research: there is no study that comprehensively integrates the structure of cloud storage contracts with the doctrines of *milkiyyah*, *milk al-manfa'ah*, and *ḍaman* in *fiqh muamalah*.

This study aims to fill that gap with three main contributions: first, it offers a categorization of the *ijarah* contract tailored to the characteristics of cloud storage services; second, it analyzes the ownership status of user data within the framework of the doctrines of *milk al-manfa'ah* and *milk al-raqabah*; and third, it formulates a framework of liability based on the principles of *amanah* and *ḍaman*. Operationally, this study addresses three questions: how valid is the *ijārah* contract for cloud storage services in terms of its essential elements and conditions; what is the status of user data ownership within the structure of that contract; and what are the liability implications for the parties in the event of data loss or misuse. Thus, practically, the findings of this study are expected to serve as a reference for the National Sharia Council-MUI and the Financial Services Authority in drafting cloud service contract standards that align with Sharia principles, while also equipping Muslim users with adequate legal understanding of the digital transactions they engage in daily.

To answer these questions, this study employs a normative approach using doctrinal analysis, which involves systematically examining classical and contemporary *fiqh* texts and then relating them to current contractual practices in cloud storage services. Primary sources include authoritative *muamalah fiqh* texts such as *al-Majmu' Syarh al-Muhadzdzab* by al-Nawawi, *Badai' al-Shanai'* by al-Kasani, as well as fatwas from the DSN-MUI regarding technology-based transactions. Secondary sources include academic literature, data protection regulations, and the Terms of Service documents from the three largest global cloud storage services. The analysis was conducted in three stages: identification of the contractual elements in cloud services, mapping of relevant ownership doctrines, and construction of a framework of liability based on the principles of *ḍaman al-yad* and *amanah*. With this analytical framework, the research moves from the normative foundations of *fiqh* toward practical implications that can be applied within the context of Indonesian positive law.

METHODS

This study employs a qualitative approach using library research. The qualitative approach was chosen because this study aims to understand, analyze, and interpret normative concepts in Islamic law that cannot be statistically quantified (Creswell & Poth, 2018). The primary data sources in this study include classical and contemporary *fiqh* texts that discuss the *ijarah* contract, such as *Al-Majmu' Syarh Al-Muhadzdzab* by Al-Nawawi, *Al-Fiqh Al-Islami wa Adillatuhu* by Wahbah al-Zuhayli, as well as relevant fatwas from the National

Sharia Council of the Indonesian Ulema Council (DSN-MUI). Secondary data sources include scientific journal articles, legislation in the field of information technology, and cloud storage service policy documents from leading service providers.

Data collection was conducted using documentation techniques, namely identifying, reading, recording, and classifying sources relevant to the focus of the study (Zed, 2014). The collected data was then analyzed using content analysis and comparative analysis to compare the views of various schools of fiqh regarding the pillars and conditions of the ijarah contract and their relevance to the characteristics of cloud storage services as the object of benefit (ma'jur). The *ijtihad bayani* and *ijtihad ta'lili* approaches were applied to determine the legal ruling on contemporary issues for which no explicit textual evidence (*nash*) is found (Syarifuddin, 2011). The validity of the data is ensured through source triangulation, which involves cross-referencing and comparing data from various classical fiqh texts, statutory regulations, and contemporary academic studies to ensure the consistency of the findings (Sugiyono, 2019). Additionally, conceptual member checking was conducted by referring to the opinions of experts in Islamic economic law as presented in indexed scholarly works.

