Telecommunications Policy 49 (2025) 102953

Contents lists available at ScienceDirect

Telecommunications Policy

journal homepage: www.elsevier.com/locate/telpol

Promoting free flows via competition law: An AI industry blueprint for Southeast Asia

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ARTICLE INFO

Keywords:
ASEAN
Competition law
AI industry
Harmonization

ABSTRACT

Concerns about multinational technology companies and their antitrust activities are increasing, particularly in the US and the European Union. However, this issue has not been given much attention in the context of ASEAN, despite being the fifth largest economy in the world. In this article, we discuss how a common competition law framework for ASEAN presents multiple benefits for the AI industry, spanning regulatory, economic, and innovation-related aspects. We argue that harmonizing competition laws across the region through a unified framework—promoting the free flow of data, compute, and AI models—would streamline regulatory compliance for AI firms and create a level playing field, preventing monopolistic practices and enhancing consumer protection. To support this, we propose a set of technical rules for the AI industry to be integrated in the common legal framework, which can stimulate not only regional AI governance, but drive responsible AI development and regional economic growth.

1. Introduction

The Association of Southeast Asian Nations (ASEAN) is a regional organization established in 1967, aimed at promoting political and economic cooperation among its Member States (Association of Southeast Asian Nations). Comprised of ten countries—Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam—ASEAN strives to create a single market and production base to enhance regional integration. One of the key objectives of ASEAN is to foster the free flow of goods, services, investments, skilled labor, and capital within the region, which aligns with the broader vision of the ASEAN Economic Community (AEC) launched in 2015 (Ishikawa, 2021). This strategy has allowed ASEAN to become the fifth largest economy in the world, and the third largest in Asia (HSBC Group).

However, the free flow within ASEAN is not without challenges. Despite progress, differences in regulations, infrastructure, and economic disparities among Member States present hurdles to equitable regional development. One of these challenges pertains to a common antitrust legal framework. This absence of a common competition law framework creates a fragmented regulatory environment across countries. Each country enforces its own competition laws, often with varying standards and procedures (Tarullo, 2000). This can make it difficult for countries to enforce antitrust policies against multinationals, as well as for businesses to operate efficiently across borders (Stiglitz, 2007)

Without a unified framework across the region, there is a lack of legal certainty regarding what constitutes the nuances of anti-

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https://doi.org/10.1016/j.telpol.2025.102953
Received 28 January 2025; Received in revised form 16 March 2025; Accepted 16 March 2025
Available online 29 March 2025

competitive behavior in different jurisdictions (Brown, 2018). Companies can be left uncertain about how their actions will be interpreted under various national laws. This situation results in a heavy compliance burden for companies, particularly those that operate in multiple markets, as they must navigate different regulatory regimes. The resulting legal complexity and increased costs can stifle business growth, hinder cross-border trade and investment, limit market activities, and discourage expansion into new markets. This uncertainty can also prevent effective enforcement of competition laws, making it easier for large companies to engage in monopolistic practices like price-fixing and market manipulation. Smaller businesses, unable to compete on equal footing, may be squeezed out of the market, leading to less competition and reduced consumer choice. Consumers, too, are affected by the lack of a common competition framework, as inconsistent laws across countries can lead to weaker protections (see Cseres, 2006). Without coordinated efforts to regulate competition, markets may become dominated by a few powerful firms, which can result in higher prices, fewer choices, and lower-quality products or services. All of these contribute to the fact that the absence of unified competition rules in the ASEAN can undermine regional economic cooperation, making it more difficult to foster an integrated market that encourages healthy competition and economic growth.

These challenges are very much applicable in the growing AI industry in the region. By 2030, AI is anticipated to boost ASEAN's GDP by 10–18 %, contributing nearly US$1 trillion to the region's economy (Hourn, 2024). This projection highlights the transformative potential of AI in shaping the region's future economic landscape. However, the absence of a common competition law framework across the ASEAN Member States creates a fragmented regulatory environment that can complicate operations for companies working across borders. With each nation having different competition standards, this leads to corporate legal uncertainty, increased compliance costs, and challenges in expanding AI technologies into new markets. In turn, this fragmentation allows larger firms to potentially engage in monopolistic practices and abuse of dominant positions, such as controlling data or limiting access to AI innovations, generating asymmetries, stifling smaller competitors and distorting competition (Turillazzi et al., 2023). Consumers may face higher costs and fewer options for AI-powered services. This lack of a unified framework can hinder regional collaboration, limiting the AI industry's overall potential for innovation and growth in ASEAN.

ASEAN's approach to competition law differs from other legal frameworks, including the European Union (EU), the North American Free Trade Area (NAFTA) and the Southern Common Market (MERCOSUR), in that emphasizes 'soft law' (Luu, 2012). This informal approach can present challenges to competition law authorities, for example in light of the unique nature of private-public partnerships (Wisuttisak et al., 2021). Similarly, Small and Medium-sized Enterprises (SMEs) face a different set of challenges, especially in the issue of non-compliance (Van, Thi, & Anh, 2022).

At the same time, AI's open source strategy, along with other features of the AI economy, is also a possible competition law issue (Surblyte, 2017). Competition law seeking to preemptive regarding these dilemmas requires "radical changes in the understanding and implementation of basic tenets of the competition law" in order to keep pace with technological and economic developments (Gupta, 2023). Different geographical and cultural contexts provide different perspectives on the matter. Taking the systematic predispositions of AI applications and technical features, proposals to update competition law frameworks encompass various jurisdictions, including Germany, Japan, the US, and the EU, among others (Hennemann, 2020; Hayashi & Arai, 2024; Zekos, 2023). This opens the discussion on various AI development scenarios and how competition law enforcement can remain effective in light of these innovations (Hua & Belfield, 2023).

However, there is very little academic debate on ASEAN competition law and the AI industry. While there have been individual analyses of antitrust legal frameworks within the ASEAN Member States (Wahyuningtyas, 2024; Lee, 2022; van Uytsel, 2021), an integrated regional perspective is sorely lacking. Indeed, there have been suggestions for improving the ASEAN digital economy. T wo primary recommendations for the ASEAN Guidelines on the Digital Economy are that it should: first, minimize differences on the application of the concept of unilateral conduct, and; second, stipulate certain assessment factors, such as market concentration, entry barriers, and vertical integration, to better harmonize digital competition policy among Member States (Choi & Porananond, 2023). While these are indeed notable recommendations, in this article we deem it necessary to streamline these suggestions based on additional technical considerations, including those highlighted by Surblyte (2017), Hennemann (2020) and Hua and Belfield (2023). At the same time, we take these collective works further and create a framework of competition law specific not only to the AI industry, but also taking into account the unique policy structure of ASEAN regional cooperation (Choi & Porananond, 2023). To do so, we employ a comparative legal analysis approach, examining ASEAN's competition law framework in relation to existing regulatory models, mainly the EU, the US and China as market leaders in AI, to identify key challenges and opportunities. Additionally, we incorporate counterfactual reasoning, exploring how alternative regulatory structures—such as a unified ASEAN competition authority—could impact AI governance and market dynamics. Lastly, we also integrate technical policy analysis, assessing AI's foundational inputs (data, compute, models) within ASEAN's economic and legal landscape. By utilizing multi-level legal analysis, we provide a structured and interdisciplinary examination of AI competition law in the region.

