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The Effect of New Technologies on the Structure and Decision-Making Process of Multinational Enterprises and Their Liability for Human Rights and Environmental Breaches

Yeni Teknolojilerin Çok Uluslu Şirketlerin Yapısı ve Karar Verme Süreçleri ve İnsan Hakları ve Çevre İhlallerinden Sorumluluğuna İlişkin Tartışmalara Etkisi

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Abstract Multinational enterprises (MNEs) are at the centre of international business activities and play an important role in the world economy's positive developments. However, they have long been accused of violating human rights and environmental regulations that harm people and societies. Several efforts have been made to solve the problems and make MNEs accountable and liable for their harmful actions. MNEs operate on a group-based managerial structure, while each constituent company within a group is subjected to local company laws and other regulations. This complicated internal structure has made it very difficult to establish the overall group liability for the torts of companies within the group. Although the legal structure based on company law has not changed for a long time, the internal structure decision-making processes within MNEs are undergoing a considerable transformation with the recent technological developments, such as big data, artificial intelligence, and distributed ledger technologies. Most recent case law and regulatory options regarding the liability of MNEs still consider them with their dated structure. This approach prevents victims of MNE adverse actions from reaching satisfactory solutions. The effects of new technologies must be considered while discussing any legal actions and introducing regulations towards accountability and liability of MNEs for their human rights and environmental breaches. This article provides an extensive analysis of the effects of new technologies on contemporary internal operations and the structure of MNEs, provides examples of current human rights and environmental violations, and discusses the suitability of current laws and regulations for solving liability problems.

Keywords Accountability · environment · human rights · liability · multinational enterprises · new technologies

Anahtar Kelimeler Hesap verebilirlik · çevre · insan hakları · sorumluluk · çok uluslu şirketler · yeni teknolojiler

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Extended Summary

Multinational enterprises (MNEs) have been very influential in global business activities since their emergence at the end of the 19th century. During the 20th century, they moved to the centre of international economic activities. They entered the 21st century with a strengthened place due to the help of digitalisation and an ever-more globalised financial world. In the current global economic structure, conducting business through MNE formation is almost essential for success. Thus, more powerful MNEs have emerged recently; additionally, incumbent MNEs have become more influential.

MNEs have complex ownership structures, including full ownership, majority shareholding, joint venture, minority shareholding, and several control-enabling agreements within their networks. This complex control and managerial structure is very dynamic and evolves with technological development and becomes even more complicated over time. However, company laws all over the world treat each company as a separate legal entity, which is supported by the limited liability of owners towards the company. Additionally, local company laws almost always require a new company to be established when MNEs enter a new country for business purposes. As a result, the characteristic structure of MNEs can be described as having an integrated group-based economic and management structure, but several legal personalities are subjected to different laws and regulations. Owing to the dynamic nature of the business world, the global business environment is going through another phase of reformation thanks to technological developments in recent years. Big data, artificial intelligence, distributed ledger technologies, and other recent developments are transforming business operations. These new technological tools make the distinction between business and legal conduct even more superficial.

MNEs have long been accused of violating human rights and environmental regulations that harm people and societies. MNEs' human rights violations took various forms, changing in parallel with economic, political, and technological developments. Accusations of MNEs' harmful activities have peaked in recent years, and many MNEs have been subjected to human rights breach claims in courts. Their environmental harms have recently been the subject of numerous reports and legal claims.

This remarkable evolution towards more globalised MNE activities created criticism as companies evade liability through their complicated legal, economic and managerial structures. Due to this structure, reaching parent companies for their subsidiaries' breaches of human rights and environmental laws is almost impossible. Several efforts have been made to solve the problems and make MNEs accountable and liable for their harmful actions. However, all liability discussions based on legal separations and decision-making processes are ineffective and fail to solve group liability problems. MNEs operate and conduct their business using a unified data governance centre, and this data is used exclusively to make decisions at almost every level.

Within this legal and economic structure, using courts to make MNEs' liabilities almost impossible due to the difficulty of finding responsible decision-makers in this complex decision-making process. All the old and new tools, such as piercing the corporate veil, parent liability regulations for control, supply chain due diligence, human rights reporting, and other similar laws and regulations, are inefficient because determining individual companies and decision-makers within MNEs is almost impossible. Most recent case law and regulatory options regarding the liability of MNEs still consider them with their dated structure. This approach prevents victims of MNE adverse actions from reaching satisfactory solutions. The effects of new technologies must be considered while discussing any legal actions and introducing regulations towards accountability and liability of MNEs for their human rights and environmental breaches.

Overall, the arguments regarding the liability of MNEs are made from several legal approaches, such as international law, tort law, company law, and human rights law. Several soft law initiatives and corporate self-regulation have also been widely introduced. These efforts can be divided into two categories. The first category is to prevent breaches and harm, and it is mainly discussed under accountability, a concept derived from public law, meaning an obligation to meet basic procedural standards to protect fundamental rights. The second category is to punish MNEs and remedy the victims and is mainly categorised under liability. This article provides an extensive analysis of the effects of new technologies on contemporary internal operations and the structure of MNEs, provides examples of current human rights and environmental violations, and discusses the suitability of current laws and regulations for solving problems.

Introduction

Multinational enterprises (MNEs) have been very influential in global business activities since their emergence in the second half of the nineteenth century. During the 20th century, they moved to the centre of international economic and business activities, and they entered the 21st century with a strengthened power due to technological developments. In the current global economic structure, conducting business through transnational formation is almost obligatory for viable and durable financial success. Due to technological advancement in recent years, new and more powerful MNEs have emerged, and incumbent MNEs have become more powerful.

MNEs have complex ownership structures, including full equity ownership, majority equity holding, joint venture, minority equity holding, and several control-enabling agreements. This control structure requires a comprehensive managerial system and innovative tools for enterprise governance. MNEs operate with a complicated inner business and organisational structure based on unique group-based management and decision-making arrangements. These complex control and managerial systems are dynamic and evolve with technological, economic, and political development in a business environment.

On the other hand, company laws worldwide grant each entity within a group a separate legal personality, supported by the limited liability of shareholders towards the company. These company law principles apply to all companies regardless of size or ownership structure. Moreover, the local characteristics of company law almost always require the establishment of a new company when MNEs enter a new country for business. Thus, MNEs mainly adopt the structure of group companies. The characteristic structure of MNEs can be described as having an integrated business and management structure with several legal personalities subjected to different laws and regulations.

The remarkable evolution of businesses towards more globalised activities by MNEs created discontent as they can evade accountability and liability by facilitating their complicated legal, business, and managerial structures. This problem emerged because of conventional approaches to company law as the economic functioning of companies and MNEs evolved constantly, and basic principles of corporate law have remained almost the same since they were introduced. Although several attempts have been made to solve the accountability and liability problems created by MNEs, most have fallen short due to established principles of company law, conflicts of law, and other laws and regulations applied to the matter. Most of the solutions offered ignored contemporary realities regarding MNE structure. They focused on solving the problems by creating theories and regulations such as piercing the corporate veil, forum convenience, disclosure of group structure, due diligence requirements, obligations in public law, and several soft law initiatives. This fragmented approach to accountability and liability problems without considering contemporary business realities enabled MNEs to evade liability for years.

In the past, MNEs operated mainly as hierarchical pyramid-structured organisations with explicit control and decision-making procedures. Over time, they evolved to be complex, horizontally networked organisations. However, despite recent trends of extending definitions of MNEs beyond the hierarchical level, regulations, case law, and academic discussions have ignored these evolutions for a long time. They continued to consider MNEs as mostly hierarchical organisations with clearly defined organisational and decision-making structures. The structure and decision-making process of MNEs made it impossible for outsiders to detect the new models. More recently, due to the dynamic nature of the business world and technological developments, the global business environment has been going through another chapter of reformation. The development of data management systems, the emergence of artificial intelligence (AI), distributed ledger technologies (DLT), and other recent technological developments are transforming how

MNEs are organised. So-called new or corporate technologies are rapid and advanced, like every further innovation in the industry.[1] MNEs swiftly integrate these technological developments into their business strategies.

These new technologies render the division between business demeanour and legal structure within the enterprise even more superficial. The decision-making process in MNEs is not hierarchical or horizontal but intertwined through technological advances in data collection and management. Thus, most liability discussions based on incorrectly assessing the structure of MNEs and considering them separate personalities with precise control and decision-making processes fail to solve group liability problems. MNEs mainly use unified data governance systems to conduct their business, and this data is a source for making management decisions at almost every level. New technologies are making data management systems even more interconnected and further changing the structure and decision-making process of MNEs. However, legally, each corporation is considered separate from other companies within the enterprises even after all these technological developments.

Decisions taken by MNEs using these new methods might also cause human rights breaches and environmental harm and thus be subjected to liability claims. With this legal and economic structure of MNEs, relying on courts to produce efficient liability theories is not rational due to the difficulty of determining a responsible legal person within MNEs, as determining the decision-making process that caused the harm is almost impossible. Without considering the new realities, all the established and novel tools, such as piercing the corporate veil, parent liability for excessive control, regulatory interventions for parent company liabilities, supply chain due diligence, international soft law initiatives, and procedural rules for establishing jurisdiction over a parent, are destined to be inefficient.

The time has matured to offer more realistic approaches to the determination of group structures, decision-making process, and accountability and liability discussion regarding MNE operations. By doing that better solutions can be provided to liability problems and facilitate more efficient business conduct, resulting in fewer problems. I believe that the discussions in this article will be distinctive; even though new technologies and their effect on companies are widely discussed in academia and practice, their impact on MNEs' accountability and liabilities is almost exclusively left untouched. This article indicates that the internal structure, decision-making process, and current sphere of operations of MNEs must be considered to achieve viable accountability and liability regimes.

In this article, I will first examine the emergence of new technologies and their effects on MNEs' internal organisation and decision-making processes. Second, I will discuss the characteristics of modern MNEs and the impacts of new technologies from historical, economic, management, and legal perspectives. Third, examples of human rights and environmental breaches by MNEs will be provided, primarily focusing on recent developments. Finally, I will examine current laws, regulations, case laws, and academic discussions regarding MNEs' accountability and liability for their human rights and environmental breaches. This examination will not be specific to any particular jurisdiction as business practices are very similar all over the world. This article aims to provide a general understanding of the effect of new technologies on the structure and decision-making process of MNEs and liability discussions based on these realities. After outdated approaches to problems are established, more specific examinations will be conducted based on separate jurisdictions and more specific legal tools.

[1] Enriques, L., & Zetzsche, 'Corporate Technologies and the Tech Nirvana Fallacy' (2020) 72 Hastings Law Journal 55.

I. New Corporate Technologies

Technology has always been a fundamental facilitator of business progression. Technological developments have two-sided effects on the company's success; enterprises must create new technologies, and even if they are not the inventor of technology, they must adopt the latest technologies. Business enterprises are always committed to creating or adapting to new technologies to survive and prosper.[2] In the last few decades, one of the most important triggers for changes in data management decision-making and control structure of MNEs has come from new technologies; big data, AI, and DLT are radically changing the models of business conduct. International and domestic institutions now recognise the role of corporate technologies in enterprises' operations. For example, The Organisation for Economic Cooperation and Development (OECD) has recently updated its Corporate Governance Principles, and one of the reasons for the update was recent technological developments.[3] In this article, I will examine these new technologies and their effects on MNEs' internal control and decision-making processes.

A. Data Management Developments and the Emergence of Big Data

Gathering, storing, and analysing the data is one of the most essential elements in any business enterprise's success. Data collection began with the first emergence of business enterprises, and since then, data has been a critical element in successful business decisions.[4] Unlike other assets, such as land, labour, and commodities, data are constantly expanding and utilised by MNEs in all business areas, such as finance, marketing, accounting, production and strategic planning.[5] When an enterprise grows in time, it collects more data, which facilitates more competitive advantages.[6]

Data collection within the enterprise creates the firm's knowledge-based assets. MNEs operate with a single business strategy, internalise assets, and apply as a market mechanism. This internalisation process of firm-specific assets is a management strategy to develop and exploit them as intermediate products and primary ownership, which helps MNEs succeed.[7] Data is considered an economic resource and categorised under several intangible asset types, such as commodity, capital, and infrastructure. Data are a core aspect of enterprise decision-making, which is increasingly critical to operations at the international, organisational, sectoral, regional or country level.[8]

Data collection is conducted in early MNEs in a vertical and centralised way. They create data management systems, and management decisions are made through extensive data analysis. Naturally, developments in information technologies and communication have altered data collection and storage. For example, an article published in 1987 stated, 'Data transmission across borders is accomplished today through computers and telecommunication links.' The importance that MNCs attach to transborder data transfer can be judged from the fact that by 1985, more than 200 MNCs were operating their own computer-

[2] Orit F Afori, 'Global Digital Governance Through the Back Door of Corporate Regulation' (2023) 33 Fordham Intellectual Property, Media, Entertainment Law Journal, vol. 720, pp. 745, 2023.

