Rules and Application of Trading Robot on Sharia Stock in Indonesia

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Abstract:
This research began with the anxiety of the Islamic investor community regarding the decision of the Indonesia Stock Exchange to allow exchange members to use the trading robot feature (automated ordering). This policy raises a new problem for the practice of trading sharia stocks using trading robots. Therefore, this research aims to discover the practice of trading robot tools in the sharia stock market. Besides, the research also aims to explore the views of Islamic law on sharia stock investors who practice buying and selling sharia shares with trading robots, with the research object being PT Indo Premier Sekuritas. This type of empirical juridical research analyzes the mechanism of the practice of sharia stock transactions in the secondary market with trading robots associated with several provisions in a regulation. The data collection method used in this legal research is the method of observation, interviews, and documentation. The results of this research stated that the practice of trading robots at PT Indo Premier Sekuritas is permissible according to sharia principles for some reasons. First, this trading robot is used as an intermediary or instrument to convey information. Second, the investors must understand the information contained in the trading robot. On the other side, trading robots can only be legal if investors fully understand how trading robots work because their ignorance can plunge them into the practice of maysir or gambling. Currently, there are no strict regulations governing trading robots in Indonesia. Although there is no legal regulation, it is not an act that is against the law because trading robots are only tools that make it easier for traders and investors to automate transactions. However, investors can be suspected of criminal acts if the trading robot is vulnerable to market manipulation and marketed by providing profit guarantee promises. More dangerously, the company which conducts the business of raising investment funds does not get a permit from the Indonesia Stock Exchange.

Introduction

Investment is the activity of investing funds in the hope of getting profits or returns in the future. One investment suitable for all levels of society is an investment in the Islamic capital market. The Islamic capital market is a capital market run with Islamic principles. Every securities transaction in the Islamic capital market is carried out following the provisions of Islamic law. Even though they are based on Islamic teachings, Islamic capital market products as part of Islamic finance are inclusive for all people and very open to all investors.[1]

Currently, sharia shares are an essential element in the development of the Islamic capital market in Indonesia. The Financial Services Authority noted the growth of the sharia stock market capitalization, which reached IDR 4.416,8 trillion as of August 26, 2022. This is grew by 10,87 percent compared to last year. The number is as much as August 2022. The number of sharia shares increased by 5,66 percent compared to 2021, with a total of 523 shares, which last year was only 443 shares.[2] Sharia shares are traded through capital market facilities called stock exchanges. The stock exchange does not buy or sell existing shares, but the stock exchange is only a place or means for investors to transact and for thousands of companies (issuers) to sell their shares on the secondary market or the stock market therein.[3]

The rise of the Islamic capital market cannot be separated from advances in information technology. Information technology advances are critical in developing the Indonesian capital market. In this case, thanks to advances in information technology, the number of investment-literate people is also increasing.[4] However, it cannot be denied that, due to technological developments in the capital market and the rapid growth of millennial retail investors, there are now more and more investments using trading robot schemes. Few people are trapped in fake trading robot investments, which eventually take their toll. A trading robot is an indicator algorithm programmed to help technical or graphic market analysis.[5] That is, trading robots are limited to being tools that help traders.

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[1] Salman Ahmed, "Inclusive and Sustainable Growth with Islamic Finance," in *Contemporary Issues in Islamic Social Finance* (United Kingdom: Routledge, 2021), 153.

[2] OJK, "Statistik Saham Syariah - Agustus 2022," Otoritas Jasa Keuangan, 2022, https://www.ojk.go.id/id/kanal/syariah/data-dan-statistik/saham-syariah/Pages/Statistik-Saham-Syariah---Agustus-2022.aspx.

[3] Bilawal Alhariri Anwar, "Karakteristik Bursa Efek Sebagai Self-Regulatory Organization," *Justitia Jurnal Hukum* 3, no. 1 (2019): 39, https://journal.um-surabaya.ac.id/Justitia/article/view/2199.