The rest of this paper is organized as follows. Section 2 will talk about the general framework for ASEAN competition law, and the factors as to why it is necessary to adapt it for the AI industry. In Section 3, we discuss key inputs required by the AI industry, and how they fit within the ASEAN Economic Community Blueprint. Section 4 proposes technical considerations to integrate into ASEAN competition law, focusing on the avenues by which we can pursue legal reform, especially highlighting issues central to information economics and policy. In this section, we also acknowledge the limitations of this proposal, including political feasibility, and offer a potential solution by integrating these concepts into the ASEAN Guiding Principles for AI Governance. Section 5 concludes.

2. ASEAN competition law and the AI industry

The free flow of goods, services, investments, capital and labour is a vital component of the ASEAN integration agenda. This allows

Member States to trade more efficiently, reducing tariffs and non-tariff barriers to create a more seamless economic environment (Chia, 2013). By eliminating these barriers, ASEAN enhances intra-regional trade, encourages competition, and improves market access for businesses across the region. The region benefits from economies of scale, attracting more investment and enabling businesses to expand their operations more easily (Villegas, 1987).

In this section, we provide a briefer on ASEAN competition law and efforts to provide a common legal framework, and then discuss its implications for the burgeoning AI industry in the region: how does competition law allow free flow between Member States?

2.1. Background on ASEAN competition l aw

The past few decades have witnessed ASEAN making concerted efforts to establish a common competition law framework. Although the level of harmonization and integration within the region is not as advanced as in other regional blocs such as the European Union, nevertheless ASEAN has developed key initiatives and mechanisms aimed at fostering a more coordinated approach to competition policy across its Member States. In Fig. 1, we illustrate the timeline of competition law in the ASEAN Member States and the key steps taken for regional cooperation (Handbook on Competition Policy and Law in ASEAN for Businesses, 2020).

One of the major initiatives in this regard is the ASEAN Regional Guidelines on Competition Policy in 2010 (ASEAN Secretariat, 2010). These guidelines offer a non-binding framework for Member States to develop and implement competition laws and policies, adopting a "soft law" approach in accordance with the ASEAN Way (Luu, 2012). The primary goal of the guidelines is to ensure that competition policy across ASEAN is based on common principles, despite the fact that individual national laws may differ in specific details. The guidelines serve as a reference point for Member States, helping them align their national policies with regional standards while still maintaining the flexibility to address unique national circumstances.

In line with the ARGCP, ASEAN adopted the ASEAN Competition Action Plan (ACAP) 2025 (ASEAN Experts Group on Competition). This plan aims to develop an integrated and coordinated regional approach to competition policy, promoting fair competition throughout the region. It also facilitates capacity building among ASEAN Member States, allowing them to strengthen their competition law frameworks and enforcement mechanisms. Furthermore, ACAP 2025 encourages greater cooperation among national competition authorities, fostering collaboration and shared knowledge that will ultimately lead to a more unified competition landscape.

Thus far, all ten ASEAN Member States have now enacted competition laws (Australian Competition and Consumer Commission, 2024). Thailand is the first country in the ASEAN to implement competition law (Trade Competition Commission Thailand). Indonesia founded its competition commission in 2000 (Butt et al., 2018), while Singapore established its competition law in 2004 (Norton Rose Fulbright and Ascendant Legal LLC, 2024), setting a precedent for other countries in the region. Vietnam (Das, 2019) and Malaysia (Malaysia Competition Commission) followed suit, while the Philippines, Brunei, and Myanmar also enacted active competition policies later on. More recently, countries such as Laos and Cambodia have taken significant steps to introduce and strengthen their own competition laws, further contributing to the region's progress toward greater economic integration.

To support these national efforts, the ASEAN Experts Group on Competition (AEGC) serves as a platform for regional cooperation on competition policy and law (ASEAN Experts Group on Competition) The AEGC facilitates dialogue among Member States, enabling them to share best practices and offer mutual support in capacity-building initiatives. Additionally, the group works to help align national competition laws and enforcement across the region, making the competition landscape in ASEAN more consistent and predictable. This has resulted in the ASEAN Framework Agreement on Competition (AFAC) at the 56th ASEAN Economic Ministers' Meeting in 2024 (ASEAN Expert Group on Competition, 2024).

Despite these advancements, however, there remain some limitations in ASEAN's approach to competition law. Unlike the European Union, ASEAN does not have a supranational competition authority. Instead, competition laws are chiefly enforced at the national level, which can underscore existing disparities in substantive law across Member States; at the same time, the degree of enforcement and scope of regulations can vary significantly from one country to another (Siadari & Arai, 2018; Ly Luu, 2012). This absence of a centralized approach and the region's focus on sovereignty, non-interference and 'the ASEAN Way' poses challenges to regional harmonization and limits the possibility for a fully integrated competition law framework can be realized in the near future (Osorio, 2020). Thus, while ASEAN is making significant strides toward regional cooperation in competition policy, there is still no single, fully integrated competition law framework that applies uniformly across all Member States.

This absence of a common competition law framework within ASEAN poses significant challenges to fully realizing the benefits of free economic flow. Without a unified competition policy, disparities in national regulations can lead to unfair trade practices, monopolies, and market distortions. For example, certain Member States may have weak or poorly enforced competition laws, allowing dominant firms to engage in anti-competitive practices, such as price-fixing or market monopolization. This creates an uneven playing field, where businesses in countries with stronger regulatory frameworks face greater scrutiny, while those in weaker regulatory environments may operate with less oversight. For example, Singapore has been lauded for its strong competition commission (Ong, 2015; Clifford Chance, 2014), while Indonesian competition law has been criticized for its implementation due to substantive and procedural loopholes (Pasaribu, 2016). This lack of harmonization in competition policies can discourage regional expansion and foreign investment, as businesses may perceive the region as unpredictable and inconsistent in its enforcement of fair trade practices. Thus, the absence of a cohesive competition law framework undermines ASEAN's goal of creating a seamless, competitive economic environment that benefits all Member States equally.

