

Measuring the future of NFT as digital asset in realizing economic revitalization

Rodrikson Alpian Medlimo^{1*}, Aisya Dyas Septania², Hardina Okteviara Hapsari³, Muhammad Fariel Zuleika⁴, Tasya Agustin⁵

Undergraduate Law Student at University of Lampung, Lampung, Indonesia

rodrikson23@gmail.com¹, aisyadyas014@gmail.com², okteviarahardina@gmail.com³,

muhammadfariel752@gmail.com⁴, tsyagustin07@gmail.com⁵



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Abstract

Purpose: Indonesia is a democratic country based on the principles of justice, togetherness and balance as the goals of the state as stated in the 4th paragraph of the 1945 Constitution. In this regard, the development of creative industries that are oriented towards the fulfillment of social welfare within the framework of shared prosperity becomes a fundamental basis in the practice of life.

Research Methodology: The author uses a normative juridical research method that is descriptive analysis. Data collection is done through literature study and the data used in this paper is secondary data obtained through library materials collected through literature study, then analyzed qualitatively to obtain writing conclusions.

Results: The results show that digital asset transformation is an extensive, instrumental and comprehensive approach to respond to technological disruption, especially in the era of society 5.0.

Limitations: The dimensions of life are required to be adaptive to the times, associated with the current Covid-19 Pandemic situation. The pandemic has become a disruptive momentum due to the movement of global supply chains into digital and virtual spaces, such as in buying and selling goods and services, as well as interpersonal interactions.

Contribution: With the fantastic number at the digital market in Indonesia, collaboration of all parties must be implemented in achieving the vision, mission and goals of business development through the use of NFT (Non-Fungible Token) as a digital asset. In solving the various challenges of NFT in Indonesia, the author phenomenologically initiates the importance of “pentahelix” synergy in educating the public that NFT can be developed as a business instrument.

Keywords: Covid-19 Pandemic, Creative Industries, Digital Assets, Era Society 5.0, Non-Fungible Tokens

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1. Introduction

The era of technological disruption is a sign that a transformation is needed in the field of archiving and documentation. This development has implications for the phenomenon of “*The borderless world*,” meaning that every human being can access anything through the internet network. In this regard, the development of science and technology becomes a double-edged sword, has a positive impact, if the national development goals can be achieved, but on the other hand becomes a challenge that can destroy national integration if it cannot be accommodated properly (Fitriyani, Handayani, & Sari, 2022).

The digital revolution has implications for new *inventions* that bring significant changes in every line of human life, which requires every human being to be adaptive to these dynamics. In line with this,

technological developments in the era of *society* 5.0 have changed the archive management mechanism which originally only collected past and present data into data collection that is useful for the future. In other words, there is a transformation of data processing known as Big Data (Hamdi, 2018). Big Data is an innovation in data management that is inseparable from the blockchain system in NFT.

The transformation in the asset management mechanism is seen as an implication of the era of *society* 5.0. The paradigm of the era of *society* 5.0 takes advantage of the elaboration of science, which no longer limits the space for human movement in terms of physical, digital and biological aspects. This era is a portrait of the emergence of “*cyber-physical systems*,” which synergize the capabilities of humans and machines to take advantage of system acceleration, scope and impact. In fact, these dynamics have led to various technological breakthroughs that can be utilized in fields such as *artificial intelligence*, robotics, *Internet of Things*, automated vehicles, 3D printing, nanotechnology, biotechnology, energy storage and quantum computing.

Referring to the rapid flow of technological disruption, a new paradigm in asset management is needed as an instrument to be able to compete in today’s digital era. In this regard, the NFT (*Non-Fungible Token*) is one of the author’s initiatives that needs to be implemented massively in Indonesia, as a strategic step for developing pillars and business potential, especially related to the responsibility of the state in fulfilling people’s welfare, in line with the principles of the *state welfare* adopted by Indonesia.