[4] Muhammad Rizkan et al., "The Role of Technology Information on Financial Literacy in Indonesia," *Jurnal Ekonomi & Studi Pembangunan* 23, no. 1 (2022): 157, https://doi.org/10.18196/jesp.v23i1.14148.

[5] Khalid Abouloula, Brahim El Habil, and Salah-ddine Krit, "Money Management Limits to Trade by Robot Trader for Automatic Trading," *International Journal of Engineering, Science and Mathematics* 7,

However, the problem amid the development of trading robot technology trends in the capital market is the practice of trading sharia stocks with trading robots. Stocks are securities that have a fluctuating value or price. Stock price fluctuations are then often used by traders to carry out automated transactions on a speculative basis which are sometimes accompanied by an attitude of chancy because they are not equipped with sufficient knowledge because there is an intention of only wanting to make profits quickly and easily even though traders actions like this can get stuck in transactions that contain elements of *maysir*.[6]

Methodology

This research uses an empirical legal research method that analyzes the application of written law in robot trading activities in the Islamic capital market. The research object is PT Indo Premier Securitas which has a trading robot application for sharia stock investors. This research was specifically carried out by collecting Islamic legal norms from secondary sources related to trading robots and exploring their application in IPOT applications using in-depth interviews directly with investors and stock exchanges. Data analysis uses a qualitative model narrated descriptively to produce research conclusions.[7] [8]

Results and Discussion

Trading Robot as a Sharia Stock Trading Mechanism

Before discussing trading robots, we should first know what stock trading is. Stock trading is a short-term sale and purchase of shares to get big profits. Stock trading is buying and selling stocks by taking advantage of daily market price fluctuations and obtaining the best capital gain from the price difference that occurs when buying and selling shares.[9] Along with the rapid development of trading in

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no. 3 (2018): 195, https://www.ijesm.co.in/abstract.php?article_id=4975&title=Money Management Limits to Trade by Robot Trader for Automatic Trading.

[6] Riska Aulia, "Analisis Penerapan Mekanisme Berinvestasi Saham Di Pasar Sekunder Dengan Shariah Online Trading System (Studi Pada Sekuritas Indo Premier Kantor Perwakilan Lampung)" (UIN Raden Intan Lampung, 2019), 25, http://repository.radenintan.ac.id/5831/.

[7] Selamet Hartanto and Devid Frastiawan Amir Sup, "Konsep Sukuk Wakaf Dalam Perspektif Fatwa DSN-MUI," *Muslim Heritage* 6, no. 1 (2021): 205, https://doi.org/10.21154/muslimheritage.v6i1.2767.

[8] Devid Frastiawan Amir Sup and Selamet Hartanto, "Sejarah Perbankan Syariah (Dari Konseptual Hingga Institusional)," *Journal of Islamic Banking* 1, no. 2 (2020): 170, https://journal.iaialhikmahtuban.ac.id/index.php/JIB/article/view/163.

[9] Douglas Cumming, Sofia Johan, and Dan Li, "Exchange Trading Rules and Stock Market Liquidity," *Journal of Financial Economics* 99, no. 3 (2011): 651, https://doi.org/10.1016/j.jfineco.2010.10.001.

Indonesia, innovations have emerged that can assist traders in managing trades, commonly called trading robots.

A trading robot is a system that automatically carries out stock transactions using an algorithm so users do not have to monitor the stock market. The discussion of trading robots that were first understood as an automation tool carried out stock transactions without seeing stock movements continuously. Trading robots are indicator algorithms programmed to help analyze the market technically or graphically. That is, trading robots are limited to being tools that help traders. Stock trading robots, for example, have securities that feature automated ordering, which includes direct market access and trading algorithms. Stock trading robots generally automate transactions and reporting. So, the decision is still in the hands of the investor, so the trading robot only helps carry out transaction execution so that investors/traders stay energized.[10]