Through initiatives like the ACAP 2025, the ASEAN Regional Guidelines on Competition Policy, and the work of the AEGC, the region is steadily moving toward greater coordination and cooperation in this important area, laying the groundwork for a more competitive and integrated regional economy in the future. In the next subsection, we discuss how establishing a common competition

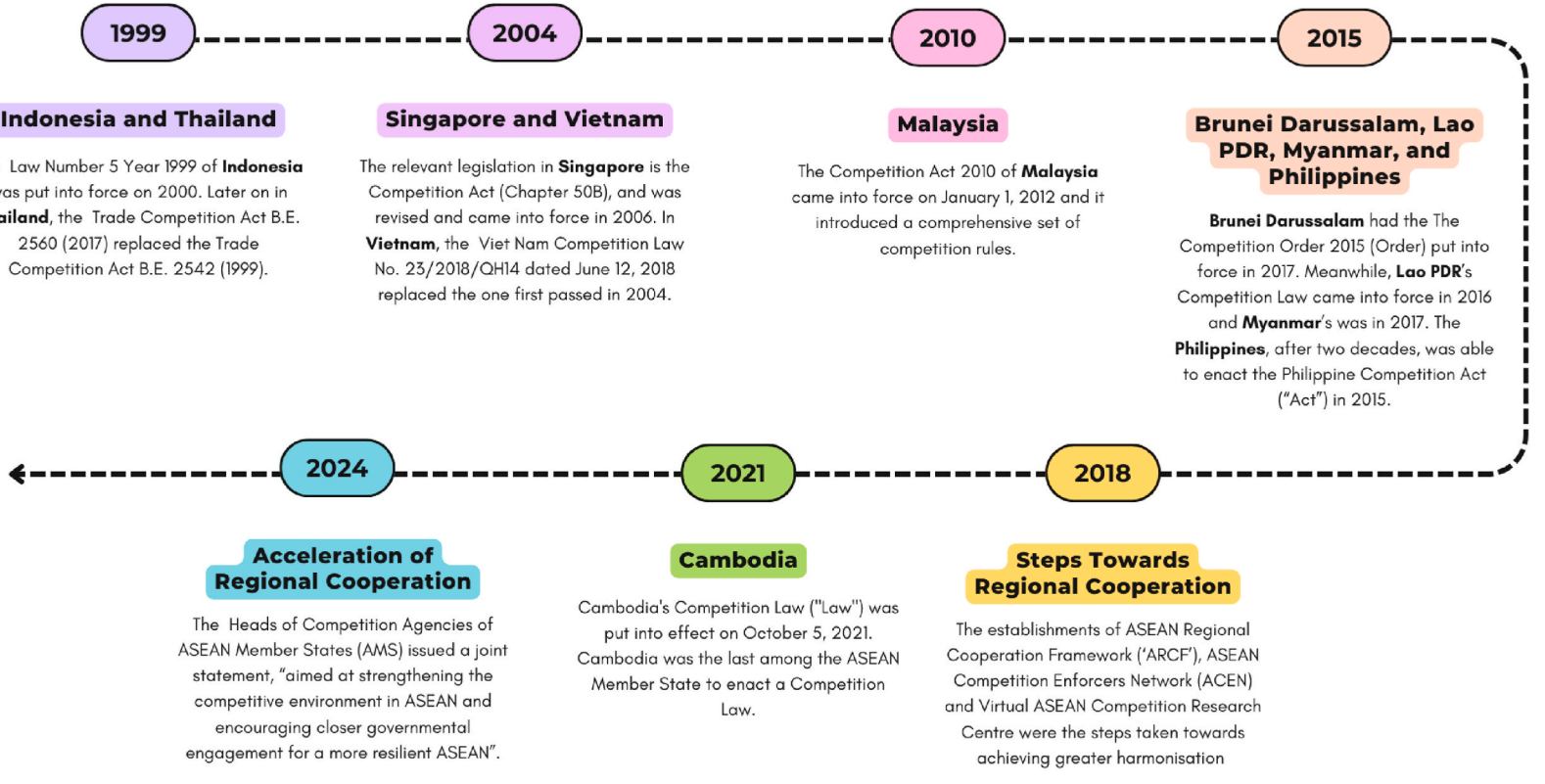

Fig. 1. Timeline of competition law in individual ASEAN member states and regional cooperation.

law framework in ASEAN, especially in the context of AI companies, could bring a range of significant benefits that span economic, legal, and innovation-related areas.

2.2. Common competition law frameworks and AI

The failure to establish global competition rules, for example under the draft Havana Charter (Havana Charter, 1948), means that transnational AI markets remain largely self-regulated. This has allowed wealthier economies and leading technology companies, those nicknamed "Big Tech," to dictate industry standards, exacerbating inequality unless proactive, inclusive frameworks are adopted. This situation is particularly salient in Southeast Asia, which has seen profitability grow 2.5 times from 2022 to 2024 alone, from US$4 and US$11 billion (Chadha, 2024). As AI technology becomes an increasingly important driver of economic growth and societal change, ensuring a fair, competitive, and transparent business environment for AI firms across the ASEAN is crucial. Unlike other emerging digital industries in the region, for example e-commerce or digital payments, AI development has significantly higher barriers to entry, making it a prime sector for competition scrutiny (Martens, 2024). A unified competition law framework could help achieve the goal of the region harnessing the potentials of AI by addressing several key challenges and opportunities.

One of the most important advantages of a common competition law framework is the creation of a harmonized regulatory environment which facilitates market building. For AI companies operating across multiple ASEAN countries or otherwise seeking to do so, differing laws and standards can pose significant challenges (Erdélyi & Goldsmith, 2018). By unifying competition laws, ASEAN could reduce the regulatory burden on these companies. Rather than navigating a patchwork of regulations in each jurisdiction, AI firms could comply with a single set of rules, making it easier to enter, operate and expand within various ASEAN markets. This could lead to smoother market access and reduced legal uncertainty, particularly for AI companies involved in cross-border services such as cloud computing, data analytics, and applied variations of Software-as-a-Service (SAAS). A common framework would eliminate the ambiguities created by varying national competition regulations, thereby providing a more predictable and stable business environment.

In addition to simplifying the regulatory landscape, a unified competition law framework would also ensure a level playing field for AI companies across the region. Established AI firms often hold significant market power due to their control over large datasets and advanced algorithms, which can create opportunities for monopolistic practices (von Thun, 2023). A common competition law framework would help prevent such anti-competitive behavior, fostering fair competition across ASEAN. This is particularly important in preventing dominant AI companies from using their market position to stifle smaller competitors.

To give a concrete example, Section 34 of Singapore's Competition Act "prohibits agreements […] which have as their object or effect the prevention, restriction or distortion of competition." This means that Singapore's competition law focuses on anti-competitive behavior itself rather than requiring the entity to be proven dominant before enforcement actions can be taken. Inter-corporate agreements such as price-fixing, bid-rigging, or market-sharing are prohibited outright under Section 34 Prohibition, without the need to establish that the parties involved hold a dominant market position (a matter separately covered by Section 47 of the same Act). In contrast, in the Philippines, merely holding a dominant position in the AI industry does not, in itself, constitute a violation of Section 15 of the Philippine Competition Act (Bernabe, 2019). A firm must be shown to have abused this position through specific anti-competitive practices, such as predatory pricing, limiting production, or denying market access to competitors. This standard provides dominant AI companies with some leeway to operate without immediate regulatory repercussions. A unified competition law framework can streamline efforts to create a level playing field in addressing market power because inconsistent provisions across ASEAN allow dominant AI firms to exploit regulatory gaps, undermining fair competition. By harmonizing rules on market power and anti-competitive behavior, such a framework ensures that all businesses, regardless of jurisdiction, are held to the same standards, preventing monopolistic practices and fostering innovation and consumer protection across the region.

