

Telkom Indonesia's Strategy for Business Expansion in the Global Market in the Digital Era

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Telecommunications service provider companies face challenges in expanding their business in the global market due to rapidly changing technology, one of which is experienced by PT. Telekomunikasi Indonesia (Telkom). Telkom is a leading telecommunications company in Indonesia that significantly contributes to Indonesia's digitization and dominates the country's telecommunications market. As Telkom's business grows, the company expands globally, with implications for its operations in Indonesia. Based on the globalization strategy framework, the analysis acknowledges that the interaction between globalization and technology, sustainability, and politics poses challenges and opportunities for Telkom. The influence of massive digital transformation requires Telkom to restructure its strategies for expansion in the global market by strengthening its position in the national market. Telkom must ensure its position in Indonesia as a state-owned enterprise with significant responsibility for the future of digital Indonesia as a sustainable influence. Regulations that Telkom must face come from both national and international levels as a result of politics. Telkom's strategy is analyzed using three strategies within the globalization strategy framework. The author proposes several business expansion strategies in the digital era from this research analysis

Keywords: *digital era; multinational enterprise; global market; globalization; digital telecommunication industry*

Introduction

In this digital era, Telkom has transformed its business by multiplying its business types to match what is trending in global and regional markets. Telkom, as a significant digital telecommunications company in Indonesia, is responsible for improving digital capabilities in Indonesia and expanding in the global market because it is precisely by increasing the region that Telkom has a competent portfolio to enter the global market.

As a result of digital influence, Telkom has to face different regulations in each country of its business objectives, including domestic regulations, because each country already has its digital regulations. The globalization strategy framework is used to analyze the strategies used by Telkom in dealing with the global market in the digital era and to recommend appropriate policies for Telkom. Digital transformation significantly impacts how society and countries conduct their

economic activities, which were previously done conventionally but are now digital. This provides excellent opportunities for the telecommunications industry to support the changing economic activities (PressRelease.id, 2021).

Furthermore, these significant opportunities drive the telecommunications industry to rearrange its market positions, restructure its business systems, create innovative offerings, and provide better customer experiences. Telkom has rearranged to become a digital telco (Dinas Kominfo Provinsi Jawa Timur 2023; PressRelease.id 2021). Behind this are emerging threats, such as increasingly intense competition in the telecommunications industry, changes in consumer behaviour, and changes in regulations and government policies (Gilda, 2023). As a major company in the telecommunications industry in Indonesia, Telkom has a significant responsibility to build Indonesia's digital capabilities and expand its business into the global market, starting from nearby regions.

Technological advancements are changing human behaviour and changing a company's business strategy into a digital business, including Telkom. Initially, Telkom sold telecommunications services through voice and short messages. However, along with technological advances and changes in customer needs, the form of telecommunications services changed to involve digital. Social media and smartphones have led to growing competition among extensive mobile networks and internet-based service providers, better known as over-the-top (OTT) players (Amping et al., 2019). The intense

competition can be seen from the consolidation of businesses that are carried out to survive and face market changes by actively seeking sources and making new investments, and each company has its own strategy (Sandria and CNBC Indonesia, 2022; Mediana, 2022). XL Axiata conducted a public offering related to sustainable bonds II XL Axiata Phase I in 2022 and sustainable Sukuk Ijarah III XL Axiata Phase I in 2022 with a total value of Rp 3 trillion. PT Smartfren Telekom Tbk, which received an investment from Alibaba of around 100 million dollars triggered by its position as part of the Sinarmas Group, has various business lines, ranging from the technology sector, agribusiness, property, finance to paper, and a large population of Indonesian people. Telkom made an agreement with PT Dayamitra Telekomunikasi Tbk regarding the transfer of ownership of 4,000 transmitter towers owned by Telkomsel, which made 10,050 Telkom transmitter units were sold to PT Dayamitra Telekomunikasi Tbk (Mediana, 2022).

In addition, in 2022, Telkom achieved consolidated revenues of Rp147.31 trillion, equal to a growth of 2.9%, with domestic and international coverage (Telkom Indonesia, 2023). No less important is that internet users in Indonesia are increasing yearly with a fast internet network, and in 2022, it will reach 215.6 million whose users are diverse, such as for m-banking, virtual accounts, QRIS, and others (ATSI, 2023). Changes in business strategy in the digital era are the primary key to maintaining growth and competitiveness to respond and innovate quickly. The company's business strategy is seen from

the unification of Indihome services with Telkomsel to improve the level playing field and reach the business-to-customer (B2C) and business-to-business (B2B) segments in the telecommunications industry in order to generate new revenue (Abigail, 2023). In addition, Telkom launched Tnex as a sign of Telkom's achievement in reaching the global market through Telin (Pressrelease.id, 2023). There was a literature that discussed Telkom's digital transformation efforts by Kusuma, Pribadiyono, and Riharjo 2020 who mentioned that digital transformation efforts to deal with significant disruptions in the digital era by overhauling their organizations by encouraging human resources who are experts in digital. In the context of Telkom, Telkom is committed to changing its business strategy in the digital era to become the most prominent digital telecommunications company in Indonesia and globally (Amping et al., 2019).

