International Journal of Social Science and Human Research

ISSN (print): 2644-0679, ISSN (online): 2644-0695

Volume 09 Issue 05 May 2026

DOI: 10.47191/ijsshr/v9-i5-67, Impact factor- 8.361

Page No: 4030-4042

Regulatory Policy for the Agent Economy in the Digital Age: Lessons for Vietnam

Le Hai Ha

Institute of International Business and Logistics, Thuongmai University

ABSTRACT: The rise of artificial intelligence (AI) is shaping a new Agent Economy (AE), in which autonomous AI agents represent humans in performing a wide range of complex tasks. The Agent Economy promises substantial gains in productivity and innovation, yet it also raises new regulatory challenges concerning data privacy, security, ethics, and the risk of job displacement. The urgent question is how humans can effectively supervise and control an economy operated by AI agents when this system may expand beyond the capacity of traditional governance. This study employs document synthesis and comparative analysis of international policies, thereby proposing a policy framework consisting of six groups of solutions for Vietnam in order to both promote AI development and control risks in the digital age. The proposed policy framework contributes to establishing a foundation for Vietnam to proactively embrace the Agent Economy safely and effectively.

KEYWORDS: Agent Economy; agentic AI; policy; governance; Vietnam

1. INTRODUCTION

The year 2025 has been described as the "year of AI agents", indicating a fundamental transformation: AI is no longer merely a supportive tool but has begun to autonomously influence real-world environments and make independent decisions [1][2]. This requires an appropriate regulatory framework to ensure that these automated systems generate socio-economic benefits. Leading countries around the world have begun to formulate policies for governing the Agent Economy in different ways: the United States prioritizes innovation and the reduction of regulatory barriers; the European Union (EU) has adopted a stringent AI law based on risk classification; China strictly regulates generative AI services to protect national interests; and Singapore pilots sandbox mechanisms to encourage innovation while ensuring safety. For Vietnam, a country accelerating its digital transformation, studying international experience and developing an appropriate strategy for governing the Agent Economy is an urgent task. This article aims to analyze the theoretical foundations of the Agent Economy, assess the current policy landscape in selected countries, and then derive lessons and propose a policy framework for Vietnam.

2. RESEARCH METHODOLOGY

This study synthesizes scientific literature from the period 2020-2025 and updated policy documents related to the Agent Economy. The policy cases of the United States, the EU, China, and Singapore are selected for comparison because they represent different regulatory approaches. The criteria for selecting documents are recency, reliability, and direct relevance to the research topic. On the basis of theoretical analysis and the Vietnamese context, the study proposes a policy framework for governing the Agent Economy that is appropriate to domestic conditions and ensures that the recommendations are supported by a robust scientific rationale.

3. THEORETICAL FOUNDATIONS OF THE AGENT ECONOMY AND REGULATORY POLICY

The Agent Economy (AE) is understood as a new digital economic ecosystem in which autonomous AI agents represent individuals or organizations to interact and transact with one another, thereby performing economic activities automatically. According to Rothschild et al. (2025), the emergence of "digital assistants" for consumers and "digital services" for businesses is a defining feature of the AE; these AI agents interact with one another in order to arrange transactions more efficiently for the parties involved [3]. Unlike the current digital economic model, which is based on direct interaction between humans and systems, the AE aims to automate communication. Each user may have a personal agentic AI assistant that conveys the user's needs and information to countless services, while each enterprise deploys AI service agents to receive requests and serve customers [3][4]. Owing to their capacity for flexible natural-language communication and task execution in open-ended scenarios, these agents can reduce informational interactions between consumers and enterprises, which are repetitive processes that impede efficient market operation.

For example, users no longer need to repeatedly fill out forms or explain their needs from the beginning for every new service; instead, their AI assistants automatically communicate with many enterprise service agents to identify the most appropriate product or service [3]. In theoretical terms, this may restructure the way markets operate, reduce switching costs between providers, and simultaneously stimulate the emergence of entirely new products and business models [3][4]. In other words, the Agent Economy opens a new economic model in the digital era, with a "network of agents" operating in parallel with, and gradually integrating into, the economy directly operated by humans.

In the AE model, AI agents play a central role and possess multiple capabilities that exceed those of traditional software systems. According to Hosseini and Seilani (2025), agentic AI converges around six principal characteristics: (i) autonomy, namely the capacity to operate independently and to make decisions and act without direct human instruction [1]; (ii) goal orientation, whereby agentic AI consistently pursues defined objectives and optimizes actions to achieve the desired outcomes; (iii) environmental interaction, namely the ability to observe, perceive, and adapt to changes in the surrounding environment in real time; (iv) learning capability, whereby agentic AI improves its performance over time through machine learning, drawing lessons from data and feedback to make increasingly better decisions; (v) workflow optimization, namely the capacity to integrate language, reasoning, planning, and decision-making skills in order to automate and effectively coordinate complex work processes; and (vi) multi-agent systems, namely the ability to communicate and cooperate with other AI agents, for example by sharing information and coordinating actions, in order to perform common tasks or integrate with other tools and software. Thanks to these capabilities, each AI agent can assume diverse roles in the economy: from personal assistants, such as scheduling, ticket booking, and inbox management, to supply-chain coordination, where AI agents automatically monitor inventories, place material orders, and coordinate logistics; automated financial trading, such as high-speed securities trading algorithms; customer service, such as 24/7 advisory chatbots; educational and healthcare support, such as virtual assistants for teachers and physicians; and even e-government agents that help process administrative procedures for citizens. Consequently, the AE creates a new level of division of labour, in which AI agents may be regarded as "digital labour" capable of independently performing many cognitive tasks previously undertaken by humans [1].

Socio-economic benefits and risks of the Agent Economy: In terms of benefits, the Agent Economy is expected to enhance market efficiency by reducing transaction costs and information costs among economic actors [1]. Consumers can more easily identify products or services that match their needs because AI agents can screen countless options, overcoming human limitations in time and search capacity. Enterprises can also reach large customer bases through agent networks, reducing their dependence on paid advertising under the current "attention economy" model. The widespread use of AI agents may even promote the development of micro-transactions when buying and selling tasks are fully automated. For example, users may pay only for each item of digital content, such as a song or an article, that their agent accesses, instead of subscribing to a comprehensive package. At the same time, AI agents can flexibly separate and recombine digital content to create highly personalized products, thereby opening new markets for specialized data and digital content. In summary, the AE has the potential to promote business-model innovation, enhance personalized customer experiences, and redistribute value among actors participating in digital supply chains, for example by enabling users to receive more value through intensified competition [3][4].

