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[QAS] Submission Acknowledgement

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10 Agustus 2022 pukul 18.40

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Abas Hidayat:

Thank you for submitting the manuscript, "Oligopoly Market and Monopolistic Competition in the Digital Era: Shariah Economic Perspective" to Quality - Access to Success. With the online journal management system that we are using, you will be able to track its progress through the editorial process by logging in to the journal web site:

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[QAS] Editor Decision

1 pesan

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25 Agustus 2022 pukul 12.49

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Abdul Aziz, Dewi Fatmasari, Layaman Layaman , Abas Hidayat:

We have reached a decision regarding your submission to Quality - Access to Success, "Oligopoly Market and Monopolistic Competition in the Digital Era: Shariah Economic Perspective".

Our decision is: Revisions Required

Reviewer A:

1. After presenting the background, please write down the article's purpose or question related to the oligopoly and monopolistic market network theme. 2. Show the steps in the reference selection up to 83 references. because this information is not clear. 3. Please explore the circulation of digital platform market. in figure 1. 4. You stated "the sharia economic platform must be able to provide solutions that are prosperous for the global community,". Please explain in more detail, for example increasing welfare through the Islamic economy with zakat, etc. In addition, how about the strengthening of social preferences?

Recommendation: Revisions Required

Reviewer B:Recommendation: Revisions Required

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Oligopoly Market and Monopolistic Competition in the Digital Era: Shariah Economic Perspective

Abstract

Imperfect competition markets, such as oligopolies and monopolies, are claimed to be unhealthy business activities because they contain elements of injustice, inequality, and imbalance that become irrational. In the current digital era, unhealthy competition is very possible to become big and profitable, although there are great opportunities for other newcomers to enter, due to lack of experience and human resources who are not necessarily competent and innovative, plus minimal capital, it is difficult to become competitors, let alone balance. As a result, concerns in the era of disruption with digital platforms regarding unfair competition through oligopolies and monopolies need to be watched out for. Shariah's economy that upholds the values of rationality, justice, equity, and balance rather than a free market is an important solution. Especially in the Industrial 4.0 era, which emphasizes the internet technology sector, it needs to be accompanied by the central role of human resources (Society 5.0), which upholds the four shariah economic values.

Keywords: Oligopoly, Market, Monopoly, Digital Era, Sharia Economy, Internet

1. Introduction

Talking about the market and the structure of the competitive market is an interesting thing, especially when it is associated with the digital era and the Shariah economic perspective. The digital era is pinned on savings where the internet is a platform for the Industrial 4.0 era (Zafani and Arifqi, 2020), while the oligopoly market (several large suppliers) and monopolistic competition market (one supplier) are conventional (Hiç, 2020) has become an icon in the market structure of unfair competition (Ward, 2018; Valente, 2021). Meanwhile, a Sharia economy based on justice, equity and balance (Arfah et al. 2020) become a perspective on behaviour in oligopoly markets and monopolistic competition in the digital era (Budi Setiawan and Rahmawati, 2020).

The main characteristic of traditional economics until the 20th century was the existence of markets, both perfectly competitive markets and imperfectly competitive markets such as monopoly, oligopoly, and monopolistic markets (Kumar and Stauvermann 2020; Chohan 2020). However, in the era of Industry 4.0 and Society 5.0 which is marked by digital transactions through internet applications, these market models are more occult with the search engine market (SEM) (Li and Dong, 2020). For example, Facebook is an oligopolistic company in global technology, a monopoly on social media, Google is an oligopolistic company in global technology, a monopoly on search engines (Chohan, 2020).

As a result of this Industry 4.0 era, the electronic market has emerged as a new market model structure in the digital era which of course has strengthened the oligopolistic market structure (Janković, Dimitrijević and Milićević, 2018). The change from the traditional market to the electronic market makes the market structure in this digital era evenly distributed, from a perfectly competitive market to a monopoly, from a monopolist to an oligopoly and vice versa from an oligopoly to a monopoly and so on (Smyrniaios, 2018; Peleckis, 2022; Xu and Guo, 2022).

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The impact of the digital era, of course, for large companies that can innovate will soon fill the market structure (Prat and Valletti, 2018; Han and Kim, 2019). On the other hand, companies that are not able to adapt are left behind. Massive monopolies by companies that control digital are very open, this is because said Dhingra and Morrow (2019) there is a distortion of imperfect competition due to highly variable elasticity. Likewise, this distortion causes the formation of an oligopoly market in the digital market due to uncontrollable prices that make it difficult for new consumers (Lee, 2019; Toft Bentsen, 2020).

Although it is undeniable that business in the digital era certainly opens up many opportunities for new business actors to exist, there are concerns with big business players who hold oligopolistic positions (Franke and Hoxell, 2020) as well as monopolists who exploit market power to disrupt prices in the product market (Dorn *et al.*, 2017; Nuccio and Guerzoni, 2019). In this digital era, market power is important for anti-competitive business players, thus creating a necessity (Selwyn and Leyden, 2022).

2. Literature Review

Several articles on imperfect competition markets, such as oligopolies and monopolies in the digital era, have not been widely discussed from the shariah economic perspective. However, there are several similar articles discussing, for example, Budi Setiawan and Rahmawati (2020) writes about “Emerging Trends in Psychology, Law, Communication Studies, Culture, Religion, and Literature in the Global Digital Revolution”. Where he sees that the Industrial 4.0 era has great potential in increasing income and quality of life through the use of technological intelligence engineering, IoT, self-driving, and big-data with digital platforms so that it affects the joints of life not only in the economic sector but also in the social order. social, cultural and religious.

In financial institutions in general, and Islamic financial institutions in particular, including in the banking sector, technological innovation with digital service products in the era of internet technology engineering is a must (Chung and Mohd, 2018). The existence of digital services with products from banking and non-banking financial institutions can save operational costs while avoiding risk and efficiency (Lim, Lee and Har, 2021). In a monopolistic context, shariah financial institutions write Fatwa (2020) does not escape from unfair competition. For example, in financing the construction industry in Indonesia, Islamic banking financial institutions that are members of CR 4, namely; BTPN Shariah, Bank Shariah Mandiri, BNI Shariah, and BRI Shariah (besides BTPN Shariah, the three banks have now merged to become Bank Shariah Indonesia or BSI) monopolize these projects.

On the other hand, the oligopoly market which is part of a monopoly and monopolistic competition which entirely controls the price (Purnomo, 2021) seems to be very effective when developed with a digital platform. According to Gundogdu (2019), although oligopoly and monopolistic practices in the digital era are increasingly unstoppable, it is not a problem, if the consistency of compliance with shariah values is implemented properly as part of its inherent supervision. Wörsdörfer (2020) Seeing the increasingly distant digital era with internet technology, it is necessary to accelerate structured regulations that can stem risks so that normative values can still be a catalyst for global market players.

Worried Wörsdörfer (2020), some other experts behind the advancement of internet technology engineering in the global arena ignited Buckley *et al.* (2019) an article entitled “The Dark Side of Digital Financial Transformation ...” strongly reminds me of the risks of oligopoly and monopolistic market competition due to network effects with the role of integrative and transparent technology regulation. Ciriello, Richter, and Schwabe (2018) reminded that the business achieved by digital giants, such as Google, Amazon, Facebook,

Apple, and Microsoft, known as GAFAM, could even make a contribution but create a global market that tends to be monopolistic and oligopoly.

The five big companies mentioned above can create a new form of digital market that tends to be oligopolistic or monopoly (Jetter, 2017), although it is very ambiguous in creating income distribution because it is less evenly distributed. Although labour incomes increase, real income equality is lower. This is what Kumar and Stauvermann (2021) referred to as the new monopolistic-oligopoly style model of the digital era. The traditional market economy cycle has existed for a long time, plus the digital era is certain to develop. But thrifty Malysheva and Kharlamova (2021) there need to be careful handlings, such as the Dynamics approach known as the Dynamic Model of Changes in Corporate Strategies as an effort to handle traditional business models, and the Digital Dynamic Model of Changes in Corporate Strategy which focuses on industrial innovations, strategies, products, processes and data that are built mathematically.

Regardless of what is modelled Malysheva and Kharlamova (2021), in the era of the digital market, which is clear, almost all countries regulate the digital market, including in Japan with the Antimonopoly Law (Fuchikawa, 2020), Antitrust Law in the Republic of Belarus (Sinyak, 2020), UU Antitrust in China (Huang, 2019). Likewise, in Indonesia, there is a Law concerning the Prohibition of Monopolistic Practices and Unfair Business Competition (Mahendrawati, 2021). This law regulates unfair competition markets, although especially in Indonesia there need to be adjustments to the current digital era.

3. Method

This paper will describe the oligopoly market and monopolistic competition in the digital era from the perspective of the shariah economy with literature review methods and content analysis through a descriptive qualitative approach. Inductive logic is used as an additional study to deepen the topic of discussion. The main references are taken from the mapping of discussion topics, such as oligopoly markets and monopolistic competition in the digital era, and the shariah economic perspective in different themes from 83 written themes with ISSN indexed and indexed by Scopus, Sinta, and others. To sort out the appropriate theme, it needs to be coded, displayed, reduced, then triangulated so that each other is confirmed so that there is no gap between one paragraph and another (Islam and Huda, 2018).

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4. Results and Discussion

4.1. Oligopoly Market and Monopolistic Competition in the Digital Era

Entering the digitalization era, the impact of Industrial 4.0 technology engineering adds a new digital market structure in forming a new oligopoly and monopolistic market model. According to Budzinski and Kuchinke (2020), The era of internet technology innovation marks the development of the modern economy of digital platforms and the economy of data-based business models so that they are considered effective and efficient. Van Dijck, Nieborg, and Poell (2019) hope that the dream of modern digital and data-based economy wants to prosper consumers, integrate a dynamic system and be independent in a dynamic social structure. However, the modern digital platform market cannot be separated from large, branded corporations (Kantarelis, 2019), such as the global smartphone industry and its GAFAM will always monopolize this market.

