## Corporations Amongst Scientific Revolutions: An Analysis Towards Indonesian Company Law and Artificial Intelligence

Raitama Z. Prasetyo

raitamaprasetyo@mail.ugm.ac.id

#### Abstract

This article explores Indonesian business law in response to Artificial Intelligence's presence amidst the board members of a business corporation. Starting from its usage as business tools to board members itself, it has clearly exemplified the rapid development of AI. Such events would generate a challenge of compatibility with the law, while the general perspective is that conventional law could only acknowledge natural or legal entities to fill in board members' positions. This article finds the answer by analyzing Indonesian in respect to States practices from other countries through a comparative manner. In conclusion, this article recommends Indonesian Law to first determine the legal personality of AI to accommodate AI as board members.

Keywords: Business Law, Comparative Law, Artificial Intelligence, Board Member.

#### **Abstrak**

Artikel ini menkaji implementasi kecerdasan buatan pada direksi perusahaan dalam perspektif hukum bisnis Indonesia. Dimulai dari penggunaan kecerdasan buatan seebagai alat berbisnis, perkembangan kecerdasan sendiri sudah berkembang cepat. Tantangan dari segi hukum muncul, dimana subjek hukum saat ini hanya mencakup orang dan badan hukum. Artikel ini menggunakan metode analisis komparatif dari hukum Indonesia terhadap praktik negara-negara dari yurisdiksi lain. Pada akhirnya, artikel ini menyimpulkan bahwa diperlukannya kepastian dalam menentukan kecerdasan buatan sebagai subjek hukum yang diakui oleh hukum positif Indonesia.

**Kata Kunci**: Hukum Dagang, Perbandingan Hukum, Kecerdasan Buatan, Anggota Dewan.

#### A. Introduction

1. Background

It is often depicted that the rapid development of Artificial Intelligence would be a threat to humanity.<sup>52</sup> A train of thought came from the capability of humans to make machines that can speak, think and act similarly to a human, which would then be embodied by the innovations around the world. Groundbreaking decisions, such as making an AI a company board member<sup>53</sup>, lead the unfamiliar mind to wonder, whether these machines would be legally considered as having the same degree as human beings? Would they be imposed liability *vis-à-vis* humans? Due to the fact that a meticulously fabricated legal framework entirely regulated the life of humans.

Whereas today, corporate law — a part of such a legal framework — is generally used as a means of protection of trade, where global commerce would be under the aegis of it. Pragmatically, much of corporate law is used as a medium of productive activity in corporations, <sup>54</sup> where it governs, *inter alia*, investor-manager relationship, personnel selection, the liability of decision-making regarding corporate strategy (such as investments). <sup>55</sup> Apropos of this, Indonesia has Law No. 40 of 2007 on Limited Liability Company Law [hereinafter "**LLC Law**"] that governs a Limited Liability Company's operations and structure which includes investor-manager relationships and managerial liability. <sup>56</sup> This correlates with the prediction that AI will take managerial positions in a company, therefore creating a self-driving subsidiary company.

#### 2. Problem

In fact, it could be argued that the current AI has developed way faster than the development of Indonesian legal architecture. Such can be seen in events where companies endeavoured to familiarize AI in the duty of board members in decision making,<sup>57</sup> while the development of the LLC Law is still unclear, whether or not such approach can be accepted.<sup>58</sup> Moreover, seeing the absence of AI recognition in the current LLC Law, it is also possible to argue that such would construe as a legal vacuum. Consequently, this article discusses the compatibility of the current Indonesian LLC Law

<sup>&</sup>lt;sup>52</sup> Lopucki, Lynn M. (2017). Algorithmic Entities. *95 Washington University Law Review*, *95(1)*, 6. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2954173

<sup>&</sup>lt;sup>53</sup> Wile, Rob. (2014). A Venture Capital Firm Just Named an Algorithm to Its Board of Directors — Here's What It Actually Does, *Business Insider*. Retrieved from https://www.businessinsider.com.au/vital-named-to-board-2014-5

<sup>&</sup>lt;sup>54</sup> Armour, John. (2020). SELF-DRIVING CORPORATIONS? *Harvard Business Law Review*, 10, 96.

<sup>&</sup>lt;sup>55</sup> *Ibid*.