However, these benefits are accompanied by new risks and challenges. First, there are systemic risks: when AI agents are widely connected within an "open agent network", instability or deviant behaviour by a group of agents may quickly spread and produce domino effects across the entire digital economy. Unlike closed experimental environments, an Agent Economy that penetrates the real economy will make it difficult to fully isolate technical incidents or errors before they affect humans. For instance, an automatic sell-off caused by faulty trading agents may trigger a financial market collapse before human actors can intervene. Second, there are security and safety concerns: AI agents may be exploited by malicious actors, including hackers and cybercriminals, to automatically produce misinformation, fraud, or cyberattacks at scale. The direct interaction of AI agents with humans requires mechanisms to ensure that they comply with ethical standards and do not make harmful or discriminatory decisions. Third, data privacy is a critical issue. To operate effectively, AI agents need access to large quantities of users' personal data, raising concerns about privacy rights and the risk of data misuse. In the absence of a clear legal framework, agents may collect and share users' sensitive information without their knowledge. Fourth, there are labour-market impacts. As the AE develops, part of cognitive work will be automated by this form of "digital labour". Although new technologies often create additional jobs in other fields over the long term, the risk of large-scale job losses in the short term is plausible. Agentic AI has been recognized as significantly increasing labour productivity, yet it also raises concerns over unemployment if the workforce fails to adapt in time [1]. This requires proactive strategies for training and upskilling workers so that they can shift toward roles complementary to AI rather than being wholly replaced. Fifth, the problem of responsibility and legality becomes more complex in the AE. When an AI agent causes damage, for example by giving incorrect advice that leads to financial losses or when a fault in an autonomous vehicle causes an accident, determining who bears legal responsibility becomes complicated: the user, the developer, or the AI agent itself. Accountability for autonomous AI systems is therefore a central issue requiring careful attention in regulatory policy.

In light of the above characteristics and risks, researchers have proposed a proactive and flexible approach to governing the Agent Economy. One concept frequently proposed is the establishment of an "agent economy sandbox", a controlled environment

in which AI agents operate experimentally so that their effects can be observed before they are integrated into the real economy [5]. According to Cecchini et al. (2025), two important dimensions describe a sandbox for AI agents: first, its origin, whereby a sandbox may be deliberately designed, meaning intentionally created by regulators for safe experimentation, or spontaneously generated, meaning formed naturally through widespread technology adoption before governance exists; and second, its degree of separation, whereby a sandbox may be impermeable, almost entirely isolated from the human economy, or permeable, allowing a certain level of interaction with the external environment [5]. Current technological trends suggest that a large and highly permeable AE is emerging spontaneously, as AI agents gradually participate directly in the human economy without passing through a clearly isolated experimental stage. This reality creates a major challenge for regulators: how to intentionally design rules and mechanisms that guide agent behaviour in a timely manner before the system grows beyond control [2]. Many researchers and experts have emphasized the urgency of building a market architecture for AI agents now, analogous to the early stage of the Internet in the 1990s, when present policy choices would determine the structure of the market and who would benefit from the new technological wave [3].

To govern the AE effectively, several strategic directions have been suggested in the literature with reference to international practice. First, open technical standards and rule systems should be established so that AI agents can interact with one another safely and reliably at scale. Without common standards, the agent economy risks being fragmented into "walled gardens" dominated by a few technology corporations, thereby obstructing competition and innovation [3]. Establishing an open and decentralized "World Wide Web of agents", similar to the current Web, requires coordinated standard-setting among multiple stakeholders, including both enterprises and governments. Second, trust and authentication infrastructure for AI agents must be developed. This may include digital certification mechanisms and reputation-rating systems to ensure that each agent participating in the market has a clear identity and a trustworthy behavioural history. One approach is to use verifiable credentials, similar to digital licences or certificates, issued to AI agents by competent authorities, allowing other agents to verify the reputation and capability of counterparties before transactions. In parallel, the legal framework must allow strong sanctions: regulators should have the authority to revoke certificates or remove violating agents from the network, and may even stipulate that transacting with unregistered agents is illegal in order to ensure system safety [5]. Third, market mechanisms should be designed to encourage safe behaviour, for example by applying market principles in allocating resources to agents so that responses can flexibly correspond to risk levels. One concrete proposal is to require AI agents engaged in high-risk tasks to deposit tokens or collateral as a form of "behavioural insurance". If an agent causes harm, the deposit would be confiscated, thereby creating an economic incentive for the agent to behave more prudently and responsibly. This model of "governance through economics", combined with reputation-rating systems and community trust votes, may help govern a decentralized agent network at scale. Fourth, a cross-cutting principle is to ensure human-in-the-loop participation in controlling AI agents, particularly in important decisions. Current AI ethics frameworks emphasize that AI must remain under effective human supervision and comply with core human values. Accordingly, policies governing the AE need to define clear boundaries: which domains must be controlled by humans and which may be delegated to agents for autonomous operation. For example, Vietnam's draft AI Law proposes that every AI system must have a human ultimately responsible and that humans must not be completely replaced in critical decisions related to human rights and interests [8].

In summary, the theoretical foundations indicate that the AE has the potential to profoundly transform the digital economy, but it is accompanied by risks that require a new regulatory approach. Technical instruments, such as open standards and trust infrastructure, need to be harmoniously combined with policy instruments, such as law, sanctions, and economic incentives, from the system-design stage. The objective is to develop an Agent Economy that remains "within control", meaning that it both realizes the efficiency of automation and ensures safety, transparency, and service to the common interests of society.

4. REGULATORY POLICIES FOR AE IN SELECTED COUNTRIES

Although the AE remains at an early stage of development, many countries have recognized and addressed this phenomenon through general AI governance frameworks as well as experimental policies for coordinating AI agents. This study synthesizes several approaches adopted by the United States, the EU, China, and Singapore, which are representative of different AE governance models, thereby deriving lessons for Vietnam.

At present, the United States has no comprehensive federal law dedicated specifically to AI. The United States' approach is primarily to encourage innovation and limit early government intervention. The federal government emphasizes the goal of maintaining AI leadership, treating it as a driver of economic growth and national security. In July 2025, the White House released the national strategy report "Winning the Race: America's AI Action Plan", with more than 90 proposed policy actions organized around three pillars: accelerating AI innovation, building AI infrastructure, and leading in international AI diplomacy and security [11]. This action plan emphasizes removing barriers considered to impede innovation and creating maximum conditions for AI research, development, and application. For example, shortly after taking office in 2025, the U.S. President signed the executive order "Removing Barriers to American Leadership in AI" to revoke previous directives considered to "restrict innovation", thereby paving the way for freer AI development. This approach clearly reflects the U.S. philosophy of AI governance: prioritizing flexibility and voluntary compliance rather than early enactment of rigid law. Instead of creating a new AI law, the United States relies on

voluntary guidelines and standards issued by the government or professional organizations, such as the AI Risk Management Framework (AI RMF) proposed by the National Institute of Standards and Technology (NIST) for voluntary corporate adoption. In addition, the United States uses existing legal frameworks. Agencies such as the Federal Trade Commission (FTC) and the Equal Employment Opportunity Commission (EEOC) have declared that they will supervise AI use under their existing authorities, such as addressing unfair competition and discrimination in AI applications, rather than waiting for new legislation. At the state level, AI-related legislation is active. By 2025, all 50 U.S. states and territories had introduced AI-related bills, and 38 states had enacted approximately 100 laws or resolutions on different aspects of AI [11]. These local laws cover diverse issues, including AI use in recruitment and finance, and algorithmic transparency requirements in public services. However, regulatory fragmentation among states also makes the U.S. AI regulatory landscape fragmented, patchy, and difficult to predict depending on jurisdiction and sector [11]. Regarding the AE, the United States does not yet have a separate policy; however, several related initiatives have emerged. Major technology corporations, including OpenAI, Microsoft, and Google, have pioneered the development of general-purpose AI agents, such as GPT-4 Code Interpreter and AutoGPT, and have issued their own rules for safe use. The U.S. government has also begun developing guidance for responsible AI use in the public sector, such as the 2025 AI Training Act for government employees, which requires AI training courses for civil servants. Overall, the U.S. model leans toward "self-regulation" combined with "minimal intervention", encouraging industry to develop ethical codes for AI agents, while the state uses existing laws to address consequences if violations occur, such as the FTC warning that it will penalize firms if their AI harms consumers. The advantage of this approach is that it accelerates innovation and attracts AI investment, consistent with a free-market philosophy. Its disadvantage is that it creates a significant regulatory gap: in the absence of mandatory standards, the safety and ethics of AI agents depend heavily on corporate voluntariness, while competitive pressure may lead firms to trade safety for market advantage.