[3] OECD, *Principles of Corporate Governance* (Paris, OECD Publishing, 2023); Carl M Magnusson and Daniel Blume 'Digitalisation and Corporate Governance', accessed 25 October 2023, https://www.oecd.org/publications/digitalisation-and-corporate-governance-296d219f-en.htm

[4] UNCTAD 'Digital Economy Report 2021' https://unctad.org/publication/digital-economy-report-2021 (accessed 25 October 2023) XVII.

[5] Chandran, R., Phatak, and Rakesh Sambharya 'Transborder Data Hows: Implications for Multinational Corporations' (1987) 30 Business Horizons, 30, 74–75.

[6] Carrière-Swallow and Vikram Haksar 'The Economics of Data' https://www.imf.org/en/Blogs/Articles/2019/09/23/the-economics-of-data (accessed 25 October 2023)

[7] Alain Verbeke and Liena Kano 'The New Internalisation Theory and Multinational Enterprises from Emerging Economies: A Business History Perspective' (2015) 89 Business History Review 415.

[8] UNCTAD, Digital, 70.

communications systems.[9] The growth in computer powers, the explosion of devices with data collection, the dropping costs of data storage, and the growing capability to bring more data at incredible speed have altered how businesses operate, and the data have become the embodiment of economic and social interactions.[10]

Data continually accumulates, and modern technologies provide a systematic storage under which data never disappears. The data create a limitless reserve that can be reused by an unlimited number of users and for a boundless number of purposes.[11] This process is used for value creation and can be described as a process through which data are transformed into knowledge and innovation.[12] The economic value of data is realised across two stages: the first is transforming data into information through analysis and using it for decision-making. The analysis and decision-making phase is the most important phase for businesses.[13] Effective use of data boosts productivity and enables economic activity across all business enterprises' sectors.[14]

In recent years, new technologies have dramatically altered internal data management practices.[15] Advancements in computing and storage technologies and the emergence of networked businesses through platform economy have created new data sources. Enterprises began collecting data from external sources, such as suppliers, customers, and intermediate business partners, through contractual relationships and digital platforms.[16] Moreover, data come from the broader sphere of the enterprises, including third-party tracings such as society, enterprises, NGOs, and government, as any data flowing over the Internet can be collected.[17] This process is performed through a web scraping process.[18] Data will be more abundant in the future, coming from various sources and stored on more powerful systems.[19] Combined data through this process contribute to firm-specific advantages, and the value created by data increasingly influences firms' economic growth.[20]

Advancements in digital technologies have transformed MNE data management systems to a more integrated level. For example, data collected from applications could be from several countries; this data may be processed and stored in third countries and used to create value for MNEs operating in several countries.[21] On of their size or area of activities, MNEs increasingly rely on data collection and management to support their business activities.[22] Additionally, quicker, cheaper, and faster access to critical knowledge and information helps SMEs reduce barriers to engaging in international trade and allows them to turn to

[9] Chandran, 77.

[10] OECD, 'Mapping Approaches to Data and Data Flows," OECD. Retrieved from https://www.oecd.org/sti/mapping-approaches-to-data-and-data-flows.pdf (accessed 25 October 2023) 4.

[11] OECD, Mapping, 10.

[12] OECD, Mapping, 10.

[13] OECD, Mapping, 7.

[14] OECD, Mapping, 8.

[15] See the UNCTAD, Digital.

[16] UNCTAD, Digital, 27.

[17] Hildebrandt, M. (2018). 'Primitives of Legal Protection in the Era of Data-Driven Platforms' (2018) 2 Geo. L. Tech. Rev. 252, 254; UNCTAD, Digital, 67; Joachim Wagner, 'The Research Potential of New Types of Enterprise Data Based on Surveys from Official Statistics in Germany' https://ssrn.com/abstract=1455526 (accessed 25 October 2023).

[18] Benjamin Sobel, 'A New Common Law of Web Scraping' (2021) 25 Lewis & Clark L. Rev., 2021), 147.

[19] European Commission, (EC) 'White Paper on Artificial Intelligence: A European Approach to Excellence and Trust. Available from: https://commission.europa.eu/publications/white-paper-artificial-intelligence-european-approach-excellence-and-trust_en (accessed 25 October 2023) 2,3.

[20] Picciau, C. (2021). 'The (Un)Predictable Impact of Technology on Corporate Governance' (2021), 17 Hastings Bus. L. J. 67, 79.

[21] See the UNCTAD, Digital.

[22] OECD, Mapping 9.

MNEs more promptly.[23] Data collection has recently become an independent business activity.[24] Many data collection enterprises (many operating at a multinational level) efficiently collect firm-specific or open-source data and analyse their customers.[25] This business service helps SMEs enter the competition without massive investment in data systems.

The volume of data produced worldwide is multiplying and is expected to increase from 33 zettabytes in 2018 to 181 zettabytes in 2025.[26] This unprecedented flow of new data and accumulation of existing data has created the concept of big data, which generally refers to extensive databases of structured, unstructured, and semi-structured data that are difficult to process and analyse using traditional methods.[27] The characteristics of big data are as follows: it consists of massive data sets, it is created constantly and very quickly, and the sources and types of data vary considerably.[28] Data varies in content depending on how they are collected, the data owner and sorting, and the data storage.[29] The important aspect of big data is its value for business enterprises, described as the ability of data to be turned into actionable insights, which requires big data analytics.[30] Data analytics is collecting, organising, and analysis of large amounts of data to reach logical outcomes and create business value.[31] The prediction of a further increase in the volume and variety of data in circulation makes big data analytics significant expertise for prospering in this new digital economy.[32]

B. Artificial Intelligence

The weakness of human skills and computing technologies in managing data stored constantly in cloud computing and data centres or the Internet led to another critical development regarding big data: the emergence of modern AI, which[33] has rapidly become a fundamental part of business data management.[34] There is no single definition of AI, as it has a dynamic development process. In straightforward explanations, AI combines technologies that link data, algorithms, and computing power to extract knowledge from a database.[35] AI uses several technological developments in computing, but it mainly uses data and produces machine-assisted structured and organised information, which might include human insights such as self-learning and reasoning.[36] AI automates specific processes that previously relied on human skill and

[23] OECD, Mapping, 10.

[24] Max Freedman, 'How Businesses Are Collecting Data." Business Daily News, October 20, 2023.

[25] Baker, 'The Importance of Data Collection In Business' https://www.baker.edu/about/get-to-know-us/blog/the-importance-of-data-collection-in-business/. (accessed October 25, 2023).

[26] Statista, https://www.statista.com/statistics/871513/worldwide-data-created/; UNCTAD, Digital, 32.

[27] See S. Yogesh. Kalambe et al. 'Big Data Mining Tools for Unstructured Data: A Review' (2015) 3 International Journal of Innovative Technology And Research 2012, 2015.

[28] Margaret Rouse 'Big Data," *Techopedia* (August 31, 2023).

[29] Picciau, 78.

[30] A. K. Kushwaha, A. K. Kar, and Y. K. Dwivedi, 'Applications of Big Data in Emerging Management Disciplines: A Literature Review Using Text Mining' (2021) 1 International Journal of Information Management Data Insights, vol. 1, no. 1, 2021.

[31] See Kushwaha.

[32] Schmitt, M. (2023). 'Big Data Analytics in the Metaverse: Business Value Creation with Artificial Intelligence and Data-Driven Decision Making'. http://dx.doi.org/10.2139/ssrn.4385347.

[33] Prasanth, A., Vadakkan, D. J., Surendran, P., & Thomas, 'Role of Artificial Intelligence and Business Decision Making' (2023) 14 International Journal of Advanced Computer Science and Applications, 965.

[34] Marc Schmitt, 'Deep learning in business analytics: A clash of expectations and reality' (2023) 3 International Journal of Information Management Data Insights, 3(1).

[35] EC, On Artificial, 2; Harry Surden, 'Machine Learning and Law' (2014)89 WASH. L. REV. 87, 90.

[36] Iris H-Y Chiu, and Ernest, Lim, 'Technology vs ideology: How Far will Artificial Intelligence and Distributed Ledger Technology Transform Corporate Governance and Business?' (2020) 18 Berkeley Business Law Journal, 3, 965.

judgement.[37] AI is the primary key technology for MNEs in automation, analytics solutions, and modern decision-making technology.[38]

AI development is still in its early stages, but it is helpful to provide information on the primary development stages.[39] It can be divided into narrow AI, general AI, and super AI.[40] Narrow AI uses the main algorithm to gather and analyse the data provided externally, and it cannot adapt or learn new situations.[41] (accessed 25 October 2023) Algorithms are instructions that a computer uses to perform a task, and they offer a technical tool to extract information from a dataset.[42] Narrow AI is designed to perform specific tasks by replicating human expertise. The reasoning/self-aware narrow AI analysis of the data simulates human-like reasoning and decision-making processes.[43] General AI can learn and improve probability and execution automatically through experience and data without human programming.[44] General AI might offer human-like intelligence and intellectual abilities to understand, learn, and apply intelligence across various tasks.[45] General AI capabilities thrive and now include deep learning and machine learning and are open to many possibilities.[46] In the future, general AI might become super AI, which is more intelligent than humans and capable of solving problems beyond human knowledge.[47] They can improve themselves and understand complex concepts without human intervention.[48]

For business enterprises, AI provides a valuable decision-making aid that, in some instances, may even fully substitute human decision-makers as their capability to make decisions without less human interference grows daily.[49] AI can strengthen firm performance by supporting strategic decisions, and tremendous benefits, which provide economic gains, can be derived from AI.[50] Without the ability to control AI systems, businesses will lose the edge and competitive advantage.[51]

[37] Chiu and Lim (6)

[38] Schmitt, 2023. 4; Y. K., Dwivedi at all. 'Climate change and COP26: Are digital technologies and information management part of the problem or the solution? An editorial reflection and call to action.' (2022). Sixty three International Journal of Information Management 1.

[39] Department for Science, Innovation and Technology, 'Science and Technology Framework', https://www.gov.uk/government/publications/ai-regulation-a-pro-innovation-approach/white-paperhttps://www.gov.uk/government/publications/ai-regulation-a-pro-innovation-approach/white-paper

[40] Chiu and Lim 5.

[41] Art Tawanghar 'The Ten Stages of AI Development: From Rule-Based Systems to God-Like AI' https://www.linkedin.com/pulse/ten-stages-ai-development-from-rule-based-systems-art-tawanghar/ https://www.linkedin.com/pulse/ten-stages-ai-development-from-rule-based-systems-art-tawanghar/

[42] Picciau, 82.

[43] The European Commission (EC) 'High-Level Expert Group on Artificial Intelligence A Definition of AI: Main Capabilities and Scientific Disciplines" (December 18, 2018).

[44] OECD 'Artificial Intelligence, Machine Learning and Big Data in Finance: Opportunities, Challenges, and Implications for Policy Makers," https://www.oecd.org/finance/artificial-intelligence-machine-learningbig-data-in-finance.htm, 2021. (accessed December 25, 2023)

[45] James Tobin 'Artificial intelligence: Development, risks and regulation' https://lordslibrary.parliament.uk/artificial-intelligence-development-risks-and-regulation/ (accessed 25 October 2023).

[46] Chiu, 8.

[47] James Pethokoukis 'Is Artificial 'Super' Intelligence Coming Soon?" Accessed: https://www.aei.org/articles/is-artificial-super-intelligence-coming-soon/.

[48] See Tawanghar.

[49] Picciau, 85; Prasanth, 965.

[50] UNCTAD, Digital, 41.

[51] Schmitt, 2023 4.