Another important benefit of a common competition law framework is its potential to improve cross-border data and AI regulation. AI companies rely heavily on data, which often flows across borders (Pinto, 2019; see also Purtova & Maanen, 2024). Divergent competition laws coupled with fragmented data policies can make it difficult for AI firms to build the large, accurate datasets necessary for innovation, among other concerns (see OECD Secretariat, 2024). A unified ASEAN legal framework should integrate and establish consistent rules on competition, data sharing, privacy, and AI usage across member countries, facilitating the responsible use of data while protecting consumer rights. Additionally, this common framework would enhance cooperation on digital and AI governance. The impact of AI is global, and applying competition law to ASEAN could help strengthen how the regional organization coordinates their policies on critical issues such as algorithmic transparency, AI ethics, and platform accountability. This would help address cross-border concerns related to AI-driven technologies, such as the spread of misinformation, algorithmic bias, and market distortion. A strong example from the European Union is the German Bundeskartellamt's decision in the Google case, which demonstrated the overlap between competition law and data privacy. In that case, Google's data collection practices were scrutinized for potentially exploiting market dominance and violating user consent (Bundeskartellamt, 2023). This highlights the importance of integrating privacy concerns into competition law. ASEAN could similarly benefit from harmonized rules to ensure fair competition, protect consumer rights, and promote responsible data practices across its Member States.

A unified competition law framework would also play a vital role in promoting innovation and investment within the ASEAN region. For AI startups and venture capitalists, harmonized competition laws would create a more attractive market by offering access to a larger, unified regional market (Khan, 2024). This would reduce the regulatory hurdles that often deter small and medium-sized enterprises (SMEs) from entering the AI space. Moreover, a consistent competition law framework would make ASEAN more appealing to foreign investors. Global AI companies would likely view the region as a more unified market for expansion, which could lead to increased investment in AI research and development. Such investment would, in turn, foster greater innovation and technological

advancement across the region. This unified framework could also enhance ASEAN's regional competitiveness in the global AI economy (Isono & Prilliadi, 2023). Clear and consistent competition laws would attract international companies looking for a stable regulatory environment, positioning ASEAN as a major player in the global AI market.

In the context of global competition, a common competition law framework would strengthen ASEAN's ability to resist the dominance of global AI giants. Large firms like Google, Microsoft, or Baidu often use their size and resources to dominate smaller markets (Nuccio & Guerzoni, 2019). By acting as a bloc, ASEAN would have more leverage to regulate and balance competition with these global players. Merger regulations are a prime example. ASEAN can explore adopting common principles for reviewing both vertical and horizontal agreements in the context of mergers. This alignment would prevent large global AI companies from exploiting fragmented regulations within the region to consolidate their market power. For instance, ride-hailing app Grab's acquisition of Uber in 2018 was scrutinized across multiple ASEAN jurisdictions, yet competition authorities from Member States differed in their assessment of the matter (Rahman et al., 2020). A common set of merger review guidelines, addressing issues like unilateral effects, coordinated effects, and vertical foreclosure, would enhance ASEAN's ability to collectively assess such transactions. For the AI industry, this would ensure mergers are evaluated consistently across the region, safeguarding smaller players while promoting a fair and competitive AI ecosystem.

Finally, a common competition law framework would promote collaboration and knowledge sharing among ASEAN countries, similar to the structure of the European Competition Network (Guzman and Guzman, 2010; European Commission). Joint AI development initiatives could be fostered, encouraging collaboration between AI firms and institutions across the region (Meena et al., 2024; Noonan, 2008). This would improve the exchange of knowledge, skills, and technology, leading to the development of AI solutions tailored to the specific economic and social needs of ASEAN Member States. Additionally, a unified framework would expand collaborative enforcement across borders (Winter & Davidson, 2021). ASEAN countries would be able to work together more effectively in investigating and penalizing anti-competitive behavior by AI companies operating in multiple jurisdictions (McEwin & Chokesuwattanaskul, 2022; Hanspach et al., 2024). This would lead to stronger and more consistent enforcement of competition laws across the region.

ASEAN has made already headway in improving its digital economy (Lee, 2024), with initiatives such as the ASEAN Digital Masterplan 2025 (ASEAN, 2021a) and the Bandar Seri Begawan Roadmap (ASEAN, 2021b). Establishing a common competition law framework to complement these endeavors would help ensure that AI companies operate fairly and responsibly, fostering innovation while creating a level playing field for businesses of all sizes. Such a framework would also attract foreign investment, encourage regional cooperation, and help ASEAN compete with other global AI hubs. Ultimately, this framework would safeguard consumers and smaller businesses while promoting the responsible and inclusive development of AI across the region, contributing to long-term economic growth and regional stability.

However, establishing a competition law framework for the AI industry is not as simple as applying traditional antitrust rules. A common competition law framework must navigate complex intersections with trade, intellectual property, data privacy, and even cybersecurity laws. The challenge for the ASEAN lies in ensuring regulatory coherence while respecting national sovereignty. In this article, we do not seek to provide a status quo-altering panacea; rather, what we offer are steps towards an improved policy mix. In line with this, t here are number of technical variables which should be considered and integrated into this framework for its goals to actually be met. In the next section we discuss these technical considerations.

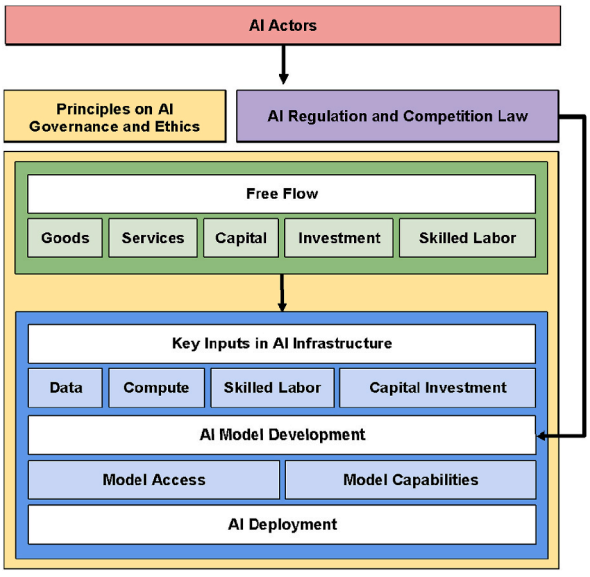

Fig. 2. Competition law framework for the ASEAN AI industry.

3. Technical considerations for regional AI

The question remains: how can we properly regulate the AI industry in the context of transnational competition law? In this section, we discuss general AI infrastructure and the technical variables - key inputs - that drive the development and release of AI models. We then revisit the core elements of the single market and production base framework, one of the pillars of the ASEAN Economic Community (AEC) blueprint, and discuss how these key inputs can be integrated therewith, as outlined in Fig. 2. These concepts will later serve as the building block for our recommendations on the creation of the ASEAN competition law framework for the AI industry.

3.1. Foundation models and key inputs in AI infrastructure

Companies today benefit most from AI systems implementing computer vision, robotics, machine learning, and Generative AI. In Generative AI, the key categories are large language models (LLMs) for human-like text generation and vision-based models for realistic image creation. Generative AI stands out for its accessibility—ChatGPT, for example, became the fastest technology to reach 100 million users in just two months post-launch (Hu, 2023). Generative AI now drives AI assistants for tasks like content creation, coding, and search.