The EU has adopted a stringent regulatory approach based on early risk assessment in order to direct AI development toward trustworthiness and human-centredness. The central legal instrument is the EU AI Act, the world's first comprehensive legal framework for AI, adopted by the European Parliament in 2024 and expected to take effect after a transition period in 2025-2026 [6]. The AI Act classifies AI systems into four risk levels for human safety and rights: minimal risk, which may be freely developed while voluntary compliance with standards is encouraged; limited risk, which requires transparency to users, for example chatbots must disclose that they are not human; high risk, which must comply with numerous stringent requirements regarding risk governance, data management, human oversight, accuracy, and safety, and must be registered with competent authorities before market placement; and unacceptable risk, which is completely prohibited, such as AI used for social scoring or real-time public facial recognition for law enforcement, except in certain exceptions [6]. Although the AI Act does not directly refer to AI agents, recent policy analyses indicate that the general principles of the law still cover this object [6]. Specifically, most current agents are built on general-purpose AI models such as GPT-4, and they are therefore classified as systems that may pose systemic risks, requiring model providers to assess and mitigate risks spreading from the use of these agents [6]. At the same time, if an AI agent is deployed for an application included in the high-risk category, such as a recruitment-support agent or a health-diagnosis agent, that application must comply with the corresponding requirements for high-risk AI systems. The EU also emphasizes risk-management responsibility across the value chain, whereby parties involved in developing, distributing, and using AI agents each have certain obligations. Foundation-model providers such as OpenAI and Google must build safety-assurance infrastructure, including mechanisms for controlling harmful content. Parties integrating models into agents for specific sectors must customize them to comply with the application context, and final deployers must supervise and validate agents in actual operation [6]. The EU AI Act establishes the governance of AI agents on four pillars: (i) lifecycle risk governance, consisting of continuous risk assessment, mitigation, and management; (ii) transparency, including information disclosure, labelling of AI-generated content, and notifying users when they interact with AI; (iii) technical control, including requirements for accuracy, safety, cybersecurity, and technical measures to ensure compliance; and (iv) human oversight, ensuring that humans can supervise and intervene when necessary [6]. These four pillars are operationalized into approximately 10 measures proposed by a group of experts for general-purpose AI model providers, agent developers, and final deploying entities [6]. These include requirements such as assessing systemic risks that AI agents may cause to society; registering AI agents in the common EU database if they are high-risk; ensuring that agents have an "emergency stop" mechanism allowing humans to disable them when necessary; and technical standards that will continue to be updated in accordance with the latest agentic AI technology [6]. Although the legal framework has been established, the EU itself recognizes remaining gaps, such as the initial AI Act not fully anticipating situations in which AI agents possess complete autonomy. Therefore, the European Commission is expected to issue supplementary guidance and new technical standards to manage risks from AI agents effectively [6]. In addition to the AI Act, the EU will establish the European AI Board and the European AI Office to coordinate law enforcement across the bloc [6]. EU member states may enact supplementary national laws appropriate to their own contexts. For example, Italy recently adopted a national AI law in 2025 that strictly prohibits the dissemination of dangerous deepfakes and adds imprisonment penalties for violations. It can be seen that the EU approach reflects a cautious regulatory perspective, bringing AI-agent activities into a legal framework from the outset, prioritizing risk control and the protection of humanitarian values, such as ensuring the right to know when interacting with AI and prohibiting AI agents from psychologically manipulating users. This approach helps the EU shape international norms on trustworthy AI, but it also imposes high compliance

costs and complex procedures on technology enterprises, potentially slowing the deployment of AI agents in Europe compared with the United States or China.

In contrast to the EU's emphasis on human rights, China governs AI in general and the AE in particular within a framework that prioritizes political security and social order. In August 2023, China promulgated the "Interim Measures for the Management of Generative AI Services", the first national-level regulatory document in the world dedicated to generative AI governance [9]. These measures took effect on 15 August 2023 and apply to all services using generative AI technology provided to the public in China. The stated objective is to "promote the healthy development and orderly application of generative AI, safeguard national security and public interests, and protect the lawful rights and interests of citizens and organizations", clearly reflecting the orientation of AI governance toward political and social stability [9]. China's approach is characterized by "hierarchical and classified governance": the government supervises AI based on the classification of importance and purpose of use, although it does not publicly specify a risk scale as the EU does. Nevertheless, generative AI services with "public opinion attributes or social mobilization capabilities" are subject to stricter supervision. For example, chatbots that can interact with large numbers of users are tightly controlled in terms of content. The document sets out a series of compliance requirements for generative AI service providers [9]. These include the lawful use of data and respect for intellectual property: training data must be legally collected and must not violate privacy or copyright. They include non-bias and non-discrimination: measures must be taken to prevent algorithms or data from producing discriminatory outputs based on race, gender, religion, occupation, health status, and related attributes. They include quality and accuracy assurance: measures must be taken to improve the transparency, accuracy, and reliability of AI-generated content. They include protection of minors: services must prevent children from becoming addicted to or excessively dependent on AI services. They include security and content moderation: services must operate safely and stably, promptly remove illegal or inappropriate content, and establish mechanisms for receiving complaints and handling user feedback. In particular, providers must review the outputs of AI models to remove information that violates the law or contradicts "core socialist values" before allowing public use [9]. They also include registration and security assessment: providers must register their algorithms with the regulator, namely the Cyberspace Administration of China (CAC), if the service has the potential to affect public opinion or mobilize the public. At the same time, AI services must pass security assessment before launch, similar to requirements for Internet services under the Cybersecurity Law. They include privacy and personal-information protection: providers must comply with China's Personal Information Protection Law, protect user data, and not use AI to infringe privacy. If AI agents collect personal data, user consent must be obtained and the purpose of use must be notified. They include content labelling and traceability: AI-generated content, such as images, deepfake videos, and text, must be labelled to distinguish it from human-generated content, helping the public recognize and avoid deception. China issued a national standard on labelling AI-generated content in 2023 as technical guidance for this requirement [9]. Finally, they include responsibility and sanctions: providers must establish mechanisms for receiving user feedback and reporting emerging problems to the authorities. The measures specify sanctions for violations, ranging from warnings, administrative fines, and service suspension to blacklisting and criminal prosecution depending on the severity of violation [9].