<sup>&</sup>lt;sup>56</sup> Undang — Undang Perseroan Terbatas

<sup>&</sup>lt;sup>57</sup> Rob, Loc Cit.

<sup>&</sup>lt;sup>58</sup> Undang — Undang Perseroan Terbatas

towards the presence of AI in an investor-manager relationship, specifically as the board of directors, and how other States approach the situation compared to Indonesian LLC Law.

This article will delve further into the relationship between the development of Artificial Intelligence and Indonesian Corporate Law, particularly concerning AI and managerial positions in a corporation. To do so, this article will be assessed based on an empirical study of AI and the provision of Indonesian LLC Law in regards to AI. Section I will first discuss the current development of AI, explaining the present AI's capability and how it relates to business corporations in Indonesia. Section II will then elaborate on the current Indonesian LLC Law concerning AI as a board member. This section, will focus more on the eligibility of AI in the board member position. Furthermore, Section III will analyze best practices regarding the use of AI through a comparative study from other States. This section will contribute more to explore possible solutions for the presence of AI as a board member.

#### B. Analysis

#### 1. The Path of Artificial Intelligence in Business Corporations

a. The Use of Artificial Intelligence Nowadays and The Use of Artificial Intelligence in the Future

When people hear of the word AI, they imagine thinking machines capable of human-level intelligence.<sup>59</sup> However, in practice, current AI is still far from it.<sup>60</sup> Current AI is generally used as a cognitive automated machine that has to be given sufficient relevant data and problems where it would answer by predictive analysis<sup>61</sup> — an algorithm of some sort. It comes in the form of a program named Machine Learning [ML].<sup>62</sup> A method where the machine is not made coded, yet can derive data and answer to become rules.<sup>63</sup> To compare, a human learns functionally by getting better at a subject through experience. Similarly, with ML, after being given the relevant dataset, the machines improve their performance by gaining more data and looking for more

<sup>&</sup>lt;sup>59</sup> Surden, Harry. (2014). Machine Learning and Law, Washington Law Review, 89, 87.

<sup>&</sup>lt;sup>60</sup> John, *Op. Cit.*, 97.

<sup>&</sup>lt;sup>61</sup> Doi, Sunichi. (2006). Technological Development of Driving Support Systems Based on Human Behavioral Characteristics. *IATSS Research*, *30*, 20–21.

<sup>&</sup>lt;sup>62</sup> Alpaydin, Ethem. (2010). *Introduction to Machine Learning*, (3<sup>rd</sup> ed). London, UK: The MIT Press, 4.

<sup>63</sup> Ibid.

patterns.<sup>64</sup> The success of ML comes from a method called "supervised learning"<sup>65</sup>, where a labelled dataset is given by humans and gets analyzed. Then, the machine would give a relevant prediction based on the analysis. In a day to day situation, it would look something like; automated car driving, detecting fraud, data security<sup>66</sup>, and emails. To elaborate, ML would detect spam emails by being given a set of data where it contains "wanted" and "unwanted" emails. It would then categorize the "unwanted" emails and determine in the future emails that are similar to be categorized as spam. In business corporations, aside from the aforementioned uses, AI also comes into play in many other fields such as personnel collection and data governance. Tools such as "Ideal" is used by corporations for personnel selection,<sup>67</sup> and corporations use AI for data governance, where they present challenges in data and corporate goals management. Last, AI is also used for litigation risk assessment by corporations to analyze the outcome of a corporate dispute.<sup>68</sup>

Artificial Intelligence is also very progressive and may have different usages in the future. Being extremely ductile, the method of supervised learning has given birth to an algorithm that is capable of rapid data agglomeration and analysis. Yet, unlike the sensuous brain of a human being, AI's intelligence would soon evolve from being assisted and augmented by the human brain to become "unsupervised learning" and creating decision-making "autonomous intelligence".<sup>69</sup> This means that it is already unnecessary to "spoon-feed" the machine with labelled datasets due to its capability in regenerating ones on its own. This is a hitherto evident development, shown by the progress of technology such as autonomous driving. With autonomous driving that can already be produced by companies such as Tesla<sup>70</sup>, and we can imagine self-driving taxis that can be ordered by customers, where the mechanism that governs the taxi's

<sup>&</sup>lt;sup>64</sup> MATHWORKS: MACHINE LEARNING. What Is Machine Learning? 3 Things You Need to Know. Retrieved from https://www.mathworks.com/discovery/machine-learning.html [https://perma.cc/F45M-DTMD] (Accessed 20/07/2020)

<sup>&</sup>lt;sup>65</sup> Ford, Martin. (2018). Architects of Intelligence (1st ed). Birmingham, UK: Packt Publishing Ltd, 186.