While many companies use Generative AI tools like ChatGPT to boost efficiency, others need LLMs tailored to their domain-specific knowledge. To address this, AI companies market LLMs as foundation models that businesses can fine-tune for specialized needs. Some examples are BloombergGPT (2023), designed for finance and BioGPT pre-trained for biomedical text generation and mining (Luo et al., 2022). A foundation model can be pre-trained on vast amounts of data and adapted to specific tasks. Big Tech often spearhead the development and deployment of foundation models. To successfully develop foundation models, an AI project will need four (4) key inputs for their AI infrastructure - (1) data, (2) compute, (3) skilled labor, and (4) funding.

Data at scale is the leading key input for developing AI models. The general rule of thumb is "the more data, the better" (Kaplan, 2020). The deep learning era in computer vision was believed to have begun with AlexNet's victory in the ImageNet challenge in 2012, the first deep neural network to achieve this. This success relied on millions of meticulously human-annotated images used for training (Krizhevsky et al., 2012). Similarly, the success of OpenAI's GPT-3.5 is credited to the 570 GB of language data, feeding 300 billion words into the system (Hughes, 2023). OpenAI's flagship model as of date is GPT-4o, considered to be of high-intelligence and capable of complex and multi-step tasks, compared to its predecessor made for simple tasks (OpenAIa). This model's capabilities were pre-trained using the latest selected publicly available data and proprietary data from data partnerships (OpenAI, 2024). The increased availability of large datasets has given rise to the rapid development of foundation models in recent years.

The types of data being used by developers can be thought of as a spectrum ranging from readily accessible data to private data only available to a few. There are four common types of data - (1) publicly available data, (2) synthetic data, (3) third-party proprietary data, and (4) first-party proprietary data. Public data includes open-source datasets that are primarily made available for research. Some examples of open-source data providers are Kaggle, University of California Irvine Machine Learning Repository, National Aeronautics and Space Administration (NASA), Amazon Web Services (AWS), The World Bank, and OpenML. Web-scraping is also a method to get public data from popular social media sites and web pages (Glez-Peña et al., 2014). Synthetic data, on the other hand, are artificially generated data types, mainly to reduce the cost of human-generated data creation and deal with issues on data privacy (Raghunathan, 2021). The developers could access third-party proprietary data through data partnerships and licensing deals, where large technology companies have the upper hand. Lastly, first-party proprietary data are those only owned by companies active in developing foundation models and unavailable to competitors. Proprietary data may be comparable in scope to publicly available and synthetic data, giving firms who own them an advantage and a strong position in the market.

Data collection and usage is key to the market power of digital services and product providers. Even though many of the foundation models today are trained on web-scraped data (UK Competition and Markets Authority, 2024), it is essential to consider the stance of smaller firms and startups who do not have proprietary data to train their models on because when web-scraped data becomes more limited in the future due to copyright and data protection issues, then those who have access to proprietary data will have the advantage. On this issue, Big Tech companies' extensive data collection can be seen as an abuse of dominant position – as more users engage in their services, more data is being obtained; this excessive data collection can still compromise user privacy protection (Gorecka, 2025). On the other hand, if companies were to prioritize enhanced data protection mechanisms, it can still have adverse effects on competition in some situations. For instance, companies like Apple (Sokol & Zhu, 2021) and Google (European Commission, 2022) leverage privacy protections to restrict third-party access to user data for advertising, effectively limiting competition. This approach allows them to maintain and benefit from a monopolistic position by consolidating control over valuable data resources and excluding competitors.

Compute resources include specialized hardware, like graphics processing units (GPUs), tensor processing units (TPUs), and cloud computing resources. Compute is critical for developing foundation models to have access to computing power (Sastry and and others, 2024). However, the bottleneck in the development of models is rooted in the limited supply of hardware (Hua & Belfield, 2023), particularly accelerator chips. This is due to a few market players, with NVIDIA being the dominant firm in the AI chip market. NVIDIA's GPUs are widely used for training AI systems and developers are relying on its proprietary CUDA software to fully harness the computational capabilities of these GPUs for creating AI applications (Leswing, 2024). Alternatively, some companies are resorting to cloud computing services in response to these limitations (Griffith, 2023). With market entrant DeepSeek claiming to perform as well as its rivals at a fraction of the cost (Baptista, 2025), there has been a rise in discussion for increased government support and funding for expanding domestic AI computing infrastructure among various countries (Je, 2025; Melguizo, 2025; Yonhap, 2025).

Nevertheless, the cost of acquiring hardware and cloud for AI model development is constraining, especially for small companies

and the academe. In recent years, academia-developed models have utilized only a fraction of the computational resources—just 1 %—compared to the largest models created by industry (Besiroglu et al., 2024). In this globalized world, the chip war is the new war (Brooks, 2016). Addressing this requires robust antitrust measures, such as enforcing structural separation between chip design and cloud services, hardware and software, and AI models and cloud infrastructure (Kak & West, 2023). This highlights the importance of legal frameworks addressing critical aspects of AI production (Terzis, 2023), particularly equitable access to computational resources.

In addition to data and compute, expertise in the field – **skilled labor** – remains a crucial input to foundation models. This input is key to AI adoption in organizations, not just development and deployment. For instance, a survey reported that expertise in AI is the most critical reason UK businesses are having difficulty adopting AI (Office for National Statistics, 2024). At the same time, hiring highly skilled engineers in the AI field has become increasingly competitive. Developing AI foundation models demands advanced technical expertise in machine learning, often requiring Master's or PhD qualifications. Most of the advanced models are products of academic research, but today there is a growing shift of model development and talent from academia to industry, driven by the greater resources available in the private sector (Stanford Institute for Human-Centered AI, 2023). The academe cannot compete with industry dominating the frontier of AI research (Stanford Institute for Human-Centered AI, 2024)

The AI pipeline does not end in developing foundation models. Part of the pipeline is the deployment of the model to provide essential services to the users. However, deployment requires scalability - of data, computing power, and human resources - to improve the quality of service. This is where funding becomes crucial. Capital is important in developing new models, but access to capital and investment is becoming more challenging for startups and smaller firms. Having access to capital and investment means having access to key inputs at scale - data, computing, and skilled labor - and thus having an edge in market competition.

Aside from the key inputs for AI infrastructure discussed, it is also essential to consider two additional technical variables: model capabilities and accessibility. **Capabilities** refer to the tasks that an AI model can accomplish (Mikalef & Gupta, 2021). These include language, vision, robotics, reasoning and search, interaction, and philosophy of understanding. Multimodal foundation models that can process several types of data and information have the edge in service provision. For example, there are AI services that can only process text information, in contrast to other services that can accommodate images, videos, and speech recognition as input and output, aside from just text. The leading LLMs up to this date are OpenAI's ChatGPT (OpenAIb), Google's Gemini (Gemini, 2024), and Anthropic's Claude (Claude), which are capable of reasoning, vision, and code execution, among others. The amount of capabilities can also be proportional to the abundance of the key inputs. In turn, the amount of profits and power of firms can be closely linked to the amount of capabilities an AI model can do. Not only through the lens of competition law where more capabilities means more power, the capabilities of AI also challenge AI regulation in general. This is why it is essential to establish a responsive system capable of effectively addressing AI-related harms (linked to model capabilities) as they arise (Diega & Bezerra, 2024). For instance, while the EU implements a compartmentalized risk-based approach to regulation, there is a suggestion to consider a principle-based risk classification to adapt to the evolving risks due to increasing capabilities of AI (Adimi Gikay, 2024). The developer and deployer must then reliably validate and ensure the model's capabilities (Bayer, 2024).

