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BRICS in the Digital Age: Investigating Technological Innovation and Knowledge Sharing as Catalysts for Economic Transformation

Haryono
Universitas Bhayangkara Surabaya

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ABSTRACT

The digital age presents unparalleled opportunities for economic transformation, particularly for emerging economies like BRICS (Brazil, Russia, India, China, and South Africa). This study investigates the role of technological innovation and knowledge sharing as catalysts for economic development through a normative juridical analysis of legal frameworks. The findings reveal significant disparities in intellectual property laws, data governance policies, and innovation ecosystems among BRICS nations, hindering seamless collaboration. The study emphasizes the need for harmonized juridical mechanisms to address challenges such as digital inequality, cybersecurity threats, and geopolitical tensions. By proposing unified intellectual property agreements, standardized data governance policies, and joint R&D programs, the research offers actionable insights into fostering innovation and collaboration for sustainable economic transformation in the digital era.

Corresponding Author:

Name: Haryono
Institution: Universitas Bhayangkara Surabaya
Email: haryono@ubhara.ac.id

1. INTRODUCTION

The digital age has significantly reshaped the economic landscape, particularly for BRICS nations, which are leveraging technological innovation to enhance their competitiveness. Representing a substantial portion of the global population and economy, these countries focus on digital transformation as a pathway to economic resilience by actively developing their digital economy ecosystems, improving national ICT infrastructure, and fostering innovation [1], [2]. Initiatives like India's Digital India and China's Belt and Road Initiative highlight efforts to enhance digital connectivity and reduce the digital divide [3]. Despite advancements, BRICS faces challenges such as varying levels of digital infrastructure and human capital compared to G7 nations [2].

However, the transition to a digital economy presents opportunities for knowledge sharing and collaboration among BRICS members, which can drive economic growth [4], [5]. Developing comprehensive strategies for international cooperation within BRICS is essential to address non-traditional security issues and promote equitable dialogue [1], while emphasizing research and development can help these nations catch up with more developed economies in the digital space [4].

Technological innovation is pivotal for the economic development of BRICS nations, offering opportunities to enhance productivity and address societal challenges through the fostering of innovation

ecosystems and facilitation of knowledge sharing to reduce economic disparities. Strategic investments in technology can significantly boost productivity and social inclusion [6], while investments in information and communication technology (ICT) are crucial for fostering innovation by enhancing educational outcomes and political stability, both essential for sustainable development [7]. Leveraging collective knowledge has the potential to drive innovation and economic growth, as evidenced by comparative analyses of innovation performances among BRICS countries [8]. Additionally, technological innovations in financial services can promote digital financial inclusion, reducing income inequality and broadening access to markets and essential services [9]. However, the varying socio-economic and political landscapes of BRICS nations complicate collaboration, particularly in areas such as intellectual property rights and data governance [10], while insufficient digital infrastructure remains a significant barrier to effective knowledge sharing and innovation implementation [6].

In the context of BRICS nations, technological innovation and knowledge sharing are pivotal for economic growth and competitiveness, yet disparities in technological infrastructure, digital literacy, and legal frameworks pose significant challenges that must be addressed to foster cohesive and sustainable innovation. Research indicates that innovation, particularly through research and development (R&D), patents, and trademarks, significantly contributes to GDP growth in BRICS nations [11]. The exchange of high technologies facilitates technological convergence, enhancing knowledge sharing and fostering competitive advantages, enabling BRICS countries to emerge as leaders in global innovation [12]. However, disparities in technological capabilities and varying levels of digital literacy hinder the effective adoption of new technologies and limit economic potential [12]. To address these challenges, increased government investment in R&D and education is crucial for enhancing innovation capacity, while encouraging entrepreneurial initiatives can drive economic growth and innovation, as evidenced by the strong relationship between entrepreneurial intention and economic performance in BRICS [12], [13]. The digital age has heightened the urgency for these nations to establish collaborative mechanisms and harmonized juridical frameworks that facilitate innovation and equitable knowledge sharing. Failure to address these issues could lead to missed opportunities for economic growth, increased digital inequality, and diminished global influence for the BRICS alliance.