<sup>&</sup>lt;sup>66</sup> In data security, the machine can predict which files contain malware with great accuracy. *See*: Marr, Bernard. (2016). "*The Top 10 AI and Machine Learning Use Cases Everyone Should Know About*". Retrieved from https://perma.cc/ADN8-A5Z5 (Accessed 15/07/2020)

<sup>&</sup>lt;sup>67</sup> Ideal. The Ideal Story. Retrieved from <a href="https://ideal.com/about/">https://ideal.com/about/</a> (Accessed 28/07/2020)

<sup>&</sup>lt;sup>68</sup> Premonition. Legal Analytics. Retrieved from <a href="https://premonition.ai/legal analytics/">https://premonition.ai/legal analytics/</a> (Accessed 28/07/2020)

<sup>&</sup>lt;sup>69</sup> Alpaydin, *Op. Cit.*, 111.

<sup>&</sup>lt;sup>70</sup> Tesla. (2020). *Tesla Autopilot*. Retrieved from <a href="https://www.tesla.com/autopilot">https://www.tesla.com/autopilot</a> (Accessed 20/07/2020)

deployment is also autonomous (processing, billing, etc.).<sup>71</sup> This development can be incorporated with businesses, where the directors of subsidiary companies are fully autonomous. By decisions such as the case of *Vital*,<sup>72</sup> firms may be urged to pursue the pathway. This is further supported by the fact that as directors, humans may still pursue their interests, whereas algorithms are coded and precise in pursuing goals and are unable to act in bad faith.<sup>73</sup> If the law permits, we could expect that the algorithms would completely manage subsidiaries and substitute human directors. Truncating human roles in business subsidiary management and therefore making them *functus officio*.

#### b. The Implementation of Artificial Intelligence in Indonesia

In Indonesian business corporations, the efficacy of AI is already imminent. One of the prominent users of AI, Tokopedia<sup>74</sup>, has already been using the technology. Tokopedia uses ML for two things; (1) Smart logistics and (2) Consumer analysis. With Smart Logistics, they have created a logistic system that can support sending all purchases one day. Their consumer analysis can analyze their consumer habits and provide product recommendations to individual users. Yet, since the development of the technology is a convoluted process, the Unicorn heeds huge capital to support it. They have spent 100 million USD just for the HR and RND for AI development and established an AI research center in Universitas Indonesia. An even larger corporation than Tokopedia, Go-Jek — an online bike taxi service — uses ML in its practice. They are using ML for driver allocations and User Interface Personalization.

#### c. Effects of Artificial Intelligence from the Legal Perspective

<sup>&</sup>lt;sup>71</sup> John, *Op. Cit.*, 107.

<sup>72</sup> Rob, Loc. Cit.

Möslein, Florian. (2017). Robots in the Boardroom: Artificial Intelligence and Corporate Law, in Barfield, W. & Pagallo, U. (eds). (2018). Research Handbook on the Law of Artificial Intelligence. Cheltenham, United Kingdom: Edward Elgar, 13; Copeland, M.T. & A.R. Towl. (1947). The Board of Directors and Business Management. Boston: Wildside Press, 649.

<sup>&</sup>lt;sup>74</sup> Sutikno, Sanjaya, Hanamaria, Xaveria. Tokopedia: Dissecting the Unicorn Marketplace's Magic for National Domination. *Universitas Gadjah Mada*, 2.