Lastly, **model accessibility** is also an important factor to consider. Apart from publicly available data, some Big Tech companies are releasing their model to the public. These are open-source models, non-proprietary, and usually pre-trained. Examples of open-source platforms are Llama, Hugging Face, GitHub, and Kaggle, while Amazon, Microsoft, Google, IBM, and OpenAI offer fewer paid-for development models. On the other hand, closed-source models are proprietary and are not being released to the public or can only be accessed via licenses. Frontrunner LLM models such as ChatGPT, Gemini, and Claude only provide access to their Application Programming Interface (API) and are not open-source. Having more open-source models opens up opportunities for a more competitive market. Open source licensing significantly lowers the cost of accessing software, promoting competition by enabling smaller players to challenge established Big Tech companies. Access to models will also benefit the government and the academe, particularly in research and development. The public domain, including extensions like open-source software, is regarded as crucial for maintaining healthy competition.

3.2. Key elements of a highly integrated and cohesive ASEAN economy

The ASEAN Economic Community Blueprint envisions free flow of goods, services, investment, capital, and skilled labor within the region. The goal is to establish a more unified market for its firms and consumers. In this subsection, we discuss how each key input in AI infrastructure can be viewed from these core elements of the single market and production base. To achieve a free flow of goods and services, we can look at the key inputs discussed earlier - data, compute, and model.

In the increasingly integrated digital economy, data has been considered the new oil (The Economist, 2017; Calvano & Polo, 2021), but with unique characteristics (Szczepański, 2020; Taylor, 2022). It plays a key role in establishing market dominance in digital markets (Sanders, 2022). This is why, to jumpstart the ASEAN AI industry, **free flow of data** is essential (Bella, 2023). Data drives leading state-of-the-art AI technologies: the more data firms and entities acquire, both in quantity and quality, the more powerful its AI development can be. For instance, the free flow of data within the ASEAN region can enhance AI model capabilities and address underrepresentation. ASEAN's rich linguistic diversity offers valuable resources for training large language models, enabling better representation of minority languages in models predominantly trained in English (Roxas, 2024). At the same time, improved competition can also spur other development initiatives, including sustainable and eco-friendly innovations (Guo et al., 2022), through improved data management and policies.

Policy structures for cross-border data sharing can minimize barriers to the free flow of data. Another way to enhance the free flow of data is to promote data sharing within the public and private sectors. Governments can facilitate this strategy by strengthening digital services, fostering stronger telecommunications infrastructure, and releasing selected datasets that help businesses build and

train AI systems, driving innovation and economic growth. As an example, the UK government's Open Data Strategy has made large datasets available (Department for Business Innovation and Skills, 2014), enabling companies to develop AI technologies in areas like transportation and public health, fostering advancements through real-world data use. Additionally, this open collaboration can involve not only the public and private sectors: governments can also work with other governments, as well as promoting collaboration across the broader ecosystem, such as non-governmental organizations, AI industry leaders, and other stakeholders.

However, some challenges may hinder the free flow of data. As discussed earlier, proprietary data might be hard or impossible to acquire. The regulatory frameworks for data privacy may also be compromised, especially when sensitive information is involved in the data being shared. As a result, developers sometimes resort to publicly available data by web scraping, which may result in aggressive data collection, less-than-ideal data quality, and violations of data privacy (Trezza, 2023). Varying data policies may also affect the free flow of data, especially with competition regulators shying away from intellectual property related questions of market power (Sanders, 2022). For instance, freer data flows can be found in the US (Aaronson & Leblond, 2018), while in the EU, the General Data Protection Regulation (GDPR) restricts the data flow in cross-border scenarios. In the case of China, there is data localization and only the government has full control of the data (Liu, 2020). Addressing these challenges requires systematic cross-border policy mechanisms which ASEAN can spearhead. At the same time, to ensure data sovereignty, it is important to balance regional data sharing with privacy as well as national security protections. This can be done by implementing a tiered AI data governance model, where both private and sensitive datasets remain protected under national sovereignty while non-sensitive AI training data flows more freely across ASEAN. Implementing this would be standardized cross-border data agreements, adapting a system similar to the EU's GDPR adequacy decisions (European Commission a) or APEC's CBPR mechanism (Asia Pacific Economic Cooperation, 2023).

To advance the AI industry in the region, ASEAN should also promote the **free flow of compute**. Hardware and cloud access could be viewed as goods and services. The free flow of compute is important because it is one of the largest bottlenecks in developing AI, particularly for state-of-the-art foundational models. However, these models require computational resources that might be out of reach for academia and small startups. Furthermore, the few manufacturers of AI hardware are similarly concentrated, driving up prices. Those with robust access to both data and compute resources will hold a competitive edge. This concentration of power poses a risk of monopolistic or oligopolistic behavior within the AI market. Having sufficient computational resources to develop these models within a free-flowing, more competitive regional environment can enable smaller AI developers to compete more effectively in the market.

The third thing to consider is the **free flow of AI models**. Open-sourcing AI models foster growth and innovation in the research and development community. While some efforts have been made to make AI models publicly accessible (UK Competition and Markets Authority, 2024), many still require paid subscriptions, or remain proprietary, limiting wider access. Like compute resources, ownership of AI models is centralized, concentrating decision-making power and market influence in the hands of a few. Intellectual property concerns and misuse may also pose a challenge to accessibility. Given the open-source AI models available, there are still gaps between these publicly available models and privately owned ones. At the same time, democratizing models alone isn't enough—data and computational resources are still essential for realizing their potential. This is why Big Tech has the advantage compared to smaller firms: they have access to top-tier models, vast datasets, and significant computing power, unlike their competition. A framework adopting the free flow of all these inputs can serve as a positive feedback loop. Having access to all these three aforementioned can fuel the increase in model capabilities. More data and increased computational power lead to better models, which, in turn, can make AI models capable of the things it was not before.

However, different governance frameworks of each state could affect the operation of the free flow of goods and services. Similarly, in our effort to promote the free flow of data, compute, and model access in the region, there is a need for harmonized standards between the Member States. The question remains: how does a unified ASEAN competition law framework help promote the free flow of these inputs and support the growth of the regional AI industry?

4. Designing regional antitrust policy for AI

Competition law, in general, aims to prevent (1) abuse of market power, (2) anti-competitive mergers, and (3) anti-competitive business practices. These three pillars form the foundation of competition law across many jurisdictions, aiming to promote a fair, competitive market that benefits consumers and fosters economic growth. While these goals are similar, the policies embodying them across various jurisdictions can differ. In the United States, for example, antitrust policy is primarily designed to protect consumer welfare, with fairness and market concentration given moderate attention; in contrast, the European Union places greater emphasis on facilitating the common market, thus focused on notions of fairness (Fox, 1997).