This study is significant in seeing and analyzing the impact of massive digital transformation on Telkom, which has made Telkom change its business strategy, but this is an opportunity to reach the global market. Telkom, as a large company in the digital telecommunications industry in Indonesia, has mastered the Indonesian domestic market as an essential first step to reaching the global market, and no less critical is Telkom's position as a company from the global south, which is part of developing countries to compete in the global market. When viewed from the urgency of this study, the research question is how Telkom's strategy is to develop its business in the global market in the digital

era.

Research Method

The author employs a case study method by exploring various case studies from secondary sources such as opinions, journal articles, and others. Relevant case studies are selected based on the global strategy framework and support Telkom's business expansion plans in the global market, with case studies having high credibility levels such as authorship, publication date, and venue, as well as engaging narratives for paraphrasing. The data collection period spans from the onset of COVID-19 and post-COVID-19, with analysis based on the GSF to determine its relevance to Telkom's business expansion and identify threats and opportunities. This method facilitates the author in gathering information that may not be obtained through other methodologies.

Globalization Strategy Framework

This framework is born from combining three main drivers of globalization and various strategies. According to the World Investment Report (WIR), there are three primary drivers in globalization: technology, sustainability, and politics, and all three are interconnected, reinforcing or conflicting. These three factors can influence the strategies of a multinational corporation in the global market, either hindering or supporting strategies, including Telkom, which is currently expanding its business in the global market (Blomkvist et al., 2021).

The Globalization Strategy Framework (GSF) is crucial for this research to examine Telkom's strategies for expanding its business in the global market in the digital era as a current issue post-COVID-19. The analysis used by this GSF is highly relevant to this research, as Telkom seeks to expand its business into the global market. On the other hand, Telkom must revamp its strategy due to the influence of massive digital transformation phenomena, but this presents a significant opportunity for it. Moreover, the presence of political, sustainability, and technological variables, as well as three types of strategies, enriches the analysis in this research that the new strategies built by Telkom are not solely influenced by digital transformation but also by regulations, competition, and others, and the GSF can guide this research in providing policy recommendations. Globalization and technology are two inseparable elements in the discourse of GSF because they go hand in hand with MNCs as the main actors. MNCs set various strategies to enhance competitiveness, as well as their countries. However, post-pandemic changes in globalization have triggered increased nationalism and protectionism, forcing MNCs to realign their strategies, with technology playing an increasingly significant role within them.

1. Technology

The technology variable refers to the rapid technological changes that have significantly influenced globalization by providing new ways for companies to conduct business activities. Initially, companies had to consid-

er operational costs, which were crucial in determining the location and expansion of their business activities. However, with the advent of technology, these costs have decreased as a driver of globalization and international connectivity. Technology serves as a tool to open up new strategies in companies' business and production activities through the use of artificial intelligence (AI), automation, cloud, and others, enabling mass customization. The effects may be disruptive, but they also offer creative solutions that shape the competitive arena and open up more opportunities for companies to expand their international business (Blomkvist et al., 2021).

2. Sustainability

The sustainability variable refers to the urgent need to establish a sustainable system driven by regulations involving companies and the community. Several aspects are highlighted in this variable, such as changing consumer preferences that are more environmentally conscious and responsible, including organic food, eco-friendly clothing, fair trade products, green investments, and retirement savings influenced at times by government regulations. The technology companies use as a tool can have negative impacts, such as forest fires in some countries due to dependence on non-renewable energy sources. When a company comes under public scrutiny, it is accountable for its actions, not limited to environmental issues but also for treating the local community well. Regulations and politics in a country become the critical factors for achieving a sustainable system,

prompting companies to rethink their strategies (Blomkvist et al., 2021).

3. Politics

This variable refers to the interaction between national policies, regulations, and powerful multinational companies. The influence of a country's national policies shapes the strategies of companies through laws, economic policies, and bilateral and multilateral trade agreements that are not unidirectional. This creates a complex relationship between national policies and companies, influenced by policies shaping globalization, the impacts felt from globalization, and the political system determining the policies. Many countries issue various policies, such as protectionism and free trade, leading to complex advantages, especially for developed countries. This complexity forces companies to rethink their strategies for international business expansion. Another crucial aspect of contemporary globalization is the breakdown of the "one world" paradigm, forming multiple systems. Companies must comply with diverse systems (Blomkvist et al., 2021).

There are three strategies adopted in this framework as a concept to provide analysis and strategy recommendations for multinational companies so that they can design the right strategies to respond to the influence of the three main drivers of globalization and enhance the competitiveness of the company in the global market in the digital era.

1. Corporate Strategy

Corporate strategy functions as a fundamental role for top management in making decisions about what businesses to operate and how the composition of those businesses can make the organization larger. In strategy development and maintenance, decision-makers from various scopes and levels of related and unrelated diversification are involved in all business lines, such as products, services, and markets served. In addition, top management focuses on resource allocation and cash flow, so corporate strategy involves plans and actions regarding coordination between the central company and subsidiaries. This complex includes organizational design and incentives for business units and subsidiaries. Equally crucial for the company is responding to local reactions by meeting their needs, which is included in its global strategy (Blomkvist et al., 2021).