In addition to the 2023 measures on generative AI, China has a range of related regulations that form a legal ecosystem for AI governance. These include the 2022 regulations on recommendation algorithms, which require Internet services using personalized algorithms to obtain permission and give users an option to disable recommendations; the 2023 regulations on deep synthesis, which regulate AI-generated fake content such as deepfakes; financial-sector rules requiring fintech companies that use AI to report models to the central bank; and the 2023 guidelines on technology ethics, which require AI firms to conduct ethical assessments and internal controls when researching and deploying AI. Notably, in November 2025, China issued three additional national standards on generative AI security and governance, effective from 1 January 2026, to specify technical requirements for AI models, such as standards on traceable management of training data and safety assessment of AI models. China is therefore building an Agent Economy governance framework in a "protectionist and sovereign" direction: the state tightly controls the development of AI agents, directs them to serve national objectives in both economic and ideological terms, and simultaneously invests heavily in technological self-reliance to avoid foreign dependence. The Chinese government encourages enterprises and localities to experiment with AI in controlled sandboxes, such as Shenzhen's autonomous vehicle testing zone and Beijing's AI policy pilot zone, but always with security supervision. The advantage of China's approach is that it establishes early safeguards to prevent harms from AI agents, such as misinformation and social instability, while protecting domestic cultural and political values. The disadvantage is that the innovation environment may become constrained, small enterprises may struggle to comply with complex regulations, and users may have limited access to advanced global AI services because of censorship barriers.

Singapore is regarded as a model for balancing innovation and risk governance in the AI era. The country early developed flexible AI ethics guidelines to help enterprises "do the right thing from the start". In 2019, Singapore issued the Model AI Governance Framework, which provides detailed guidance for enterprises to integrate principles of responsible AI, such as transparency, fairness, privacy protection, and explainability, into the AI project lifecycle. Building on this foundation, Singapore developed AI Verify, a technical assessment toolkit that helps verify whether an AI system satisfies trustworthy AI criteria. Legally, Singapore has no AI-specific law, but existing sectoral regulations partly cover AI risks, such as rules on financial-technology risk management, the Cybersecurity Act, and the Personal Data Protection Act [9]. Instead of imposing rigid regulation early like the

EU, Singapore adopts flexible experimentation. In 2022, the government launched the AI Governance Testing Framework and the AI Regulatory Sandbox, allowing enterprises to test AI solutions within limited scope under the supervision of regulators. In July 2025, Singapore further expanded these efforts by announcing a new version of the "Global AI Assurance Sandbox", with a focus that includes advanced agentic AI systems [7]. According to the Infocomm Media Development Authority (IMDA), the expanded sandbox allows more domestic and foreign companies to participate in real-world-like testing of AI applications to evaluate risks and effectiveness before broad deployment [7]. Notably, this sandbox adds new scenarios such as autonomous AI agents and emerging risks, including data leakage or prompt-injection attacks against large language models [7]. Singapore's sectoral regulators are also invited to participate in the sandbox in order to jointly develop and validate AI governance guidelines in their fields [7]. In parallel with the sandbox, Singapore issued the LLM Safety Testing Starter Kit in 2025, providing a standard procedure for stakeholders to test the safety of AI applications based on large language models [7]. This approach reflects Singapore's "pragmatic, risk-based" philosophy, allowing innovation to occur in a controlled environment, collecting empirical information to shape policy, maximizing AI opportunities while establishing protective corridors to build public trust [7]. In addition to the AI sandbox, Singapore places strong emphasis on data protection and privacy, which constitute the foundation of a trustworthy digital economy. In 2020, Singapore amended the Personal Data Protection Act (PDPA) to strengthen sanctions for violations and add stricter requirements for data processing. In July 2025, Singapore raised data-protection standards to a new level by standardizing the Data Protection Trustmark (DPTM) Certification Programme as a national standard, encouraging enterprises to obtain data-protection certification equivalent to international standards [9]. At the same time, Singapore has pioneered the promotion of privacy-enhancing technologies (PETs), such as homomorphic encryption and multi-party computation, so that AI can be applied to sensitive data while preserving personal privacy. The government issued PETs adoption guidance in 2025 to help enterprises access these technologies [9]. All these efforts show that Singapore is building a relatively comprehensive policy ecosystem: it creates sandbox space for enterprises to test and refine AI solutions, with special attention to AI agents, while strengthening the legal infrastructure for data and safety to support responsible AI deployment. Singapore's approach reflects the characteristics of a small country with limited resources: it relies heavily on flexible guidance and standard certification to guide the market rather than enacting too many rigid laws; it also proactively participates in shaping international norms by promoting discussions on AI governance in ASEAN and cooperating with the OECD and the WEF. As a result, Singapore maintains the image of a responsible AI innovation environment that attracts international investment while preserving citizens' trust in new technologies.

To clarify the differences among countries, Table 1 below summarizes the policy approaches to the Agent Economy, or related AI governance, in the United States, the EU, China, and Singapore.

Table 1. Comparison of policy approaches to AI/Agent Economy governance in selected countries

Country/Bloc	Approach to AI/agent governance	Representative policies and initiatives
United States	Market-led, minimal intervention. Priority is given to maintaining AI leadership and removing barriers to promote innovation. Existing laws and voluntary guidelines are used instead of new law.	- 2025 national AI strategy ("AI Action Plan") with more than 90 actions across three pillars: innovation, infrastructure, and diplomacy [11]. - 2025 Executive Order "Removing Barriers to American Leadership in AI" to remove regulations regarded as hindering innovation. - AI Risk Management Framework (NIST AI RMF) as voluntary guidance for enterprises. - Numerous state-level AI laws, with more than 100 laws in 2025 concerning recruitment, finance, algorithmic transparency, and related issues [11]. - No dedicated regulation for the Agent Economy; emphasis is placed on encouraging enterprises to self-govern responsible AI.
European Union	Comprehensive regulation based on risk assessment. Detailed legal norms are established to ensure safe and human-centred AI. Guidance is updated to cover new technologies, including agentic AI.	- EU AI Act (2024): classifies AI into four risk levels; imposes stringent requirements on high-risk systems; prohibits certain unacceptable-risk applications [6]. - Transparency and human oversight requirements: mandatory labelling of AI-generated content and ensuring ultimate human responsibility [8]. - For AI agents: provisions on general-purpose AI and corresponding high-risk-system rules are applicable [6];