Despite their collective potential, BRICS nations face several challenges in leveraging technological innovation and knowledge sharing for economic transformation. Disparities in legal and regulatory frameworks, particularly in the areas of intellectual property rights, data governance, and digital infrastructure, hinder seamless collaboration among member countries. Furthermore, the lack of harmonized policies and standardized approaches to innovation creates barriers to effective knowledge sharing and resource optimization. These issues are compounded by global challenges such as cybersecurity threats and the digital divide, which disproportionately affect emerging economies. This research seeks to address the question: how can BRICS nations, through normative juridical frameworks, overcome these obstacles to foster technological innovation and knowledge sharing as catalysts for economic transformation?

This paper employs a normative juridical analysis to investigate the legal and regulatory frameworks that facilitate or hinder technological collaboration and knowledge sharing among BRICS countries. It explores the extent to which existing policies align with the goals of fostering innovation and achieving economic transformation. Furthermore, it examines the role of international agreements, bilateral partnerships, and institutional mechanisms in shaping the digital and economic trajectories of these nations.

2. LITERATURE REVIEW

2.1 *Technological Innovation and Economic Transformation*

Technological innovation is a crucial factor in economic transformation, particularly for emerging economies like the BRICS nations, as illustrated by Schumpeter's theory of creative destruction, which shows how innovation disrupts traditional industries to create new opportunities. BRICS countries can leverage innovation ecosystems—comprising research institutions, private enterprises, and government policies—to enhance productivity and diversify their economies. Technological innovation drives economic growth by modernizing industrial techniques and improving productivity [14]–[16]. For instance, China's significant investments in R&D have led to advancements in artificial intelligence and renewable energy, establishing it as a leader in innovation [14], [16]. However, other BRICS nations, such as South Africa and Brazil, face challenges in scaling R&D investments due to economic constraints and fragmented policies [16]. Additionally, the relationship between economic development and carbon emissions underscores the need to balance innovation with sustainability to mitigate environmental costs [16].

2.2 *Knowledge Sharing as a Catalyst for Development*

Knowledge sharing is essential for fostering technological innovation, particularly within the BRICS nations, where disparities in capabilities exist, and the concept of open innovation emphasizes collaborative knowledge flows through various mechanisms. International research collaborations enable the exchange of expertise and resources, enhancing innovation capacity across borders [17]. Technology transfer agreements facilitate the movement of technology and knowledge between nations, playing a crucial role in bridging the digital divide [18]. Capacity-building programs aim to enhance local skills and knowledge, ensuring effective utilization of shared technologies [19]. However, challenges such as variations in intellectual property laws, which may hinder collaboration due to concerns over proprietary knowledge [20], language barriers that impede effective communication [21], and geopolitical tensions that affect trust and willingness to engage in partnerships (Almeida & Sequeira, 2018), must be addressed to maximize the benefits of knowledge sharing.

2.3 *Legal and Regulatory Frameworks for Innovation*

Legal and regulatory frameworks play a critical role in shaping the innovation landscape, particularly in the areas of intellectual property (IP) and data governance, where variations among BRICS nations present both opportunities and challenges. Differences in IP laws, such as the flexible approaches of India and Brazil versus the stricter regimes of China and Russia, influence the dynamics of innovation, with lenient enforcement fostering creativity while stricter regulations may stifle it [22], [23]. These disparities impact collaboration, creating friction in joint ventures and complicating the sharing of knowledge and resources. Similarly, progress in data governance, exemplified by Brazil's General Data Protection Law (LGPD) and Russia's Federal Law on Personal Data, demonstrates advancements but also underscores inconsistencies that hinder cross-border data flows and the establishment of unified digital markets [24], [25]. Addressing these challenges is essential for fostering

cohesive and collaborative innovation efforts among BRICS nations.

2.4 BRICS Collaboration in the Digital Age

Collaboration among BRICS nations is pivotal for harnessing their collective strengths in the digital age, exemplified by initiatives like the BRICS Innovation Network and the New Development Bank, which aim to foster partnerships in areas such as artificial intelligence, blockchain, and sustainable technologies. These efforts target technological innovation, with BRICS countries actively engaging in AI and digital diplomacy to leverage these technologies for economic growth and global soft power [26], [27]. In sustainable energy, each nation contributes unique strengths—such as Brazil's biofuels and China's advancements in solar energy—to drive joint initiatives [28]. Additionally, disparities in internet penetration and digital payment systems underscore the need for comprehensive policies to enhance connectivity and financial inclusion across BRICS nations [29]. However, challenges such as bureaucratic inefficiencies and competing national interests persist, necessitating a deeper understanding of juridical mechanisms to enhance cooperation and reduce barriers to innovation.