Trading robots have several advantages. *First*, they work non-stop. Robots are not living things that need rest, so trading robots can work continuously without stopping. This robot will work by monitoring and seeing every market movement. Profit opportunities will be noticed thanks to a trading robot that constantly monitors the movement of stock values. *Second*, it has no emotion. Humans are created to have reason (logic) and feelings (emotional) to influence decision-making. It can be a drawback because, at a certain emotional level, a person can make the wrong decision, for example, when angry or sad. Nevertheless, unlike humans, robots do not have emotions, so they can work consistently without being affected by emotions. In addition, the robot will not complain even though it has to work non-stop and generate lots of profit. *Third*, they can catch opportunities more quickly. As previously mentioned, humans need rest, making it difficult for traders when trading, where opportunities always come at unexpected times. Trading robots can catch opportunities faster based on precisely observed parameters and market movements. *Fourth*, it is multitasking. Even though some humans can work multitasking, they still have limitations. Meanwhile, trading robots can work in multitasking and automatically start many profit targets.[11]

Besides having many advantages, trading robot also has several disadvantages. *First*, it needs regular monitoring. The trading robot works automatically but must be

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[10] Khalid Abouloula and Salah-ddine Krit, "Using a Robot Trader for Automatic Trading," in *Proceedings of the Fourth International Conference on Engineering & MIS* (New York: Association for Computing Machinery, 2018), 3, https://doi.org/10.1145/3234698.3234701.

[11] Hikma Dirgantara, "Mengenal Lebih Jauh Soal Robot Trading Beserta Keuntungan Dan Risikonya," Kontan, 2021, https://investasi.kontan.co.id/news/mengenal-lebih-jauh-soal-robot-trading-beserta-keuntungan-dan-risikonya.

monitored by the trader. A trader needs to make sure of how the robot works and the tasks it performs so that the trading robot can work on its own in the future. *Second*, the potential for technical failure. Even though it can work automatically, traders still have to monitor the performance of the trading robot because technical disturbances can occur at any time, either from internal robots or external factors. *Third*, they need to be able to adapt to specific market conditions. It is a pity that trading robots are not made to be able to adapt to these situations. That's because the way of thinking about trading robots is designed linearly. Meanwhile, when news is released, movements move fluctuating and randomly.[12]

Within the Indonesian legal framework, trading robots can refer, although not explicitly regulated, to the provisions of Law Number 32 of 1997 concerning Commodity Futures Trading and Law Number 4 of 2023 concerning the Development and Strengthening of the Financial Sector. However, there are no specific rules regarding consumer protection regarding how technical rules prevent and overcome investor losses from unlawful trading robot transactions.[13]

Trading Robot Application at PT Indo Premier Sekuritas

This part of the article results from research on using trading robots at PT Indo Premier Sekuritas, an exchange member securities company that has adopted trading robot technology. It is an integrated financial services provider in the capital market sector that serves individual and corporate clients based on the Capital Market Supervisory Agency / Financial Services Authority Permit/License Number KEP-11/PM/PPE/1996. In 2002, the founders of Indo Premier bought this securities company and named it PT Indo Premier Sekuritas, which later changed to PT Indo Premier Sekuritas in 2017.[14]

In its line of business, Indo Premier is engaged in securities brokerage, underwriting, and investment management. Related customers can be divided into two categories, retail and institutions. Until now, Indo Premier has been one of the securities companies with a considerable role in these two categories. Only a few securities companies in Indonesia are very successful in both customer categories because, usually, a securities company can only concentrate on one customer category.[15]

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[12] Ibid.

[13] Adam Daniel Paulus and Udin Silalahi, "The Implementation of Trading Robots Regulations in Protection of Its Users in Indonesia," *Russian Law Journal* 11, no. 12 (2023): 685, https://www.russianlawjournal.org/index.php/journal/article/view/2298.

[14] Indo Premier, "Our Background," PT Indo Premier Sekuritas, 2023, https://indopremier.com/#ipot/background/.

[15] Ibid.