<sup>&</sup>lt;sup>75</sup> This could be a difficult task since Indonesia has a population of approx. 254 million people that is sparsely located throughout 11 thousand inhabited islands. *See*: Embassy of Indonesia Washington D.C. "*Indonesia Facts and Figures*". Retrieved from <a href="https://www.embassyofindonesia.org/index.php/basic-facts/">https://www.embassyofindonesia.org/index.php/basic-facts/</a> (Accessed 14/07/2020)

<sup>&</sup>lt;sup>76</sup> Unicorn is a term for a start-up company that has achieved a valuation exceeding \$1 Billion. See: Business Insider. "Unicorn Company". Retrieved from <a href="http://www.businessdictionary.com/definition/unicorn-company.html">http://www.businessdictionary.com/definition/unicorn-company.html</a> (Accessed 14/07/2020)

First, in Indonesia, the development of AI would enhance the performance of court proceedings. This is because judges can be assisted by AI in the future. According to Art. 1(8) of the Indonesian Criminal Procedural Code, a judge, is a state court official that is given authority by the laws to adjudicate. In contrast, the authority to do so is a form of sovereign authority to carry out a trial to uphold the law and justice. Indonesian Courts, such as the Supreme Court, have taken the approach of supporting technological advancements. This is seen with their usage of technological tools for, namely *inter alia*, "Sistem Infromasi Pengawasan" for the supervision of the judge; and "Sistem Informasi Penelusuran Perkara" as the search engine of crimes.<sup>77</sup> Moreover, through the Supreme Court Regulation No. 1/2019, the administration of *replik, duplik*, rulings, or witness and expert witness examination can be made electronically.<sup>78</sup>

Be that as it may, AI's function would still be legally limited only to assist the judge. This is because AI will not manifest a court decision since a court decision is a humanistic based process that would need a thorough consideration impossibly made by an algorithm.<sup>79</sup> From another legal point of view, appointing an AI also would be impossible. According to Art. 14 (10) of Law No. 49/2009, to be appointed as a court judge, someone has to fulfill certain requirements, including *inter alia*, to be an Indonesian citizen and believe in God – requirements an AI wouldn't possibly have.

Second, AI would have an impact on the legal perspective of the world. The development of AI has been seen progressing and affecting many fields of law throughout the world. Technology such as AI gives chances to provide more legal services with more reachability and efficiency from the public's perspective than conventional law firm services.<sup>80</sup> In the US, the judicial courts received a third less of claims than the dispute resolutions system provided in eBay in a year.<sup>81</sup> In England, a startup already provides e-service on legal advice and assistance called DoNotPay that

Agung Pramono. HukumOnline (2020). "Mungkinkah Hakim Manusia Digantikan oleh Kecerdasan Buatan?", Retrieved from https://www.hukumonline.com/klinik/detail/ulasan/lt5e82cd8755927/mungkinkah-hakim-manusia-digantikan-oleh-kecerdasan-buatan-

<sup>&</sup>lt;sup>78</sup> *Ibid*.

<sup>&</sup>lt;sup>79</sup> *Ibid*.

<sup>&</sup>lt;sup>80</sup> Kusumawardhani, Qur'ani. (2019). HUKUM PROGRESIF DAN PERKEMBANGAN TEKNOLOGI KECERDASAN BUATAN. Retrieved from 0.25123/vej.3270

<sup>&</sup>lt;sup>81</sup> Susskind, R. and Susskind, D, the future of the professions: How technology will transform the work of human experts, Oxford University Press, 2015, p. 1-3

has an army of 1000 robots.<sup>82</sup> Last, in Russia, a company called *Sberbank* has created a robot lawyer that can issue claims to the court.<sup>83</sup>

### 2. Indonesian Regulations on the Presence of AI in a Business Corporation

Considering the mentioned fact that soon AI might be given control and liability of a decision-making position in a business corporation and that Indonesia is going in the same direction, this chapter will discuss the possibility and compatibility between the predicted event and Indonesian Corporate Law.

#### a. Artificial Intelligence and the Indonesian Civil Code

As the primary source of civil law of the country, the Indonesian Civil Code ("CC") is the regulatory benchmark for private matters and, therefore, the subject at hand. Since it is a set of laws that is derived from the Dutch and yet modernized<sup>84</sup>, the liability of AI being delegated discretion in corporations can only be seen into two analogies: (1) the relationship between a pet and owner, and (2) the relationship between employer and employees. Art. 1368 CC provides that an owner of a pet is responsible for any damage imposed by that pet, whether it is under his supervision or not.<sup>85</sup> Using this analogy, it can be inferred that if an autonomous intelligence imposes damage in its actions, the owner of such a machine would be held responsible. Further, Art. 1367 CC provides that a person is liable for damages done by people under his responsibility or by things that are under his supervision.<sup>86</sup> The provision further explains that an employer that delegates another is liable for damages done by the ones delegated.<sup>87</sup> By using that analogy, AI can be seen as either a person or a "thing", and as long it acts under the supervision of humans in the corporations, the humans would be held liable.