2.5 Research Gap

While significant progress has been made in understanding the role of technological innovation and knowledge sharing in economic development, there is limited research on the specific juridical frameworks that enable these processes within the BRICS context. Existing studies tend to focus on individual countries or sectors rather than examining the collective potential of BRICS as a unified entity. Furthermore, the impact of global challenges such as cybersecurity threats and digital inequality on BRICS collaboration remains underexplored.

3. RESEARCH METHODOLOGY

3.1 Research Design

The research adopts a qualitative approach with an emphasis on normative juridical analysis. This method is suitable for understanding the legal mechanisms and frameworks that facilitate or hinder technological innovation and knowledge sharing. The study is structured to analyze both primary and secondary legal materials, ensuring a comprehensive evaluation of the regulatory environment within BRICS nations.

3.2 Data Collection

The data for this study is derived from primary, secondary, and tertiary legal materials. Primary sources include national laws and regulations on intellectual property, data governance, and digital innovation in BRICS countries, as well as international agreements and documents from BRICS institutions like the BRICS Innovation Network and the New Development Bank. Secondary sources encompass academic journals, books, articles, reports, white papers from international organizations, and case studies on BRICS collaboration. Tertiary sources, such as legal dictionaries and encyclopedias, clarify terminology and principles, providing a comprehensive legal framework for the study.

3.3 Analytical Framework

The study employs a combination of doctrinal, comparative legal, and thematic analysis to evaluate the juridical frameworks of BRICS nations. The doctrinal analysis systematically reviews legal documents to identify principles, norms, and rules governing technological innovation

and knowledge sharing, enabling an understanding of the internal coherence and alignment of legal frameworks within and across BRICS countries. Comparative legal analysis examines the regulatory frameworks of these nations to identify commonalities, disparities, and best practices, offering insights into harmonizing their legal systems to foster innovation and collaboration. Additionally, thematic analysis is applied to uncover recurring themes and patterns in legal and regulatory texts, focusing on areas such as intellectual property, data governance, cybersecurity, and digital innovation.

4. RESULTS AND DISCUSSION

4.1 BRICS and IP

The BRICS nations exhibit diverse intellectual property (IP) regimes, significantly shaping their innovation landscapes. China leads in patent applications with robust IP laws and strong enforcement mechanisms, although transparency concerns persist for foreign businesses [30]. India adopts a more flexible approach, particularly through compulsory licensing in pharmaceuticals, fostering local innovation but creating inconsistencies in international collaborations [8]. Conversely, Russia, Brazil, and South Africa face challenges due to underdeveloped IP frameworks, including slow patent approval processes and weak enforcement, which hinder harmonization efforts and limit opportunities for knowledge sharing and co-innovation [31]. This diversity in IP regimes underscores the need for cohesive strategies to enhance collaboration across BRICS nations.

a) Carlos Alberto Ramos Torres

Data governance is crucial in the digital economy, with BRICS nations adopting diverse strategies shaped by their regulatory environments and cybersecurity challenges, which in turn affect international collaboration and data protection effectiveness across the bloc. Russia enforces strict data localization laws, requiring data generated within its borders to be stored locally, a practice that complicates compliance with global standards and hinders international collaboration [32]. Brazil, on the other hand, aligns closely with global standards through its General Data Protection Law (LGPD), mirroring the EU's GDPR, which enhances cross-border data flows and strengthens its role in global digital trade [32]. India and South Africa are refining their data protection frameworks but face challenges in enforcement and compliance, underscoring the need for robust governance structures to address risks such as data breaches and cyberattacks [33], [34]. Across all BRICS nations, common cybersecurity concerns highlight the necessity of collaborative frameworks to enhance resilience, as current efforts remain underdeveloped, pointing to the critical importance of improved cooperation and shared strategies to combat cyber threats [33].