Country/Bloc	Approach to AI/agent governance	Representative policies and initiatives
		specialized technical standards and supplementary guidance are under development. - New enforcement bodies: establishment of the European AI Board and European AI Office to supervise compliance across the bloc [6]. - Bloc-level coordination: member states are encouraged to develop national AI strategies; for example, Italy adopted a 2025 national AI law supplementing sanctions for deepfakes.
China	Centralized governance prioritizing security and control. Specific regulations are rapidly issued to control AI content and orient AI toward state interests. Registration and strict content review are required for public AI services.	- 2023 Measures for Generative AI Services: the first comprehensive regulation on GenAI services, effective August 2023 [9]; requires output moderation, the prevention of adverse information, and compliance with socialist values. - Mandatory requirements: algorithm registration with the CAC, security assessment before deployment, deepfake labelling, prohibition of illegal data use, and prevention of bias and harmful content [9]. - Strong sanctions: violations may lead to fines, service suspension, or criminal prosecution [9]. - Complementary regulatory ecosystem: personalized-algorithm regulations (2022), deepfake regulations (2023), technology ethics guidelines (2023), and national AI standards (2025). - Limited experimentation: supervised AI sandbox zones, such as AI pilot areas in Beijing and Shenzhen, are established to test technology under inter-sectoral control.
Singapore	Pragmatic and balanced between innovation and safety. Flexible ethical frameworks encourage voluntary compliance, while sandboxes and certification are used for risk-based governance. The legal foundation for data protection and trust is strengthened.	- Model AI Governance Framework (2019) and AI Verify: voluntary guidance and technical tools supporting responsible AI development. - AI Regulatory Sandbox: piloted in 2022 and expanded in 2025 into the Global AI Assurance Sandbox, a real-world testing environment for AI agents and new governance guidance [7]. It is open to public agencies and international participants for policy feedback [7]. - LLM Safety Testing Starter Kit (2025): a standard toolkit for safety testing of AI applications based on large language models [7]. - Strong data legal framework: PDPA (amended in 2020) and DPTM certification (2025) raise personal data protection standards [9]. PETs guidance was issued in 2025 to support the use of privacy-enhancing technologies in AI [9]. - International cooperation: Singapore actively participates in building global AI standards and leads AI governance dialogue within ASEAN.

5. FORECASTING THE IMPACTS OF AE ON VIETNAM

Although Vietnam has not yet clearly developed an AE ecosystem, global technological trends indicate that this transformation will sooner or later exert extensive impacts on the country's economy and society. Proactively assessing the opportunities and challenges arising from the AE will help Vietnam prepare an appropriate policy corridor, capitalize on benefits, and minimize risks.

Opportunities for socio-economic development. First, the AE may become a new launchpad for Vietnam's digital economic growth. With the advantages of automated transactions and processes, AI agents can help Vietnamese enterprises improve

productivity and operational efficiency. For example, small and medium-sized enterprises may use AI assistants to automate marketing and online sales, such as customer advisory chatbots and market-data analysis agents, without hiring large numbers of staff, thereby reducing costs and scaling operations. Through AI agents, a small local handicraft shop may also reach global customers 24/7: its digital assistant can communicate with service agents of international e-commerce platforms to search for customers and close orders. For consumers, AI agents can help save time and optimize choices. For instance, a Vietnamese user may simply tell their AI assistant to "find a good family health insurance package", and this agent will automatically negotiate with a range of agents from insurance companies to propose the optimal option in terms of benefits and price. This increases market competitiveness and transparency, allowing citizens to benefit from easier access to better services at lower cost.

At the macro level, the AE may accelerate the digital transformation of sectors. In e-government, AI agents may assume the role of "digital civil servants" by supporting the processing of administrative procedures, answering citizens' questions, and monitoring the quality of public services. This is particularly useful in the context of Vietnam's efforts to improve public-service quality: AI agents can operate 24/7, reduce the workload of the public administration apparatus, and increase citizen satisfaction. In agriculture and manufacturing, AI agents, as software robots, can optimize supply chains by automatically monitoring inventories, placing material orders when necessary, or coordinating with logistics agents to schedule optimal transportation, thereby strengthening connectivity among production, distribution, and logistics stages and reducing time loss and inventory waste. AI agents can also promote innovation: researchers and engineers can use AI agents as collaborators to conduct simulation experiments, synthesize literature, and design prototypes. As a result, Vietnam may shorten R&D time in fields such as pharmaceuticals, where AI supports compound search, and engineering, where AI optimizes component design. Overall, if properly exploited, the AE will contribute to realizing Vietnam's dual objective of increasing labour productivity while improving innovation capacity, thereby moving toward a high-value-added digital economy.

Another important dimension is that the AE may help Vietnam integrate more deeply into the global digital economy. At present, Vietnamese technology enterprises still have limited resources compared with major global corporations and therefore find it difficult to compete in platform services. However, with the diffusion of open standards for AI agents, such as the Agent-to-Agent protocol (A2A), Vietnamese firms may develop specialized services while still participating in the global agent network. For example, a Vietnamese startup could create an AI agent that provides intelligent tourism services, such as tour consulting, flight booking, and hotel reservation, and connects through A2A with thousands of AI assistants belonging to international customers. Thus, Vietnamese enterprises could access large markets without developing a separate application for each user. Another opportunity is to reduce service disparities between urban and rural areas: AI agents may bring expert services to remote areas, such as AI doctors providing basic health advice or AI teachers teaching foreign languages, thereby reducing inequality in access to knowledge and services. In addition, if Vietnam establishes a favourable experimental environment similar to Singapore's, it may attract foreign investment into AE projects. Technology corporations may select Vietnam as a site for piloting AI-agent deployment in ASEAN, thereby creating high-skilled jobs and transferring technology to the domestic workforce.

Challenges and risks for Vietnam. Alongside opportunities, Vietnam will face many challenges as the Agent Economy gradually takes shape globally and may enter the domestic market.

The first challenge is the legal gap. Vietnam currently has no specialized legal instrument on AI. Some existing regulations may apply partially, such as the 2018 Cybersecurity Law, which contains provisions on handling false information, and Decree No. 13/2023 on personal data protection. However, these are not sufficient to constitute a comprehensive framework for the specific issues of AI agents, such as legal responsibility, safety of autonomous systems, and the rights and obligations of parties when using AI. If a clear legal framework is not developed soon, Vietnam risks being passive in dealing with emerging situations. For example, if an automated chatbot causes serious misunderstanding leading to harmful consequences, there is currently no definitive mechanism for assigning responsibility or imposing appropriate sanctions. According to the latest information, the Ministry of Science and Technology has drafted a Law on Artificial Intelligence and is expected to submit it to the National Assembly in 2025 [8]. This draft law aims to provide a foundational legal framework for AI research, development, provision, and use, including the principle of keeping humans in the position of final decision-making and managing AI through a risk-classification approach similar to that of the EU [8]. Nevertheless, the challenge will lie in implementation: how to ensure that regulations are not merely written on paper but are strictly complied with in practice. Vietnam may face "legal grey zones" when technology outpaces law, creating difficulties in enforcement. For example, if an autonomous AI agent causes harm but does not clearly fall within the scope of existing law, disputes may arise over which legal provisions apply.

The next challenge concerns governance and coordination capacity. The AE is highly interdisciplinary, intersecting information technology, economics, law, security, and related fields. This requires a competent management apparatus and an effective coordination mechanism. In reality, Vietnamese state management agencies still lack personnel with deep AI expertise, while AI focal points are distributed across different ministries and sectors, creating risks of overlap or omission of responsibilities. Without establishing a unified national coordination focal point and strengthening AI governance capacity, Vietnam will find it difficult to keep pace with Agent Economy developments and respond with timely policies. In addition, Vietnam's technical infrastructure for

AI development and control remains limited, including computing capacity and data for training large models. This may make Vietnam dependent on foreign technology and passive in managing and supervising imported AI agents.