1.1 Problem Formulation

1. What is NFT?
2. How about a comparison portrait of NFT regulations in the world?
3. Why is the use of NFT as a business instrument important in Indonesia?
4. What are the challenges and opportunities for the NFT business in Indonesia?

1.2 Purpose of Writing

The increasingly complex paradigm of life is an indicator that a transformation is needed in the asset management process, in this case by utilizing digital technology such as NFT which can be used as a business instrument in the current era of technological disruption. This is the basis for the author to phenomenologically initiate how important it is to use NFT as a digital asset in business development in the era of *society* 5.0. With the use of this technology, it is hoped that it can open up business opportunities for digital work activists as well as support national economic development in order to welcome the golden Indonesia in 2045.

2. Research methodology

The writing method used is normative juridical which is descriptive analysis. Data collection is done through literature study and the data used in this paper is secondary data obtained through library materials collected through literature study, then analyzed qualitatively to obtain writing conclusions. (Mahmud Marzuki, 2013).

3. Results and Discussion

3.1 Definition of NFT

NFT (*Non-Fungible Token*) is a form of transformation in asset storage that was originally in the form of conventional into digital assets. The development of the era that entered the era of *society* 5.0 is an indicator that technological breakthroughs are needed as an effort to open up business opportunities for digital work activists. Referring to this, NFT is expected as a strategy in realizing people’s welfare that focuses on individual innovation and creativity, cognitive, affective and psychomotor intelligence which has the opportunity to create prosperity and create jobs by exploring intellectual abilities elaborated with digital technology (Newitz, 2021).

NFT can literally be interpreted as a non-comparable token, which is an integral part of the Ethereum Blockchain. The Ethereum Blockchain is one of the blockchain networks among approximately tens or hundreds of blockchains that are currently actively operating. Basically blockchain it is correlated with the correspondence of asset transactions in business governance, in this case it can be tangible or

intangible, such as intellectual rights, patents, copyrights, and brand rights. In other words, blockchain is not just a collection of code but individual tokens in which additional information is organized in the form of a digital archive that can be traded (Gornstein, 2021).

3.2 Portrait of NFT Regulations in the World

The author wants to illustrate the legal rules regarding the use of NFT which have been regulated by various countries in the world. First, countries in Europe. Arrangements regarding the use of NFT in the European Union are implemented as a source of Digital Asset Protection in the European Union Charter of Fundamental Rights. The European Union has laws and regulations regarding the use of NFT, namely the Paris Agreement to the UNFCCC (*United Nations Framework Convention on Climate Change*). Basically, this regulation is a response to the threat of data theft in digital form. Not only that, in support of data protection, the European Union established an institution, namely The Police Directive as a digital asset monitoring and protection agency authorized to monitor and provide sanctions for any violations related to misuse of data that harm others both materially and immaterially.

Next is the United States, the United States does not have a specific or single regulation in the regulating of NFT use. The United States began to apply the legal rules of use, namely by enacting the US Privacy Law. Legal protection for the use of NFT is regulated in a comprehensive manner with a preventive approach to misuse of digital assets, both in federal and state states. Responding to technological developments in the current era of disruption, there is new legislation regarding the use of NFT, namely the California Consumer Privacy Law (CCPA) which took effect from January 2020. The application of the new rules emphasizes the exclusive rights of NFT in an efficient manner by individual parties in California with an emphasis on ease of doing business.

In line with European countries and the United States, Hongkong also regulates comprehensively the issue of using NFT through the Personal Data Privacy Ordinance (PDPO). The legal protection regarding NFT in Hongkong includes limitations on the management of digital assets carried out based on the purpose of their legal use, use and application must be in accordance with the objective of protecting against irresponsible access, which has implications for the obligations of third party data managers (individual or corporations) to publish a digital asset market development policy in a transparent manner, if it is violated, the Hongkong government can issue a subpoena to the party concerned.