b) Vishal Kumar Seshagirirao Anil

The BRICS nations have implemented diverse digital innovation policies tailored to their socio-economic contexts and technological priorities, yet they face challenges in achieving policy coherence for collaborative innovation. Government-backed initiatives, such as China’s "Made in China 2025," emphasize advancements in AI, IoT, and renewable energy, solidifying its

leadership in technological innovation, while India's "Digital India" campaign focuses on similar domains to foster a digitally empowered society [26], [35]. Brazil and South Africa, constrained by funding limitations, rely on public-private partnerships to drive innovation through resource sharing and collaborative projects [29]. In contrast, Russia prioritizes state-led initiatives in defense and space technologies, which, while significant, restrict broader commercial applications and limit innovation in other sectors [30]. This diversity underscores the need for harmonized strategies to enhance collaborative innovation across BRICS nations.

4.2 Regulatory Challenges

The lack of harmonized legal frameworks among BRICS nations significantly hinders collaborative efforts in innovation and digital transformation, as divergent IP laws and data governance policies increase transaction costs and reduce trust among stakeholders, which is essential for cooperation [31], [36]. This challenge is further exacerbated by geopolitical and economic disparities, with China and India dominating R&D spending and demonstrating superior innovation capacities, while countries like South Africa face resource constraints. Geopolitical tensions, particularly between China and India, add complexity to joint initiatives [37]. Moreover, the digital divide within BRICS nations limits access to advanced technologies, especially in rural and underserved areas, restricting broader economic transformation [29], [38]. These issues underscore the urgent need for unified frameworks and targeted policies to bridge disparities and foster effective collaboration.

4.3 Collaborative Opportunities

The BRICS Innovation Network acts as a collaborative platform to advance technological development and knowledge sharing among member nations, but its potential could be further enhanced through standardized intellectual property (IP) agreements and shared research and development (R&D) funding mechanisms. Standardized IP agreements would reduce legal uncertainties, facilitate smoother collaboration, and encourage joint ventures, thereby boosting innovation outputs across BRICS nations [8], [27]. Collaborative R&D funding initiatives could pool resources for large-scale projects in emerging technologies such as AI and blockchain, addressing disparities in innovation capabilities and fostering equitable growth [29], [39]. Additionally, joint investments in digital infrastructure, including high-speed internet, are essential to bridge the digital divide within BRICS, while collaborative projects in green technologies could leverage shared expertise to drive sustainable development [40].

4.4 Proposed Legal and Policy Reforms

1. Establishing a BRICS IP treaty can reduce inconsistencies and foster innovation. The treaty should include provisions for technology transfer, dispute resolution, and shared patents.
2. Adopting common principles for data protection and cybersecurity can facilitate smoother cross-border data flows and collaborations.
3. Creating a shared R&D fund, supported by contributions from all BRICS nations, can address funding disparities and promote joint innovation in priority sectors.

5. CONCLUSION

This study underscores the pivotal role of technological innovation and knowledge sharing in driving economic transformation within BRICS nations. Despite their unique strengths in digital innovation, disparities in legal frameworks, data governance, and economic capabilities hinder collaborative potential. Fragmented intellectual property laws, unaligned data protection policies, and unequal digital infrastructure development present significant challenges. To overcome these obstacles, the research proposes establishing a unified intellectual property treaty to reduce legal inconsistencies, developing a BRICS-wide data governance framework to enhance cross-border trust, and creating shared R&D programs and digital infrastructure projects to address resource disparities and promote inclusive growth. By adopting these measures, BRICS nations can harness their collective potential to emerge as global leaders in innovation, foster economic resilience, and reduce digital inequality. Harmonized legal frameworks and strategic partnerships are crucial for transforming BRICS' diverse capabilities into a cohesive and sustainable economic force in the digital era.

REFERENCES

[1] J. Li, S. Pogodin, and E. Vasilyeva, "Digitalization Strategy in the BRICS Countries: Towards the Partnership," in *XIV International Scientific Conference "INTERAGROMASH 2021" Precision Agriculture and Agricultural Machinery Industry, Volume 1*, 2021, pp. 735–744.

[2] R. Yasmeen, T. Tian, H. Yan, and W. U. H. Shah, "A simultaneous impact of digital economy, environment technology, business activity on environment and economic growth in G7: Moderating role of institutions," *Heliyon*, 2024.

[3] Bricsology, "and Digitally Just and Inclusive Futures," *J. BRICS Stud.*, vol. 2, pp. iii–iv, Jul. 2023, doi: 10.36615/jbs.v2i1.2581.