In economic and social terms, similar to global concerns, the AE poses risks of labour-market volatility in Vietnam. Many jobs in Vietnam, especially in services and office work, such as data-entry staff, call-centre operators, accountants, and related occupations, may be partially replaced by AI agents. Low-skilled workers or those performing repetitive tasks will be affected first. Without policies to support retraining and job transition, short-term structural unemployment may increase, leading to social consequences such as income inequality and pressure on the social security system. In addition, most Vietnamese enterprises are small and medium-sized with limited financial and technological capacity, which may cause them to lag behind in the Agent Economy race and cede market share to foreign agents and services. Vietnamese consumers may also become dependent on foreign AI agents if domestic enterprises cannot provide similar services, posing risks to digital sovereignty and data security.

Finally, social awareness of AI agents in Vietnam remains limited. Many users may not know that they are interacting with AI or may not clearly understand the related rights and risks. This requires considerable effort in communication and education so that citizens are prepared with the mindset and skills needed for the new era.

In summary, the Agent Economy may create opportunities to elevate Vietnam's digital economy, but it also raises complex governance problems. It is necessary to fully identify challenges across legal, state-governance, economic, and social dimensions in order to formulate proactive response measures.

6. LESSONS LEARNED

The experience of the above countries offers valuable lessons for Vietnam in orienting AE governance policy. Each model has its own strengths and limitations, yet several common lessons may be drawn as follows.

First, Vietnam needs to develop an AI strategy and legal framework early with a long-term vision. Both the United States and the EU have issued AI strategies at the national or continental level; China has also incorporated AI into key plans. Vietnam needs to update its national AI strategy to include orientations on the AE and avoid falling behind. Legally, the experience of the EU and China shows that enacting a specialized AI law helps establish a safe corridor from the outset. Despite different approaches, both consistently affirm the principle of ultimate human control. The lesson for Vietnam is to urgently complete the draft AI Law and the system of subordinate legal documents, ensuring high feasibility. The legal framework should combine risk-based governance, as in the EU, with flexible mechanisms, such as Singapore's sandbox, so that innovation is not stifled while tools for intervention remain available when necessary.

Second, Vietnam should establish an inter-sectoral coordination mechanism and strengthen AI governance capacity. Countries emphasize the need for a unified focal point, such as the European AI Board and European AI Office in the EU, Singapore's National AI Committee led by the Deputy Prime Minister, and China's centralized management through the CAC. Vietnam should also consider establishing an agency for AI and digital transformation with the participation of government leaders, key ministries and sectors, and experts. This agency would be responsible for developing strategies, approving key AI programmes, monitoring AI-law implementation, proposing periodic updates to risk and prohibited lists, and coordinating the handling of inter-sectoral issues. Each ministry and sector should also have a dedicated AI unit serving as a focal point. In addition to institutional arrangements, Vietnam needs to invest in training AI governance personnel, or "AI civil servants", who understand both technology and policy. Technical tools should also be provided to regulators, such as systems for detecting deepfakes online and algorithmic testing laboratories, drawing lessons from Singapore's AI Verify.

Third, Vietnam should focus on developing digital infrastructure and data for AI and the AE. Countries all regard infrastructure investment as a prerequisite. The United States invests heavily in AI infrastructure, the EU has the Digital Europe programme, and Singapore develops high-performance computing and 5G networks. Vietnam needs to accelerate digital-infrastructure projects, such as building a national high-performance computing centre to serve AI research and development; expanding connectivity infrastructure, including 5G coverage and 6G testing, to prepare for the Internet of Things and agent networks; and completing national databases and interoperable connection platforms under Project 06 as trusted data sources for AI applications in government and business. In addition, policies are needed to encourage open data and data sharing: domestic open datasets in Vietnamese, images, videos, and related formats should be built so that Vietnam's AI community has data to train models; enterprises and organizations should be encouraged to share anonymized data on shared data platforms, accompanied by appropriate incentives and sanctions. Vietnam should also proactively participate in and adopt open standards for AI agents, appoint experts to take part in developing or rapidly updating agent-communication standards such as A2A, so that domestically developed AI agents are compatible with international systems, while foreign agents are required to comply with standards for integration with Vietnamese services.

Fourth, safety, security, and ethics in the AE environment must be ensured. This is a vital pillar for building social trust when deploying AI agents. The lesson from China shows that emergency disconnection mechanisms are needed, allowing competent authorities to temporarily suspend the operation of a group of AI agents or disconnect them from the Internet if dangerous abnormal behaviour is detected, similar to emergency circuit breakers in stock markets during major incidents. Vietnam may incorporate this

principle into the AI Law or subordinate regulations to establish a legal basis for action when necessary. A licensing and registration system for AI agents should be developed: agents that provide services widely must be licensed or certified as safe by competent authorities. A system of identification numbers for publicly operating AI agents may be designed, similar to software licensing, to facilitate management. When agents violate the law, authorities should revoke licences, require cessation of operation, and place them on a blacklist. This approach resembles the sandbox proposal: treating transactions with unregistered agents as illegal, thereby enabling sanctions to remove violating agents from the network [5]. To implement this, Vietnam needs to develop agent authentication infrastructure, such as applying blockchain technology or public-key infrastructure (PKI) to issue digital identities and digital certificates for AI agents. At the same time, police and cybersecurity forces must strengthen their capacity to prevent and combat AI-enabled crime, including early detection and handling of activities that exploit AI agents for fraud, dissemination of harmful information, money laundering, and related conduct. For example, AI tools could be developed to detect clusters of fake accounts on social networks, and network operators could be required to monitor abnormal traffic suspected of being controlled by AI bot networks. AI incident response scenarios should also be prepared: procedures must be established for coordination among relevant parties when a major AI incident occurs, such as a malfunctioning intelligent traffic system causing widespread congestion or a government virtual assistant being attacked at scale. Ethically and socially, policy must ensure principles of non-bias and non-discrimination in AI systems, similar to China's regulation. Developers and deployers of AI agents should be required to test and mitigate algorithmic and data bias in order to avoid injustice toward vulnerable groups. For example, AI agents that screen CVs for recruitment must be controlled so that they do not discriminate unreasonably by gender or region. In addition, local culture and language should be preserved. Priority should be given to developing AI models that use Vietnamese and comply with Vietnamese law and cultural values, rather than relying entirely on foreign models. The state may finance open-source projects to develop large Vietnamese language models as a foundation for domestic AI agents, thereby increasing technological autonomy and making AI agents more user-friendly and appropriate for Vietnamese users.

Fifth, Vietnam should pay attention to human-resource training and support for job transition in the AI-agent era. As analyzed above, humans need to be prepared to coexist and work with AI agents. International experience emphasizes improving digital skills for the workforce: Singapore implements nationwide upskilling programmes, while the United States recommends AI training for civil servants. Vietnam should develop programmes to improve digital and AI skills for workers, including retraining for labour in sectors likely to be affected, such as textiles, assembly, and call centres; upgrading AI-use skills for office workers and engineers; and providing basic AI knowledge for managers and business leaders so that they can make sound decisions when adopting AI. Public-private partnership models can be encouraged, with technology firms opening AI training centres aligned with practical needs.