The third book of CC provides a regulatory framework for the law of obligations. Pursuant to Art. 1320 CC, in order to make a legal agreement, there needs to be an agreement that binds (consent of the parties; Capability to create an agreement; a particular object; and a lawful cause. Where Art. 1329 and 1330 state that everyone can

<sup>82</sup> Mannes, J, DoNotPay launches 1,000 new bots to help you with your legal problems,

https://techcrunch.com/2017/07/12/donotpay-launches-1000-new-botsto-help-you-with-your-legal-problems.

<sup>&</sup>lt;sup>83</sup> Tsvetkova, I, AI in Court, lawyer bot in court, and legal disputes crowdfunding – LegalTech – revolution begins, https://rb.ru/opinion/legaltech/

<sup>&</sup>lt;sup>84</sup> Hariyanto, Erie. (2009). Burgelijk Wetboek (Menelusuri Sejarah Pemberlakuannya di Indonesia). *Al-Ikham*, *4*, 143.

<sup>85</sup> KUHPer, Article 1368

<sup>86</sup> Ibid, Art. 1367

<sup>&</sup>lt;sup>87</sup> *Ibid*.

create an agreement except a person that is not yet an adult, a person under a guardian, married women that are regulated by the laws, and people who are forbidden by the laws. As Artificial Intelligence can only be analogically interpreted in the CC and cannot be considered a "person" yet, they cannot enter into agreements.

This relates to the following provisions that the CC provides in the context of corporate management. According to Art. 1618 CC, a partnership is an agreement where two, or more parties bind themselves to contribute something into partnership; with the aim to distribute profit arising out of it. Where in a partnership, someone is appointed and acts as the managing partner. The managing partner would have the duty to perform all acts of management despite some or all partners' disapproval provided that he acts in good faith. From this, we can see that the CC does not provide the possibility of an Artificial Intelligence to enter a contract or have the authority for corporate management in a partnership. Hence, the civil code does not allow an AI to intervene with corporate management.

### b. The Prospect of Artificial Intelligence in the Indonesian Limited Liability Company Law

The Indonesian Limited Liability Company Law is the law that governs the operational system of a Limited Liability Company. Here, however, we are specifically looking at how this law is compatible in an AI being given a position of the board in a company. Art. 93 LLC Law provides that a director of a company has to be an individual that is capable of law<sup>88</sup>, where the individual (director) would be responsible for things such as management and supervision of the LLC.<sup>89</sup> Further, Art. 97 provides that the board of directors would be liable as a collective if any faults were made by them to create a loss for the LLC.<sup>90</sup> The word individual would then be explained in the *travaux préparatoires*<sup>91</sup> of the law using the *persona ficta* interpretation method restricted to humans.<sup>92</sup> Using this interpretation means in the scope of Indonesian LLC Law, it would

<sup>88</sup> UU PT, Art. 93

<sup>89</sup> *Ibid*, Art. 92

<sup>90</sup> Ibid, Art. 97

<sup>&</sup>lt;sup>91</sup> *Travaux Préparatoires* or preparatory works is the report including background, history and drafts of the law. *See*: USLegal. *Travaux Préparatoires Law and Legal Definition*. Retrieved from <a href="https://definitions.uslegal.com/t/travaux-preparatoires/">https://definitions.uslegal.com/t/travaux-preparatoires/</a> (Accessed 10/07/2020)

<sup>&</sup>lt;sup>92</sup> Kementrian Hukum dan Hak Asasi Manusia. (2018). *Naskah Akademik Undang Undang Tentang Badan Usaha*, 10.

be unlawful to delegate or give an AI the position of a director since it has to be human. Thus, erasing the opportunity of self-driving corporations.