Using trading robots, primarily through the company's application, namely IPOT, differs from the trading robot system known as buying and selling foreign exchange (forex). The trading robot system at Indo Premier Securitas helps execute all decisive decisions and instructions from investors. Stock transactions in the Indonesia Stock Exchange trading system are transactions in the secondary market. As the trading organizer, the Indonesia Stock Exchange determines the trading schedule for sharia shares in the secondary market. The secondary market that brings selling and buying investors together during the daily trading schedule set by the Indonesian Stock Exchange is called the regular market.[16]

Table 1. Regular Market Trading Hours

Day	First Session	Second Session
Monday – Thursday	09.00 – 11.30 AM	13.00 – 16.00 PM
Friday	09.00 – 11.00 AM	13.30 – 16.00 PM

Source: Indonesian Stock Exchange

The Indonesian Stock Exchange's regular market consists of two trading time sessions. The first session is from 09.00 – 11.30 AM, except Friday it closes 30 minutes earlier. Then the second session starts from 13.00 – 16.00 PM, except Friday, which opens 30 minutes later. On holidays there is no trading on the exchange. The day the transaction of Islamic stocks occurs on the stock exchange is called a trading day. The time a transaction takes place is called trading hours.[17]

How to Use the IPOT Trading Robot ?

Users can start transactions with the available features after downloading the IPOT trading robot application via Google Play or Apple Store. In general, there are five main steps in running a trading robot application so that it fits successfully.[18] [19] *First*, write issuer code to make rules. Users can use the code menu, which functions to write the stock code. Next, determine the timeframe or time frame for robot execution using the validity and notification menu. This menu can also be used to set notifications and the number of transaction logs. The last menu, conditions, and

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[16] Irwan Abdalloh, *Pasar Modal Syariah* (Jakarta: PT Elex Media Komputindo, 2018), 140.

[17] IDX, "Trading Hours and Mechanism," PT Bursa Efek Indonesia, 2023, https://www.idx.co.id/en/products/trading-hours-and-mechanism/.

[18] Bryan Wong, "Panduan Cara Menggunakan Robot Trading Ipot Lengkap," Aliaandy, 2022, https://aliaandy.com/cara-menggunakan-robot-trading-ipot/.

[19] Interview with Kania Rachman, Trading Robot Active User and Manager of the Investment Gallery of the Indonesian Stock Exchange at UIN Syarif Hidayatullah Jakarta, on 25 July 2022.

actions, determine the rules the IPOT robot will use to execute transactions. Users must fill in the stock code or company name correctly to correctly determine the rules.

Second, determine the trading time frame and notifications. This setting can be done through the validity and notification column according to the desired time range. Traders can choose when their IPOT robot will start working and execute daily. This trading robot uses the West Indonesia Time zone according to the time in effect on the Indonesia Stock Exchange, where the time options start from 09.00 AM – 16.00 PM. Traders can also use the mode in default settings without setting trading time frames and notifications. Meanwhile, the condition valid option can set the time limit for the IPOT robot to stop executing transactions. As a form of actual information, the trader will receive a notification by e-mail every time the IPOT robot starts executing a transaction if it remains in the checked condition.

Third, make rules for trading execution in several ways, including multi event, vol market, reversal, breaking, and simple. Multi event, the featured menu of IPOT's trading robot, functions to set stop loss so that the loss limit for each transaction can be set. In addition, multi event can be used to determine simple profit-taking based on the target price. This IPOT trading robot will constantly adjust the target price based on market conditions so that traders can make a profit. Furthermore, in the vol market setting, traders must add to the requirements for transaction volume and price action. If traders want to take a buy-on-weakness position, they can use reversal, namely the IPOT trading robot will execute when the price reverses from its lowest position. Traders can also set sell on strength or sell when the price reverses from the highest position as long as it is. This reversal feature will help enable the IPOT robot to carry out transactions automatically and adjust its position to price reversals. So that the IPOT trading robot can execute transactions when the price moves past a support or resistance point, traders need to activate the breaking feature. Traders can also use this menu to limit how much support or resistance is allowed in the condition menu, either as a percentage or price. Finally, traders can use the simple feature to determine the trading robot settings. In this menu, traders only need to determine the price of comparison and choose the execution of the transaction when the value is at a point greater or less or the same.