Sixth, Vietnam should strengthen international cooperation and proactively shape regional AI norms. The AE is global in nature; therefore, no country can govern it effectively without cooperation and mutual learning. The lesson from Singapore is to proactively propose regional initiatives. Vietnam may propose an ASEAN AI governance framework based on common principles suitable for regional culture. In international forums, Vietnam should actively participate in initiatives such as the Global Partnership on AI (GPAI), OECD AI programmes, the United Nations, UNESCO, and related mechanisms in order to learn from policy experience and contribute the voice of a developing country. When international organizations issue AI recommendations, such as UNESCO's 2021 Recommendation on the Ethics of Artificial Intelligence, Vietnam should promptly study and internalize appropriate elements. In scientific cooperation, joint AI research projects between domestic institutes and universities and international partners should be promoted, taking advantage of funding sources such as Horizon Europe and the domestic VINIF fund to study the social impacts of AI, AI control methods, and related issues, thereby creating a scientific basis for policy. Expert exchange should be encouraged, including inviting overseas Vietnamese AI scientists to return for short-term work and support the training of young researchers. In addition, Vietnam needs to participate in shaping future international agreements and conventions on Agent Economy issues.

The above lessons demonstrate the importance of acting early, flexibly, and cooperatively in Agent Economy governance. Vietnam should selectively and creatively apply suitable experience, avoiding complacency or rigidly following a fixed model.

7. POLICY RECOMMENDATIONS

Based on the theoretical foundations and international lessons analyzed above, this section proposes a policy framework for governing the Agent Economy in Vietnam with the aim of both promoting technological development and protecting social interests. The policy framework comprises six main groups of solutions: (1) completing legal institutions; (2) establishing an inter-sectoral coordination and governance mechanism; (3) developing digital technical and data infrastructure; (4) ensuring safety, security, and ethics in the Agent Economy; (5) training human resources and supporting job transition; and (6) promoting international cooperation and research implementation.

(1) Completing legal institutions for AI and the Agent Economy: In the immediate term, Vietnam needs to enact a Law on Artificial Intelligence as the highest legal foundation for AI governance in Vietnam [8]. The AI Law should clearly define its scope to include autonomous AI systems and AI agents participating in socio-economic activities. A dedicated chapter may regulate highly autonomous AI systems, setting out principles for governing the Agent Economy, such as "AI serving humans"; and requiring every

deployment of AI agents to include mechanisms for human supervision and ultimate human responsibility, as the draft law has stated: ensuring that humans are not completely replaced in important decisions and that humans retain ultimate responsibility. The law should adopt a risk-based regulatory approach: the Government periodically issues lists of AI applications classified as high-risk or prohibited. The high-risk group may include AI agents in sensitive sectors, such as healthcare, finance, justice, autonomous transport, and AI agents that may significantly affect public perception, such as AI social networks and general virtual assistants. These systems must satisfy stringent conditions before use: registration and certification, impact assessment reports, integration of emergency-stop mechanisms, decision logging for inspection, and related requirements. Conversely, ordinary low-risk AI applications should be maximally facilitated, with voluntary compliance with good standards encouraged. The law should also stipulate prohibited AI-related acts, such as using AI agents to commit crimes, disseminating false information that causes public anxiety, violating personal privacy through AI, and developing or using unverified AI in conditional sectors such as finance. This prohibited list may draw on the EU AI Act and Vietnamese realities, including prohibiting deepfakes for fraud and AI systems that incite unlawful acts.

(2) Establishing an inter-sectoral coordination mechanism and strengthening governance capacity: Vietnam should establish an agency for AI and digital transformation. This agency would be responsible for guiding the national AI strategy and approving key programmes such as an AI infrastructure development programme and a national AI development fund. It would also monitor AI-law implementation, propose updates to risk and prohibited lists, and address inter-sectoral problems as they arise, such as wide-scale AI-agent incidents involving multiple domains.

To strengthen governance capacity, Vietnam needs to train a team of "AI civil servants" who understand both technology and AI policy. This may be implemented by sending civil servants and IT engineers in state agencies to study AI governance and policy abroad or by cooperating with major domestic universities; inviting outstanding experts from the private sector to advise the Government, for example experts from Vietnamese technology companies and Vietnamese professors working at Google, Amazon, and similar organizations; and building a network of AI experts at home and abroad to support the state. Furthermore, technical tools need to be provided to management agencies, such as systems for scanning and detecting deepfake content on the Internet; systems for supervising automated financial transactions; and AI algorithm testing laboratories, similar to Singapore's AI Verify. Vietnam may develop a domestic version to test whether AI models contain bias or vulnerabilities.

(3) Developing digital and data infrastructure for the Agent Economy: The Government should regard the Agent Economy as a driver for investment in next-generation digital infrastructure. First, regarding computing infrastructure, a national high-performance computing centre should be built to serve AI research and deployment. At the same time, telecommunications enterprises and major corporations should be encouraged to invest in new data centres, accompanied by tax incentives for importing specialized AI equipment. Second, regarding connectivity infrastructure, nationwide 5G coverage should be accelerated, especially in industrial zones and large urban centres, to prepare for the Internet of Things and ubiquitous AI-agent networks. Third, regarding data infrastructure, Project 06 for developing national databases and interoperability should be implemented decisively, as these databases will be trusted data sources for many AI applications in government and business. At the same time, open datasets should be developed for the AI community so that the whole country can train "make in Vietnam" AI models. Organizations and enterprises should be encouraged to share anonymized data on open data platforms managed by the Ministry of Information and Communications, with reward mechanisms for active data contributions and sanctions for non-compliance.

(4) Ensuring safety, security, and ethics in the Agent Economy: This is the core pillar for creating social trust when deploying the Agent Economy. In terms of system safety, as suggested by sandbox research, technical and legal "emergency checkpoints" should be designed in advance to prevent AI incidents from spreading. In addition, a trust-level classification system for AI agents should be established. AI agents wishing to provide services widely must be licensed or certified as safe by the regulatory authority. A system for registering and assigning codes to publicly operating AI agents may be designed, similar to software licensing, to facilitate management. When an agent violates the law, the competent authority revokes its licence, meaning that the agent must cease operation, and places it on a blacklist. This approach resembles the sandbox proposal, namely that transactions with unregistered agents may be regarded as unlawful in order to ensure safety and enable sanctions to remove violating agents from the network [5]. Vietnam may study the application of blockchain technology or PKI for issuing digital identities and certificates to AI agents for governance purposes.

Regarding cybersecurity and prevention of AI-enabled crime, Vietnam needs to strengthen early detection and handling of acts that exploit AI agents. AI tools should be provided to law enforcement agencies themselves, for example to detect clusters of fake bot accounts on social networks spreading false information. International cooperation should be reinforced to trace cross-border fraud using AI, such as impersonating relatives through voice deepfakes to defraud victims, which has occurred in several countries. Regarding fraud prevention, additional requirements may be considered for telecommunications operators and Internet service providers: monitoring and reporting abnormal data traffic suspected of being controlled by AI bot networks, similar to botnet monitoring. Moreover, AI incident response scenarios need to be prepared. The United States has called for rules on responding to serious AI incidents; Vietnam should also develop procedures: when a major AI incident occurs, such as malfunctioning smart traffic systems causing widespread congestion or a cyberattack on a series of government virtual assistants, relevant parties activate

a command centre, mobilize experts, and communicate information transparently so that citizens understand the situation and panic is avoided.