C. Distributed Ledger Technologies (DLTs)

In recent years, another groundbreaking new technology, DLT, has been developed for creating, collecting, and storing data and using this data in internal decision-making.[52] DLT is modifying the recognised model of any business transactions and finds use in multiple sectors, including banking and finance, supply chain management, and healthcare industries.[53] The OECD defines DLT as follows:[54]

a combination of technologies that create a digital, shared, and self-updating ledger of verified transactions or information among parties in a network based on innovative database technologies, including blockchain technologies. DLT uses various types of multi-party consensus mechanisms to validate and record transactions and has various governance systems, ranging from "centralised" models to instances where a central authority(ies) may not control (also known as "decentralised").

DLT is ultimately an asset database that can be shared across a network of numerous sites, geographies, or institutions. Instead of centralised data storage, all network participants can own duplicate copies of the ledger.[55] DLT technologies have complex keys and signature mechanisms to maintain protection and accuracy.[56] Entries might be updated by one, some, or all of the participants according to rules predetermined by the network, and changes to the ledger are immediately reflected in all copies without any centralised decision-making process.[57] Using DLT ensures that data are constantly updated, allowing participants to share data and be confident that all copies of the ledger match each other at any time.[58] With DLT, there is no need for transitional and centralised data centres, which require a double flow of data and cost more.[59] While centralised systems are naturally more vulnerable to cybersecurity and technical system failures, DLT creates a decentralised system that uses multiple shared databases, is difficult to attack, and is more prone to technical failures.[60] DLT makes data storage, recording, and exchange across participants easy to audit without a central authority, resulting in less fraud or mismanagement.[61] On the other hand, the centralised systems might not be instant with data collection. Thus, they could produce incorrect data or even be manipulated by the system controller.

In business, many large- and medium-scale enterprises already use DLT technologies. The use of DLT has several benefits. It could be helpful in diverse activities such as recording transactions and property rights, recording corporate actions, and recording access to data.[62] DLT can be used to organise corporations'

[52] UNCTAD, 'Global Report on Blockchain and its Implications on Trade Facilitation Performance https://unctad.org/publication/global-report-blockchain-and-its-implications-trade-facilitation-performance.

[53] Forbes, '15 Industries That Could Significantly Benefit From Blockchain Technology." https://www.forbes.com/sites/forbestechcouncil/2022/06/10/15-industries-that-could-significantly-benefit-from-blockchain-technology/; R Soltani, at all. 'Distributed Ledger Technologies and Their Applications: A Review." (2022) 12 Appl. Sci. 7898; Mohd Javaid, at all. 'A review of Blockchain Technology applications for financial services." (2022) 2 Bench Council Transactions on Benchmarks, Standards and Evaluations 1.; OECD, 'Recommendation on Blockchain and other DLT." Available from: https://www.oecd.org/daf/blockchain/oecd-recommendation-on-blockchain-and-other-dlt.htm (accessed 25 October 2023).

[54] OECD, Recommendation.

[55] Michel Rauchs at all 'Distributed Ledger Technology Systems: A Conceptual Framework," https://ssrn.com/abstract=3230013 (accessed 31 October 2023).

[56] Buckley, R. P., Didenko, A. N., & Trzecinski, 'Blockchain and its applications: A Conceptual Legal Primer' https://ssrn.com/abstract=4318284 (accessed 31 October 2023)

[57] UK, 'Distributed Ledger Technology: Beyond Block Chain, A Report by the UK Government Chief Scientific Adviser' https://assets.publishing.service.gov.uk/media/5a818d6fe5274a2e87dbe3dd/gs-16-1-distributed-ledger-technology.pdf 4. (accessed 31 October 2023).

[58] UK, Distributed, 6.

[59] Buckley, 368.; Douglas Arner, Raphael Auer and Jon Frost, 'Stablecoins: Risk, Potential and Regulation," https://doi.org/10.2139/ssrn.3979495 (accessed 31 October 2023).

[60] Buckley, 368; Arner, Stablecoins.

[61] Milton Ezrati, 'Distributed Ledger Technology (DLT) Has Begun a Business Revolution' https://fullyvested.co.uk/insights/dlt-begun-business-revolution/(accessed 31 October 2023).

[62] Buckley, 377.

internal accounting systems and automate corporate reporting.[63] DLT can be used in regulatory compliance processes, such as SCM.[64] Integrating external audits within DLT might provide direct auditing of corporate transactions, which might revolutionise audit systems.

Organising economic activity using the DLT can result in new economic power formations, as the DLT can disrupt international economic relations in multiple ways.[65] DLT will likely support the existing business or management processes of MNES without fundamentally disturbing power institutions and structures.[66]

D. Effects of New Technologies on Multinational Enterprises' Decision-Making Process

MNE governance requires extensive and constant decisions reliant on the most available data. Company law also requires that directors and managers must make and/or oversee these decisions with a board structure. Moreover, the results of these decisions are subject to internal assessment, compliance, and external audit processes. Traditionally, all internal decision-making processes were conducted by humans, relying on data collected and analysed by human agents. However, with the integration of corporate technologies, data are mainly collected, stored, and analysed by machines, and in some cases, they make the decisions directly.[67] Thus, whether it is a humanised decision-making process or a computerised decision-making process, enterprises' management quality relies on documented and analysed information.[68] This decision-making process is called a data pyramid and is explained by the UNCTAD.[69] New technologies are introduced to each section of the data pyramid in modern enterprises. The process is in all stages, creating a more complex system in which data creation and collection are non-traceable to certain individuals or companies within a group.[70]

the role of AI in business decision-making is transformative, offering significant advantages in terms of efficiency, accuracy, and innovation. AI-powered systems enable businesses to process and analyse vast amounts of data efficiently, leading to quicker and more informed decision-making. Overall, the integration of AI in business decision-making has the potential to drive organisational success and shape the future of business practices.

The integration of new technologies in business decision-making can revolutionise how organisations operate.[71] I am fully aware that new technologies are not yet replacing humans, but there is no need to wait until new technologies replace humans. Instead, stating that it is a very dynamic tool that helps make decisions is sufficient.[72] The replacement of humans by machines is not necessary to prove the changes in the decision-making process, but the changes in the role of humans are the key to the process.[73] AI changes the reliance on human agents in all stages and creates a new position for them.[74] AI can assume the roles of

[63] Picciau, 88.; Kelvin F.K. Low, Edmund-Philipp Schuster and, Wai Y Wan, 'The Company and Blockchain Technology', https://ssrn.com/abstract=4258114. (accessed December 25, 2023).

[64] S. P. Fiammetta, 'Bitcoin and the Blockchain as Possible Corporate Governance Tools: Strengths and Weaknesses' (2017) 5 Penn St. J. L., 2017. & Int'l Aff. 262, 295–96.

[65] UNCTAD, Global; Buckley, 364 Emmanuelle Ganne, 'Can Blockchain Revolutionise International Trade?," World Trade Organisation, 2018.

[66] Chiu, 11.

[67] Chiu, 8.

[68] Prasanth, 968.

[69] UNCTAD, Digital, 7.

[70] Prasanth, 965.

[71] Prasanth, 965.

[72] Prasanth, 965.

[73] Chiu, 3.

[74] Chiu, 6.

assisting human decision-making, advising on decision-making, and autonomous decision-making.[75] While helping new technologies provide data for managers who make decisions based on this data, general AI might directly make a decision.[76]

In MNE operations, data collection and access to these data are made on a group basis structure, except for legal constraints.[77] MNEs can improve their data management, increase the amount of accessed data, and reduce the cost and investment in their data management and AI systems. This combined data management system is the basis for each enterprise's internal decision-making process within MNEs.[78]

Examining the duties of boards and managers, one can quickly realise that using the latest technologies in decision-making is not a choice but an obligation.[79] The fiduciary duties of directors and managers and the business judgement rule require the application of the most informed decision-making process.[80] Almost all modern company laws follow similar principles.[81] The more complex a decision is, the more data the board/managers need to consider when making a rational and well-informed decision.[82]

II. The Concept and Basic Characteristics of Multinational Enterprises

A. Historical Evolution

Company form is a relatively recent phenomenon in human life since the emergence of joint stock companies dates back only to the first half of the 19th century.[83] Despite this late emergence, joint stock companies rapidly became the primary business model. First, merchants converted their businesses to companies, and later, in the 19th century, groups of companies and then, inevitably, MNEs emerged.[84] Genuine MNEs emerged in the twentieth century and dominated global private business activities.[85] Today, the power and influence of MNEs are undisputable in global business.[86]

In economic analysis, MNEs emerged as an answer to the necessity of conducting business at the international level. Transactional cost theory explains the main reasons for investment abroad and the spread of enterprises.[87] The main aim of companies is profit maximisation, which has been their core purpose, and

[75] Duan, Y., Edwards, J. S., & Dwivedi, 'Artificial intelligence for decision making in the era of big data– evolution, challenges and research agenda' (2019) 48 International Journal of Information Management, *63.* Hickman, E., & Petrin, 'Trustworthy AI and corporate governance–the EU's ethics guidelines for trustworthy artificial intelligence from a company law perspective. https://ssrn.com/abstract=3607225.

[76] Muzaffer Eroglu, Meltem Karatepe Kaya 'Impact of Artificial Intelligence on Corporate Board Diversity Policies and Regulation' (2022) 23 European Business Organisation Law Review, vol. 23, pp. 541-554, 2022.

[77] See Section III.

[78] See Section III.

[79] Bruner, C. M. (2023). 'Artificially Intelligent Boards and the Future of Delaware Corporate Law' https://ssrn.com/abstract=3928237 1. (accessed 25 December 2023).

[80] Floris Mertens, 'The Use of Artificial Intelligence in Corporate Decision-Making at Board Level: A Preliminary Legal Analysis' https://ssrn.com/abstract=4339413. (accessed 31 October 2023).

[81] Barnali Choudhury, 'Corporate Law's Threat to Human Rights: Why Human Rights Due Diligence Might Not Be Enough Beyond human rights due diligence: What else do we need?' (2023) 8 Business and Human Rights Journal, 180, 188. https://doi.org/10.1016/j.bhrj.2023.

[82] Mertens, 7.

[83] Muzaffer Eroglu, "*Multinational Enterprises and Tort Liabilities*" (Cheltenham, Edward Elgar, 2008) 24; John Armour, Henry Hansmann, Reinier Kraakman, Mariana Pargendler 'What Is Corporate Law" Reinier Kraakman, John Armour, Paul Davies, Luca Enriques, Henry Hansmann, Gerard Hertig, Klaus Hopt, Hideki Kanda, Mariana Pargendler, Wolf-Georg Ringe, Edward Rock (eds.) *The Anatomy of Corporate Law: A Comparative and Functional Approach* (Oxford: Oxford University Press, 2017) 1 (eds.) *Corporate Personality in the 20th Century* (Oxford: Hart Publishing, 1998).

[84] Muchlinski, P. (2021). Multinational *Enterprises and the Law (Oxford:* Oxford University Press, 2021) chapter 1

[85] Muchlinski, C.1. Multinational

[86] UNCTAD, 'World Investment Reports," https://unctad.org/topic/investment/world-investment-report (accessed 31 October 2023).

[87] M. Ketokivi, J. Mahoney, 'Transaction Cost Economics as a theory of the firm, management, and governance." Oxford Research Encyclopaedia of Business and Management. Available from: https://oxfordre.com/business/view/10.1093/acrefore/9780190224851.001.0001/acrefore-9780190224851-e-6. Retrieved Oct. 27, 2023 (accessed October 31, 2023).

enterprises utilise every potential business opportunity to achieve this aim.[88] Modern investment theories have more complex explanations for business expansion, but the core aim of profit maximisation remains intact.[89]

Most enterprises begin as small businesses and aim to grow in a timely manner. Once enterprises reach a specific business capacity and accumulate sufficient capital, they grow by creating separate divisions, taking over, or merging with other companies.[90] They may enter several business sectors and diversify their business to numerous geographical areas. Additionally, once they adopt overseas business for practical and legal necessities, they establish subsidiaries or enter some form of ownership and control-based relationship with other companies in the target jurisdiction. MNEs enter close contractual relationships without equity control but require a certain level of integration within MNEs.[91] For example, sole supplier agreements with a local company may require interference with many management decisions.[92] All these models can be used simultaneously. For example, companies such as Total, Starbucks, Disney, and Apple establish multiple subsidiaries and joint ventures. At the same time, they set business standards and apply them through all networks regardless of the relations, whether equity, joint-venture, or contractual.[93]

Trade and investment barriers are still falling globally, and transportation and communication costs are declining.[94] MNEs operate in a form that is still the most common means of conducting large-scale business worldwide.[95] This indicates that MNEs' domination of global trade is here to stay and is likely to increase.[96] With technological advancement, more SMEs will begin operating at a multinational level, creating more MNEs.