Legal parameters are said to be sovereign or not, also reviewed based on how the law itself is drafted. In this case, there is often overlap between one law and another, it is very unfortunate if in the preparation of a law there are still many rubbery articles, which means trying to make a law without paying attention to the function of the law itself. In essence, the law functions as a foundation in resolving various problems or events related to the law. However, this function often runs inconsistently with the rules contained in laws and regulations. Therefore, no matter how good the legal system is, if it is not accompanied by human character or nature, the it will be useless and useless. In other words, that the morality of state administrators is very important to create a conducive legal situation according to the ideals of the Indonesian people in the preamble of the 1945 Constitution, fourth paragraph (Asshiddiqie, 2010).

3.3 Urgency of Using NFT as a Business Instrument in the Era of Disruption Technology

NFT was first conceived in 2014 by a platform called Counterparty, with the first NFT being created titled "Quantum." From 2017 to 2020 more and more individuals or corporations are paying attention to this NFT business, some of which are Nike and the NBA. This signal of interest was evidenced by the launch of NFT in the form of sneakers by Nike. Meanwhile, the NBA uses NFT in making digital cards for its basketball players (Dean, 2021).

The use of NFT as a business instrument is based on the phenomenon of selling works of art at fantastic prices. As an illustration, the sale of Mike Winkelmann's mosaic work entitled "Everyday's-The First 5000 Days" was sold at a price of 69 million US dollars. Then, in Indonesia the NFT business

phenomenon also shocked the public, when a young man named Ghozali managed to sell a selfie of himself at a price of 3.1 trillion rupiah.

Based on this phenomenon, the authors view that NFT provides a great opportunity to turn digital objects into assets or items to be traded. However, a question arises, whether the NFT phenomenon is only temporary or not, then, what about the guarantee of the confidentiality of user data, Is it comprehensively regulated or not, If they are not accommodated properly, these things will become a challenge in the application of NFT as a business instrument.

3.4 Challenges and Opportunities for NFT as a Business Instrument in Indonesia

In solving the various challenges of NFT in Indonesia, the author phenomenologically initiates the importance of “*pentahelix*” synergy in educating the public that NFT can be developed as a business instrument. Furthermore, the establishment of the Digital Asset Protection Law, which has implications for the use of NFT as a pillar and business potential is not bubble or at any time, and finally the author considers that supervision and protection is needed by certain ministries or agencies when transacting using NFT.

Talking about “*pentahelix*” synergy, it is correlated with the mechanism of innovation, economic growth and productivity. *Pentahelix* is a foreign term that combines the synergy between university, industry (business actors), government, the general public, and the mass media that complement each other in developing policy innovations. In other words, *pentahelix* as a strategy in realizing the welfare of the people, requires the five parties to work closely together in achieving the desired essence or orientation (Daulay, 2018).

The *pentahelix* collaboration focuses on an innovation resulting from an interaction involving various types of actors. Each actor moves according to its institutional function in society. The main actors who support industrial development are academics (scholars), government, the business industry, the general public and the mass media. With the synergy between the five main actors, empowering the creative industries is something that is very possible to apply.

In essence, *pentahelix* is the key in finding faults between the institutional dimensions of regulation, associated with the social functions it carries out. This becomes a frame of reference in alleviating a problem as well as carrying out innovations that are carried out jointly by each actor (Hasoloan, 2013). In addition, the *pentahelix* model actually correlates with the creative industry. The creative industry is the development of a pillar of the creative economy that has originality from individual creativity, skills and talents, which has the potential to create wealth and create jobs by exploring intellectual abilities elaborated with a wealth of natural resources.

UNCTAD (United Nations Conference on Trade and Development) provides a general description that the creative industry is a cycle of creation, production, distribution of goods and services using human resource competencies elaborated with a wealth of natural resources as the main input. This indicates that the creative industry is a knowledge-based activity, focuses on value but is not limited to intellectual ability, and has the potential to generate income from the business sector, in this case the national creative industry (Rosadi & Pratama, 2018).