Fourth, start giving orders. Menu options that can be used to continue IPOT trading robot orders are auto orders, market orders, and limit orders. Auto order is the first menu to be used so the IPOT trading robot can execute orders continuously. The trading robot will always make transactions if it finds the right moment according to a predetermined period. The following way to use the IPOT trading robot is to use the market order menu for simple orders. In this menu, traders only need to set how many

lots they want to trade. Lastly is the limit order, which can be used as additional settings. This limit order determines the desired price limit during the transaction. In the limit order menu of the IPOT trading robot, several price settings can be managed.

Fifth, carry out orders and conduct reviews. After making all the settings, traders can immediately click submit at the bottom right to submit an IPOT order. Traders can select the stock menu for review and click the robot list option. The menu will display a list of IPOT robot tasks that have been completed and are still being planned.

Trading Robot on Sharia Perspective

Sharia principles in investment are principles based on Islamic law in implementing investments. Islam encourages its people to do business activities, including investment. Besides aiming at financial gains and social benefits, investments in Islam must recognize ethics, law, and sharia principles. Therefore, efforts need to be made to introduce to the Islamic community, in this case, the practice of investing in Islamic stocks. All business activities are permissible unless evidence points to their prohibition.[20]

As stipulated in the *Fatwa* of the National Sharia Council – Indonesian Ulama Council No: 80/DSN-MUI/III/2011 concerning the Application of Sharia Principles in the Equity-Type Securities Trading Mechanism in the Stock Exchange Regular Market, the rules and norms of buying and selling shares still refer to the guidelines for the sale and purchase of goods in general, namely the fulfillment of pillars, conditions, mutual aspects voluntarily, and avoid the following elements: (1) *Gharar*, is a fraud due to not knowing the price of transacted goods; (2) *Ghabn*, is fraud or hiding defects, including unexpected costs, including hiding the actual contract by using terms that consumers do not understand; (3) *Ghisy*, is a trick, and *tadlis*, is a forgery; (4) *Riba*, is eating other people's wealth in vanity; (5) *Jahalah*, does not know the pattern of transactions and contracts; (6) *Maysir*, is gambling or speculation.[21]

Sharia investment in the financial sector uses contracts commonly used in sharia stock transactions. The contracts used in the Islamic capital market as stipulated in the Financial Services Authority Regulation No: 53/POJK.04/2015 concerning the Contracts Used in Issuing Sharia Securities in the Capital Market, are *ijarah*, *istishna'*, *kafalah*, *mudharabah*, *musyarakah*, and *wakalah*.[22]

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[20] Fathurrahman Azhari, *Qawaid Fiqiyah Muamalah* (Banjarmasin: LPKU, 2015), 158.

[21] DSN-MUI, "Fatwa DSN-MUI No: 80/DSN-MUI/III/2011 Tentang Penerapan Prinsip Syariah Dalam Mekanisme Perdagangan Efek Bersifat Ekuitas Di Pasar Reguler Bursa Efek," Dewan Syariah Nasional - Majelis Ulama Indonesia, 2011, https://drive.google.com/file/d/0BxTl-lNihFyzZUxIbkR3RXV4TWc/view?resourcekey=0-7OQrefPioHEmYfD0AhvYOw.

[22] OJK, "Peraturan Otoritas Jasa Keuangan No: 53/POJK.04/2015 Tentang Akad Yang Digunakan Dalam Penerbitan Efek Syariah Di Pasar Modal," Otoritas Jasa Keuangan, 2015, https://ojk.go.id/id/kanal/pasar-modal/regulasi/regulasi-pasar-modal-

Ijarah, is an agreement (*'aqd*) between the lessor/service provider (*mu'jir*) and the lessee/service user (*musta'jir*) to transfer the use rights (benefits) of an *ijarah* object which can be in the form of benefits of goods and services in a certain period with the payment of rent and wages (*ujrah*) without being followed by the transfer of ownership of the *ijarah* object itself. The object of the transaction, which is the underlying benefit is called *mahal al-manfaa'ah*, which can be in the form of goods or services. *Ijarah* with goods transaction object is *ijarah 'ala-a'yan*, while *ijarah* with service transaction object is *ijarah 'ala al-asykhash*. If there will be a transfer of ownership from the owner to the lessee at the end of the lease period, then the contract used is *ijarah muntahiyyah bi al-tamlik*. Transfer of ownership of goods occurs when the parties, the owner and lessee of the goods, agree that at the end of the lease, they will carry out a sale and purchase transaction or grant the goods being leased.