The full scale of MNE operations is not available because there are no worldwide measurements for economic activities and legal and practical restrictions for publicly available information.[97] Without reporting, MNEs may easily enter merger activities, shift their locations, and change their physical and digital presence.[98] With new technologies, digital presence is also becoming very common as they do not need to establish a physical presence to conduct operations in other countries. For example, Intel has 108 subsidiaries, 38 of which are in the United States, and the rest are spread across 32 different jurisdictions. Their digital presence is even more dispersed, with 160 websites across 53 jurisdictions.[99]

Looking for geographical dispersion, between 1945 and the 1980s, FDI mainly flowed among developed countries; after the 1980s and especially after the 1990s, FDI flow from developing countries to developing countries increased tremendously.[100] Recently, there have been more complex flows of FDI as both devel-

[88] Subhan Ullah et al. "Multinational corporations and human right violations in emerging economies: Do commitment to social and environmental responsibility matter?," Journal of Environmental Management, vol. 280, pp. 111689. (2021)

[89] UNCTAD, 'Trade and Development Report 2022' https://unctad.org/tdr2022 (accessed 27 October 2023) 190

[90] Eroğlu, Chapter 2.

[91] Tsai, C.H., & Lin, 'Shedding New Light on Multinational Corporations and Human Rights: Promises and Limits of "Blockchainizing" the Global Supply Chain' (2023) 44 Mich. J. Int'l L. 117, 124.

[92] J.G. Ruggie, 'Multinationals as global institution: Power, authority and relative autonomy'. (2018) 12 Regulation & Governance, 317, 328.

[93] Ruggie, 319.; OECD, 'OECD-UNSD Multinational Enterprise Information Platform," https://www.oecd.org/sdd/its/mne-platform.htm. (accessed October 31, 2023).

[94] UNCTAD, 'World Investment Report 2023. Accessed October 31, 2023. https://unctad.org/publication/world-investment-report-2023

[95] OECD. https://oecdstatistics.blog/2023/05/10/unlocking-new-insights-into-multinational-enterprises-with-the-power-of-open-source-data/. (accessed 31 October 2023).

[96] UNCTAD, WIR 2023, 55.

[97] OECD-UNSD.

[98] OECD-UNSD.

[99] OECD-UNSD.

[100] UNCTAD, Trade, 188.

oped and developing countries are crucial players in the outflow and inflow of FDI.[101] For example, in 2022, even though 2022 was a declining year for investment due to economic slowdown, there were US$916 billion in inflows to developing economies and US$459 billion outflow of FDI.[102] This demonstrates that the world investment sphere is not shaped by one-way flow but functions in a more complex way.

FDI flow from the global north and global south phenomenon is rebalancing, and the world is now more multi-centred, as the origins of money and investment are not easily determined. Facilitated by new technologies, MNEs are currently conducting their business more globally and becoming increasingly less connected to their countries of origin. The change towards a more reciprocal and multicentred flow is a reality. For example, a Chinese MNE can be one of the biggest in the world but barely invests in the northern countries.[103] Similarly, an MNE operating in one of the African states can reach a considerable size and still not work outside of Africa.[104] Turkish MNEs operate at a multinational level and invest in both developed and developing countries. Türkiye can be an excellent example of a developing country for recent trends in FDI.[105]

B. Contemporary Characteristics of Multinational Enterprises

Although the MNE concept is widely used, there are no clear definitions of MNEs. Existing instruments primarily provide general characteristics, and international organisations now adopt the same approach.[106] For example, the OECD definition offers a vast spectrum:[107]

> A precise definition of a multinational enterprise is not required for the purposes of the guidelines. While the Guidelines allow for a broad approach in identifying which entities may be considered MNEs for the purposes of the Guidelines, the international nature of an enterprise's structure or activities and its commercial form, purpose, or activities are the main factors to consider in this regard. These enterprises operate in all economic sectors. They usually comprise companies or other entities established in more than one country and are so linked that they may coordinate their operations in various ways. While one or more of these entities may be able to significantly influence the activities of other entities in a group, their degree of autonomy within the group may vary widely from one MNE to another. Ownership may be private, state, or mixed. The guidelines are addressed to all entities within the multinational enterprise (parent companies and local entities). According to the actual distribution of responsibilities, the different entities are expected to cooperate and assist one another to facilitate the observance of the Guidelines.

The United Nations Human Rights Council recently published 'the draft legally binding instrument to regulate, in international human rights law, the activities of transnational corporations and other business

[101] UNCTAD, WIR 2023, 6.

[102] UNCTAD, WIR 2023, 6.

[103] H. Wang, 'The Rise of Chinese Multinationals' in Henry Huiyao Wang, *The Ebb and Flow of Globalisation. China and Globalisation* (Springer, Singapore 2022).

[104] Kevin I.N. Ibeh 'Why do African multinationals invest outside their home region? Should they?' https://unctad.org/system/files/official-document/diaeia2018d3a3_en.pdf (accessed 23 December 2023).

[105] Ayden, Y., Tatoglu, E., Glaister, K. W., & Mehmet, Demirbag, 'Exploring the internationalisation strategies of Turkish multinationals: A multi-perspective analysis' (2021) 27 Journal of International Management, 27(3).

[106] Ruggie, 318.

[107] OECD, *2023. Guidelines for multinational enterprises on responsible business conduct* (OECD Publishing, Paris, 2023) 12.

enterprises" (Draft Instrument).[108] The draft aims to regulate the human rights responsibilities of transnational corporations and opt for broad definitions of business and business activities of transnational characteristics. The ILO also avoids strict definitions and opts for more comprehensive coverage.[109]

Common characteristics are found in these and other non-mentioned definitions. First, for an MNE to exist, a business with an international structure must be conducted. However, this aspect does not require the existence of a subsidiary or any other physical or legal presence because the global influence of operations will be sufficient. With new corporate technologies, the impact of MNEs could be felt in many places without the legal or physical existence. Therefore, the concept of electronic means of business, or similar terms, is added to many definitions.

MNEs' operations are not restricted to specific business sectors and include various industries, such as manufacturing, finance, technology, energy, health, internet platforms, services, and trade. Recent technological developments have created new business areas, such as social media, blockchain technologies, and platform economies. For example, in recent years, the list of the biggest MNEs has changed from finance and manufacturing to technology and platforms.[110]

The degree and integration within MNEs are also broadly defined as the coordination of business relationships among business units, and some degree of integration into the broader network is sufficient.[111] In the equity structure, control ranges from complete equity control to minority equity control through multiple control-enhancing mechanisms. The definitions are sometimes extended to include contractual relationships without equity ownership but rely on extensive cooperation among companies within different group structures. The new technologies are one of the crucial facilitators of this new comprehensive integration with the broader business network. It is now expected to use shared systems to collect data from all suppliers or network users, sometimes using DLT technologies, analyse data by an AI, and send the result back to suppliers for use in their operational decisions.

Enterprise ownership definitions usually refer to private, state, and mixed-owned enterprises. Some developing countries have substantial SOEs, becoming very influential MNEs. For example, as one of the most important global economies, there are powerful Chinese MNEs, which are state-owned enterprises.[112]

Regarding size, recent studies indicate a trend for SMEs to operate at a multinational level. In recent years, many SMEs have easily transformed their business into international operations with new technologies.[113] It is not easy to assess these enterprises' numbers or business capacities because SMEs operating at a multinational level are not reported, and the private nature of the business makes it difficult to detect their existence. However, some reports demonstrate that trading and operating due to new technologies facilitate SMEs to become MNEs.[114]

The country of origin of MNEs can be varied. Conventionally, the northern (developed) economy/southern (developing) economy concept is used for the global understanding of FDI flows in many reports and

[108] United Nations Human Rights Council, 'Updated draft legally binding instrument (clean version) to regulate, in international human rights law, the activities of transnational corporations and other business enterprises' (Draft Instrument), https://www.ohchr.org/en/hr-bodies/hrc/wg-trans-corp/igwg-on-tnc. (accessed December 23, 2023).

[109] ILO, 'Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy," ILO, Geneva, 2022, p. 8.

[110] UNCTAD, Digital Library, 17.

[111] UN, draft instrument

[112] See Wang.

[113] OECD Guidelines, 1.

[114] OECD, 'Small and medium-sized enterprises and trade," https://www.oecd.org/trade/topics/small-and-medium-enterprises-and-trade/. (accessed December 23, 2023).

academic works. The fact that MNEs mainly originate from the global north and investment flows to the global south is invalid, as recent developments indicate more complexity.[115]

C. Organisational Structure of Multinational Enterprises

Regardless of size, any business operation requires a certain degree of internal organisational structure. Company laws commonly obligate mandatory forms, such as establishing separate personalities, appointing boards and managers, and ensuring independent audits. In addition to legal requirements, the management structure is organised according to the modern needs of enterprises. Even single-person companies must implement a particular form of organisational structure. However, once the enterprise grows, a more complex system is required. The changing nature of conducting MNEs with different characteristics of each jurisdiction and developments in business, law, and technology imposes an ever more complicated internal structure.

Once enterprises decide to establish subsidiaries, they typically start with a hierarchical structure with combined management and control.[116] They seek the most efficient group structure in time, which usually begins before becoming multinational.[117] Once the decision is made for transnational investment, MNEs start their operations by copying their business model and applying it to geographical dispersion and business segmentation. MNEs can reach a genuinely colossal structure with functions that spread to several business areas and geographically dispersed locations.[118]

Once the process of going international is initiated, the structure of MNE changes constantly according to business development. The traditional business model was developed on a hierarchical structure where data flow occurred from bottom to top and decision-making was applied from top to bottom.[119] Later, the hierarchical model is transferred to a multilayer model under which middle operational centres are created; still, bottom-to-top data flows and top-to-bottom decision-making control are not dramatically affected.[120] With developments in technology, communications, and management, hierarchical models were transformed into a hierarchical model, which was later changed to the networked business model.[121] Under these models, data started to flow from various channels within the enterprise and was created to be shared among MNE subsidiaries without interference from the centre. Accordingly, hierarchical control and decision-making processes started to appear on more horizontal levels as the centre's authority was diffused.[122] In this model, parent companies are not the sole controllers of decisions but are mostly policy determinants of the enterprises, as the decision-making process requires inputs from multiple players.[123]

More recently, with new technologies, the organisational structure has become more intertwined. Although specific ownership and legal forms are determinable within the enterprise due to legal requirements, managerial and decision-making systems are becoming more entangled. The trace of control is blurred as

[115] Trade, UNCTAD; WIR 2023.

[116] Alabrese, E., & Casella, 'The Blurring of Corporate Investor Nationality and Complex Ownership Structures' (2020) 27 Transnational Corporations Journal, 115.

[117] UNCTAD, Trade, 190.

[118] Altomonte, C, G Ottaviano, A Rungi and T Sonno 'Business Groups as Knowledge-Based Hierarchies of Firms', CEPR Discussion Paper No. 16677. CEPR Press, Paris & London. Available from: https://cepr.org/publications/dp16677. (accessed October 31, 2023).

[119] Altomonte, 3.

[120] Katharina Lewellen and Leslie Robinson, 'Internal Ownership Structures of U.S. Multinational Firms'. https://ssrn.com/abstract=2273553 (accessed December 23, 2023).

[121] Eroglu, M. C. 2.

[122] Eroglu, M. C. 2.

[123] Eroglu, M. C. 2.

data flows through complex technological systems, and the decision is applied through data analyses. Even if some control structure is determined, proving a clear decision-making process is almost impossible.