In this regard, it can be concluded that creative industries are basically industries based on the utilization of natural resources in collaboration with human resource competencies as an effort to improve the standard of living of the Indonesian people. Therefore, the development of creative industries within the *pentahelix* framework is a solution that can be applied massively in Indonesia as a concrete step for the government to realize people’s welfare, especially in welcoming Indonesia as a golden year 2045. *Pentahelix innovation Theory* regulates extensively the mechanisms of innovation, economic growth and productivity. The application of these innovations focuses on the development of the production sector, the high-tech sector, and integrates innovation, knowledge, and the final output of goods and services based on the holistic role of civil society (Moriarty & Honnery, 2020).

The author would like to illustrate the efforts to implement the *pentahelix* model in North Sumatra Province. The regional government of North Sumatra is currently intensively carrying out various infrastructure developments, such as the development of the Lake Toba tourist area which is expected to support the regional economy. In revitalizing the Lake Toba tourist area, the North Sumatra regional government can apply the *pentahelix* model which focuses on human resource competencies supported by natural resources owned by the region in empowering creative industries as innovations to be able to compete in the era of *society* 5.0 which involves various lines of sectors, such as government, businessmen, academics and practitioners. Based on this illustration, it can be observed that the *pentahelix* terminology is actually the key in development of the national creative industry.

Furthermore, government policies in efforts to empower the national creative industry have actually been implemented holistically or comprehensively, but what is noteworthy is that sometimes there is misuse of interests by certain parties and can even be said to have occurred. For example, government subsidy funds aimed at empowering UMKM are not used according to their designation. State officials often take advantage of legal loopholes for their own interests. In responding to this, strict supervision is needed so that government administrators can exercise their powers appropriately and wisely (Khan & Sultana, 2021).

Not only that, in implementing *pentahelix* in Indonesia, the role of students as agents of change is also very much needed. This is the reason for the importance of increasing creativity and innovation as a form of equipping students when they will be directly involved in the world of work in the future. On the other hand, national economic problems have gotten worse since the Covid-19 pandemic took place in Indonesia. The level of inequality is widening due to limited human activities, even lines of life have changed, such as shocks occurring in various sectors that require all levels of society to have the competence to be able to compete. Based on this, the *pentahelix* model must really be applied consistently and coherently in Indonesia as a solution to overcome national economic instability (Khan, 2021).

In addition, the implementation of *pentahelix* in Indonesia is in line with the government's mission of implementing *sustainable development goals*. The *sustainable development goals* (SDGs) are a follow-up concept from the Millennium Development Goals (MDGs) declaration. The SDGs concept is a concept related to *sustainable development* in environmental, social, economic, legal and spatial aspects. In such a frame of mind, the opportunity to carry out the development of the national creative industry is very often if *pentahelix* and the *sustainable development goals* (SDGs) support each other within the framework of empowering the *sustainable* creative industries. In addition, the indicator for implementing the *pentahelix* is because there has been a paradigm shift in *sustainable development* in the world, bearing in mind that competition in the very competitive era of *society* 5.0 requires more comprehensive thoughts, in this case the massive implementation of *pentahelix* in Indonesia.

Based on the author's explanation, *pentahelix* is a system that must be developed in Indonesia. Its development can be started through innovation, creativity, and adaptation in empowering creative industries, the aim of which is to improve people's welfare and equity in various sectors in the life of the nation and state. The target or goals of implementing *pentahelix* in Indonesia is to create a better civilization in the future, such as no discrimination by prioritizing the principles of human rights, reducing social inequality from an economic perspective, and creating a just and prosperous country as mandated in paragraph 4 1945 Constitution.