Financial technology (FinTech) in the financial sector has entered the digital platform market through a process of reintermediation, consolidation, and capitalization capable of changing the market structure significantly (Chiu, 2016). Instead of triggering an intensive

capitalization process on venture capital, private equity funds, banks, and BigTech companies become leading competitors (Langley and Leyshon, 2021). On the other hand, the traditional computing market services that used to be only SaaS (Software as a Service), PaaS (Platform as a Service), and IaaS (Infrastructure as a Service) are now dominated by a market with an oligopolistic character where services are only provided by a small number of large companies (Ozu, Kasuga and Morikawa, 2020).

The small number of large companies that dominate the digital market can shape prices instantly. According to Thépot (2021) in the digital era of the global market which is dominated by a small number of large companies, it is enough to determine prices instantly with algorithm-based computerization. Preta (2018) recognizes that in the digital era the role of the internet has changed social and industrial dynamics through network effects, either directly or indirectly. As a result, the market structure dominated by a small number of large companies affects the “superstar” effect and the “long tail” effect which has an impact on “dynamic competition” in the global market. This digital era there is collective domination rooted in the identification of “collective” and identification of “dominance” which is the source of monopoly and anti-market competition. So, it seems that in the industry 4.0 era, market monopoly behaviour and monopolistic competition are unavoidable (Rozanova, 2021).

Thus, it turns out that the digital economy as a platform in the era of internet technology triggers unhealthy competition behaviour in the form of oligopolies and monopolies which are triggered by a small number of large companies becoming the main actors (Wei, 2020). Although various antitrust laws in almost all parts of the world, including China, Russia, America, Germany, Japan, Korea, Brazil, and Indonesia itself, have been enacted, they are still not effective only administratively. It is possible that the Antimonopoly Law can prevent monopolistic behaviour, but its existence is not effective if the regulator is not transparent. Temporary Huberman et al. (2021) and Allen (2017) see that the digitization of the economy by using Bitcoin transactions can avoid monopoly power. Because with this platform, competitors and suppliers are free to enter and each of them can be a price taker so that they can create market balance.

The largest digital platforms that have been in direct contact with consumers, such as Google, Amazon, Facebook, Apple, and Microsoft, could be a small part of a large company which of course can create oligopoly behaviour in the virtual market. Sharp criticism of the users of GAFAM's largest platform, Hovenkamp (2020) questions what if they harm consumers and suppliers including their workforce. According to Andolfatto (2021) that monopolistic competition behaviour does not only occur on the GAFAM platform but can also occur in bank financial institutions with their various innovations, maybe even other markets (Kaikar *et al.*, 2021). The following figure shows the circulation of the digital market era that involves various components of the community, investors, suppliers, and so on.

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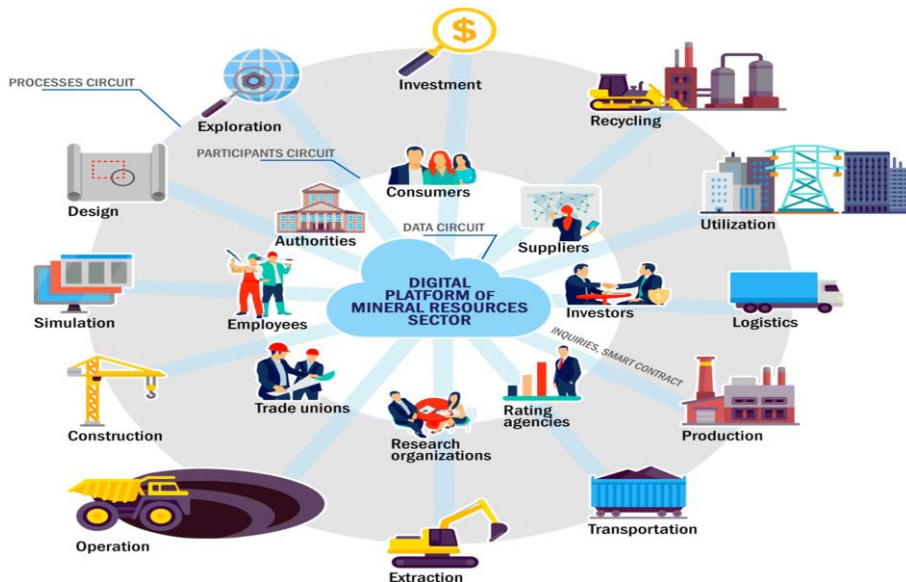


Figure 1: Circulation of Digital Platform Market Processes in the World Mineral Resources Sector. Source: Litvinenko (2020)

4.2. Internalization of Shariah Economic Values in Society 5.0 Era

Talking about Islamic norms and values, there is a criticism that has been raised Kuran (1983) several years ago where Islamic values were identical with Arab norms which if applied in the current modern economic era became irrelevant. Especially in the era of digital platform innovation technology. Another criticism made by Aydin (2020) states that the transformation of Islamic finance is the rise of disguised capitalism with the platform of an Islamic economic system. It could be that this criticism has relevance if you look at the findings Abduh and Hussin (2018) related to the attitude of a Muslim related to the intention to do business on the shariah platform. Whereas religiosity and subjective norms have a significant effect.

Speaking of Islam and its values, it is not necessary to look at the Arab community, but at the reference source, namely the Qur'an, although it is true that it originally came from Arabia. Muttaqin (2019) argues that one of the globally agreed-upon Islamic values, for example, is about exaggeration (*Israf*) in any form, especially in the context of consumption in any era including the digital era. Likewise, the value of justice, wherever the values of justice are recognized as universal truths. Yusfiarto and Pambekti (2019) agreed that digitalization in the modern economic era with shariah economic values has a very significant correlation. What about free-market behaviour that creates unfair competition? This is the main review of this paper.

The value of rationality is emphasized in the shariah economy (Abdullahi, 2018). In fact, the level of difficulty can be measured, as in mathematics Algebra has a great contribution to the development of science, especially in the field of economics. Even the mathematical model in Islam can achieve real welfare (FALAH). Of course, it can be developed on the mathematical logic of the algorithm which is now the spirit of the digital platform. Aydin (2020) reinforce that the values in the shariah economy centred on Tawhid should be able to

produce Ihsan attitudes and personalities. Especially in the digital era, they understand phenomena and reality rationally, not hedonism and apathy.

That's why an Al-Sadr or called Muhammad Baqir al-Sadr (1935-1980) a pioneer of contemporary Islamic economics at the end of the 20th century, said Furqani (2019) believes that Islamic economics as a body of science and knowledge is a solution to the existing economic system in the global world. Khan (2019) see that Islamic economics needs strengthening at the practical and methodological level, even though it is already well established in the ethical sector. Samawi Hamid and Mirakhor (2020) mentions that the ideal of shariah economics is comprehensive in the Qur'an whose operationalization is at the Sunnah level.

In the era of Society 5.0, which wants to play a more complete human being than industrial innovation technology 4.0 with a digital platform, the shariah economy is fully supported. Rationalization of adaptive technology must go hand in hand with equality and balance towards just global welfare (*Maslahah*) is the ideal of shariah economy, consumption values must adhere to ethical and religious values (Muttaqin and Pusparini, 2019). But, of course in its implementation, the ethical values of sharia economics need to be strengthened in a more empirical context through the behaviour of its adherents (Ibrahim, 2019), for example, in the shariah financial sector through banking and non-banking institutions, they must be exemplary financial systems and solutions in project financing and investment assistance.

The shariah economic platform must be able to provide solutions that are prosperous for the global community, both for actors, producers, consumers, industry, technology, suppliers, agencies, transportation, and even transformative regulations (Mohd Nor, Abdul-Majid and Esrati, 2021; Menne *et al.*, 2022).

Shariah economy with existing values (Zainuldin, Lui and Yii, 2018), such as fairness, rationality, equity, and balance based on the principles of Tawhid can shape attitudes and behaviours that with consistency can keep away from the characteristics of oligopoly and unfair monopolistic competition. At least, if that happens, especially in the digital era, behaviour and business are still overshadowed by the global market arena, will sacrifice individualistic egoism with philanthropic movements through awareness of social instruments, such as zakat, Infaq, alms, and waqf as personal and social responsibility. at a time (Barom, 2018).

5. Conclusions

Market competition has long adorned the business and trade system, the emergence of oligopoly markets and monopolistic competition due to a small number of market players monopolizing, the impact of pure competition between business people becomes unhealthy. Imperfect competition markets that result in injustice, imbalance, inequality, and rationality that are tarnished due to greedy capitalism inspire state administrators to legislate with antitrust regulations.

In the Industry 4.0 era which is the culmination of technological innovation with digital platforms that give rise to industrial engineering and the internet, such as artificial intelligence, the internet of things, 3D technology, blockchain and so on, even though collaboration between companies still invites the opening of market characteristics of oligopolies and monopolistic styles. new. Although the emergence of digital market platforms is the trigger, of course (*Sunatullah*) this kind of behaviour model must exist. Shariah economics as a "newcomer" through the ideas of several contemporary figures, such as Al-Sadr and others, tries to offer a system that emphasizes more on individual awareness

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while at the same time referring to society (social), and social reference to the common welfare, individual-social concern bound by Tawhid similarities.

Conceptually the Qur'an aspires to operationally by Sunnah (Eyerci, 2021) being a role model for the Muslim community to become Muhsin needs to be emphasized with the consistency of human attitudes and behaviour. The ability of human resources in the digital era to determine the direction of the global market so that it does not lead to unfair competition should not be dependent on technology platforms, but rather the patterns and attitudes of individual behaviour together with the global community need to be guided by universal teaching values (Rusydia, Sanrego and Rahayu, 2021). Tawhid and its aspects in total, steady and humanitarian commitment to the achievement of sustainable development goals (SDGs) following *Maqashid shariah* (Al Hadi, 2022).

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BUKTI HASIL REVISI

Thank you for the comments and reviews.