Recently, MNEs' organisational structures for ownership and control have become more complicated. The complexity of ownership structure within the groups is constantly increasing because not only do parent companies have equity ownership but also several subsidiaries own shares of other companies within the group, which evolved into the emergence of intermediate subsidiaries, creating several group structures within the group.[124] Together with regional intermediaries, several functional intermediate subsidiaries, such as financing, strategy, legal, compliance, and intellectual property management and protection, are established to serve the group companies directly or for economic benefit, such as avoidance of liability or tax purposes, or to benefit from incentive regimes and pools of managerial talent.[125] Consequently, these services are no longer operated by the centre of MNEs.[126] Over the past few decades, the number of subsidiaries and internal groups has increased, making it difficult to have an overview of the MNEs' organisation at the collective level.[127] Indirectly held subsidiaries, for example, do not acknowledge their relationship to the group or the group's parent in their annual report.[128] As parent companies become more secluded, determining group equity structure has become more complex.[129]

Traditionally, the examination of MNEs is based on the separation of home and host countries, but this division is also disappearing.[130] For example, a report states that nearly all interactions between the parent company in the United States and its subsidiaries in developing countries are mediated through the group's United Kingdom subsidiaries, and there is practically no direct relationship between the United States and the developing country where the corporate entity invests.[131] Direct ownership of subsidiaries in developing countries is a rare event among the largest 100 non-financial MNEs in the world.[132] These facts indicate that establishing subsidiary companies is not only for functional elements of efficiency but also for macroeconomic and macro-financial consequences.[133] Accordingly, this model decreases the ability of national and regional host authorities to control the behaviour of global corporate groups in their regions.[134]

D. The Legal Structure of Multinational Enterprises

Although business structure indicates a very complex inner structure, according to company law, MNEs consist of several separate legal personalities.[135] From a legal perspective, MNEs do not even exist. They establish several subsidiaries in countries in which they invest or even their origin countries due to com-

[124] UNCTAD, Trade, 205.

[125] Delatte, A. L., Guillin, Amélie and Vicard, Vincent, 'Grey Zones in Global Finance: The Distorted Geography of Cross-Border Investments' https://ssrn.com/abstract=3603988 (accessed 23 December 2023).; R. Phillips, H. Petersen, and R. Palan, 'Group subsidiaries, tax minimisation and offshore financial centres: Mapping organisational structures to establish the 'in-betweener' advantage.' (2021) 4 J Int Bus Policy 286; UNCTAD, Trade, 191.

[126] UNCTAD, Trade, 205.

[127] UNCTAD, Trade, 205.

[128] Phillips, Group; UNCTAD, Trade, 192.

[129] Alabrese; UNCTAD, Trade, 205.

[130] Alabrese; see Phillips Group.

[131] UNCTAD, Trade, 192.

[132] See the Phillips Group

[133] UNCTAD, Trade, 194.

[134] UNCTAD, Trade, 191.; T Bertz, A Pond and W Yin Investment agreements and the fragmentation of firms across countries. (2021) 16 Review of International Organisations, 755, 760

[135] Fatemeh, Bagherzadeh, 'Multinational Corporations' Responsibility for Tortious and Human Rights Violations: A Comparative Study (2021)," 4 Cardozo International & comparative Law Review, pp. 857. Blumberg, P. I. (1993). The Multinational Challenge to Corporation Law: The Search for a New Corporate Personality (Oxford University Press, 1993) 96; Dalia Palombo, 'Chandler v. Cape: An Alternative to Piercing the Corporate Veil beyond Kiobel v. Royal Dutch Shell' (2015) 4 Brit. J. Am. Legal Stud. 453; H, Collins, 'Ascription of Legal Responsibility to Groups in Complex Patterns of Economic Integration' (1990) 53 Modern L. Rev., 731, 744.

partmentalisation of the business.[136] This separate legal personality and limited liability of shareholders are common corporate law principles worldwide.[137] Operating under a group structure makes no difference, and parent companies and other associated companies under a group structure are separate legal entities, and each shareholder company has limited liability. Ranging from a 100% ownership structure to a closely controlled contractual relationship, each company in a group is a separate legal entity with its complete legal structure required by company law.[138] Moreover, in recent years, contractual relationships, such as supply chains, licencing, and franchises, have legally brought separate companies under a control base group structure.[139] In this case, these separate legal entities are not bound by shareholding structure, but contract law governs the relationships between the two separate legal entities.[140]

Each company within the group is subject to the regulations of each country in which they operate, and MNEs follow several local laws and regulations.[141] Each jurisdiction has a comprehensive legal system applied to companies, such as company law, contract law, tort law, investment protections, conflict resolutions, procedural laws, consumer law, labour law, human rights, and environmental protections.[142] MNEs, in practice, must follow tens and hundreds of diverse legal systems because of their numerous legal personalities, each of which changes from one jurisdiction to another.[143] This even affects the application of investment treaties. For example, an MNE may respond to a more sympathetic country presented by a regional trading agreement by locating an intermediary in the most favourable jurisdiction in that agreement and directing most activities to that intermediary.[144]

MNEs are organised as a network of entities with complicated equity and contractual structures that require many legal transactions within an enterprise.[145] Legally separate subsidiaries must trade as they are involved in standard commercial transactions.[146] Reports indicate that today, between one-third and roughly two-thirds of global trade is between subsidiaries and affiliates of the same MNE in different countries.[147]

Company law and corporate governance regulations require each company to have separate management under a board structure. Accordingly, as many boards as the number of companies within a group structure exist. However, diversion starts from the company law (which requires a duty of royalty) with management at this level as the directors and managers of each company simultaneously follow MNEs' business strategy and make their decisions accordingly.[148] Legally, directors/managers make separate decisions for the benefit of companies; however, in practice, they consider the benefit of the group.

[136] Phillips, R., Palan, H., Petersen, R. Phillips, 'Arbitrage spaces in the offshore world: Layering, 'fuses' and partitioning of the legal structure of modern firms.' (2023) 55 Environment and Planning A: Economy and Space, 55, 1041.

[137] C. Villiers 'A game of cat and mouse: Human rights protection and the problem of corporate law and power.' (2023) 36 Leiden Journal of International Law, 415, 419; Kraakman, The Anatomy, 1; R. Harris, 'A New Understanding of the History of Limited Liability: An Invitation for Theoretical Reframing', (2020) 16 Journal of Institutional Economics 643.

[138] UNCTAD, Trade, 192.

[139] Tsai, 124; Ruggie, 329.

[140] Ekaterina Aristova, 'The Jurisdiction Puzzle: Dyson, Supply Chain Liability and Forum Non Conveniens" (2017). https://conflictoflaws.net/2023/the-jurisdiction-puzzle-dyson-supply-chain-liability-and-forum-non-conveniens/ November 2023).

[141] Eroğlu, Chapter 3.

[142] Ruggie, 329.

[143] Ruggie, 329; UNCTAD, Trade, 192.

[144] UNCTAD, Trade, 202.

[145] Philip I. Blumberg, 'The Transformation of Modern Corporation Law: The Law of Modern Corporate Groups' (2005) 37 Conn. L. Rev. 605.

[146] Jean-Philippe. Robe, 'The Legal Structure of the Firm' (2011) 1 Accounting, Economics, and Law, 1; UNCTAD, Trade, 2011, 192.

[147] UNCTAD, Trade, 192.; J,X, Zhan, 'GVC transformation and a new investment landscape in the 2020s: Driving forces, directions, and a forward-looking research and policy agenda' (2021) 4 J Int Bus Policy 206, 207.

[148] Choudhury, 192.

Some might point out the harmonisations of corporate law worldwide to reduce the complexity of MNEs' legal structure.[149] Although company law has local characteristics and each jurisdiction has separate company law and corporate governance principles, harmonisation is inevitable as a suitable investment environment forces countries to adopt modern principles.[150] For example, many countries mostly adopt OECD Corporate Governance Principles.[151] Thus, the company law and corporate governance regulations of any modern economy slightly differ. This article does not need to go into further detail, and it is sufficient to indicate that separate legal personality and limited liability are the primary company law principles. The board structure and shareholder and stakeholder engagements are also requirements for corporate governance. This spread of unified company law and corporate governance principles makes accountability and liability problems more widespread than reducing them.

The disconnection between business reality, which is constantly changing due to economic developments and corporate technologies, and legal convention is still the most critical factor shaping MNE operations.[152] The diversion between internal organisational structure and legal structure seems to be a challenge and burden for the enterprise, but MNEs often use this to their benefit by exploiting this system as it creates a massive separation between form and function; the modern structure of MNEs also makes evading accountability and liability much easier. The corporate form is increasingly used to divide the assets of the same enterprise into pools. As a result, one firm may be comprised of hundreds of legal shells used for entity shielding and evading liability.[153]

III. Human Rights and MNE Environmental Breaches

The global spread of MNE operations and the accumulation of power have put their activities under scrutiny. For decades, MNEs have been accused of human rights violations and environmental harm to people and communities.[154] Within enterprises, there has always been a conflict between profit maximisation and responsibilities to humans and the environment.[155] MNEs have pursued profit maximisation strategies to enhance corporate profits, such as tax evasion, transfer pricing, low-paid workers, gender discrimination, human rights violations, child and forced labour and environment exploitation.[156] This does not mean all MNEs act in the same way, but building a whole management strategy to increase company benefits imposes many MNEs behaving in a way that causes harm.[157]

MNEs' human rights violations took various forms, changing in parallel with economic, political, and technological developments.[158] Accusations of MNEs' harmful activities have peaked in recent years, and

[149] Mariana Pargendler, 'The Rise of International Corporate *Law*' (2021) 98 Wash. U. L. Rev. 1765.

[150] Vivian G Curran, 'Harmonising Multinational Parent Company Liability for Foreign Subsidiary Human Rights Violations' (2016) 17 Chicago Journal of International Law, 17, 12.

[151] OECD, Principle.

[152] Ruggie, 329.

[153] Pistor, K. The *Code of Capital: How the Law Creates Wealth and Inequality. Princeton,* (NJ: Princeton University Press, 2019) 52, 55.

[154] For more information see: Business and Human Rights Resource Centre, at www.business-humanrights.org/en/; World Bencmarking Alliance, 2022 Corporate Human Rights Benchmark Insights Report https://www.worldbenchmarkingalliance.org/research/2022-corporate-human-rights-benchmark-insights-report/; (accessed 23 December 2023); Villiers, 415.

[155] Gwynne Skinner, 'Rethinking Limited Liability of Parent Corporations for Foreign Subsidiaries' Violations of International Human Rights Law' (2015) 72 Wash & Lee, L. Rev., 72, 1769.

[156] Ullah, 3.

[157] Michael G. Faure, 'Environmental Liability of Companies," https://www.europarl.europa.eu/RegData/etudes/STUD/2020/651698/IPOL_STU%282020%29651698_EN.pdf (accessed 20 November 2023).

[158] Z. Du, 'Human Rights Violations *by* Multinational. Corporations *and the* Outlet to Judical Difficulties' (2022) 219 Advances in Economics, Business and Management Research, 2022, 679, 680.

many MNEs have been subjected to human rights breach claims in courts.[159] Their environmental harms have recently been the subject of numerous reports and legal claims.[160] Currently, even though MNEs constantly change their organisations, the way they conduct their business, their governance, their human rights and the environmental harm they cause to people are still increasing.[161] With the changing business environment, the harm components change. For example, manufacturing and energy companies are mostly criticised for child labour, forced labour and environmental harm; social media companies are criticised for obstructing free speech; and financial MNEs are subject to financing harmful activities.

Together with the arguments presented above, the accusations have expanded and globalised as human rights and environmental breaches created by MNEs are not only happening in developing countries but also in developed countries. The result of MNEs' actions is mostly felt globally as MNEs increasingly behave in an integrated manner with the help of new technologies regardless of where they operate. Legal loopholes or weak enforcement are also occurring in developed countries due to the slow pace of regulations and judicial systems in the fast-moving business world. New technologies are making corporate harm more globalised and felt worldwide. Thus, approaching problems from the perspective of northern and southern or developed and developing country categorisation and going after parent companies in developed countries is misleading. Some recent examples of corporate harm and its effects on people regardless of residence will be presented.