# 3. States Practices: Possibility of Current Company Law to Accommodate AI Issues in Business Corporation

It is an unequivocal fact that AI's presence contributes to a huge amount of impact and benefits in the corporate world. As mentioned before, AI can maximize personnel selection, make decisions with respect to corporate strategy, detect fraud, analyze data security, and even spam emails. The presence of such AI has recently been witnessed in concrete evidence. For example, the Hong Kong Deep Knowledge Ventures, Finnish Tieto, and Californian Sales Force. However, a question arises to what extent the utilization of an AI in a corporation aligns with the current law? Whether or not the current company law has accommodated AI to support the management of a company, two perspectives may help clarify the aforementioned issue.

First, positioning an AI as a board member shall be scrutinized. Some prior occurrences have shown that AI as a board member could gather information, which would be beneficial for decision making in future investments. For instance, the Hong Kong Deep Knowledge Ventures had recently introduced a machine learning algorithm into its board of directors to analyze financial trends and even to make a vote on investments. However, whether such an endeavor departed from the current company law or even reflected as the legal vacuum is still in question. Second, even if only delegating the task to the AI, the answer would remain unclear as to what extent a board member delegates its task is also in question.

#### a. The presence of AI as a board member

Board members are distinctive for their function as a decision-making body in a business corporation.<sup>95</sup> Compared to human judgment, the implementation of an AI in decision making is indisputably far more reliable for 2 reasons. First, AI enhances the

<sup>&</sup>lt;sup>93</sup> Petrin, M. (2019). Corporate Management in the Age of AI. Colombia Business Law Review, 2019(3), 966-967.

<sup>&</sup>lt;sup>94</sup> Gramitto, S. (2018). The Technology and Archeology of Corporate Law. Cornell Legal Studies Research Paper No. 18-40, 34.

<sup>&</sup>lt;sup>95</sup> Petrin, *Op. Cit.*, 937; Moore, M & Petrin, M. (2017). *Corporate Governance: Law, Regulation, and Theory*. London, United Kingdom: Palgrave, 176.

plurality of views in decision making due to its ability to generate multiple options.<sup>96</sup> Second, AI is in fact, unbiased in decision making and provides such decisions without any agenda in the board meeting.<sup>97</sup> However, the only question of AI's presence in a board room shall be its legal capacity in the business corporation.

To describe with a basic illustration, a board member's position here is archetypical to a slave co-owner, where neither Roman slaves nor AI has the legal capacity to bear rights and duties. Such can be seen as most States are restrictive on who is eligible to be a board member. For example, France, Belgium, and Spain allow a juridical person as a board member, while the United Kingdom and Germany only allow a natural person. In terms of classifying the AI's personhood, it would be definitely impossible for States that recognizes only natural persons to allow AI as a board member because non-human subjects can only be recognized through a juridical person. On the other hand, classifying AI as a juridical person may have several impacts, such as it offers transparency, management entrenchment, and displacing individual liabilities. However, putting AI under the juridical person would also be unclear as the current development still questions AI's personhood. As exemplified in 2017, even the European Parliament considered classifying an AI with a new personhood (Electronic Person).

#### b. Task Delegation

It is an inherent duty for a board member to keep their management function in a business corporation. However, instead of managing the company, boards tend to entrust the management duty to run the company by delegating certain tasks to their

<sup>96</sup> Gramitto, Op. Cit., 38.

<sup>&</sup>lt;sup>97</sup> Rajan, R.G. & Zingales, L. (1998). Power in a Theory of the Firm. Quarterly Journal of Economy 113, 387.

<sup>&</sup>lt;sup>98</sup> Gramitto, *Op. Cit.*, 35.

<sup>&</sup>lt;sup>99</sup> Code de Commerce, Art. 225-20.

<sup>100</sup> Code des Sociétés, Art. 61.2.

<sup>&</sup>lt;sup>101</sup> Ley de Sociedades de Capital, Art. 212.1.

<sup>&</sup>lt;sup>102</sup> Aktiengesetz, Art. 76(3).

<sup>&</sup>lt;sup>103</sup> Companies Act 2006, Section 156A.

<sup>&</sup>lt;sup>104</sup> Mousourakis, G. (2012). Fundamentals of Roman Private Law. Berlin, Germany: Springer, 85.

<sup>&</sup>lt;sup>105</sup> Talens, P.V. (2017). Corporate Directors: In Search of a European Model for Legal Persons as Board Member. ECFR 2017(4), 617-618.