The following changes have been made on the Manuscript “**Oligopoly Market and Monopolistic Competition in the Digital Era: Shariah Economic Perspective**” in accordance with reviewers’ comments

Reviewer’s comments	Changes made/ Revision	Page (see highlights)
<p>After presenting the background, please write down the article's purpose or question related to the oligopoly and monopolistic market network theme.</p>	<p>In this article, the author wants to describe the oligopoly and monopolistic market network that is increasingly prevalent in the industry 4.0 era through internet technology engineering with its digital platform and explores the network of budding business actors who are just using digitalization and how the Shariah economic perspective is related to the market structure network.</p>	<p>2 (Red)</p>
<p>Show the steps in the reference selection up to 83 references. because this information is not clear.</p>	<p>The main references are taken from the mapping of discussion topics, such as oligopoly markets and monopolistic competition in the digital era, and the shariah economic perspective in different themes from 83 written themes with ISSN indexed and indexed by Scopus, Sinta, and others. Selection steps: 1) Match the reference title and keywords with the words “oligopoly”, “markets”, “oligopoly markets”, “monopoly”, “monopolistic competition”, “digital era”, and “sharia economic”; 2) Selection of reference based on the content of the abstract according to the main topic; 3) Selection of reference based on the entire discussion section in the article; 4) Selection of articles by the overall content related the main topic.</p>	<p>3 (Red)</p>
<p>Not clear. Please explore the circulation of digital platform market.</p>	<p>Various terms in the digital economy era, such as the platform economy, sharing economy, and virtual economy, all of which are based on internet computing, signify the era of innovative technology with wider market segmentation (Brynjolfsson et al., 2003), but limited to digital users only</p>	<p>4-5 (Red)</p>

	<p>(Schmid, 2001; Bukht and Heeks, 2017; Coyle, 2017; Lampinen et al., 2018). As a result, the digital economy has changed global society as a market community, but the characteristics of monopolistic competition are unavoidable. Where some experts and observers suggest that there should be systemic regulation (Duch-Brown and Rossetti, 2020) comprehensive from the government (Robertson, 2020) to save global citizens from unfair competition market participants. The following figure shows the circulation of the digital market era that involves various components of the community, investors, suppliers, and so on.</p> <p>Based on the digital platform circulation process above related to the mineral resource sector which is explored systemically involving various fields, it is necessary to strive for sustainable regulation to save the global environment for the sake of future generations, not just to meet the needs of the global market. The digital regulatory support capacity by the government must be played as much as possible.</p>	
<p>You stated "the sharia economic platform must be able to provide solutions that are prosperous for the global community,". Please explain in more detail, for example increasing welfare through the Islamic economy with zakat, etc. In addition, how about the strengthening of social preferences?</p>	<p>The impression of a more Shara' market must be created in an environment that is far from elements of Gharar, Dharar, Maysir, Najasy, Usury, and other disobedience (Berutu, 2021). Generate religious market beliefs, full of honesty, fairness, equality and balance physically and mentally. Establish fair regulations (role) of government, Alam and Rizvi (2017) for all global communities to feel peace, prosperity and prosperity as aspired to an environment that is tayyib (good), and full of blessings for all. Consistently implement sharia economic instruments with zakat, Infaq, alms and waqf (Abidin, 2020) as a form of patent social care.</p>	<p>6-7 (red)</p>

	<p>In terms of Khan (2018) Shariah economy which is part of Islamic teachings is a reinforcement of social preferences, although individual rights are still respected. Islamic social preferences in the economic sector can be taken seriously by the theory of "Third Fundamental Theorem of Welfare Economics (TFTWE)", which transforms the word "individualism-hedonism" become a social agent (philanthropist), market achievement as Pareto optimal, fair, and unique. Mahomedy (2019) emphasized that the moral values in the shariah ecosystem lead to Tawhid for the welfare of the global community.</p>	
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Oligopoly Market and Monopolistic Competition in the Digital Era: Shariah Economic Perspective

Abstract

Imperfect competition markets, such as oligopolies and monopolies, are claimed to be unhealthy business activities because they contain elements of injustice, inequality, and imbalance that become irrational. In the current digital era, unhealthy competition is very possible to become big and profitable, although there are great opportunities for other newcomers to enter, due to lack of experience and human resources who are not necessarily competent and innovative, plus minimal capital, it is difficult to become competitors, let alone balance. As a result, concerns in the era of disruption with digital platforms regarding unfair competition through oligopolies and monopolies need to be watched out for. Shariah's economy that upholds the values of rationality, justice, equity, and balance rather than a free market is an important solution. Especially in the Industrial 4.0 era, which emphasizes the internet technology sector, it needs to be accompanied by the central role of human resources (Society 5.0), which upholds the four shariah economic values.

Keywords: Oligopoly, Market, Monopoly, Digital Era, Sharia Economy, Internet

1. Introduction

Talking about the market and the structure of the competitive market is an interesting thing, especially when it is associated with the digital era and the Shariah economic perspective. The digital era is pinned on savings where the internet is a platform for the Industrial 4.0 era (Zafani and Arifqi, 2020), while the oligopoly market (several large suppliers) and monopolistic competition market (one supplier) are conventional (Hiç, 2020) has become an icon in the market structure of unfair competition (Ward, 2018; Valente, 2021). Meanwhile, a Sharia economy based on justice, equity and balance (Arfah et al. 2020) become a perspective on behaviour in oligopoly markets and monopolistic competition in the digital era (Budi Setiawan and Rahmawati, 2020).

The main characteristic of traditional economics until the 20th century was the existence of markets, both perfectly competitive markets and imperfectly competitive markets such as monopoly, oligopoly, and monopolistic markets (Kumar and Stauvermann 2020; Chohan 2020). However, in the era of Industry 4.0 and Society 5.0 which is marked by digital transactions through internet applications, these market models are more occult with the search engine market (SEM) (Li and Dong, 2020). For example, Facebook is an oligopolistic company in global technology, a monopoly on social media, Google is an oligopolistic company in global technology, a monopoly on search engines (Chohan, 2020).

As a result of this Industry 4.0 era, the electronic market has emerged as a new market model structure in the digital era which of course has strengthened the oligopolistic market structure (Janković, Dimitrijević and Milićević, 2018). The change from the traditional market to the electronic market makes the market structure in this digital era evenly distributed, from a perfectly competitive market to a monopoly, from a monopolist to an oligopoly and vice versa from an oligopoly to a monopoly and so on (Smyrniaios, 2018; Peleckis, 2022; Xu and Guo, 2022).

The impact of the digital era, of course, for large companies that can innovate will soon fill the market structure (Prat and Valletti, 2018; Han and Kim, 2019). On the other hand, companies that are not able to adapt are left behind. Massive monopolies by companies that control digital are very open, this is because said Dhingra and Morrow (2019) there is a distortion of imperfect competition due to highly variable elasticity. Likewise, this distortion causes the formation of an oligopoly market in the digital market due to uncontrollable prices that make it difficult for new consumers (Lee, 2019; Toft Bentsen, 2020).

Although it is undeniable that business in the digital era certainly opens up many opportunities for new business actors to exist, there are concerns with big business players who hold oligopolistic positions (Franke and Hoxell, 2020) as well as monopolists who exploit market power to disrupt prices in the product market (Dorn *et al.*, 2017; Nuccio and Guerzoni, 2019). In this digital era, market power is important for anti-competitive business players, thus creating a necessity (Selwyn and Leyden, 2022). **In this article, the author wants to describe the oligopoly and monopolistic market network that is increasingly prevalent in the industry 4.0 era through internet technology engineering with its digital platform and explores the network of budding business actors who are just using digitalization and how the Shariah economic perspective is related to the market structure network.**

2. Literature Review

Several articles on imperfect competition markets, such as oligopolies and monopolies in the digital era, have not been widely discussed from the shariah economic perspective. However, there are several similar articles discussing, for example, Budi Setiawan and Rahmawati (2020) writes about “Emerging Trends in Psychology, Law, Communication Studies, Culture, Religion, and Literature in the Global Digital Revolution”. Where he sees that the Industrial 4.0 era has great potential in increasing income and quality of life through the use of technological intelligence engineering, IoT, self-driving, and big-data with digital platforms so that it affects the joints of life not only in the economic sector but also in the social order. social, cultural and religious.

In financial institutions in general, and Islamic financial institutions in particular, including in the banking sector, technological innovation with digital service products in the era of internet technology engineering is a must (Chung and Mohd, 2018). The existence of digital services with products from banking and non-banking financial institutions can save operational costs while avoiding risk and efficiency (Lim, Lee and Har, 2021). In a monopolistic context, shariah financial institutions write Fatwa (2020) does not escape from unfair competition. For example, in financing the construction industry in Indonesia, Islamic banking financial institutions that are members of CR 4, namely; BTPN Shariah, Bank Shariah Mandiri, BNI Shariah, and BRI Shariah (besides BTPN Shariah, the three banks have now merged to become Bank Shariah Indonesia or BSI) monopolize these projects.

On the other hand, the oligopoly market which is part of a monopoly and monopolistic competition which entirely controls the price (Purnomo, 2021) seems to be very effective when developed with a digital platform. According to Gundogdu (2019), although oligopoly and monopolistic practices in the digital era are increasingly unstoppable, it is not a problem, if the consistency of compliance with shariah values is implemented properly as part of its inherent supervision. Wörsdörfer (2020) Seeing the increasingly distant digital era with internet technology, it is necessary to accelerate structured regulations that can stem risks so that normative values can still be a catalyst for global market players.

Worried Wörsdörfer (2020), some other experts behind the advancement of internet technology engineering in the global arena ignited Buckley et al. (2019) an article entitled “The Dark Side of Digital Financial Transformation ...” strongly reminds me of the risks of

oligopoly and monopolistic market competition due to network effects with the role of integrative and transparent technology regulation. Ciriello, Richter, and Schwabe (2018) reminded that the business achieved by digital giants, such as Google, Amazon, Facebook, Apple, and Microsoft, known as GAFAM, could even make a contribution but create a global market that tends to be monopolistic and oligopoly.