[4] C. R. D. Andrade and C. R. Gonçalo, "Digital transformation by enabling strategic capabilities in the context of 'BRICS,'" *Rev. Gestão*, vol. 28, no. 4, pp. 297–315, 2021.

[5] O. Tretyakov, "Digital economy as a new development paradigm: opportunities, challenges and prospects." AUS PUBLISHERS EBooks, 2022.

[6] B. Akashaba and W. Haven, "Framework for Strategic Investments in Technology to Enhance Sustainable Economic Development in Emerging Markets," vol. 9, no. 10, 2024.

[7] R. Wang, M. Qamruzzaman, and S. Karim, "Unveiling the power of education, political stability and ICT in shaping technological innovation in BRI nations," *Heliyon*, vol. 10, no. 9, 2024.

[8] R. Baki, "Comparison of Innovation Performances of BRICS Countries through CRITIC and GRA Methods," *Gaziantep Univ. J. Soc. Sci.*, vol. 23, no. 4, pp. 1561–1570, 2024.

[9] A. Ullah, S. Muhammad, and P. Chen, "Digital Financial Inclusion and Income Inequality Nexus: Can Technology Innovation and Infrastructure Helps in Achieving Sustainable Development Goals?," *Available SSRN 4491699*, 2023.

[10] A. Tanjung, D. Andayani, I. Prayitno, U. Rahardja, and S. Anhar, "Quantitative analysis of technological innovation and strategic management in key research areas," in *2024 3rd International Conference on Creative Communication and Innovative Technology (ICCIT)*, 2024, pp. 1–8.

[11] K. W. Djebbouri, A. Boutouatou, A. I. Khorev, and M. N. Ivliyev, "The effect of innovation on economic growth in the BRICS countries using Panel Data estimation," 2022.

[12] M. Povoroznyk, "International Exchange Of High Technologies As A Driver Of Global Knowledge Sharing," *East. Eur. Econ. Bus. Manag.*, Jan. 2022, doi: 10.32782/easterneurope.37-1.

[13] A. K. Gaba and N. Gaba, "Entrepreneurial activity and economic growth of BRICS countries: Retrospect and prospects," *J. Entrep.*, vol. 31, no. 2, pp. 402–424, 2022.

[14] A. Sharma, "Role of Technology Innovation in Economic Growth: A Bibliometric Analysis," *Int. J. Exp. Res. Rev*, vol. 44, pp. 121–135, 2024.

[15] S. E. Silva, A. L. Silva, L. P. Reis, J. M. Fernandes, and E. L. B. De Castro, "The Potential of Technological Innovation in Transforming the Economy: A Framework and its Application to Assess Academic Patents," *Int. J. Innov. Technol. Manag.*, p. 2450031, 2024.

[16] X. Zhang, "The Effect of Technological Innovation on the Economic Development in China and Japan," *Adv. Econ. Manag. Polit. Sci.*, vol. 21, pp. 317–323, Sep. 2023, doi: 10.54254/2754-1169/21/20230268.

[17] J. Kucinskiene, E. Brezgyte, G. Kucinskas, and M. Weck, "The Role of Open Science in Open Innovation Environment: The Case of Knowledge Management Model," *Hum. Factors, Bus. Manag. Soc.*, vol. 97, no. 97, 2023.

[18] H. Almeida and B. Sequeira, *The role of knowledge transfer in open innovation*. IGI Global, 2018.

[19] E. Hosseini, M. Tajpour, and M. Mohiuddin, "Perspective Chapter: The Role of Knowledge Employees' Voices in Creating Knowledge in Digital Startups," in *Recent Advances in Knowledge Management*, IntechOpen, 2022.