According to reports, many manufacturing firms are involved in human rights violations, including non-payment of overtime, the use of child labour, forced labour, prohibitions on gender discrimination and dangerous working conditions.[162] For example, 83 major companies (foreign and Chinese) were implicated in forced labour of ethnic minorities from Xinjiang assigned to factories across provinces through abusive labour transfer programmes.[163] The list of MNEs in the report originated from developed and developing countries. Separately, numerous reports have demonstrated forced labour in developed countries.[164] An ILO report puts the amount of profits made from forced labour in 2012 at US$150 billion, and it estimates that developed countries are home to US$47 billion worth of such labour exploitation.[165]

Global warming and climate change are affecting humanity; thus, any breach has global consequences. Energy, transport, and shipping companies are the biggest emitters of corban and are harming the environment.[166] Regardless of these companies' origin country, all humanity feels harm from dangerous and illegal activities. For example, an OECD report demonstrates the colossal carbon emissions of global

[159] Ullah, 4.

[160] Rachel Chambers, 'Parent Company Direct Liability for Overseas Human Rights Violations: Lessons from the U.K. Supreme Court (2021) 42 U. Pa. J. Int'l L. 519, 526.

[161] The 2020 Corporate Human Rights Benchmark surveyed 229 major global corporations and found that nearly half of them had at least one allegation of a serious human rights issue levied against them, but only 4% of companies adequately remedied the situation with the victim. https://www.worldbenchmarkingalliance.org/publication/chrb/(accessed 20 November 2023).

[162] United Nations Global Compact, 'Embedding Human Rights in Business Practice' https://unglobalcompact.org/library/14 (accessed 23 December 2023).

[163] Business and Human Rights Resource Centre. https://www.business-humanrights.org/en/latest-news/china-83-major-brands-implicated-in-report-on-forced-labour-of-ethnic-minorities-from-xinjiang-assigned-to-factories-across-provinces-includes-company-responses/; Australian Strategic Policy Alliance, 'Uyghurs for sale' https://www.aspi.org.au/report/uyghurs-sale(accessed 20 November 2023).

[164] Allianz, 'Hidden forced labour in developed economies," https://commercial.allianz.com/news-and-insights/expert-risk-articles/esg-risk-briefing-3-2019.html November 2023).

[165] ILO, 'Profits and Poverty: The Economics of Forced Labour' https://www.ilo.org/global/topics/forced-labour/publications/WCMS_243391/lang–en/index.htm. (accessed December 23, 2023).

[166] EPA, 'Sources of Greenhouse Gas Emissions," https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions. (accessed December 23, 2023).

shipping companies.[167] Similar results could be derived from the activities of energy companies because their harmful activities are occurring in both developed and developing countries.[168]

I believe that the harm to human rights caused by technology companies is an even more dramatic example of the global effect. Social media platforms operate worldwide and often without legal presence unless local law requires the establishment of subsidiaries.[169] They have been at the centre of controversy in recent years, and digital companies have generated significant cases of misinformation and disinformation in developed countries.[170] Facebook is accused of several breaches in its operations. A report highlights Facebook's internal workings, including how much the corporation knows about the harms its products cause, how decisions have been made to put profits over users' human rights, and its lack of action to evade and dismiss these harms.[171] Meta has explored personality profiling, manipulating emotions, and targeting people based on psychological vulnerabilities. Similarly, in many developing countries, Facebook is constantly accused of breaches of fundamental human rights.[172] In India, reports claim that Facebook's ties to India's ruling party complicate its fight against hate speech and curtailing free speech rights.[173] Similar accusations have been made in Vietnam.[174] Facebook's data management and process system is operated from a single centre, and by establishing Meta, they create another layer of corporate veil. Thus, connecting harmful behaviours to any particular subsidiary or parent company is even more difficult.

In recent years, the spread of corporate technologies by MNEs in business and social life has resulted in more widespread accusations.[175] Actions and decisions taken by or with the assistance of AI systems might breach fundamental rights such as the right to privacy, freedom of thought, freedom of expression, security, freedom from discrimination, peaceful assembly and association, right to work and free choice of employment, personal data protection, and other political freedoms.[176] Moreover, specific AI algorithms can display gender and racial bias. Compared to human mistakes and biases, the same bias, when present

[167] OECD iLibrary: CO2 emissions from global shipping https://www.oecd-ilibrary.org/environment/co2-emissions-from-global-shipping_bc2f7599-en?utm_campaign=Stats%20Flash%2C%20September%202023&utm_content=Read%20the%20WP%3A%20CO2%20emissions%20from%20global%20shipping&utm_term=sdd&utm_medium=email&utm_source=Adestra (accessed 20 November 2023).

[168] The Guardian, 'Just 100 companies responsible for 71% of global emissions, study says', p. 106. https://www.theguardian.com/sustainable-business/2017/jul/10/100-fossil-fuel-companies-investors-responsible-71-global-emissions-cdp-study-climate-change (accessed December 23, 2023).; EESI, Fact Sheet 'Climate, Environmental, and Health Impacts of Fossil Fuels' https://www.eesi.org/papers/view/fact-sheet-climate-environmental-and-health-impacts-of-fossil-fuels-2021. (accessed 20 November 2023).

[169] For example, Turkey requires social media companies to establish a legal entity in Turkey by new law. https://www.theverge.com/2021/3/20/22341798/twitter-legal-entity-turkey-comply-social-media-law-privacy(accessed 20 November 2023).

[170] Richard Mackenzie-Grey Scott, 'Reconciling Social Media Business Models with Human Rights Safeguards." Retrieved from https://blogs.law.ox.ac.uk/oblb/blog-post/2023/04/reconciling-social-media-business-models-human-rights-safeguards. November 2023). Council of Europe, Commissioner of Human Rights, 'Social Media And Human Right', https://rm.coe.int/16806da579; UNISA, 'An examination of the violation of human rights on social media', https://www.unisa.ac.za/sites/corporate/default/News-&-Media/Articles/An-examination-of-the-violation-of-human-rights-on-social-media(accessed 20 November 2023).; UNCTAD, Digital, 43.

[171] Amnesty, 'The Facebook Papers: What do they mean from a human rights perspective?" https://www.amnesty.org/en/latest/campaigns/2021/11/the-facebook-papers-what-do-they-mean-from-a-human-rights-perspective/ November 2023).

[172] Susan Benesch, 'But Facebook's Not a Country: How to Interpret Human Rights Law for Social Media Companies' (2020) 38 Yale Journal on Regulation Bulletin*, vol. 38, pp. 86, 2020.*

[173] Time, 'Facebooks's Tie to India's Ruling Party Complicates Its Fight Against Hate Speech," Time, https://time.com/5883993/india-facebook-hate-speech-bjp/ (accessed 20 November 2023).

[174] Human Rights Watch, 'Vietnam: Facebook, Pressured, Censors Dissent," Retrieved from https://www.hrw.org/news/2020/04/23/vietnam-facebook-pressured-censors-dissent November 2023).

[175] Afori, 11.

[176] S. Tolan, M. Miron, E. Gómez, C. Castillo, 'Why machine learning may lead to unfairness: Evidence from risk assessment for juvenile justice in Catalonia. https://www.semanticscholar.org/paper/Why-Machine-Learning-May-Lead-to-Unfairness%3A-from-Tolan-Miron/0730c993873d5fbf1e30be44b9f1176e2104f5c9 (accessed 20 November 2023).; Emilie Schwarz, 'Human vs. Machine: A Framework of Responsibilities and Duties of Transnational Corporations for Respecting Human Rights in the Use of Artificial Intelligence' (2019) 58 Columbia Journal of Transnational Law, 233, 238 (2019).

in AI, could have a much more significant effect and discriminate many people.[177] The characteristics of many AI technologies may make compliance difficult and hinder effective enforcement. Authorities and affected persons might lack the means to identify how a given decision was made with AI involvement and, therefore, whether the relevant rules were respected.[178] Individuals and legal entities may face difficulties with efficient access to justice in situations where such decisions may adversely affect them.[179]

AI decisions are taken chiefly at the multinational level, and two severe limitations exist concerning determining the accountability of MNEs' use of new technologies in a harmful way. First, the scope of the real-world influence of the technology is not always known before the release of the technology, making it difficult to understand what to regulate for, and second, effective remedies for harms caused by such technologies are difficult to measure.[180] Considering that new technologies are still in the infancy, misuse of AI systems will be one of the primary sources of corporate harm in the future.[181]

From a private and company law perspective, liability claims are primarily based on harm regardless of the sources of the damage in private law. In contrast to public law enforcement, harm does not have to be directly connected to protection of human rights or environmental regulations. In private law, the scope of claims is much broader because there is no obligation to connect breaches to established human rights rules or environmental regulations. Thus, private law enforcement mechanisms fill a significant gap in preventing corporate harm and remedying the victims. However, private law principles create many difficult obstacles, making one person liable for the other person's activities. With one recent example, I will better explain this argument. Recently, the world has experienced one of the most significant corporate breaches of environmental regulations. Volkswagen, a car manufacturing MNE, applied a technical device to hide their vehicles' carbon emissions. As a result, a massive number of cars were sold all over the world to customers with false emission reports. This action breached several laws and regulations, including consumer, product liability, and environmental laws.[182] The harm caused by this action is so widespread that fully understanding the damage is almost impossible.[183] This behaviour can also be classified as a breach of fundamental human rights and environmental regulations. For example, a report claims that Volkswagen's excess emissions will lead to 1,200 premature deaths in Europe.[184] Although many government authorities have applied considerable fines to Volkswagen and there are several product liability and consumer compensation lawsuits, there are not many lawsuits for compensation for indirect victims due to the difficulty of establishing liability.[185] This is because separate legal persons, such as Volkswagen subsidiaries, joint venture companies, and their dealers under contractual relationships in each jurisdiction, have to be sued for tort liability. In many countries, weak judicial systems, difficulty in proving harm, lack of class actions

[177] Tolan, J. Buolamwini, and T. Gebru, 'Proceedings of the 1st Conference on Fairness, Accountability and Transparency, (2018) PMLR 77, EC, White Paper, 11.

[178] EC, White Paper 11.

[179] EC, White Paper, 11.

[180] Schwarz, 276.

[181] Benesch, 86.

[182] Diego Lasarte, 'A Volkswagen board member was convicted in the Dieselgate scandal that's costing $38 billion and counting,' Quartz (27 June 2023).

[183] L Hou, K Zhang, MA Luthin, AA. Baccarelli, 'Public Health Impact and Economic Costs of Volkswagen's lack of compliance with the United States' Emission Standards' (2016) 13 *Int J Environ Res Public Health.* 2016;13:891.

[184] Nytimes, 'Volkswagen's Emissions Fraud May Affect Mortality Rate in Europe' https://www.nytimes.com/2017/03/06/science/volkswagen-emissions-scandal-air-pollution-deaths.html (accessed 20 November 2023).

[185] Forbes, 'From Emissions Cheater to Climate Leader: VW's Journey From Dieselgate To Embracing E-Mobility." Forbes, https://www.forbes.com/sites/georgkell/2022/12/05/from-emissions-cheater-to-climate-leader-vws-journey-from-dieselgate-to-embracing-e-mobility/. (accessed 20 November 2023).

and punitive damages, and, more importantly, identifying decision-making or controlling companies within groups play important roles.

IV. Discussions on Accountability and Liability

While MNEs' operations are spreading and international business models are constantly changing, liability discussions are always becoming the focal point of discussions. Several efforts have been made to make MNEs accountable and liable for their human rights and environmental breaches. The arguments are based on several legal approaches, such as international law, tort law, company law, human rights law, and environmental law. Several soft law initiatives and corporate self-regulation have also been widely introduced. These efforts can be divided into two categories. The first category is to prevent breaches and harm, and it is mainly discussed under accountability, a concept derived from public law, meaning an obligation to meet basic procedural standards to protect fundamental rights.[186] The second category is to punish MNEs and remedy the victims and is mainly categorised under liability. Accordingly, accountability and liability initiatives have two goals: they should provide incentives for preventing harm and create efficient remedies for the damage.[187] The line between accountability and liability is not definite. The line between prevention and remedy sometimes gets close, especially in European legal systems, as regulations aim simultaneously at both.

Any accountability and liability attempts must address the governance gap that MNEs are structured as separate legal entities subject to several local authorities.[188] Additionally, targeting MNEs as subjects of liability requires an understanding of their internal structure, which is not fully understood, as demonstrated above. Moreover, the obligation of accountability and liability standards on private companies and MNEs faces a substantial hurdle stemming from the dissimilarity between private law and public law.[189] On the other hand, soft law underreacted many problems, while international law overreaches as it is almost impossible to create a governing authority for MNEs.[190] I will discuss various initiatives with the aim of indicating whether they are considering the contemporary characteristics of MNEs and their business conducts.