The five big companies mentioned above can create a new form of digital market that tends to be oligopolistic or monopoly (Jetter, 2017), although it is very ambiguous in creating income distribution because it is less evenly distributed. Although labour incomes increase, real income equality is lower. This is what Kumar and Stauvermann (2021) referred to as the new monopolistic-oligopoly style model of the digital era. The traditional market economy cycle has existed for a long time, plus the digital era is certain to develop. But thrifty Malysheva and Kharlamova (2021) there need to be careful handlings, such as the Dynamics approach known as the Dynamic Model of Changes in Corporate Strategies as an effort to handle traditional business models, and the Digital Dynamic Model of Changes in Corporate Strategy which focuses on industrial innovations, strategies, products, processes and data that are built mathematically.

Regardless of what is modelled Malysheva and Kharlamova (2021), in the era of the digital market, which is clear, almost all countries regulate the digital market, including in Japan with the Antimonopoly Law (Fuchikawa, 2020), Antitrust Law in the Republic of Belarus (Sinyak, 2020), UU Antitrust in China (Huang, 2019). Likewise, in Indonesia, there is a Law concerning the Prohibition of Monopolistic Practices and Unfair Business Competition (Mahendrawati, 2021). This law regulates unfair competition markets, although especially in Indonesia there need to be adjustments to the current digital era.

3. Method

This paper will describe the oligopoly market and monopolistic competition in the digital era from the perspective of the shariah economy with literature review methods and content analysis through a descriptive qualitative approach. Inductive logic is used as an additional study to deepen the topic of discussion. **The main references are taken from the mapping of discussion topics, such as oligopoly markets and monopolistic competition in the digital era, and the shariah economic perspective in different themes from 83 written themes with ISSN indexed and indexed by Scopus, Sinta, and others. Selection steps: 1) Match the reference title and keywords with the words “oligopoly”, “markets”, “oligopoly markets”, “monopoly”, “monopolistic competition”, “digital era”, and “sharia economic”; 2) Selection of reference based on the content of the abstract according to the main topic; 3) Selection of reference based on the entire discussion section in the article; 4) Selection of articles by the overall content related the main topic.** To sort out the appropriate theme, it needs to be coded, displayed, reduced, then triangulated so that each other is confirmed so that there is no gap between one paragraph and another (Islam and Huda, 2018).

4. Results and Discussion

4.1. Oligopoly Market and Monopolistic Competition in the Digital Era

Entering the digitalization era, the impact of Industrial 4.0 technology engineering adds a new digital market structure in forming a new oligopoly and monopolistic market model. According to Budzinski and Kuchinke (2020), The era of internet technology innovation marks the development of the modern economy of digital platforms and the economy of data-based business models so that they are considered effective and efficient. Van Dijck,

Nieborg, and Poell (2019) hope that the dream of modern digital and data-based economy wants to prosper consumers, integrate a dynamic system and be independent in a dynamic social structure. However, the modern digital platform market cannot be separated from large, branded corporations (Kantarelis, 2019), such as the global smartphone industry and its GAFAM will always monopolize this market.

Financial technology (FinTech) in the financial sector has entered the digital platform market through a process of reintermediation, consolidation, and capitalization capable of changing the market structure significantly (Chiu, 2016). Instead of triggering an intensive capitalization process on venture capital, private equity funds, banks, and BigTech companies become leading competitors (Langley and Leyshon, 2021). On the other hand, the traditional computing market services that used to be only SaaS (Software as a Service), PaaS (Platform as a Service), and IaaS (Infrastructure as a Service) are now dominated by a market with an oligopolistic character where services are only provided by a small number of large companies (Ozu, Kasuga and Morikawa, 2020).

The small number of large companies that dominate the digital market can shape prices instantly. According to Thépot (2021) in the digital era of the global market which is dominated by a small number of large companies, it is enough to determine prices instantly with algorithm-based computerization. Preta (2018) recognizes that in the digital era the role of the internet has changed social and industrial dynamics through network effects, either directly or indirectly. As a result, the market structure dominated by a small number of large companies affects the “superstar” effect and the “long tail” effect which has an impact on “dynamic competition” in the global market. This digital era there is collective domination rooted in the identification of "collective" and identification of "dominance" which is the source of monopoly and anti-market competition. So, it seems that in the industry 4.0 era, market monopoly behaviour and monopolistic competition are unavoidable (Rožanova, 2021).

Thus, it turns out that the digital economy as a platform in the era of internet technology triggers unhealthy competition behaviour in the form of oligopolies and monopolies which are triggered by a small number of large companies becoming the main actors (Wei, 2020). Although various antitrust laws in almost all parts of the world, including China, Russia, America, Germany, Japan, Korea, Brazil, and Indonesia itself, have been enacted, they are still not effective only administratively. It is possible that the Antimonopoly Law can prevent monopolistic behaviour, but its existence is not effective if the regulator is not transparent. Temporary Huberman et al. (2021) and Allen (2017) see that the digitization of the economy by using Bitcoin transactions can avoid monopoly power. Because with this platform, competitors and suppliers are free to enter and each of them can be a price taker so that they can create market balance.

The largest digital platforms that have been in direct contact with consumers, such as Google, Amazon, Facebook, Apple, and Microsoft, could be a small part of a large company which of course can create oligopoly behaviour in the virtual market. Sharp criticism of the users of GAFAM's largest platform, Hovenkamp (2020) questions what if they harm consumers and suppliers including their workforce. According to Andolfatto (2021) that monopolistic competition behaviour does not only occur on the GAFAM platform but can also occur in bank financial institutions with their various innovations, maybe even other markets (Kaikar *et al.*, 2021).

Various terms in the digital economy era, such as the platform economy, sharing economy, and virtual economy, all of which are based on internet computing, signify the era of innovative technology with wider market segmentation (Brynjolfsson et al., 2003), but limited to digital users only (Schmid, 2001; Bukht and Heeks, 2017; Coyle, 2017; Lampinen *et al.*, 2018). As a result, the digital economy has changed global society as a market

community, but the characteristics of monopolistic competition are unavoidable. Where some experts and observers suggest that there should be systemic regulation (Duch-Brown and Rossetti, 2020) comprehensive from the government (Robertson, 2020) to save global citizens from unfair competition market participants. The following figure shows the circulation of the digital market era that involves various components of the community, investors, suppliers, and so on.

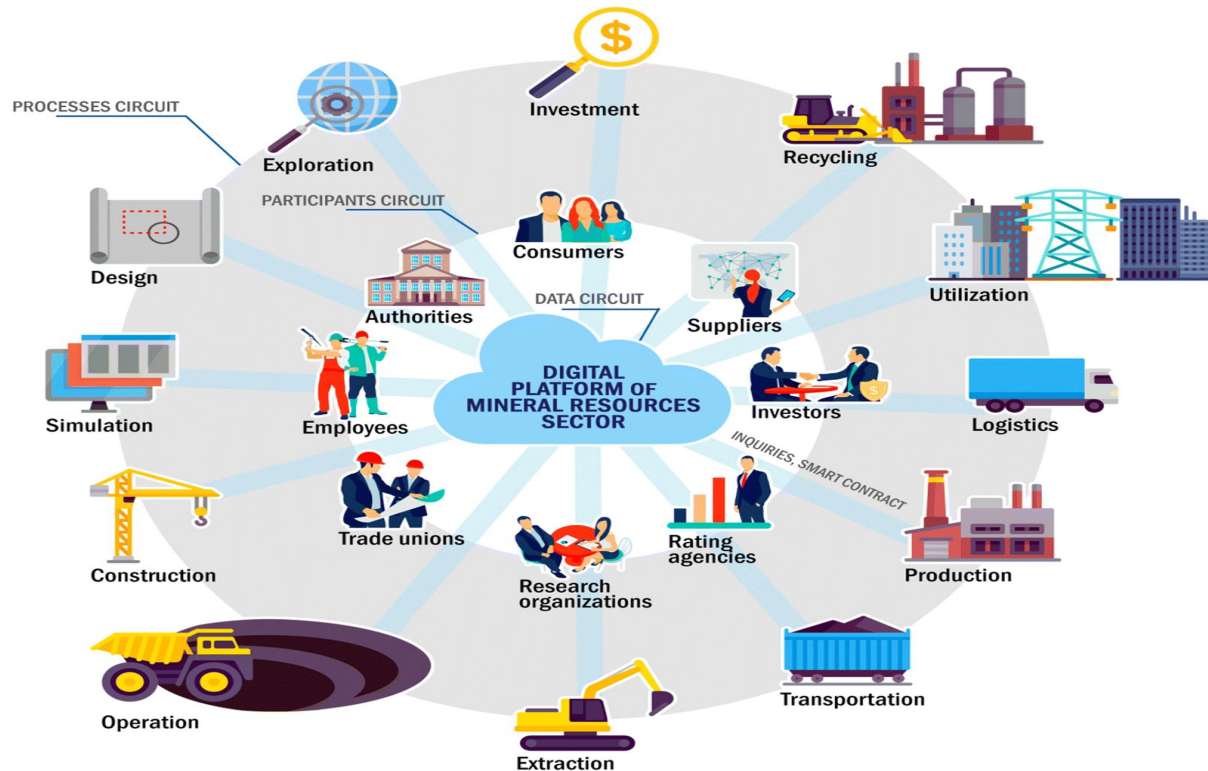


Figure 1: Circulation of Digital Platform Market Processes in the World Mineral Resources Sector. Source: Litvinenko (2020)

Based on the digital platform circulation process above related to the mineral resource sector which is explored systemically involving various fields, it is necessary to strive for sustainable regulation to save the global environment for the sake of future generations, not just to meet the needs of the global market. The digital regulatory support capacity by the government must be played as much as possible.

4.2. Internalization of Shariah Economic Values in Society 5.0 Era

Talking about Islamic norms and values, there is a criticism that has been raised Kuran (1983) several years ago where Islamic values were identical with Arab norms which if applied in the current modern economic era became irrelevant. Especially in the era of digital platform innovation technology. Another criticism made by Aydin (2020) states that the transformation of Islamic finance is the rise of disguised capitalism with the platform of an Islamic economic system. It could be that this criticism has relevance if you look at the findings Abduh and Hussin (2018) related to the attitude of a Muslim related to the intention to do business on the shariah platform. Whereas religiosity and subjective norms have a significant effect.