Then, it relates to the establishment of the Digital Asset Protection Act. In practice, the concept of privacy is often misunderstood because it is considered contrary to the basic values of Pancasila. This is an indicator of the low public awareness of the importance of the concept of privacy, especially the one that is correlated with the protection of digital assets. This condition is certainly very concerning, considering that according to *Norton Report 2021* data, the level of potential and risk for criminal acts related to digital assets in Indonesia is entering an emergency status and tends to increase as published on the Id-SIRTII/CC page (*Indonesia Security Incident Response Team on Internet Infrastructure/Coordination Center*) (Pradana, 2022).

In such conditions, the authors consider that data protection is related to human rights. Human Rights are guarantees stating that human beings have inherent basic rights that must be protected as a gift from God. Human rights are an indicator of the extent to which a country guarantees equality and the principle of non-discrimination. In this regard, human rights are something that is fundamental, especially in countries that uphold the law as commander in chief. The urgency of protecting human rights in the Indonesian constitution is to uphold human dignity as the noblest creation (Djafar, 2019).

The increase in cases of human rights violations in Indonesia is caused by various factors, such as the attitude of the people who are ignorant and apathetic towards the importance of the principles of equality and non-discrimination, then legal sanctions that do not give a deterrent effect, and even always prioritize the rights of the perpetrators, not the rights of the victims. Not only that, the phenomenon of *rape culture* is also one of the things that is worrying. *Rape culture* is an environment where cases of human rights violations are considered commonplace, which develops through social and cultural instruments, such as media coverage that does not focus on protecting victims. The humanitarian principles mandated by Pancasila basically position humans according to their dignity. With this principle, it is oriented towards happiness both physically and mentally.

However, this orientation cannot be realized holistically, bearing in mind that most people do not understand that *rape culture* exists when there are cases of human rights violations. Victims of human rights violations often experience ostracism, this is due to the rape culture that is widespread in society. Therefore, the mass media can demonstrate its role in educating about rape culture. If not handled properly and wisely, cases of human rights violations will become shackles with implications for several things, among others

1. Human rights violations are a form of betrayal of the constitution the state, considering that the action is contrary to the mandate of articles 27 to 34 of the 1945 Constitution;
2. Human rights violations give rise to the paradigm that law enforcement is humanism is only an illusion. These conditions are certainly very apprehensive, because “humane law enforcement” system has been transformed from the theory of retribution (retributive) becomes a theory of recovery (restorative);
3. Human rights violations cause victims to receive a bad stigma makes himself shunned and ostracized by society (*labeling theory*).

Furthermore, the existence of human rights protection in Indonesia has recently received a lot of attention, especially in connection with the collapse of a just law enforcement system. This is the basis for the importance of transforming the law enforcement system so that Indonesia can become a safe country in terms of protecting human rights and upholding humane law, which in turn has implications for the realization of justice for all levels of society.

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The absence of a “*lex specialis*” regarding the protection of digital assets in Indonesia has implications for distrust of investors and companies in terms of data storage. On the other hand, if there is a regulation regarding the protection of digital assets, it can have a positive impact such as an economic perspective that ultimately supports Indonesia as a business and investment center as well as global data management and a reliable or extensive data management industry in terms of data storage such as *cloud computing* that can thrive in Indonesia.

Thus, the process of ratifying the Digital Asset Protection Act (RUU PAD) must be a serious concern for all parties, especially stakeholders. Without genuine and genuine intentions from the authorities, the process of ratifying the PAD Act will only run statically, therefore every policy should be systematically

formulated in the context of saving and normalizing national life according to the demands of reform, in this case with the promulgation of the PAD Act as the main umbrella legal protection of community digital asset management (Zulfiani, 2021).

Furthermore, when using NFT, data security is also required as a guarantee for the protection and freedom of users, especially when conducting transactions. The security intended by the author is to implement a data *protection* and data *surveillance* system, considering that cases of burglary or data theft in Indonesia continue to increase from time to time. Data *protection* and data *surveillance* is a collaborative system that emphasizes the prevention and control of *cyber crime*, especially on the misuse of personal data and information. The system seeks to secure a person's personal data at a data collection center run by the Ministry of Communication and Information (Kominfo) (Inggarwati, Celia, & Arthanti, 2020).