A. Accountability and Liability under International Law

Owing to the transnational character of MNEs, the first logical idea to solve accountability and liability would be to look to international law initiatives. There are numerous international laws and regulations that protect human rights and the environment.[191] However, an obstacle exists in that the subjects of international law are states, and international law instruments do not directly apply to MNEs.[192] States must domesticate these treaties and regulations to prevent corporate harm. Attempts to use international law against corporations have failed because corporations are not parties to treaties that international courts

[186] Afori, 4.

[187] Faure, 13.

[188] Ruggie, 329.

[189] Afori, 4.

[190] Ruggie, 329.

[191] For example, the list of human rights instruments: https://www.ohchr.org/en/core-international-human-rights-instruments-and-their-monitoring-bodies and the list of environmental protection can be found at https://research.un.org/en/docs/environment/treaties. (accessed 20 November 2023).

[192] Ruggie, 320.

may enforce.[193] In this case, international law only assigns duties to states, either creating preventative measures or remedial measures for corporate harms.[194] Thus, most of the initiatives, even the subject of MNEs, address states adopting international law initiatives to their domestic law, which only applies to corporations. Even making corporations subject to international law will not be sufficient, as MNEs do not exist as legal entities. Each company within MNEs is subjected to individual jurisdictions or, on rare occasions, regional jurisdictions.

The most developed action regarding corporate harm is the UN Draft Instrument, which aims to codify the responsibilities of MNEs into a single treaty.[195] The Draft Instrument does not introduce direct obligations on MNEs but highlights the need for unified approaches to accountability and liability problems.[196] It introduces several duties for states to apply on issues regarding human rights breaches by transnational companies. The Draft Instrument does not create a universal enforcement mechanism as there is no court or other bodies for directly imposing liabilities on MNEs. Its most important function would be to unify domestic laws.

Although highly anticipated, the language of the Draft Instrument is very broad and does not go beyond many existing domestic laws. Some duties introduced in domestic laws already exist, such as prevention of human rights abuses, access to remedy, establishing a legal liability system, removing obstacles for establishing jurisdictions, and providing access to justice and human rights due diligence.[197] For example, states in their domestic law are responsible for removing procedural, financial, evidential, and practical obstacles to access to justice.[198] Many states have recently experienced due diligence obligations for corporations. Thus, the Draft Instrument can be criticised for lacking radical proposals.

The Draft Instrument does not provide a sufficient definition of MNEs based on their modern organisational or legal structure. It goes with a business concept and business activities with transnational characters. Even if the states fully adopt the Draft Initiatives, the application of these regulations requires full accountability and liability discussions among legal personalities operating within MNEs. For example, Article 8 of the Draft requires states to establish a system of legal liability for legal and natural persons conducting business activities in their territory. Here, the initial questions of separate legal personality, limited liability, and control relations within MNEs must be discussed, taking the issues to the source of the problem. The Draft Instrument does not provide answers to these problems because it does not properly examine the internal structure of MNEs.

The deficiency in the Draft Instrument stems from a lack of understanding of MNEs' modern structure and decision-making process. The Draft Instrument considers MNEs with their traditional structure and refrains from providing modern definitions; thus, liability models are not based on modern structures and decision-making processes. It ignores the reality that no legal system can impose liabilities on all MNE components without considering their integrated group and decision-making structure facilitated by new technologies. Additionally, it ignores the fact that the issue falls into domestic jurisdictions without considering them to be free from jurisdictional barriers. Thus, international law institutions should accept that they operate

[193] A. Okoye, 'Corporate Personality under International Law and Justice Gaps: Could Delocalisation Prompt a Potential Role Within African Regional Courts Frameworks?' https://www.afronomicslaw.org/category/analysis/corporate-personality-under-international-law-and-justice-gaps-could (accessed 20 November 2023).

[194] Ruggie, 320.

[195] Du, 681.

[196] Tsai, 130.

[197] Aristova, E., & O'Regan, C. (2022). Civil liability for human rights violations*: A Handbook for practitioners* (Bonavero Institute for Human Rights, 2022)

[198] OECD, 'Access to Justice," https://www.oecd.org/governance/global-roundtables-access-to-justice/ (accessed December 23, 2023).

similarly to other international institutions through technological tools.In conclusion, international law efforts to eliminate corporate human rights abuse seem to have been limited by principles of international law that continue to rely heavily on the activities of states.[199] Thus, too many gaps in international law allow corporations that have caused or contributed to human rights and environmental harm to be free.[200] Moreover, even when they aim to unify the laws and regulations, they ignore MNEs' new structure and decision-making models.

B. Domestic Public Law Initiatives

Each state within its jurisdiction introduces laws to protect people against corporate harm, penalise companies for their harmful activities, and remedy victims. Most of these laws have public law characteristics, and states create duties for public institutions to prevent harm and penalise companies. States use multiple public law tools, such as monetary fines, criminal sanctions, and licence cancellations to force companies to follow the rules. However, when harm is committed by MNEs, the local extension of the enterprises—mostly subsidiaries or suppliers—must bear the penalty and sanctions because states cannot reach all companies within the MNE sphere.[201] Additionally, operations conducted primarily using new technologies restrict states' ability to enforce extraterritorial domestic laws. States usually target group companies established or operating in their jurisdictions and impose liability and accountability principles on these companies. To impose these laws, states must first prove the wrongdoing by domestic companies. However, due to new technologies, indicating that the local company has made decisions by itself is almost impossible, which has caused the difficulty. Additionally, in cases due to the inefficient financial capabilities of local companies, if the states go after a parent or controlling company within the groups, determining which legal person made the decisions that caused the harm due to the modern structure and decision-making process of MNEs is almost impossible.

States sometimes introduce laws that create extraterritorial reach, such as the US Foreign Corrupt Practices Act, the UK Bribery Act, and more specific issues, such as modern slavery and conflict minerals.[202] Similarly, competition law follows the effect doctrine and establishes authority over companies when their actions affect their jurisdiction even though they are not present there.[203] Even though these laws and regulations create liability for MNEs, they only target a few companies within the enterprise. They are still applied in examining the decision-making process and control of one company over another. Determining the inner organisational and decision-making process within MNEs is difficult, especially after introducing new technologies. Most of these laws are inefficient tools for violating human rights and environmental laws.[204]

To address the problem of accountability for corporate misbehaviors, states sometimes create direct responsibilities for companies.[205] An example could be due diligence requirements for human rights and

[199] J. Zerk, A. (2009). Multinationals and corporate social responsibility*: Limitations and opportunities of international law* (Cambridge University Press 2009), 299.

[200] FIAN International, 'Corporations must be held accountable for human rights and environmental crimes." https://www.fian.org/en/press-release/article/corporations-must-be-held-accountable-for-human-rights-and-environmental-crimes-3041 (accessed 23 December 2023).

[201] Ruggie, 329.

[202] Pierre-Hugues Verdier and Paul B., Stephan, 'International Human Rights and Multinational Corporations: An FCPA Approach" (2021) 101 Boston University Law Review, 1359, 1417; Ruggie, 320; Tsai, 132.

[203] OECD, 'Extraterritorial reach of competition remedies' https://www.oecd.org/daf/competition/extraterritorial-reach-of-competition-remedies.htm (accessed 20 November 2023).

[204] IPIS, 'The EU Conflict Minerals Regulation: High Stakes, Disappointing Results." https://ipisresearch.be/publication/the-eu-conflict-minerals-regulation-high-stakes-disappointing-results/ (accessed 23 December 2023).

[205] Afori.

sustainability reporting.[206] The EU Corporate Sustainability Reporting Directive obliges companies to better supervise social and human rights, climate change, and environmental matters in their operations and value chains.[207] Some countries have introduced similar laws and regulations. Germany enacted its Supply Chain Due Diligence Act, the Netherlands introduced the Dutch Child Labour Due Diligence Law, Norway enacted the Transparency Act in 2021, and France introduced broader human rights due diligence legislation in 2017.[208] These regulations require large enterprises to regularly conduct due diligence on fundamental human rights and other relevant issues and to report findings.[209] The subject of these regulations is big domestic corporations, and due diligence requirements mainly cover vertical business relationships rather than whole groups.[210] Thus, mandatory disclosure and reporting requirements do not seem successful in improving firm behaviour due to the potential to circumvent disclosure obligations through strategic and complex business group structures.[211] Another important aspect is that states are responsible for enforcing these rules because they do not directly change private enforcement, creating colossal liability obstacles.[212]

Most state interference and regulations avoid direct interference with company law because states are unwilling to alter the balance among company participants.[213] The inefficiency of domestic law initiatives led to extensive discussions within company law regarding directors' duties, company purpose, and stakeholders' protection.[214] These discussions are primarily theoretical, and the effects on rules and regulations have not yet been observed. The issue also attracts soft-law initiatives under environmental, social, and governance (ESG) to create duties integrated into company law, such as reporting, auditing, and compliance.[215] Several tools regarding these issues have been introduced by the OECD Corporate Governance Principles.[216] However, they are by nature non-obligatory, and their subject is also corporations or, in the best-case scenario, vertically integrated groups rather than modern MNEs with very complicated ownership, control, and decision-making structures.

V. Private Law Enforcement and Case Law

Since the 1970s, there have been numerous civil liability litigations against MNEs.[217] Although most of these litigation deal with very severe breaches, only a few were successful, and most were out-of-court settlements.[218] This is because private law principles are not suitable for making MNEs liable for their actions.[219] In company law, each company, whether a member of MNEs or a single-person company, has

[206] Villiers, 429.

[207] European Commission, 'Sustainable Corporate Governance' www.ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12548-Sustainable-corporate-governance_en. (accessed 23 December 2023).

[208] https://theconversation.com/human-rights-the-indirect-impact-of-multinationals-in-emerging-countries-123790; https://www.hrw.org/world-report/2020/country-chapters/global-2; https://www.dlapiper.com/en/insights/publications/global-esg-alert/2023/eus-proposed-directive-on-corporate-sustainability-due-diligence-what-us-companies-need-to-know (accessed 20 November 2023).

[209] Villiers, 431.

[210] Tsai, 122.

[211] Parella Kishanthi, 'Protecting Third Parties in Contracts' (2021) 58 *Am. Bus. L.J.* 327, 359; Tsai, 143.

[212] Ruggie, p. 321.

[213] Choudhury.

[214] Beate Sjåfjell, and Jukka T Mähönen, 'Corporate Purpose and the Misleading Shareholder vs Stakeholder Dichotomy', (2022) 34 Bond Law Review 69.

[215] Look for extensive discussions: https://www.ssrn.com/index.cfm/en/environmental-social-governance/ (accessed December 23, 2023).

[216] OECD, Principles.

[217] Verdier, 1366.

[218] Verdier, 1370.