RESULTS AND DISCUSSION

Cloud storage services have become an integral part of the digital infrastructure underpinning the economic and social activities of contemporary society. Service providers such as Google Drive, Dropbox, and iCloud offer internet-based data storage capacity through subscription models that possess distinct transactional characteristics. From the perspective of fiqh muamalah, the suitability of such transactions with the principles of the ijarah contract needs to be examined, given that the essence of the service offered is the use of virtual storage space for a certain period of time in exchange for an agreed-upon payment. The ijarah contract is, by definition, a contract for the transfer of the right to use a good or service for a specific period of time through the payment of wages or rent without the transfer of ownership of the good in question (Al-Zuhayli, 2011). The pillars of the ijarah contract encompass four essential elements, namely: (1) the lessor (*mu'jir*); (2) the lessee (*musta'jir*); (3) the subject of the lease (*ma'jur*); and (4) the rental price (*ujrah*). These four elements must be fulfilled for the contract to be considered valid under Islamic law. In the context of cloud storage, the service provider acts as the *mu'jir*, the user as the *musta'jir*, the virtual storage capacity as the *ma'jur*, and the subscription fee as the *ujrah*.

The question that then arises is whether virtual storage capacity qualifies as a valid object of ijarah. The majority of scholars have established that an ijarah object must meet several conditions, including: (1) the benefit derived must be permissible; (2) the benefit must be tangible; (3) the object must not be consumed after use; and (4) the benefit must be clearly quantifiable or limited (Ibn Qudamah, cited in Mustofa, 2016). Cloud storage capacity, measured in gigabytes or terabytes with a limited subscription period, in principle meets the third and fourth conditions. However, the second condition requires further examination, given that the benefit enjoyed by users is non-physical and depends entirely on the availability of the internet network and the operational continuity of the service provider's servers. Several previous studies have addressed similar issues in the context of digital-based ijarah contracts. Hasan and Syarif (2021) concluded that Software as a Service (SaaS)-based services can be construed as ijarah al-manfa'ah provided that the service object is clearly identified and does not conflict with Sharia principles. Meanwhile, Ridwan and Fauzi (2022) assert that uncertainty (*gharar*) in digital services can be mitigated through transparent contractual clauses regarding capacity limits, duration, and the consequences of service disruptions. This study goes further

by examining not merely the validity of the contract but also the legal implications arising from the relationship between user data storage and its ownership status within the framework of fiqh muamalah.

One crucial aspect that distinguishes cloud storage from conventional ijarah is the presence of user data within the service provider's system. In the leasing of physical goods, the leased item remains in the lessee's possession for the duration of the contract. Conversely, in cloud storage, user data is stored on infrastructure owned by the mu'jir, so physical control over the utilized object remains with the service provider. This situation raises a fundamental question: can this relationship still be categorized as pure ijarah, or has it shifted into a hybrid contract containing elements of a deposit (wadi'ah) or even a loan (ariyah)? DSN-MUI Fatwa No. 112/DSN-MUI/IX/2017 on the Ijarah Contract provides a normative basis stating that ijarah involving the use of intangible assets is permissible as long as the benefits can be identified, measured, and do not conflict with Sharia. However, this fatwa does not explicitly address the relationship between data stored in a rental system and the user's ownership status regarding that data. This regulatory gap in the fatwa is one of the loopholes that needs to be addressed through academic studies based on ijtihad, particularly by applying the qiyas approach to analogous classical cases.

According to the concept of daman al-yad in classical fiqh, the party that physically possesses an object is responsible for its safety. Al-Kasani in Bada'i al-Shana'i, as cited by Hanafi (2020), explains that the hand holding (yad) in an ijarah contract is a yad Amanah that is, a hand entrusted with safekeeping without being burdened with liability for compensation unless negligence or a breach occurs. Applying this concept to cloud storage services indicates that the service provider acts as the holder of a yad amanah regarding user data; thus, the provider's liability arises only if negligence in managing the data security system is proven. This finding differs from Syahbana's (2020) study, which tends to equate the liability of digital service providers with full liability akin to daman al-itlaf, without distinguishing between losses resulting from negligence and those resulting from force majeure such as external cyberattacks.