Data management carried out by Kominfo, as the implementation of data *protection* and data *surveillance* systems is something that is essential to be realized, in order to create a strong and robust NFT system against various threats. With regard to the use of blockchain technology, data *protection* and data *surveillance* systems seek to ensure that all digital transactions are recognized and there will be no hacking or data theft that harms NFT users (Hutauruk, 2021). In other words, data *protection* and data *surveillance* systems are the fundamental basis when using NFT when transacting.

The use of data *protection* and data *surveillance* is an innovation in data management or what is known as Big Data. In fact, the use of data *protection* and data *surveillance* systems must be applied consistently in digital technology, considering that these instruments are in line with (*sustainable development goals*), especially points of industrial development, innovation and infrastructure. The use of these instruments provides guarantees regarding the security of data for NFT users, this is based on the fact that the data *protection* and data *surveillance* systems work through an integrated system with Kominfo, which will later become the central data collection and privacy data management center for NFT users.

The orientation of the implementation of data *protection* and data *surveillance* systems in Indonesia, namely creating a better civilization in the future, such as the absence of discrimination by prioritizing the principles of Human Rights, upholding freedom and security, and as a strategic step to reduce the risk of hacking and theft of user data NFT through a *smart risk reduction* system. Referring to this, the implementation of data *protection* and data *surveillance* systems is absolute and urgent to be carried out immediately considering the complexity of the current digitalization issue. The factors that cause the implementation of data *protection* and data *surveillance* systems are important to be implemented, including:

1. Data *protection* and data *surveillance* systems focus on action prevention of data leakage cases. This is done considering current data leakage cases tend to increase and the handling is very waste time and energy. In other words, the essential factor is solve that problem. The countermeasures include the importance of socialization of data security, which is actualized through improvement public intelligence about the modus operandi of data hackers;
2. Data *protection* and data *surveillance* systems provide guarantees against protection of victims, because so far the sanctions for cases of abuse personal data does not provide a deterrent effect on the pretext of equality in the perspective of Human Rights. Therefore, the data *protection* and data *surveillance* system focusing on the protection of victims;
3. Data *protection* and data *surveillance* systems emphasize the importance of action prevention of personal data crime that focuses on the principles of shared responsibility, especially the state.

Based on the criteria that have been described, it can be concluded that the direction of developing NFT as a business instrument must have a systematic, coherent and instrumental *framework*. In addition, it is hoped that the development of digital assets is not a bubble that at any time can decrease or even be worthless, but can be developed into a pillar and business potential as a form of creativity in the creative industry. Thus, the involvement of various parties is the key to the creation of a digital business that is

sovereign and independent in supporting the position of NFT as a business instrument, especially in supporting the acceleration of national economic development.

4. Conclusion

Talking about the development of NFT (*Non-Fungible Token*) as a digital asset, this is actually a reference for how serious the government is in creating a strong and sovereign national economic system. The paradigm shift in technological development in the era of *society* 5.0 is a challenge as well as a reality that must be faced by the Indonesian people. The development of the national creative economy is something that is urgent to do considering the global challenges that are getting stronger due to increasingly complex competition, which ultimately requires all parties to improve competence both intellectually and skills.

Finally, the author would like to say that a digital asset portrait must have a footing or foundation that is extensively, instrumentally and comprehensively structured. In this effort, it is hoped that the NFT model will not only be a mere rhetoric but can be carried out as a concrete manifestation of the synergy of various parties, both business players and the government, which in turn creates strategic policies in the development of the national creative economy based on the principle of mutual prosperity. Based on this, the NFT terminology must touch holistically and be carried out consistently and continuously as a long-term economic policy of the Indonesian state. Therefore, the collaboration of various parties is the key to realizing economic revitalization so that the pillars and business potential of NFT can stand strong and independent in supporting sustainable national economic development.

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