Istishna', is an agreement (*'aqd*) between the ordering/buying party (*mustashni'*) and the maker/seller (*shani'*) to make the *istishna* object purchased by the ordering/buying party (*mustashni'*) with criteria, requirements, and specifications agreed by both parties party. An *istishna* contract in which the delivery of goods is deferred with payment based on the parties agreement, usually in stages according to the stages of completion of the manufacture of goods or the object of the transaction. When viewed from the delivery side of the goods, the *bai' al-istishna'* contract is the same as the *bai' al-salam* contract, where the goods are delivered in a delayed or future manner. The fundamental difference with *bai' al-salam* lies in the payment method and the transaction object. Payment for *bai' al-salam* contract must be paid at the beginning of the contract in full and in cash. In contrast, *bai' al-istishna'* contract can be made in stages or delayed according to the agreement adjusted to the completion or manufacture of goods.

Kafalah, every issuance of securities in the capital market must always have a party that guarantees the issuance or performs the function of the underwriter. Underwriting in sharia securities issuance activities uses a *kafalah* contract which is an agreement between a party requiring collateral or requesting collateral (*makful 'anhu*) and a party providing guarantees or guarantor (*kafil*) to guarantee the obligations of the party requesting the guarantee to other parties. An example of its application is the contract between issuers issuing Islamic shares and the securities company that becomes the underwriter is the *kafalah* contract.

Mudharabah, is a cooperation agreement between the owner of the capital and the manager of the business by way of the owner of the capital handing over the capital

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syariah/Documents/Pages/POJK-Nomor-53-POJK.04-2015/SALINAN-POJK.53 Akad Yang Digunakan Dalam Penerbitan Efek Syariah Di Pasar Modal.pdf.

and the business manager managing the capital in a business. Business capital submitted by the capital owner must be in the form of funds or money and may not be in the form of receivables. Even so, some scholars allow goods but must be valued based on the price of the goods converted into funds or cash.

Musyarakah, is a cooperation agreement between two or more parties by including capital in the form of money or other assets to carry out a business. Apart from receiving profits, the parties involved in a *musyarakah* contract must also be prepared to bear business losses. The terms of the ratio in a *musyarakah* contract may differ between a business's profit and loss ratios. In general, *musyarakah* contracts are based on profit and loss sharing. In this *musyarakah* contract, if the managed business suffers a loss, the parties ratio of losses must follow the composition of the paid-up capital or only use a proportional ratio. However, if the business is profitable, the ratio distribution is according to the parties agreement. The agreed ratio can be the same or different from the proportional ratio of business capital deposited by the parties.

Wakalah, is an agreement between the authorizing party. The power giver authorizes the party receiving a power of attorney to carry out specific actions or deeds. Both parties may know or even not know each other, as practiced in modern Islamic finance. In sharia securities transactions, investors represent the purchase of sharia shares to securities companies.