Similarly, the same goals are present in the competition law frameworks across the ASEAN Economic Community; however, despite having similar aims, many instances of incongruent provisions and non-harmonious implementation of antitrust rules and regulations arise. In Section 2, we discussed how a common competition law framework can help the AI industry in the region. In Section 3, we listed key inputs for AI, and how the concept of the free flow in the ASEAN region could be applied to data, compute and models. In this section, we focus on particular recommendations regarding the ASEAN legal framework on competition law to boost the region's growing AI industry.

In the ideal scenario, ASEAN would have a unitary Competition Authority for the myriad advantages outlined above. However, we also understand that this remains more of a wish than anything else, considering the political realities on the ground coupled with the primacy of sovereignty and non-interference promoted by the regional body. Taking this issue of feasibility into account, instead of pushing for a comprehensive ASEAN competition law, we recommend ***integrating competition law principles into the ASEAN Guide on AI and Ethics***, to be employed in conjunction with the ARGCP, the ACAP, and the AFAC. Equally useful as a guide could be the set of

principles to guide Foundation Models set by the UK CMA (UK Competition and Markets Authority, 2024). This exploratory initiative can be supported by a joint task force composed of the ASEAN Working Group on AI Governance and ASEAN Experts Group on Competition. Rather than implementing a comprehensive, stand-alone competition law—which could be challenging due to the diverse legal frameworks and economic priorities among Member States (Wisuttisak et al., 2021; Siadari & Arai, 2018)—embedding these principles within existing guidelines could streamline domestic adoption, align ethical standards with competitive practices, and support harmonized regional AI development without imposing significant regulatory burdens. At the same time, the AI industry could serve to be a sector-specific test case for competition law in the region (Sanders, 2022).

With its reliance on key inputs like data, compute, and skilled labor, this combination of AI governance and antitrust legislation presents a unique opportunity to test the application of competition law within ASEAN. As a rapidly evolving sector marked by market concentration and cross-border data flows, AI highlights the challenges and benefits of fair competition principles. By using the AI industry as a test case, ASEAN can refine competition law approaches in a controlled, high-impact environment, providing valuable insights for future regulatory digital frameworks across other emerging industries in the region.

The second recommendation involves ***adapting the definition and assessment of market power***. This is especially useful in matters of governance of mergers, acquisitions, and partnerships (Osorio and Schaal, 2024). In AI development, power extends beyond market share to include control over vital resources: data, compute, skilled labor, and capital. Those with access to vast, high-quality data and specialized computational resources hold significant influence over the market (Hayashi & Arai, 2019). In addition, the possession of proprietary models, advanced capabilities, and skilled talent further solidifies this competitive edge. A unified competition framework would expand its assessment of market power to include control over these critical inputs, recognizing that access to these resources is essential for AI competitiveness (Varian, 2021). However, the challenge with current competition law frameworks is that they do not necessarily consider these inputs when it comes to the assessment of market power and permissions for mergers, acquisitions, and partnerships (Koksal, 2023; Ioannis Lianos, 2019). In some jurisdictions, steps are already being considered towards integrating these factors. An example is the UK CMA, which discusses reinforcing and extending existing positions of market power through critical inputs and the value chain (UK Competition and Markets Authority, 2024). However, much work still needs to be done especially in the transnational governance sphere, and it would be ideal for ASEAN to lead the way in doing so, especially within its own regional context. ASEAN's competition law framework should address market power based on control over key AI inputs—data, compute, and models—rather than only traditional measures like market share. For instance, firms holding exclusive control over large datasets, compute infrastructure, and foundation models should face comparable levels of regulatory scrutiny to prevent monopolistic practices.

Related to this particular issue, it is also important to revisit existing conceptions of the 'relevant market.' Its traditional definition (European Commission, 2021) is increasingly challenged by AI and related digital technologies, which blur industry boundaries and create cross-sector dependencies. Examples include mobile companies producing electric vehicles (Ahmed, 2023), or investment funds entering the realm of training LLMs (Zhao et al., 2024). Institutional shareholding and common ownership theory complicate the assessment of market power in the AI industry, as major investment funds often hold significant stakes in competing AI firms, potentially reducing competitive incentives (Keegan, 2024; Frazzani et al., 2020). Cross-industry benefits further blur traditional market definitions, as firms with dominant AI capabilities (e.g., cloud computing giants) leverage their market position across multiple sectors, from finance to healthcare (Verhoef, 2021). This is why ASEAN regulators must consider not just direct market concentration, but also the totality of the relevant market. This requires expanded competition law criteria considering these factors in shaping market dominance, and further analysis on potential ways to quantify them, including threshold-based assessments on compute (Heim & Koessler, 2024) and tracking cloud infrastructure dependencies (van der Vlist et al., 2024), among others.

ASEAN should also consider adopting regulations ***scrutinizing dependency relationships within AI-related mergers, acquisitions and partnerships***. Equitable access to critical inputs is critical to leveling the AI playing field. However, by way of strategy to secure these inputs, smaller firms and startups merge, partner with or are otherwise acquired by larger tech companies. This can lead to dependency relationships, a situation where the smaller company would not be able to function without the other, which may limit competition. This can be seen in partnerships where one company supplies essential resources, such as cloud services, which are critical to the other's model development (Smith, 2024). This reliance can compromise the smaller company's ability to operate independently, leading to a de facto monopoly. For example, if a large firm partners with a smaller AI firm dependent on its cloud services, the partnership could potentially stifle competition by creating a dependency on such an essential input. To mitigate these risks, ASEAN could adopt regulatory approaches like the UK's Digital Markets, Competition and Consumers Act (DMCC Act), which scrutinizes dependency relationships and assesses control. By regulating this intercorporate engagement to prevent dependency and maintain commercial independence, ASEAN could foster a market where both large firms and smaller players can compete more equitably.

However, this is also a tricky situation: many AI companies which are just starting up might not be able to provide for critical inputs by themselves. Partnerships are therefore necessary. To address this challenge, ASEAN could establish a regulatory framework that permits these types of partnerships while ensuring they do not result in anti-competitive dependency relationships. One of the ways to do is by ***requiring larger firms to provide fair and non-exclusive access to critical inputs*** such as cloud services or proprietary data to the smaller firms they partner, merge with or acquire. ASEAN's competition framework for AI could support firms offering closed-source models or APIs provide licensing terms that are fair and non-exclusive, applying the doctrine of essential facility (Sanders, 2022; Raedts & Evans, 2023; Graef, 2019). Allowing access to this key input could help reduce market concentration in AI models, encouraging more open access to cutting-edge technology across firms in the region, especially in markets with intermediate to high entry costs (Esteves & Carballo-Cruz, 2023). By promoting fair access to these models, ASEAN could prevent market dominance by a few players and allow more startups and smaller firms to innovate. The Expanded ASEAN Guide on Generative AI and Ethics already proposes initial steps towards the direction of data sharing to develop ASEAN-relevant models (ASEAN, 2024). The same strategy

should also hold true for the other types of critical input. Specialized hardware like GPUs and TPUs are essential for AI model development. However, access to these resources is often restricted by high costs and limited availability due to the dominance of a few hardware providers. A unified competition law framework could ensure that hardware suppliers, cloud providers, and compute infrastructure remain competitive and accessible. Such provisions would limit the concentration of essential resources within a few large firms, promoting fairer competition and enabling smaller firms to access these critical input more equitably. It is important to note, however, that requiring larger firms to provide non-exclusive access to critical inputs will likely meet political resistance, as they could perceive a diminished ability to capitalize on their proprietary technologies. This can be mitigated by adopting incentive-based mechanisms for fair, reasonable, and non-discriminatory (FRAND) licensing terms for proprietary AI technologies, a principle emphasized by the UK's Competition and Markets Authority (UK Intellectual Property Office, 2024). These can include tax benefits, public recognition, and infrastructure support, among others.