[20] F. Piller, S. Mitra, and S. G. Mitra, "Bringing open innovation into practice: Methods and approaches," in *The Routledge Companion to Innovation Management*, Routledge, 2019, pp. 204–219.
[21] A. R. Anderson and J. Hardwick, "Collaborating for innovation: the socialised management of knowledge," *Int. Entrep. Manag. J.*, vol. 13, pp. 1181–1197, 2017.
[22] O. Akpobome, "The Impact of Emerging Technologies on Legal Frameworks: A Model for Adaptive Regulation".
[23] X. Han and N. Althabhawi, "Establishment of Data Intellectual Property Rights and Anti-Monopoly Regulation in China," *J. Undang. DAN Masy.*, vol. 34, pp. 190–204, Nov. 2024, doi: 10.17576/juum-2024-3402-13.
[24] A. D. Ochigbo, A. Tuboalabo, T. T. Labake, U. Buinwi, O. Layode, and J. A. Buinwi, "Legal frameworks for digital transactions: Analyzing the impact of Blockchain technology," *Financ. Account. Res. J.*, vol. 6, no. 7, pp. 1205–1223, 2024.
[25] E. Choudhary, S. Narayanan, and F. Khan, "Legal and Regulatory Landscape," in *AI Healthcare Applications and Security, Ethical, and Legal Considerations*, IGI Global, 2024, pp. 222–239.
[26] E. A. Vinogradova, "Artificial intelligence technologies in the BRICS political agenda," *Latinskaya Amerika*, no. 1, pp. 46–60, 2024.
[27] B. A. Iqbal and M. N. Rahman, "Digital Diplomacy Among BRICS Countries," in *Innovations and Tactics for 21st Century Diplomacy*, IGI Global, 2025, pp. 383–396.
[28] E. Korneeva, N. Skornichenko, N. Shamakova, and T. Freze, "Sustainable energy development through BRICS cooperation in technology and innovations," in *E3S Web of Conferences*, 2024, vol. 592, p. 3012.
[29] N. Nimbalkar, "Digital Dynamics in BRICS : Exploring Digital Access and Policy Challenges," vol. 6, no. 6, pp. 1–11, 2024.
[30] C. R. Torres and N. Invernizzi, "Evolution of nanotechnology policy initiatives in the BRICS countries: a comparative overview," *TransAmerica Rev.*, vol. 2, no. 2.
[31] H. Pawar and M. Patel, "Harmonization of Regulatory Frameworks for Medical Devices in BRICS Countries: A Path to Enhanced Trade and Investment," 2024.
[32] Y. Sun, "The Interplay Between Global Digital Trade and Data Privacy Policy: A Comprehensive Review," *Trans. Econ. Bus. Manag. Res.*, vol. 10, pp. 1–8, Oct. 2024, doi: 10.62051/zk428812.
[33] V. K. S. Anil and A. B. Babatope, "The role of data governance in enhancing cybersecurity resilience for global enterprises," *World J. Adv. Res. Rev.*, vol. 24, no. 1, 2024.
[34] D. Akokodaripon, F. Alonge-Essiet, A. Aderoju, and O. Reis, "Implementing data governance in financial systems: Strategies for ensuring compliance and security in multi-source data integration projects," *Comput. Sci. IT Res. J.*, vol. 5, pp. 2263–2282, Oct. 2024, doi: 10.51594/csitrj.v5i10.1631.
[35] H. Zhang, E. Dogan, Z. Khan, and R. H. Binsaeed, "Do digitalization and green innovation limit carbon emissions? Evidences from BRICS economies," *Energy Environ.*, p. 0958305X241289537, 2024.
[36] R. Thiébaut, "The role of transnational legal process in advancing a sustainable agenda within the brics," *J. Law Sustain. Dev.*, vol. 12, no. 10, pp. e3997–e3997, 2024.
[37] A. Belitskaya and Y. Kharitonova, "Legal Framework for Impact Financing in the Digital Economy: What the Future Looks Like for the BRICS+ Countries," *BRICS Law J.*, vol. 11, no. 3, pp. 70–91, 2024.
[38] M. Sergeeva, T. Razumova, and O. Zabelina, "Challenges of platform employment development in BRICS countries," *BRICS J. Econ.*, vol. 5, no. 3, pp. 125–140, 2024.
[39] B. Mbalaka, "The Multilateral Integration of Blockchain, Ethical Packet Sniffing and AI for Cybersecurity in BRICS Countries," *J. BRICS Stud.*, vol. 3, no. 1, pp. 68–75, 2024.
[40] E. Gromova and D. B. Ferreira, "On the Way to BRICS+ Digital Sovereignty: Opportunities and Challenges of a New Era," *BRICS Law J.*, vol. 11, no. 3, pp. 54–69, 2024.