Speaking of Islam and its values, it is not necessary to look at the Arab community, but at the reference source, namely the Qur'an, although it is true that it originally came from

Arabia. Muttaqin (2019) argues that one of the globally agreed-upon Islamic values, for example, is about exaggeration (*Isrāf*) in any form, especially in the context of consumption in any era including the digital era. Likewise, the value of justice, wherever the values of justice are recognized as universal truths. Yusfiarto and Pambekti (2019) agreed that digitalization in the modern economic era with shariah economic values has a very significant correlation. What about free-market behaviour that creates unfair competition? This is the main review of this paper.

The value of rationality is emphasized in the shariah economy (Abdullahi, 2018). In fact, the level of difficulty can be measured, as in mathematics Algebra has a great contribution to the development of science, especially in the field of economics. Even the mathematical model in Islam can achieve real welfare (FALAH). Of course, it can be developed on the mathematical logic of the algorithm which is now the spirit of the digital platform. Aydin (2020) reinforce that the values in the shariah economy centred on Tawhid should be able to produce Ihsan attitudes and personalities. Especially in the digital era, they understand phenomena and reality rationally, not hedonism and apathy.

That's why an Al-Sadr or called Muhammad Baqir al-Sadr (1935-1980) a pioneer of contemporary Islamic economics at the end of the 20th century, said Furqani (2019) believes that Islamic economics as a body of science and knowledge is a solution to the existing economic system in the global world. Khan (2019) see that Islamic economics needs strengthening at the practical and methodological level, even though it is already well established in the ethical sector. Samawi Hamid and Mirakhor (2020) mentions that the ideal of shariah economics is comprehensive in the Qur'an whose operationalization is at the Sunnah level.

In the era of Society 5.0, which wants to play a more complete human being than industrial innovation technology 4.0 with a digital platform, the shariah economy is fully supported. Rationalization of adaptive technology must go hand in hand with equality and balance towards just global welfare (*Maslahah*) is the ideal of shariah economy, consumption values must adhere to ethical and religious values (Muttaqin and Pusparini, 2019). But, of course in its implementation, the ethical values of sharia economics need to be strengthened in a more empirical context through the behaviour of its adherents (Ibrahim, 2019), for example, in the shariah financial sector through banking and non-banking institutions, they must be exemplary financial systems and solutions in project financing and investment assistance.

The shariah economic platform must be able to provide solutions that are prosperous for the global community, both for actors, producers, consumers, industry, technology, suppliers, agencies, transportation, and even transformative regulations (Mohd Nor, Abdul-Majid and Esrati, 2021; Menne *et al.*, 2022). **The impression of a more *Shara'* market must be created in an environment that is far from elements of *Gharar*, *Dharar*, *Maysir*, *Najasy*, *Usury*, and other disobedience (Berutu, 2021). Generate religious market beliefs, full of honesty, fairness, equality and balance physically and mentally. Establish fair regulations (role) of government, Alam and Rizvi (2017) for all global communities to feel peace, prosperity and prosperity as aspired to an environment that is *tayyib* (good), and full of blessings for all. Consistently implement sharia economic instruments with *zakat*, *Infaq*, alms and *waqf* (Abidin, 2020) as a form of patent social care.**

In terms of Khan (2018) Shariah economy which is part of Islamic teachings is a reinforcement of social preferences, although individual rights are still respected. Islamic social preferences in the economic sector can be taken seriously by the theory of "Third Fundamental Theorem of Welfare Economics (TFTWE)", which transforms the word "individualism-hedonism" become a social agent (philanthropist), market achievement as

Pareto optimal, fair, and unique. Mahomedy (2019) emphasized that the moral values in the shariah ecosystem lead to Tawhid for the welfare of the global community.

Thus, shariah economy with existing values (Zainuldin, Lui and Yii, 2018), such as fairness, rationality, equity, and balance based on the principles of Tawhid can shape attitudes and behaviours that with consistency can keep away from the characteristics of oligopoly and unfair monopolistic competition. At least, if that happens, especially in the digital era, behaviour and business are still overshadowed by the global market arena, will sacrifice individualistic egoism with philanthropic movements through awareness of social instruments, such as zakat, Infaq, alms, and waqf as personal and social responsibility. at a time (Barom, 2018).

5. Conclusions

Market competition has long adorned the business and trade system, the emergence of oligopoly markets and monopolistic competition due to a small number of market players monopolizing, the impact of pure competition between business people becomes unhealthy. Imperfect competition markets that result in injustice, imbalance, inequality, and rationality that are tarnished due to greedy capitalism inspire state administrators to legislate with antitrust regulations.

In the Industry 4.0 era which is the culmination of technological innovation with digital platforms that give rise to industrial engineering and the internet, such as artificial intelligence, the internet of things, 3D technology, blockchain and so on, even though collaboration between companies still invites the opening of market characteristics of oligopolies and monopolistic styles. new. Although the emergence of digital market platforms is the trigger, of course (*Sunatullah*) this kind of behaviour model must exist. Shariah economics as a "newcomer" through the ideas of several contemporary figures, such as Al-Sadr and others, tries to offer a system that emphasizes more on individual awareness while at the same time referring to society (social), and social reference to the common welfare, individual-social concern bound by Tawhid similarities.

Conceptually the Qur'an aspires to operationally by Sunnah (Eyerci, 2021) being a role model for the Muslim community to become Muhsin needs to be emphasized with the consistency of human attitudes and behaviour. The ability of human resources in the digital era to determine the direction of the global market so that it does not lead to unfair competition should not be dependent on technology platforms, but rather the patterns and attitudes of individual behaviour together with the global community need to be guided by universal teaching values (Rusydziana, Sanrego and Rahayu, 2021). Tawhid and its aspects in total, steady and humanitarian commitment to the achievement of sustainable development goals (SDGs) following *Maqashid shariah* (Al Hadi, 2022).

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File name: Final_version_Turnitin.docx (431.73K)

Word count: 3673

Character count: 20702

Oligopoly Market and Monopolistic Competition in the Digital Era: Shariah Economic Perspective

Abstract

Imperfect competition markets, such as oligopolies and monopolies, are claimed to be unhealthy business activities because they contain elements of injustice, inequality, and imbalance that become irrational. In the current digital era, unhealthy competition is very possible to become big and profitable, although there are great opportunities for other newcomers to enter, due to lack of experience and human resources who are not necessarily competent and innovative, plus minimal capital, it is difficult to become competitors, let alone balance. As a result, concerns in the era of disruption with digital platforms regarding unfair competition through oligopolies and monopolies need to be watched out for. Shariah's economy that upholds the values of rationality, justice, equity, and balance rather than a free market is an important solution. Especially in the Industrial 4.0 era, which emphasizes the internet technology sector, it needs to be accompanied by the central role of human resources (Society 5.0), which upholds the four shariah economic values.

Keywords: *Oligopoly, Market, Monopoly, Digital Era, Sharia Economy, Internet*

1. Introduction

Talking about the market and the structure of the competitive market is an interesting thing, especially when it is associated with the digital era and the Shariah economic perspective. The digital era is pinned on savings where the internet is a platform for the Industrial 4.0 era (Zafari and Arifqi, 2020), while the oligopoly market (several large suppliers) and monopolistic competition market (one supplier) are conventional (Hiç, 2020) has become an icon in the market structure of unfair competition (Ward, 2018; Valente, 2021). Meanwhile, a Sharia economy based on justice, equity and balance (Arfah et al. 2020) become a perspective on behaviour in oligopoly markets and monopolistic competition in the digital era (Budi Setiawan and Rahmawati, 2020).

The main characteristic of traditional economics until the 20th century was the existence of markets, both perfectly competitive markets and imperfectly competitive markets such as monopoly, oligopoly, and monopolistic markets (Kumar and Stauvermann 2020; Chohan 2020). However, in the era of Industry 4.0 and Society 5.0 which is marked by digital transactions through internet applications, these market models are more occult with the search engine market (SEM) (Li and Dong, 2020). For example, Facebook is an oligopolistic company in global technology, a monopoly on social media, Google is an oligopolistic company in global technology, a monopoly on search engines (Chohan, 2020).

As a result of this Industry 4.0 era, the electronic market has emerged as a new market model structure in the digital era which of course has strengthened the oligopolistic market structure (Janković, Dimitrijević and Milićević, 2018). The change from the traditional market to the electronic market makes the market structure in this digital era evenly distributed, from a perfectly competitive market to a monopoly, from a monopolist to an oligopoly and vice versa from an oligopoly to a monopoly and so on (Smyrniaos, 2018; Peleckis, 2022; Xu and Guo, 2022).

The impact of the digital era, of course, for large companies that can innovate will soon fill the market structure (Prat and Valletti, 2018; Han and Kim, 2019). On the other hand, companies that are not able to adapt are left behind. Massive monopolies by companies that control digital are very open, this is because said Dhingra and Morrow (2019) there is a distortion of imperfect competition due to highly variable elasticity. Likewise, this distortion causes the formation of an oligopoly market in the digital market due to uncontrollable prices that make it difficult for new consumers (Lee, 2019; Toft Bentsen, 2020).

Although it is undeniable that business in the digital era certainly opens up many opportunities for new business actors to exist, there are concerns with big business players who hold oligopolistic positions (Franke and Hoxell, 2020) as well as monopolists who exploit market power to disrupt prices in the product market (Dorn *et al.*, 2017; Nuccio and Guerzoni, 2019). In this digital era, market power is important for anti-competitive business players, thus creating a necessity (Selwyn and Leyden, 2022). In this article, the author wants to describe the oligopoly and monopolistic market network that is increasingly prevalent in the industry 4.0 era through internet technology engineering with its digital platform and explores the network of budding business actors who are just using digitalization and how the Shariah economic perspective is related to the market structure network.

2. Literature Review

Several articles on imperfect competition markets, such as oligopolies and monopolies in the digital era, have not been widely discussed from the shariah economic perspective. However, there are several similar articles discussing, for example, Budi Setiawan and Rahmawati (2020) writes about “Emerging Trends in Psychology, Law, Communication Studies, Culture, Religion, and Literature in the Global Digital Revolution”. Where he sees that the Industrial 4.0 era has great potential in increasing income and quality of life through the use of technological intelligence engineering, IoT, self-driving, and big-data with digital platforms so that it affects the joints of life not only in the economic sector but also in the social order. social, cultural and religious.