Additionally, ASEAN could take the lead in ***fostering public-private initiatives, such as government***-supported ***data-sharing platforms***. A concrete example is intergovernment support for telecommunications infrastructure which can facilitate free flows of critical AI inputs. This can help startups and smaller AI companies access essential data resources independently, reducing reliance on dominant players while encouraging healthy collaboration within the industry, including promoting product differentiation (Calvano & Polo, 2021). ASEAN could also consider adding data access mandates within this competition framework to promote the free flow of data among businesses, particularly between large firms and SMEs or startups. For instance, firms with significant datasets could be encouraged or required to share anonymized data under fair conditions. This could be modeled on the EU's data-sharing policies that allow regulated access to essential data (European Commission b), helping to level the playing field and enabling smaller firms to compete by accessing data needed for AI development. A proper regulatory approach, with a comprehensive perspective of the data market, could prevent these larger firms from consolidating control over data, with the goal of maintaining healthy market diversity (Taylor et al., 2022).

The two previous ideas build on the concept of 'programmable commons', referring to shared digital resources—such as software, data, and infrastructure—that are collectively managed and can be modified or programmed by the community (Terzis, 2023). This concept emphasizes democratizing access to and control over these resources, allowing users to actively participate in their development and governance (Terzis, 2023). By drawing on the history of various commons—namely intellectual commons in relation to data commons (see Ducuing, 2024), infrastructure commons, and global commons—this approach explores the material form and impact of infocomputational technologies and presents a blend of bottom-up and top-down initiatives for their commons-based organization. Because the programmable commons promote open access and shared control over digital resources, it can reduce monopolistic practices and enable fairer market dynamics.

Lastly, ASEAN should focus on ***strengthening its oversight of anti-competitive business practices in AI partnerships***. ASEAN's competition framework should include provisions specifically targeting anti-competitive practices within AI partnerships. For instance, if two firms collaborate to share resources like datasets or compute infrastructure, the agreement should be examined to ensure it does not unfairly exclude competitors or create monopolistic control over inputs. Clear competition law guidance would prevent dominant firms from creating closed ecosystems that limit access to key AI resources, ensuring fairer competition across the region.

To concretize these suggestions, we propose a set of guidelines which ASEAN competition law authorities can implement both domestically and jointly. Based on lessons learned from other jurisdictions, these guidelines front disclosure as the foremost consideration. First, as regards partnerships, mergers, and acquisitions. Companies engaging in AI collaborations must disclose key contractual terms to competition regulators. This serves multiple purposes. For one, this will make scrutiny easier, for example in cases similar to the European Commission's investigation into Microsoft's partnership with OpenAI regarding exclusive AI licensing and access restrictions (Chee, 2024). This requirement also enables competition authorities to ensure that AI firms with significant market power do not impose exclusive contracts that restrict competitors' access to essential AI inputs (data, compute, models) (Martens, 2024), and prevent anti-competitive consolidation of AI resources and market power. Consequently, it also facilitates structural incentives for FRAND licensing terms, as mentioned above. Second, disclosure as related to its business model. One such example is that firms operating as both AI platform providers and developers should be prohibited from self-preferencing their own AI services over competitors, following concerns raised in the U.S. FTC's case against Amazon (Narechania & Sitaraman, 2024; FederalTradeCommission, 2023). While regulatory disclosure indeed have costs (Edmans et al., 2013; Ewens et al., 2024), these costs are arguably lesser than alternative approaches, such as ex-post enforcement or regulatory sandboxes. Indeed, evidence indicates benefits for market-wide disclosure implementation (Hao, 2024), impacting firms, regulatory bodies, and stakeholders. By adopting disclosure as the basic piloting concept for the guidelines, ASEAN can create a level playing field for AI services, partnerships, and mergers in the region.

5. Conclusion

Competition law is multi-dimensional, and across different jurisdictions, aspects of substantive and procedural law vary. This is very true of the ASEAN region. Establishing a unified competition law framework in Southeast Asia has the potential to significantly benefit the region's AI industry by simplifying the regulatory landscape, fostering collaboration, and encouraging innovation. While a comprehensive regional competition authority may be ideal, the political realities of ASEAN's principles of sovereignty and non-interference make such an approach challenging. Instead, integrating competition law principles into existing frameworks, such as the ASEAN Guide on AI and Ethics, the ARGCP, and the ACAP, offers a pragmatic and feasible path forward. This approach could harmonize ethical and competitive practices across the region without imposing excessive regulatory burdens.

At the same time, AI is pervasive and cross-cutting across various domains. Because of its many potential applications, the AI industry, with its reliance on critical inputs such as data, compute, and model, can serve as a test case for the application of competition law in ASEAN, particularly in other digital market domains like digital payments and e-commerce in general. By addressing issues such as dependency relationships in mergers, acquisitions, and partnerships, as well as providing policy support for digital services and telecommunications infrastructure, the region can help ensure equitable access to key resources and prevent market concentration. Regulating access to proprietary data, compute infrastructure, and AI models through fair and non-exclusive licensing terms can foster greater inclusivity and competition in the industry. Public-private initiatives, such as data-sharing platforms, can further empower smaller firms and startups to compete independently. These factors are crucial in strengthening the free flow of data, compute, and model in the region.

In this article, we do not seek to oversimplify the complexities of interjurisdictional competition law and provide a panacea for the grand challenges of both AI and competition law in the region. However, we assert that by embedding competition law principles through incremental implementation into existing transnational cooperation structures in the region and aligning them with AI governance and ethics, ASEAN can create a robust, collaborative environment for AI development. This strategy will not only drive regional innovation but also establish ASEAN as a competitive player in the global AI market. Clear regulations targeting anti-competitive practices, coupled with initiatives to promote fair access to critical inputs for the industry, can help ensure that the benefits of AI are shared across all Member States, paving the way for a thriving, inclusive, and forward-looking AI ecosystem.

CRediT authorship contribution statement

Chad Patrick Osorio: Writing – review & editing, Writing – original draft, Project administration, Methodology, Conceptualization. **Jamlech Iram Gojo Cruz:** Writing – review & editing, Writing – original draft, Visualization, Methodology, Conceptualization.

Acknowledgements

We are grateful to Dr. Karl Ezra Pilario, College of Engineering, University of the Philippines Diliman; Dr. Rachel Edita Roxas, Institute of Computer Science, College of Arts and Sciences of the University of the Philippines Los Baños; Dr. Hanna Schebesta, Law Group, Wageningen University and Research; and Dean Bryan San Juan, Liceo de Masbate School of Law, for their insightful feedback on our initial draft. We thank Carl Kristoffer Hugo, University of the Philippines Los Baños, for the research support.

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Data availability

No data was used for the research described in the article.

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