<sup>&</sup>lt;sup>106</sup> Dremliuga, R. et al. (2019). Criteria for Recognition of AI as a Legal Person. Journal of Politics and Law 12(3), 107; European Parliament resolution of 16 February 2017 with Recommendations to the Commission on Civil Law Rules on Robotics. 2015/2103(INL).

<sup>&</sup>lt;sup>107</sup> Möslein, *Op. Cit.*, 59.

employees.<sup>108</sup> In particular, cases where time is the most critical factor, delegating tasks to an AI would be considered for its ability to make recommendations in an instant is far superior to human directors.<sup>109</sup> Moreover, it would also help the board members to gather information for making decisions.<sup>110</sup> Regardless of who is considered as a person that the task can be delegated to, which task is permissible to be delegated shall also be discussed.

The power of board members to delegate its task is currently acknowledged in various States with different standards. Some States are relatively fluid on what tasks the board member can delegate. In the United Kingdom, a board member can delegate its task to a person or committee, which it thinks fit. Here, the United Kingdom is flexible in allowing which task to be delegated. The same can also be found in Italy, where any task delegation is permissible so long as it is agreed by the corporate charter or the shareholder general meeting. However, some other states are more restrictive on delegation. For instance, New Zealand and the United States for bids managerial tasks to be delegated and demands the board member to handle managerial duties.

#### C. Conclusion

This Article argues about the necessity to establish a legal certainty about AI as a board member in a business corporation. As the current AI still needs supervision to operate, the future AI might make its own analysis without such supervision. This issue raised the urgency on legal certainty as the current Indonesian LLC Law as well as States practices, have been unclear in terms of stipulating the position of AI amidst its proliferation of practice. Under the Indonesian Civil Code, AI is deemed to be not liable for decisions. In contrast, the Indonesian LLC Law provides that a prerequisite for a director is an individual liable of legal capacity. Best practices of States also echo that the current legal framework is still unable to determine the answer with respect to the

<sup>&</sup>lt;sup>108</sup> Petrin, *Op. Cit.*, 973; Bainbridge, S.M. (2017). Corporate Directors in the United Kingdom. Wm & Mary L Review Online 59, 74

<sup>&</sup>lt;sup>109</sup> Gramitto, *Op. Cit.*, 35.

<sup>&</sup>lt;sup>110</sup> Möslein, *Op. Cit.*, 12-13.

<sup>&</sup>lt;sup>111</sup> Kenshaw, D. (2012). *Company Law in Context*. Oxford, United Kingdom: Oxford University Press, 192-194.

<sup>&</sup>lt;sup>112</sup> Mosco, G.D. (2020). AI and Boards of Directors: Preliminary Notes from the Perspective of Italian Corporate Law. SSRN, 14.

<sup>&</sup>lt;sup>113</sup> Dairy Containers Ltd v NZI Bank Ltd [1995] 2 NZLR 30, 79.

<sup>&</sup>lt;sup>114</sup> Re Bally's Grand Derivative Litigation. Delaware Journal of Corporate Law 23, 686.

question that AI as a board member. Which standard applies must wholly depend on each States' legal framework.

This article hopes to echo the necessity to establish AI's personhood to resolve further issues on positioning AI as a board member. In terms of Indonesian Law, the establishment of personhood is already evidenced that an individual is only restricted to a human. To accommodate the use of AI as a board member, it is highly suggested to either (1) expand the interpretation of individuals in the Indonesian LLC Law or (2) create a more compatible law in response to the usage of AI.

#### **BIBLIOGRAPHY**

#### **Books**

- Alpaydin, Ethem. (2010). *Introduction to Machine Learning*, (3<sup>rd</sup> ed). London, UK: The MIT Press.
- Ford, Martin. (2018). Architects of Intelligence (1st ed). Birmingham, UK: Packt Publishing Ltd.
- Gramitto, S. (2018). The Technology and Archeology of Corporate Law. Cornell Legal Studies Research Paper No. 18-40.
- Hariyanto, Erie. (2009). Burgelijk Wetboek (Menelusuri Sejarah Pemberlakuannya di Indonesia). *Al-Ikham*, 4.
- Kementrian Hukum dan Hak Asasi Manusia. (2018). Naskah Akademik Undang Undang Tentang Badan Usaha.
- Kenshaw, D. (2012). *Company Law in Context*. Oxford, United Kingdom: Oxford University Press, 192-194.
- Moore, M & Petrin, M. (2017). *Corporate Governance: Law, Regulation, and Theory*. London, United Kingdom: Palgrave.
- Mousourakis, G. (2012). Fundamentals of Roman Private Law. Berlin, Germany: Springer.
- Talens, P.V. (2017). Corporate Directors: In Search of a European Model for Legal Persons as Board Member. ECFR 2017(4).