In financial institutions in general, and Islamic financial institutions in particular, including in the banking sector, technological innovation with digital service products in the era of internet technology engineering is a must (Chung and Mohd, 2018). The existence of digital services with products from banking and non-banking financial institutions can save operational costs while avoiding risk and efficiency (Lim, Lee and Har, 2021). In a monopolistic context, shariah financial institutions write Fatwa (2020) does not escape from unfair competition. For example, in financing the construction industry in Indonesia, Islamic banking financial institutions that are members of CR 4, namely; BTPN Shariah, Bank Shariah Mandiri, BNI Shariah, and BRI Shariah (besides BTPN Shariah, the three banks have now merged to become Bank Shariah Indonesia or BSI) monopolize these projects.

On the other hand, the oligopoly market which is part of a monopoly and monopolistic competition which entirely controls the price (Purnomo, 2021) seems to be very effective when developed with a digital platform. According to Gundogdu (2019), although oligopoly and monopolistic practices in the digital era are increasingly unstoppable, it is not a problem, if the consistency of compliance with shariah values is implemented properly as part of its inherent supervision. Wörsdörfer (2020) Seeing the increasingly distant digital era with internet technology, it is necessary to accelerate structured regulations that can stem risks so that normative values can still be a catalyst for global market players.

Worried Wörsdörfer (2020), some other experts behind the advancement of internet technology engineering in the global arena ignited Buckley et al. (2019) an article entitled “The Dark Side of Digital Financial Transformation ...” strongly reminds me of the risks of oligopoly

and monopolistic market competition due to network effects with the role of integrative and transparent technology regulation. Ciriello, Richter, and Schwabe (2018) reminded that the business achieved by digital giants, such as Google, Amazon, Facebook, Apple, and Microsoft, known as GAFAM, could even make a contribution but create a global market that tends to be monopolistic and oligopoly.

The five big companies mentioned above can create a new form of digital market that tends to be oligopolistic or monopoly (Jetter, 2017), although it is very ambiguous in creating income distribution because it is less evenly distributed. Although labour incomes increase, real income equality is lower. This is what Kumar and Stauvermann (2021) referred to as the new monopolistic-oligopoly style model of the digital era. The traditional market economy cycle has existed for a long time, plus the digital era is certain to develop. But thrifty Malysheva and Kharlamova (2021) there need to be careful handlings, such as the Dynamics approach known as the Dynamic Model of Changes in Corporate Strategies as an effort to handle traditional business models, and the Digital Dynamic Model of Changes in Corporate Strategy which focuses on industrial innovations, strategies, products, processes and data that are built mathematically.

Regardless of what is modelled Malysheva and Kharlamova (2021), in the era of the digital market, which is clear, almost all countries regulate the digital market, including in Japan with the Antimonopoly Law (Fuchikawa, 2020), Antitrust Law in the Republic of Belarus (Sinyak, 2020), UU Antitrust in China (Huang, 2019). Likewise, in Indonesia, there is a Law concerning the Prohibition of Monopolistic Practices and Unfair Business Competition (Mahendrawati, 2021). This law regulates unfair competition markets, although especially in Indonesia there need to be adjustments to the current digital era.

3. Method

This paper will describe the oligopoly market and monopolistic competition in the digital era from the perspective of the shariah economy with literature review methods and content analysis through a descriptive qualitative approach. Inductive logic is used as an additional study to deepen the topic of discussion. The main references are taken from the mapping of discussion topics, such as oligopoly markets and monopolistic competition in the digital era, and the shariah economic perspective in different themes from 83 written themes with ISSN indexed and indexed by Scopus, Sinta, and others. Selection steps: 1) Match the reference title and keywords with the words “oligopoly”, “markets”, “oligopoly markets”, “monopoly”, “monopolistic competition”, “digital era”, and “sharia economic”; 2) Selection of reference based on the content of the abstract according to the main topic; 3) Selection of reference based on the entire discussion section in the article; 4) Selection of articles by the overall content related the main topic. To sort out the appropriate theme, it needs to be coded, displayed, reduced, then triangulated so that each other is confirmed so that there is no gap between one paragraph and another (Islam and Huda, 2018).

4. Results and Discussion

4.1. Oligopoly Market and Monopolistic Competition in the Digital Era

Entering the digitalization era, the impact of Industrial 4.0 technology engineering adds a new digital market structure in forming a new oligopoly and monopolistic market model. According to Budzinski and Kuchinke (2020), The era of internet technology innovation marks the development of the modern economy of digital platforms and the economy of data-based business models so that they are considered effective and efficient. Van Dijck, Nieborg, and

Poell (2019) hope that the dream of modern digital and data-based economy wants to prosper consumers, integrate a dynamic system and be independent in a dynamic social structure. However, the modern digital platform market cannot be separated from large, branded corporations (Kantarelis, 2019), such as the global smartphone industry and its GAFAM will always monopolize this market.

Financial technology (FinTech) in the financial sector has entered the digital platform market through a process of reintermediation, consolidation, and capitalization capable of changing the market structure significantly (Chiu, 2016). Instead of triggering an intensive capitalization process on venture capital, private equity funds, banks, and BigTech companies become leading competitors (Langley and Leyshon, 2021). On the other hand, the traditional computing market services that used to be only SaaS (Software as a Service), PaaS (Platform as a Service), and IaaS (Infrastructure as a Service) are now dominated by a market with an oligopolistic character where services are only provided by a small number of large companies (Ozu, Kasuga and Morikawa, 2020).

The small number of large companies that dominate the digital market can shape prices instantly. According to Thépot (2021) in the digital era of the global market which is dominated by a small number of large companies, it is enough to determine prices instantly with algorithm-based computerization. Preta (2018) recognizes that in the digital era the role of the internet has changed social and industrial dynamics through network effects, either directly or indirectly. As a result, the market structure dominated by a small number of large companies affects the “superstar” effect and the “long tail” effect which has an impact on “dynamic competition” in the global market. This digital era there is collective domination rooted in the identification of "collective" and identification of "dominance" which is the source of monopoly and anti-market competition. So, it seems that in the industry 4.0 era, market monopoly behaviour and monopolistic competition are unavoidable (Roanova, 2021).

Thus, it turns out that the digital economy as a platform in the era of internet technology triggers unhealthy competition behaviour in the form of oligopolies and monopolies which are triggered by a small number of large companies becoming the main actors (Wei, 2020). Although various antitrust laws in almost all parts of the world, including China, Russia, America, Germany, Japan, Korea, Brazil, and Indonesia itself, have been enacted, they are still not effective only administratively. It is possible that the Antimonopoly Law can prevent monopolistic behaviour, but its existence is not effective if the regulator is not transparent. Temporary Huberman et al. (2021) and Allen (2017) see that the digitization of the economy by using Bitcoin transactions can avoid monopoly power. Because with this platform, competitors and suppliers are free to enter and each of them can be a price taker so that they can create market balance.

The largest digital platforms that have been in direct contact with consumers, such as Google, Amazon, Facebook, Apple, and Microsoft, could be a small part of a large company which of course can create oligopoly behaviour in the virtual market. Sharp criticism of the users of GAFAM's largest platform, Hovenkamp (2020) questions what if they harm consumers and suppliers including their workforce. According to Andolfatto (2021) that monopolistic competition behaviour does not only occur on the GAFAM platform but can also occur in bank financial institutions with their various innovations, maybe even other markets (Kaikar *et al.*, 2021).

Various terms in the digital economy era, such as the platform economy, sharing economy, and virtual economy, all of which are based on internet computing, signify the era of innovative technology with wider market segmentation (Brynjolfsson et al., 2003), but limited to digital users only (Schmid, 2001; Bukht and Heeks, 2017; Coyle, 2017; Lampinen *et al.*, 2018). As a result, the digital economy has changed global society as a market community, but the characteristics of monopolistic competition are unavoidable. Where some experts and

observers suggest that there should be systemic regulation (Duch-Brown and Rossetti, 2020) comprehensive from the government (Robertson, 2020) to save global citizens from unfair competition market participants. The following figure shows the circulation of the digital market era that involves various components of the community, investors, suppliers, and so on.

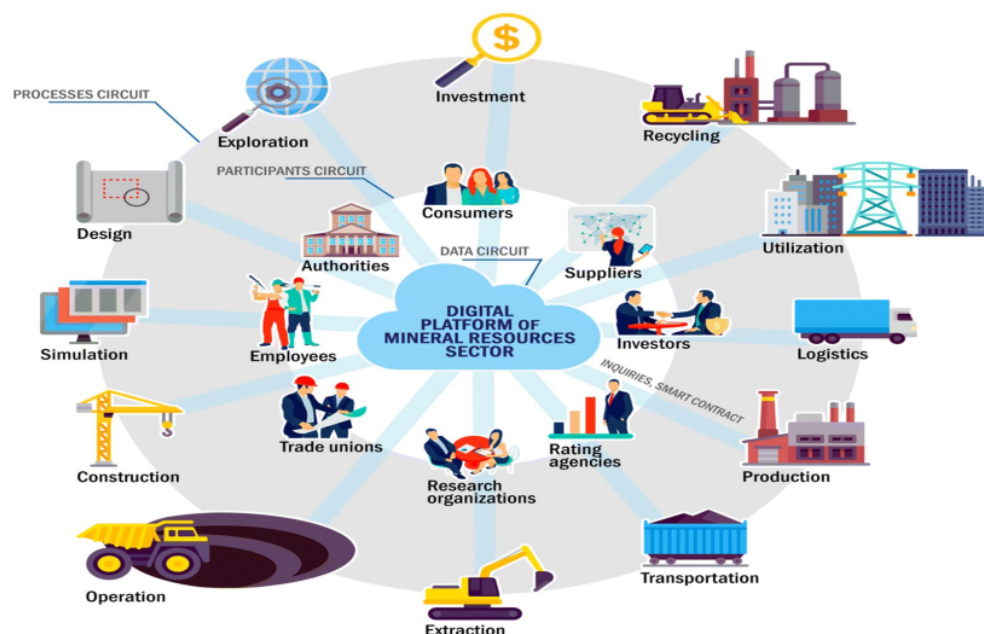


Figure 1: Circulation of Digital Platform Market Processes in the World Mineral Resources Sector. Source: Litvinenko (2020)

Based on the digital platform circulation process above related to the mineral resource sector which is explored systemically involving various fields, it is necessary to strive for sustainable regulation to save the global environment for the sake of future generations, not just to meet the needs of the global market. The digital regulatory support capacity by the government must be played as much as possible.