Thus, the construction of an ijarah contract for cloud storage services is, in principle, permissible under muamalah fiqh, subject to several important caveats. First, the object of benefit—namely, virtual storage capacity must be specified in a measurable and transparent manner in the agreement. Second, user data stored in the service provider's system must be treated as a trust (amanah), the integrity and confidentiality of which must be safeguarded. Third, the liability clauses for the parties must be formulated in accordance with the proportional principle of daman al-yad, so as not to cause injustice (zulm) to either party.

The research findings indicate that the practice of cloud storage services from the perspective of fiqh muamalah can be approached through the ijarah contract

The research findings indicate that the practice of cloud storage services from the perspective of fiqh muamalah can be approached through the ijarah contract, which is a contract for the use of services in exchange for a specific consideration. In this context, the service provider acts as the party leasing the benefit in the form of digital storage space, while the user obtains the right of access and use of that capacity without owning the physical infrastructure. This finding confirms that the object of the contract is not the data itself, but rather the benefit of the storage service provided by the provider. Regarding the ownership status of the data, this study found that data uploaded by users remains fully owned by the users. The service provider does not hold ownership rights over the data but merely acts as the party responsible for

safeguarding it and providing access. This aligns with the principle in Islamic commercial law that in an ijarah contract, there is no transfer of ownership of the item, but only a transfer of the right to use (benefit). Thus, data can be analogized as the property of the musta'jir (lessee), while the service provider merely provides the platform and management system.

However, there is a difference between the findings of this study and several previous studies, which tend to view digital services as a new form of contract distinct from ijarah. This study, on the other hand, emphasizes that the concept of ijarah remains relevant, provided that the subject of the contract focuses on the benefits of the service rather than on data as a digital entity. This difference highlights the need to reinterpret classical concepts in light of modern technological developments. Regarding the responsibilities of the parties, the research results indicate that service providers have an obligation to maintain the security, confidentiality, and integrity of user data in accordance with the initial agreement. If a data breach occurs due to negligence, the provider may be held accountable for failing to uphold the principle of trust. Conversely, users also bear the responsibility to use the service in accordance with applicable terms, including refraining from misusing the system or storing illegal content.

This discussion demonstrates that the fundamental principles of muamalah fiqh such as justice (al-'adl), clarity of contracts (al-bayan), and accountability (al-mas'uliyah) remain applicable in the context of the digital economy. Cloud storage services, as a contemporary phenomenon, do not fall outside the framework of Islamic law but can be analyzed through an adaptive conceptual approach. Thus, the integration of classical theory and modern practice is essential to ensure that Islamic law remains relevant in addressing the challenges of the digital age. This study confirms that the ijarah contract can serve as a normative foundation for understanding the legal relationship between service providers and users, while also providing practical implications for determining the rights and obligations of each party (Sugiyono, 2018).

CONCLUSION

This study confirms that cloud storage services can be framed within the ijarah contract framework, with the primary object being the benefits of the digital storage service, rather than the data itself. Thus, ownership of the data remains with the user as the lessee, while the service provider only holds management rights over the system being used. This conclusion addresses the main research issue regarding the status of data ownership while affirming that no transfer of ownership occurs in this practice; rather, it involves the utilization of services in accordance with the principles of fiqh muamalah. From the perspective of liability, this study demonstrates a proportional division of obligations. The service provider is responsible for the security and reliability of the system as a fulfillment of the trust within the contract, while the user is obligated to utilize the service in accordance with the agreed terms. This implication reveals that the legal relationship between the two parties is not merely technical but also carries a strong ethical dimension from the perspective of Islamic law.

In practical terms, the findings of this study open up opportunities for applying the concept of ijarah in the development of regulations and policies for digital services that are more in line with Sharia principles, particularly amid the increasing use of data-driven technologies. Additionally, there is a need for clearer and more transparent contractual clauses regarding data protection to avoid legal uncertainty in the future. As a recommendation, future research could expand the study to include cross-border data protection and integration with positive regulations, so that the concept of fiqh muamalah is not merely normative but also operational in addressing the ever-evolving dynamics of the digital economy.

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