#### **Journal Articles**

- Armour, John. (2020). SELF-DRIVING CORPORATIONS? Harvard Business Law Review, 10.
- Bainbridge, S.M. (2017). Corporate Directors in the United Kingdom. Wm & Mary L Review Online 59.

- Doi, Sunichi. (2006). Technological Development of Driving Support Systems Based on Human Behavioral Characteristics. *IATSS Research*, 30.
- Dremliuga, R. et al. (2019). Criteria for Recognition of AI as a Legal Person. Journal of Politics and Law 12(3), 107; European Parliament resolution of 16 February 2017 with Recommendations to the Commission on Civil Law Rules on Robotics. 2015/2103(INL)
- Lopucki, Lynn M. (2017). Algorithmic Entities. 95 Washington University Law Review, 95(1), 6. Retrieved from <a href="https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2954173">https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2954173</a>
- Mosco, G.D. (2020). AI and Boards of Directors: Preliminary Notes from the Perspective of Italian Corporate Law. SSRN.
- Möslein, F. (2017). Robots in the Boardroom: Artificial Intelligence and Corporate Law, in Barfield, W. & Pagallo, U. (eds). (2018). Research Handbook on the Law of Artificial Intelligence. Cheltenham, United Kingdom: Edward Elgar, 13; Copeland, M.T. & A.R. Towl. (1947). The Board of Directors and Business Management. Boston: Wildside Press.
- Petrin, M. (2019). Corporate Management in the Age of AI. Colombia Business Law Review, 2019(3).
- Rajan, R.G. & Zingales, L. (1998). Power in a Theory of the Firm. Quarterly Journal of Economy 113.
- Re Bally's Grand Derivative Litigation. Delaware Journal of Corporate Law 23
- Surden, Harry. (2014). Machine Learning and Law, Washington Law Review, 89.
- Sutikno, Sanjaya, Hanamaria, Xaveria. Tokopedia: Dissecting the Unicorn Marketplace's Magic for National Domination. *Universitas Gadjah Mada*.

#### **Newspaper and Online Sources**

Business Insider. "Unicorn Company". Retrieved from <a href="http://www.businessdictionary.com/definition/unicorn-company.html">http://www.businessdictionary.com/definition/unicorn-company.html</a>

Embassy of Indonesia Washington D.C. "Indonesia Facts and Figures". Retrieved from https://www.embassyofindonesia.org/index.php/basic-facts/

Ideal. The Ideal Story. Retrieved from <a href="https://ideal.com/about/">https://ideal.com/about/</a>

MATHWORKS: MACHINE LEARNING. What Is Machine Learning? 3 Things You Need to Know. Retrieved from https://www.mathworks.com/discovery/machine-learning.html [https://perma.cc/F45M-DTMD]

Marr, Bernard. (2016). "The Top 10 AI and Machine Learning Use Cases Everyone Should Know About". Retrieved from <a href="https://perma.cc/ADN8-A5Z5">https://perma.cc/ADN8-A5Z5</a>

Premonition. Legal Analytics. Retrieved from <a href="https://premonition.ai/legal\_analytics/">https://premonition.ai/legal\_analytics/</a>

Tesla. (2020). Tesla Autopilot. Retrieved from <a href="https://www.tesla.com/autopilot">https://www.tesla.com/autopilot</a>

USLegal. *Travaux Préparatoires Law and Legal Definition*. Retrieved from <a href="https://definitions.uslegal.com/t/travaux-preparatoires/">https://definitions.uslegal.com/t/travaux-preparatoires/</a>

Wile, Rob. (2014). A Venture Capital Firm Just Named an Algorithm to Its Board of Directors — Here's What It Actually Does, *Business Insider*. Retrieved from <a href="https://www.businessinsider.com.au/vital-named-to-board-2014-5">https://www.businessinsider.com.au/vital-named-to-board-2014-5</a>