4.2. Internalization of Shariah Economic Values in Society 5.0 Era

Talking about Islamic norms and values, there is a criticism that has been raised Kuran (1983) several years ago where Islamic values were identical with Arab norms which if applied in the current modern economic era became irrelevant. Especially in the era of digital platform innovation technology. Another criticism made by Aydin (2020) states that the transformation of Islamic finance is the rise of disguised capitalism with the platform of an Islamic economic system. It could be that this criticism has relevance if you look at the findings Abduh and Hussin (2018) related to the attitude of a Muslim related to the intention to do business on the shariah platform. Whereas religiosity and subjective norms have a significant effect.

Speaking of Islam and its values, it is not necessary to look at the Arab community, but at the reference source, namely the Qur'an, although it is true that it originally came from Arabia. Muttaqin (2019) argues that one of the globally agreed-upon Islamic values, for example, is about exaggeration (*Isrāf*) in any form, especially in the context of consumption in any era including the digital era. Likewise, the value of justice, wherever the values of justice are

recognized as universal truths. Yusfiarto and Pambekti (2019) agreed that digitalization in the modern economic era with shariah economic values has a very significant correlation. What about free-market behaviour that creates unfair competition? This is the main review of this paper.

The value of rationality is emphasized in the shariah economy (Abdullahi, 2018). In fact, the level of difficulty can be measured, as in mathematics Algebra has a great contribution to the development of science, especially in the field of economics. Even the mathematical model in Islam can achieve real welfare (FALAH). Of course, it can be developed on the mathematical logic of the algorithm which is now the spirit of the digital platform. Aydin (2020) reinforce that the values in the shariah economy centred on Tawhid should be able to produce Ihsan attitudes and personalities. Especially in the digital era, they understand phenomena and reality rationally, not hedonism and apathy.

That's why an Al-Sadr or called Muhammad Baqir al-Sadr (1935-1980) a pioneer of contemporary Islamic economics at the end of the 20th century, said Furqani (2019) believes that Islamic economics as a body of science and knowledge is a solution to the existing economic system in the global world. Khan (2019) see that Islamic economics needs strengthening at the practical and methodological level, even though it is already well established in the ethical sector. Samawi Hamid and Mirakhor (2020) mentions that the ideal of shariah economics is comprehensive in the Qur'an whose operationalization is at the Sunnah level.

In the era of Society 5.0, which wants to play a more complete human being than industrial innovation technology 4.0 with a digital platform, the shariah economy is fully supported. Rationalization of adaptive technology must go hand in hand with equality and balance towards just global welfare (*Maslahah*) is the ideal of shariah economy, consumption values must adhere to ethical and religious values (Muttaqin and Pusparini, 2019). But, of course in its implementation, the ethical values of sharia economics need to be strengthened in a more empirical context through the behaviour of its adherents (Ibrahim, 2019), for example, in the shariah financial sector through banking and non-banking institutions, they must be exemplary financial systems and solutions in project financing and investment assistance.

The shariah economic platform must be able to provide solutions that are prosperous for the global community, both for actors, producers, consumers, industry, technology, suppliers, agencies, transportation, and even transformative regulations (Mohd Nor, Abdul-Majid and Esrati, 2021; Menne *et al.*, 2022). The impression of a more *Shara'* market must be created in an environment that is far from elements of *Gharar*, *Dharar*, *Maysir*, *Najasy*, *Usury*, and other disobedience (Berutu, 2021). Generate religious market beliefs, full of honesty, fairness, equality and balance physically and mentally. Establish fair regulations (role) of government, Alam and Rizvi (2017) for all global communities to feel peace, prosperity and prosperity as aspired to an environment that is *tayyib* (good), and full of blessings for all. Consistently implement sharia economic instruments with zakat, *Infraq*, alms and waqf (Abidin, 2020) as a form of patent social care.

In terms of Khan (2018) Shariah economy which is part of Islamic teachings is a reinforcement of social preferences, although individual rights are still respected. Islamic social preferences in the economic sector can be taken seriously by the theory of "Third Fundamental Theorem of Welfare Economics (TFTWE)", which transforms the word "individualism-hedonism" become a social agent (philanthropist), market achievement as Pareto optimal, fair, and unique. Mahomedy (2019) emphasized that the moral values in the shariah ecosystem lead to Tawhid for the welfare of the global community.

Thus, shariah economy with existing values (Zainuldin, Lui and Yii, 2018), such as fairness, rationality, equity, and balance based on the principles of Tawhid can shape attitudes and behaviours that with consistency can keep away from the characteristics of oligopoly and

unfair monopolistic competition. At least, if that happens, especially in the digital era, behaviour and business are still overshadowed by the global market arena, will sacrifice individualistic egoism with philanthropic movements through awareness of social instruments, such as zakat, Infaq, alms, and waqf as personal and social responsibility. at a time (Barom, 2018).

5. Conclusions

Market competition has long adorned the business and trade system, the emergence of oligopoly markets and monopolistic competition due to a small number of market players monopolizing, the impact of pure competition between business people becomes unhealthy. Imperfect competition markets that result in injustice, imbalance, inequality, and rationality that are tarnished due to greedy capitalism inspire state administrators to legislate with antitrust regulations.

In the Industry 4.0 era which is the culmination of technological innovation with digital platforms that give rise to industrial engineering and the internet, such as artificial intelligence, the internet of things, 3D technology, blockchain and so on, even though collaboration between companies still invites the opening of market characteristics of oligopolies and monopolistic styles. new. Although the emergence of digital market platforms is the trigger, of course (*Sunatullah*) this kind of behaviour model must exist. Shariah economics as a "newcomer" through the ideas of several contemporary figures, such as Al-Sadr and others, tries to offer a system that emphasizes more on individual awareness while at the same time referring to society (social), and social reference to the common welfare, individual-social concern bound by Tawhid similarities.

Conceptually the Qur'an aspires to operationally by Sunnah (Eyerci, 2021) being a role model for the Muslim community to become Muhsin needs to be emphasized with the consistency of human attitudes and behaviour. The ability of human resources in the digital era to determine the direction of the global market so that it does not lead to unfair competition should not be dependent on technology platforms, but rather the patterns and attitudes of individual behaviour together with the global community need to be guided by universal teaching values (Rusyiana, Sanrego and Rahayu, 2021). Tawhid and its aspects in total, steady and humanitarian commitment to the achievement of sustainable development goals (SDGs) following *Maqashid shariah* (Al Hadi, 2022).

Abdul Aziz

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Oligopoly Market and Monopolistic Competition in the Digital Era: Shariah Economic Perspective

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Received: 23.07.2022

Accepted: 14.09.2022

Published: 06.02.2023

DOI: 10.47750/QAS/24.193.07

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Entering the digitalization era, the impact of Industrial 4.0 technology engineering adds a new digital market structure in forming a new oligopoly and monopolistic market model. According to Budzinski and Kuchinke (2020), The era of internet technology innovation marks the development of the modern economy of digital platforms and the economy of data-based business models so that they are considered effective and efficient. Van Dijck, Nieborg, and Poell (2019) hope that the dream of modern digital and data-based economy wants to prosper consumers, integrate a dynamic system and be independent in a dynamic social structure. However, the modern digital platform market cannot be separated from large, branded corporations (Kantarelis, 2019), such as the global

smartphone industry and its GAFAM will always monopolize this market.

Financial technology (FinTech) in the financial sector has entered the digital platform market through a process of reintermediation, consolidation, and capitalization capable of changing the market structure significantly (Chiu, 2016). Instead of triggering an intensive capitalization process on venture capital, private equity funds, banks, and BigTech companies become leading competitors (Langley and Leyshon, 2021). On the other hand, the traditional computing market services that used to be only SaaS (Software as a Service), PaaS (Platform as a Service), and IaaS (Infrastructure as a Service) are now dominated by a market with an oligopolistic character where services are only provided by a small number of large companies (Ozu, Kasuga and Morikawa, 2020).

The small number of large companies that dominate the digital market can shape prices instantly. According to Thépot (2021) in the digital era of the global market which is dominated by a small number of large companies, it is enough to determine prices instantly with algorithm-based computerization. Preta (2018) recognizes that in the digital era the role of the internet has changed social and industrial dynamics through network effects, either directly or indirectly. As a result, the market structure dominated by a small number of large companies affects the "superstar" effect and the "long tail" effect which has an impact on "dynamic competition" in the global market. This digital era there is collective domination rooted in the identification of "collective" and identification of "dominance" which is the source of monopoly and anti-market competition. So, it seems that in the industry 4.0 era, market monopoly behaviour and monopolistic competition are unavoidable (Rozanova, 2021).

Thus, it turns out that the digital economy as a platform in the era of internet technology triggers unhealthy competition behaviour in the form of oligopolies and monopolies which are triggered by a small number of large companies becoming the main actors (Wei, 2020). Although various antitrust laws in

almost all parts of the world, including China, Russia, America, Germany, Japan, Korea, Brazil, and Indonesia itself, have been enacted, they are still not effective only administratively. It is possible that the Antimonopoly Law can prevent monopolistic behaviour, but its existence is not effective if the regulator is not transparent. Temporary Huberman et al. (2021) and Allen (2017) see that the digitization of the economy by using Bitcoin transactions can avoid monopoly power. Because with this platform, competitors and suppliers are free to enter and each of them can be a price taker so that they can create market balance.