[219] Eroglu, Part II.

a separate legal personality, and shareholders have limited liability for companies' creditors regardless of whether they are voluntary or involuntary.[220] Limited liability and separate legal personality are often considered the pillars of corporate law, but they also cause severe risks of externalising harm to involuntary creditors.[221] Accordingly, if one aims to make shareholders and thus parent companies or other relevant companies within a group of companies liable, they must go through either case law created piercing the corporate veil process or search for some specific regulation allowing the veil to be removed.[222] In the case of MNEs based on contractual relationships, victims must base their liability claims on principles arising from contract or tort or unjust enrichment to make one person liable for the harm caused by others.[223]

Piercing the corporate veil denotes a condition in which courts remove limited liability and hold a corporation's shareholders liable for the corporation's actions. Court-based solutions vary from one jurisdiction to another.[224] Even though the piercing the veil doctrine has existed for decades, it has disadvantages. First, it is an established theory but hardly applied to the veil between parent companies and subsidiaries.[225] When it comes to establishing liability over MNEs, there are exceptional cases due to the difficulty of the whole veil piercing process.[226] For example, a recent slight shift towards the possibility of liability for breach of a duty of care by English-domiciled parent companies, where they have exercised sufficient control over their subsidiaries operating in foreign countries, has been noted.[227] However, difficulty always arises when establishing that adequate control is exercised and later proving that it caused the harm.[228] Due to changes brought by new technologies, finding proof for control and making decision-making processes within groups that caused the problem became even more difficult. Traditionally, establishing control over parent companies is required to pierce the corporate veil. In corporate groups, the assessment of the piercing the veil doctrine is mostly based on vertical ownership structure and excessive parent control.[229] Application piercing the veil often requires wholly owned and controlled subsidiaries and thus cannot go beyond simple equity-controlled subsidiaries.[230] The operations and structure of MNEs are changing with the new technologies, and there is an entirely new decision-making process. Under these new facts, the theory of piercing the veil will be utterly outdated for MNEs.[231] First, the complicated ownership structure and digital operations blur the line between parent and subsidiary companies. Second, even without establishing a company, digital operations make it difficult to find a target company for responsibility. Finally, even though it is possible to determine the ownership and control structure of MNEs, the requirement of indicating

[220] Peter Muchlinski, 'The Changing Face of Transnational Business Governance: Private Corporate Law Liability and Accountability of Transnational Groups in a Post-Financial Crisis World,' (2011) 18 Indiana Journal of Global Legal Studies, vol. 18, pp. 665, 2011. S. Belenzon, H. Lee, and S. Patacconi, "Towards a legal theory of the firm: the effects of enterprise liability on asset partitioning, A., decentralisation and corporate growth," http://www.nber.org/paper/w24720, 2018. (accessed December 23, 2023).

[221] Eroğlu Part II.

[222] Eroğlu, Part II.; Muchlisnki, Multinational; P. I. Blumberg, 'Accountability of multinational corporations: The barriers presented by concepts of the corporate judicial entity. Hastings International and Comparative Law Review (2001) 24 (3), 297, 298.

[223] Aristova, The Jurisdiction.

[224] D. Blackburn, 'Removing Barriers to Justice: Howa Treaty on Business and Human Rights Could Improve Access to Remedy by Victims. Retrieved from https://www.somo.nl/wp-content/uploads/2017/08/Removing-barriers-web.pdf

[225] A. Michoud, 'Aiming for Corporate Accountability's Heart: A Discussion on the Relevance of Corporate Veil Piercing," Bristol Law Review, vol. 6, pp. 134, (2019). Muchlinski, Multinational, 5-8; Janet Dine, *Companies, International Trade, And Human Rights* (Cambridge University Press 2005) 43-53; Curran, 58.

[226] Verdier, 1365.

[227] E. Aristova, 'The Future of Tort Litigation against Transnational Corporations in the English Courts: Is Forum [Non] Conveniens Back?' (2021). 6 Business and Human Rights Journal, 399.

[228] Villiers, 423; Chambers, 533.

[229] Bagherzadeh, 865.

[230] S. Demeyere, 'Liability of a mother company for its subsidiary in French, Belgian, and English Law' (2015) 3 European Review of Private Law, 385.

[231] Bagherzadeh, 860.

harmful acts and decision-making processes that caused harm is very difficult as data used for decisions come from all MNE components and decisions are usually taken by technology tools that are used in a group-structured way.

In recent years, there has been a trend of using unfair enrichment claims against parent companies, especially for supply chain liabilities.[232] However, these cases also require proof of excessive control and decisions that caused harm, which leads to the same difficulties in proving a clear structure and decision-making process within MNEs.

Ex-post liability cases and practices outside company law provide more advanced results. For example, in competition law, a group of companies is mainly considered a single enterprise.[233] However, most of the time, this process requires not only equity-based ownership control but also the application of management control.[234] Thus, the effect of new technologies on control and decision-making processes within corporate groups on single enterprise theory will be challenging. Competition law's local characteristics also make the universal application of the single economic enterprise doctrine impossible. For example, in many countries, Alphabet (Google) and its subsidiaries are penalised separately for the same behaviour even though they all over the world apply the same decision-making and business models.[235]

While pursuing MNEs, victims must overcome obstacles arising from conflicts of law principles. Establishing a forum for parent companies, subsidiaries, or victims residing in different countries requires certain connections to the jurisdictions. Proving these connections is difficult when MNEs are involved.[236] For example, the forum non-convenience doctrine might prevent cases from being brought in court in American and British law.[237] At the same time, EU countries established a forum under which it is easier to sue companies.[238] In the absence of binding jurisdiction, courts mainly apply the closest link principle, which requires the court to confirm an adequately close link between the court or the applicable law and the case.[239] However, it is difficult to reasonably judge these relationships or associations; MNE operations and organisational structure make determining understanding of such relationships confusing, which brings practical challenges to applying extraterritorial jurisdiction.[240] Under contemporary operations of MNEs and the effects of new technologies on decision-making, each jurisdiction might have a sufficient connection to the harm because no single company within the groups makes decisions that are taken using AI and DLT technologies. Sometimes, specific laws are introduced to establish jurisdiction, creating extra-territorial jurisdictions such as the Alien Tort Claims Act (ATCA) and the new Dutch law establishing jurisdiction over parent companies.[241] However, several constraints exist regarding the application of the ATCA.[242] There are

[232] See Aristova, The Jurisdiction.

[233] Carsten Koenig, 'An Economic Analysis Of The Single Economic Entity Doctrine In Eu Competition Law' (2017) 13 Journal of Competition Law & Economics, *13(1), 281. Jones, A.,* & Daly, 'The Undertaking and Single Economic Entity Concepts in EU and UK competition law: proposals for a Refined Approach' https://ssrn.com/abstract=4426129 (accessed 02 November 2023).

[234] Jones, The Undertaking.

[235] For the EU, see https://ec.europa.eu/commission/presscorner/detail/es/MEMO_17_1785 (accessed December 23, 2023). For India, see https://www.bbc.co.uk/news/world-asia-india-65120697 (accessed December 25, 2023). For Turkey, see https://www.loc.gov/item/global-legal-monitor/2020-12-08/turkey-competition-authority-fines-google-and-subsidiaries-for-abuse-of-market-dominance/. (accessed 20 November 2023).

[236] Aristova, The Future.

[237] See Aristova, The Jurisdiction.

[238] Aristova, The Future.

[239] Du, 682.

[240] Jennifer A Zerk, 'Extraterritorial Jurisdiction: Lessons for the Business and Human Rights Sphere from Six Regulatory Areas' https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/programs/cri/files/workingpaper_59_zerk.pdf (accessed 23 December 2023).

[241] Chambers, 536; Curran.

[242] Verdier, 1362

heavy requirements for companies to prove control-based relationships.[243] This creates a massive battle to prove internal control and the decision-making process of MNEs. The UN Draft Instrument offers the most advanced principles of establishing jurisdictions as it aims to abolish forum non conveniens, but its future is uncertain.

Even the most advanced instruments for removing obstacles to suing MNEs are accepted; the modern structure and decision-making process make establishing jurisdiction on all companies within the group almost impossible. The aim to establish jurisdiction over parent companies, which are primarily determined according to the group's equity structure, prevents group-based jurisdiction. However, MNEs operate in a much more complex multilayer ownership and control structure, and decision-making processes are conducted using new technologies. Even if the jurisdiction hurdles are overcome, the fight to establish liability continues. As a result, MNEs mostly easily escape state jurisdictions for their human rights and environmental breaches.[244]

A. Soft-Law Options

The difficulty of establishing authority over all MNE components forces most international attempts to be soft law initiatives that are not attributed to direct responsibility.[245] For example, the UN, OECD, ILO, and many other governmental or non-governmental institutions have implemented several soft law initiatives.[246] These initiatives expect MNEs to follow specific standards within their operations.[247] However, these global initiatives are not considered alternatives to binding legal instruments because they lack global enforcement.[248]

Corporate self-regulation is another essential soft law tool for corporate responsibility. MNEs are creating rules or adopting existing regulations to be applied to their members or enterprises in business relationships due to the lack of transnational private governance.[249] For example, the Responsible Business Alliance's Code of Conduct and Social Accountability International's Social Accountability 8000 Project publish standards overseen by MNEs, and their members must comply with these initiatives.[250]

Soft law initiatives are elastic and can be extended to many MNE business relationships, including indirectly controlled entities with close contractual relationships. For example, many MNEs extend their code of conduct to their supply contracts.[251] Soft law initiatives tend to be quickly adapted to the changing business environment. However, they fail to grasp MNEs' complex legal, business, and management structures. They address them as transnational enterprises, multinational enterprises, business enterprises, corporations, and companies but do not determine the coverage.[252] Additionally, soft law can be considered ex-ante initiatives to prevent corporate harms, but they are unsuitable for remedying the victims. Soft-law initiatives do not create an expected level of effect on preventing harm because their voluntary nature prevents

[243] Chambers, 538; Kiobel v. Royal Dutch Petroleum Co., 133 S.Ct. 1659 (2013).

[244] Bagherzadeh, 860.

[245] Maciej Zenkiewicz, 'Human Rights Violations by Multinational Corporations and UN Initiatives' (2016) 12 Review of International Law and Politics, 121. Du, 681.

[246] UN, Guiding Principles on Business and Human Rights. Retrieved from https://www.ohchr.org/documents/publications/guidingprinciplesbusinesshr_en.pdf (accessed December 23, 2023).; OECD, Guidelines; ILO, Tripartite.

[247] Ruggie, 318.

[248] Ruggie, 317.

[249] Tsai, 137.

[250] SAI, 'SA8000' https://sa-intl.org/programs/sa8000/; RBA, 'Code of Conduct', https://www.responsiblebusiness.org/code-of-conduct/ (accessed December 23, 2023). Tsai, 138.

[251] Tsai, 141.

[252] Look at Section 2.

them from being effective.[253] National laws already cover many soft-law initiatives but are still included to highlight MNEs' commitment.[254] As there is no global authority other than civil society initiatives to audit their application, the risk of corporate whitewashing is another problem of soft law initiatives.[255] There are reports that soft-law initiatives are often used as a business strategy.[256] For example, research indicates that many MNEs with human rights violations also report high levels of compliance with their corporate social responsibility (CSR) and ethics-related programmes.[257]

It is difficult to completely analyse all soft-law initiatives because they are flexible and change constantly. However, soft law initiatives are usually integrated into MNEs' group structure and applied together with integrated data management and decision-making processes. Therefore, they should not be considered as alternatives to hard law initiatives. Moreover, even though the soft law initiatives are more flexible, they still base their model on a more traditional understanding and structure of MNEs' decision-making process.

Conclusion

MNEs are unique organisations with economic, political, organisational and legal structures. They constitute the backbone of global economic activities. In this competitive economic structure, the operations of MNEs have some negative externalities as they might violate human rights and cause environmental harm. These harms appear worldwide and are felt by people regardless of their citizenship or residence. Extensive discussions have been conducted on how to mitigate these adverse effects, and even though many regulations have been introduced, academic and practical solutions suggest that accountability and liability problems persist due to established principles of law, regulations, and judiciary.

I have indicated that MNEs are unique institutions and differ from companies that company law and corporate governance regulations consider as subjects. Additionally, even though the subject of regulations or discussion is MNEs, the characteristics of MNEs are widely misunderstood. They are mainly considered vertically structured organisations. Recently, MNEs have built a modern organisational and management structure by integrating new technologies into their operations. This integration has radically altered the control structure and decision-making process. However, laws and regulations and academic discussions regarding MNEs' accountability and liability are trapped in the past, and the narrow sphere of company law and corporate governance is still applied with inefficient results. The miscomprehension of the characteristics of MNEs renders any alternative initiatives, including public law and international law, to accountability and liability discussions ineffective.

I do not claim that solutions to many accountability and liability discussions are easy to find. I argue that integrating the organisational structure and decision-making process of MNEs into accountability and liability discussions must be the primary approach at any level. Without this approach, accountability and liability discussions will continue to hit a wall. Lacking a correct analysis of the debate's subject matter, all future efforts will fail. As new technologies are considered disruptive in business, accountability and liability initiatives should also offer disruptive solutions.



[253] Ullah, 2; Tsai, 132.

[254] OECD Guidelines, 12

[255] Balluchi, F., Lazzini, A., & Torelli, 'CSR and Greenwashing: A Matter of Perception in the Search of Legitimacy' https://ssrn.com/abstract=3721199 (accessed 23 December 2023).; Ruggie, 318.

[256] Ullah, 2.

[257] Ullah, 11.

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