Regarding ethics and society, policy must ensure the principle of non-bias and non-discrimination in AI systems, similar to the principle explicitly stated by China [9]. Developers and deployers of AI agents should be required to conduct testing and take measures to mitigate bias, including data and algorithmic bias, in order to avoid injustice to vulnerable groups. For example, AI agents screening job applications must be controlled so that they do not exclude candidates prejudicially on the basis of gender, region, or similar characteristics. In addition, culture and language should be preserved: priority should be given to developing AI models that use Vietnamese and understand Vietnamese law and culture, instead of only importing foreign models. The state may fund open-source projects to develop large Vietnamese language models as a foundation for many domestic AI agents. This both increases technological proactiveness and makes AI agents more compatible with Vietnamese users and local values.

(5) Human-resource training and job transition in the AI-agent era: The Government should implement a programme for improving digital and AI skills for workers, including retraining components for workers in vulnerable sectors such as textiles, assembly, call centres, and accounting; upgrading office workers and engineers in the use of AI tools to improve work efficiency; and providing supplementary basic AI knowledge for managers and business leaders so that they can make sound decisions when applying AI.

(6) Participating in international cooperation and shaping regional norms: Vietnam should proactively propose AI initiatives within ASEAN, such as promoting the development of an ASEAN AI governance framework based on common principles. This will help create a harmonized AI environment in the region and facilitate Vietnamese enterprises' expansion into ASEAN markets. Learning from Singapore, Vietnam may host a joint ASEAN-level AI sandbox, inviting enterprises from ASEAN countries to test AI agents in a field of common consensus, such as an intelligent logistics network connecting multiple countries. Through this sandbox, countries would jointly agree on several regional rules and standards, creating a foundation for a future common AI agreement.

In international forums, Vietnam can participate actively in programmes such as the Global Partnership on AI (GPAI) and OECD working groups on AI in order to learn from policy experience and contribute the perspective of a developing country. When the United Nations and UNESCO undertake AI-related activities, such as UNESCO's 2021 Recommendation on the Ethics of Artificial Intelligence, Vietnam should study and internalize appropriate recommendations.

Regarding research cooperation, joint AI research projects between Vietnamese institutes and universities and development partners should be promoted. Funds such as Horizon Europe and VINIF should be used to support research topics concerning the social impacts of AI, AI control methods, and related issues, thereby creating a scientific basis for policy. Expert exchange should be encouraged by inviting overseas Vietnamese scientists in the AI field to work in Vietnam for short periods, helping to train young researchers and transfer knowledge.

In addition, international cooperation is highly necessary in forming future international agreements and conventions on the Agent Economy. For example, future agreements may be required to prohibit autonomous AI weapons beyond human control or to share information among Computer Emergency Response Teams (CERTs) when cross-border AI attacks occur. Vietnam should actively participate in these efforts, demonstrating responsibility and accompanying the international community toward a safe and equitable AI future.

The proposed policy framework above aims to ensure that Vietnam is legally, technically, and institutionally prepared to embrace the AE. More importantly, it seeks to build social consensus: the Government, enterprises, and citizens all understand their roles and cooperate in implementation. Policies must be flexible, learning-oriented, and continuously improved because the Agent Economy itself will evolve continuously. As Rothschild et al. observe, "The choices we make today will determine not only how this market operates, but also who benefits from the new technological wave" [3]. Vietnam needs appropriate policy decisions from now on to ensure that the future Agent Economy serves the common interests of the nation while contributing to the prosperity of the international community in the digital age.

8. CONCLUSION

The Agent Economy - an economy operated by autonomous AI agents - is placing humanity at a historic turning point. The substantial benefits in productivity, efficiency, and innovation that the AE promises are accompanied by complex challenges in technological governance, law, and ethics. For Vietnam, a country accelerating digital transformation, proactively recognizing the AE trend and developing an appropriate regulatory framework are vital to avoid falling behind while preventing the negative consequences of technology.

This study has systematized the theoretical foundations of the AE, emphasizing the characteristics of AI agents and their potential socio-economic impacts. The international experience analyzed in the article shows diverse approaches: from the United States' emphasis on innovation to the EU's rule-based caution, from China's strict control to Singapore's flexible balance. No model is absolutely perfect, but all share the view that Agent Economy governance requires long-term vision, interdisciplinary coordination, and a spirit of continuous reform.

In relation to Vietnam's conditions, the article has proposed a comprehensive policy framework covering legal institutional improvement, governance capacity building, infrastructure development, safety and security assurance, human-resource training, and international cooperation. Several notable concrete proposals include: developing an AI Law based on risk-based governance; establishing an AI agency for inter-sectoral coordination; implementing a regulatory sandbox mechanism to test AI within a controlled scope; investing in a national high-performance computing centre and promoting open data; applying a system of AI-agent certification and registration; establishing a fund to support labour retraining; and actively participating in global AI governance initiatives.

This policy framework seeks to achieve a dual objective: promoting innovation in AI and AI agents for socio-economic development, while establishing "red lines" and effective control mechanisms to limit risks, protect citizens, and maintain social stability. Balancing these two objectives is not easy; it requires sophisticated governance and the joint effort of all relevant stakeholders. The state must play a guiding and coordinating role, but success will depend on whether enterprises implement AI responsibly and whether citizens are ready to embrace AI and improve their skills to collaborate with it.

REFERENCES

1) Hosseini, S., & Seilani, H. (2025). The role of agentic AI in shaping a smart future: A systematic review. Array, 26, 100399.
2) Chaffer, T. J. (2025). Can We Govern the Agent-to-Agent Economy? arXiv preprint arXiv:2501.16606.
3) Rothschild, D. M., et al. (2025). The Agentic Economy. arXiv preprint arXiv:2505.15799.
4) Yıldızoğlu, M. (2023). AI Agents: Transforming Economics and Beyond. Lecture notes, University of Bordeaux.
5) Cecchini, S., et al. (2025). Virtual Agent Economies (Sandbox Economy). arXiv preprint arXiv:2509.10147.
6) The Future Society. (2025). Ahead of the Curve: Governing AI Agents under the EU AI Act (Report). Website: https://thefuturesociety.org/aiagentsintheeu/
7) Infocomm Media Development Authority - IMDA Singapore. (2025). Singapore launches new tools to help businesses protect data and deploy AI in a trusted ecosystem (Press release, 07/07/2025). Website: https://www.imda.gov.sg/resources/press-releases-factsheets-and-speeches/press-releases/2025/singapore-launches-new-tools-to-help-businesses-protect-data-and-deploy-ai-in-a-trusted-ecosystem
8) Fincken, E. (2025). Vietnam unveils draft artificial intelligence law. Global Legal Insights (GLI), 6 October 2025. Website: https://www.globallegalinsights.com/news/vietnam-unveils-draft-artificial-intelligence-law/
9) White & Case. (2023). AI Watch: Global regulatory tracker - China. White & Case (online). Accessed 2025. Website: https://www.whitecase.com/insight-our-thinking/ai-watch-global-regulatory-tracker-china
10) Turrell, A. (2020). Agent-based models: understanding the economy from the bottom up. Bank of England Quarterly Bulletin, Q4/2020.
11) Software Improvement Group. (2025). AI legislation in the US: A 2025 overview. SIG Blog (online). Accessed 2025. Website: https://www.softwareimprovementgroup.com/blog/us-ai-legislation-overview/