The largest digital platforms that have been in direct contact with consumers, such as Google, Amazon, Facebook, Apple, and Microsoft, could be a small part of a large company which of course can create oligopoly behaviour in the virtual market. Sharp criticism of the users of GAFAM's largest platform, Hovenkamp (2020) questions what if they harm consumers and suppliers including their workforce. According to Andolfatto (2021) that monopolistic competition behaviour does not only occur on the GAFAM platform but can also occur in bank financial institutions with their various innovations, maybe even other markets (Kaikar et al., 2021).

Various terms in the digital economy era, such as the platform economy, sharing economy, and virtual economy, all of which are based on internet computing, signify the era of innovative technology with wider market segmentation (Brynjolfsson et al., 2003), but limited to digital users only (Schmid, 2001; Bukht and Heeks, 2017; Coyle, 2017; Lampinen et al., 2018). As a result, the digital economy has changed global society as a market community, but the characteristics of monopolistic competition are unavoidable. Where some experts and observers suggest that there should be systemic regulation (Duch-Brown and Rossetti, 2020) comprehensive from the government (Robertson, 2020) to save global citizens from unfair competition market participants. The following figure shows the circulation of the digital market era that involves various components of the community, investors, suppliers, and so on.

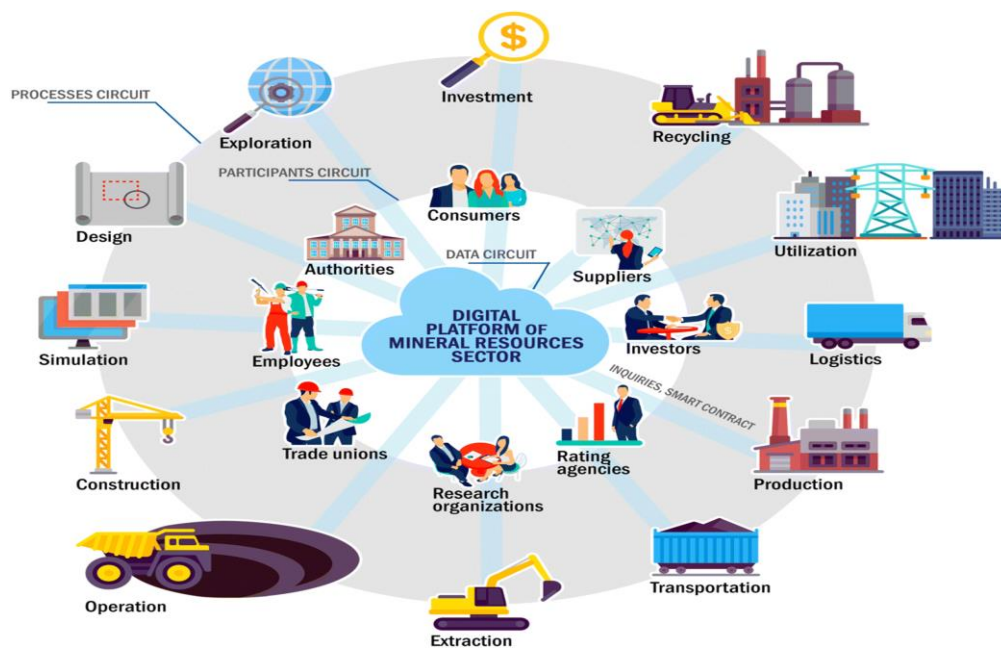


Figure 1: Circulation of Digital Platform Market Processes in the World Mineral Resources Sector. Source: Litvinenko (2020)

Based on the digital platform circulation process above related to the mineral resource sector which is explored systemically involving various fields, it is necessary to strive for sustainable regulation to save the global environment for the sake of future generations, not just to meet the needs of the global market. The digital regulatory support capacity by the government must be played as much as possible.

4.2. Internalization of Shariah Economic Values in Society 5.0 Era

Talking about Islamic norms and values, there is a criticism that has been raised Kuran (1983) several years ago where Islamic values were identical with Arab norms which if applied in the current modern economic era became irrelevant. Especially in the era of digital platform innovation technology. Another criticism made by Aydin (2020) states that the transformation of Islamic finance is the rise of disguised capitalism with the platform of an Islamic economic system. It could be that this criticism has relevance if you look at the findings Abduh and Hussin (2018) related to the attitude of a Muslim related to the intention to do business on the shariah platform. Whereas religiosity and subjective norms have a significant effect.

Speaking of Islam and its values, it is not necessary to look at the Arab community, but at the reference source, namely the Qur'an, although it is true that it originally came from Arabia. Muttaqin (2019) argues that one of the globally agreed-upon Islamic values, for example, is about exaggeration (Isrāf) in any form, especially in the context of consumption in any era including the digital era. Likewise, the value of justice, wherever the values of justice are recognized as universal truths. Yusfiarto and Pambekti (2019) agreed that digitalization in the modern economic era with shariah economic values has a very significant correlation. What about free-market behaviour that creates unfair competition? This is the main review of this paper.

The value of rationality is emphasized in the shariah economy (Abdullahi, 2018). In fact, the level of difficulty can be measured, as in mathematics Algebra has a great contribution to the development of science, especially in the field of economics. Even the mathematical model in Islam can achieve real welfare (FALAH). Of course, it can be developed on the mathematical logic of the algorithm which is now the spirit of the digital platform. Aydin (2020) reinforce that the values in the shariah economy centred on Tawhid should be able to produce Ihsan attitudes and personalities. Especially in the digital era, they understand phenomena and reality rationally, not hedonism and apathy.

That's why an Al-Sadr or called Muhammad Baqir al-Sadr (1935-1980) a pioneer of contemporary Islamic economics at the end of the 20th century, said Furqani (2019) believes that Islamic economics as a body of science and knowledge is a solution to the existing economic system in the global world. Khan (2019) see that Islamic economics needs strengthening at the practical and methodological level, even though it is already well established in the ethical sector. Samawi Hamid and Mirakhor (2020) mentions that the ideal of shariah economics is comprehensive in the Qur'an whose operationalization is at the Sunnah level.

In the era of Society 5.0, which wants to play a more complete human being than industrial innovation technology 4.0 with a digital platform, the shariah economy is fully supported. Rationalization of adaptive technology must go

hand in hand with equality and balance towards just global welfare (Maslahah) is the ideal of shariah economy, consumption values must adhere to ethical and religious values (Muttaqin and Pusparini, 2019). But, of course in its implementation, the ethical values of sharia economics need to be strengthened in a more empirical context through the behaviour of its adherents (Ibrahim, 2019), for example, in the shariah financial sector through banking and non-banking institutions, they must be exemplary financial systems and solutions in project financing and investment assistance.

The shariah economic platform must be able to provide solutions that are prosperous for the global community, both for actors, producers, consumers, industry, technology, suppliers, agencies, transportation, and even transformative regulations (Mohd Nor, Abdul-Majid and Esrati, 2021; Menne et al., 2022). The impression of a more Shara' market must be created in an environment that is far from elements of Gharar, Dharar, Maysir, Najasy, Usury, and other disobedience (Berutu, 2021). Generate religious market beliefs, full of honesty, fairness, equality and balance physically and mentally. Establish fair regulations (role) of government, Alam and Rizvi (2017) for all global communities to feel peace, prosperity and prosperity as aspired to an environment that is tayyib (good), and full of blessings for all. Consistently implement sharia economic instruments with zakat, Infaq, alms and waqf (Abidin, 2020) as a form of patent social care.

In terms of Khan (2018) Shariah economy which is part of Islamic teachings is a reinforcement of social preferences, although individual rights are still respected. Islamic social preferences in the economic sector can be taken seriously by the theory of "Third Fundamental Theorem of Welfare Economics (TFTWE)", which transforms the word "individualism-hedonism" become a social agent (philanthropist), market achievement as Pareto optimal, fair, and unique. Mahomedy (2019) emphasized that the moral values in the shariah ecosystem lead to Tawhid for the welfare of the global community.

Thus, shariah economy with existing values (Zainulidin, Lui and Yii, 2018), such as fairness, rationality, equity, and balance based on the principles of Tawhid can shape attitudes and behaviours that with consistency can keep away from the characteristics of oligopoly and unfair monopolistic competition. At least, if that happens, especially in the digital era, behaviour and business are still overshadowed by the global market arena, will sacrifice individualistic egoism with philanthropic movements through awareness of social instruments, such as zakat, Infaq, alms, and waqf as personal and social responsibility. at a time (Barom, 2018).

5. Conclusions

Market competition has long adorned the business and trade system, the emergence of oligopoly markets and monopolistic competition due to a small number of market players monopolizing, the impact of pure competition between business people becomes unhealthy. Imperfect competition markets that result in injustice, imbalance, inequality, and rationality that are tarnished due to greedy capitalism inspire state administrators to legislate with antitrust regulations.

In the Industry 4.0 era which is the culmination of technological innovation with digital platforms that give rise to industrial engineering and the internet, such as artificial intelligence, the internet of things, 3D technology, blockchain and so on, even though collaboration between companies still

invites the opening of market characteristics of oligopolies and monopolistic styles. new. Although the emergence of digital market platforms is the trigger, of course (Sunatullah) this kind of behaviour model must exist. Shariah economics as a "newcomer" through the ideas of several contemporary figures, such as Al-Sadr and others, tries to offer a system that emphasizes more on individual awareness while at the same time referring to society (social), and social reference to the common welfare, individual-social concern bound by Tawhid similarities.

Conceptually the Qur'an aspires to operationally by Sunnah (Eyerci, 2021) being a role model for the Muslim community to become Muhsin needs to be emphasized with the consistency of human attitudes and behaviour. The ability of human resources in the digital era to determine the direction of the global market so that it does not lead to unfair competition should not be dependent on technology platforms, but rather the patterns and attitudes of individual behaviour together with the global community need to be guided by universal teaching values (Rusydia, Sanrego and Rahayu, 2021). Tawhid and its aspects in total, steady and humanitarian commitment to the achievement of sustainable development goals (SDGs) following Maqashid shariah (Al Hadi, 2022).

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