The function of trading robots in Islamic stock transactions is a tool for traders that can be used to sell orders and then buy orders to take advantage of the momentum of falling stock prices (profit taking). The trading robot is an automatic ordering if a condition input by the user has been fulfilled, either stop loss, sell on target price, or trailing stop, and can be set for a validity period of up to 1 month or GTC (Good-Til-Cancelled). In practice, traders must have knowledge and skills in using trading robots.[23]

In the Nahdlatul Ulama study, the autopilot robot is only a warehousing or instrument for conveying information whose utilization is following the knowledge of its users. It is blowing the whistle when a trader accesses the autopilot robot and sets margins, lots, leverage, spreads, and the like. Of course, in this case, the information will act as a signal so that it is informative language, provided that the blowing is directed and not random. Autopilot robot settings will be a helpful signal or information language for the admin when the traders make the settings consciously and are not the result of trial and error. Consciousness, in this case, occupies a rational position (*ma'qulul ma'na*). However, traders who use autopilot robots must have

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[23] Interview with Fadly Fatah, Head of the Banten Indonesia Stock Exchange Office, on 01 September 2022.

sufficient knowledge and skills to avoid speculative practices (*al-maysir*) due to ignorance (*al-jahalah*). Not knowing that traders understand the language of autopilot robots can plunge traders into the practice of *maysir*, so it is illegal.[24]

The use of artificial intelligence in the sharia aspect has occurred in a robo-advisors service for Islamic financial institutions called Smart Mufti Development. Robo-advisor users can ask questions about Islamic finance after a consultation with an Islamic finance expert.[25] Robot advisors' legitimacy as providers of answers to sharia issues is no less valuable than consulting a physicist with a sharia scholar in the future. It is a fact that the use of artificial intelligence, as long as it brings goodness and does not violate the basic principles of Islam, can be allowed.

Furthermore, Islam Web *fatwa* number 20017 punishes the permissibility of robots or artificial intelligence that function as tools for specific purposes. However, this *fatwa* prohibits using human-like images as if they were legal subjects like humans.[26] Furthermore, *fatwa* number 54124 confirms the permissibility of using robots or artificial intelligence for permissible matters such as consumer services, banking, and financial transactions. Conversely, the use of robots or artificial intelligence becomes haram if they are made to resemble human forms.[27]

Strictly speaking, the Islamic view states that robots or artificial intelligence are not humans but tools like other objects. Al-Qur'an explains in surah Al-Mu'min verse 12-16 about the creation of humans from the essence of the soil. Furthermore, the man's semen stored in the woman's womb is processed into flesh to the bone so that he becomes a perfect human being born into the world. Likewise, legally, robots are not humans who have the burden of carrying out religious orders (*taklif* or *mukallaf*) such as prayer, fasting, pilgrimage, and zakat. Likewise, common activities include buying and selling, leasing, grants, and business cooperation.[28]

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[24] Muhammad Syamsudin, "Hukum Menggunakan Robot Autopilot Dalam Trading Pasar Berjangka," NU Online, 2021, https://islam.nu.or.id/bahtsul-masail/hukum-menggunakan-robot-autopilot-dalam-trading-pasar-berjangka-bCwUx.

[25] Auwal Adam Saad et al., "Robo-Advisory for Islamic Financial Institutions: Shari'ah and Regulatory Issues," *European Journal of Islamic Finance* 1, no. Special Issue for EJIF Workshop (2020): 3, https://doi.org/10.13135/2421-2172/3992.

[26] Islamweb, "الإنسان الآلي)الربوت...(بين الحظر والإباحة," Islam Web, 2002, https://www.islamweb.net/ar/fatwa/20017.

[27] Islamweb, "حكم استخدام الإنسان الآلي في البيع والشراء," Islam Web, 2004, https://www.islamweb.net/ar/fatwa/54124.

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Conclusion

PT Indo Premier Sekuritas has used trading robots in sharia stock transactions through the IPOT application to help investors make investments more efficiently and effectively. A trading robot is a tool a user or investor sets according to his wishes. Therefore, trading robots with artificial intelligence capabilities only partially replace the human function of buying and selling shares. The position of trading robots is an application regulated and managed by investors directly. Islamic teachings strictly place trading robots with artificial intelligence capabilities as tools, not on an equal footing with humans as legal subjects or heads of law who can carry out rights and obligations. The role of trading robots differs from that of investors as parties who transact in buying and selling Islamic shares. More importantly, investors who use trading robots must have the knowledge and skills to avoid the nature of *al-jahalah* (ignorance) and *maysir* (gambling), which are unlawful.

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