2. Activity Strategy

Activity strategy tends to focus on understanding the interconnections between activities and how decentralized or centralized activities generate value, requiring companies to decide where these activities will take place, including geographical location or organizational structure and governance arrangements. In making decisions about where activities should be carried out, companies can go through acquisitions from external parties or collaborate with external parties. Through all of this, there is an activity strategy for implementing corporate strategy (Blomkvist et al., 2021).

3. Business Strategy

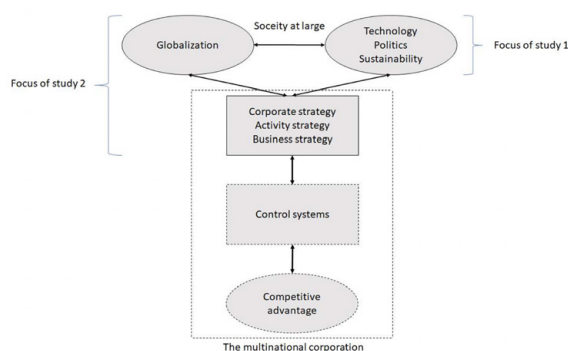
Business strategy tends to focus on creating advantages in the competitive arena, which involves competitors and has the potential to form the basis of markets and industries. In achieving this advantage, companies can maintain minimal costs and ensure the lowest cost position, preventing competing companies from making a profit if they lower prices (Blomkvist et al., 2021). In the context of price competition, companies must consider the most efficient production methods by organizing production and leveraging opportunities available to the company. Another way is by differentiating the product, making customers willing to pay more than the competitor's product by providing exceptional service and unique technological features or introducing a brand through acquisitions, such as acquiring valuable brands, establishing R&D centres, and more (Blomkvist et al., 2021).

ing analysis and strategic recommendations for multinational companies. This ensures that multinational companies can devise the right strategies to respond to the influence of the three main drivers of globalization and enhance competitiveness in the global market in the digital era. Therefore, using this framework is essential to address Telkom Indonesia's business expansion strategy in the digital era and provide strategic recommendations for Telkom in the digital era as a contribution and limitation of this research.

Analysis of the Globalization Strategy Framework on the Strategy of Telkom Indonesia

When looking at the corporate strategy, Telkom focuses on running three types of businesses, namely digital connectivity, digital platform, and digital services, and is divided into five customer segments to centre around customers with a level of unrelated diversification due to the build, borrow, and buy strategy. The building strategy maximizes infrastructure and digital talent capabilities so that Telkom can provide the best for users. The borrowing strategy involves building partnerships with large technology companies regionally and globally. The buying strategy emphasizes investments, prioritizing synergies to enhance the digital capabilities of the Telkom Group. All three strategies are implemented decentralized, managing overall risks through subsidiaries and business units to be close to markets and customers. Telin's collaborations with NetIX to provide a global Internet Exchange platform, with TIME dotCom Berhad focusing on domestic

Figure 1. Globalization Strategy Framework



Integrating the three strategies as concepts and the influence of the three main drivers of globalization are crucial to provid-

and international connectivity, data centres, cloud solutions, and management services, and with Expereo to develop a joint market strategy for Internet connectivity and SD-WAN cloud acceleration and optimization services reflect the execution of these strategies. As the top management, Telkom focuses on resource and cash flow allocation through the “digital now” strategy, transforming into an internationally standardized digital telco as part of overall organizational design and providing incentives for business units and subsidiaries to respond to local needs within Telkom’s global strategy.

Table 1. Business Focus of Telkom

Business Focus	Goal
Digital connectivity	To maximize the company's cash flow
Digital platform	Capture business opportunities
Digital services	Capture value creation

Source: (CNBC Indonesia TV and CNBC Indonesia 2022)

From the perspective of activity strategy, Telkom conducts its business activities in a decentralized manner by placing its operations based on geographical locations and governance arrangements through subsidiaries that collaborate with external parties to generate value. Collaborations like Telin with NetIX, TIME dotCom Berhad, and Expereo for global coverage exemplify this

approach. Additionally, on the regional level, partnerships such as Telkomsigma with Google Cloud, focusing on infrastructure modernization, application modernization, data analytics, productivity solutions, and collaborative solutions, are developed jointly to address specific challenges for companies and communities. These decisions reflect Telkom’s strategic choice in conducting its business activities.

Looking at the business strategy, Telkom maintains minimal costs and ensures a competitive cost position through efficient production methods. It organizes its production and leverages opportunities obtained through collaborations between Telkom and its subsidiaries with major technology companies. The opportunities gained as a major telecommunications company in Indonesia with a diverse and competent portfolio attract various investors, supporting Telkom’s interests in the global market. Additionally, Telkom possesses a highly competent R&D centre and collaborates with other key companies and stakeholders, both regionally and globally, to offer products distinct from its competitors.

Of the strategies implemented by Telkom, all of them are influenced by the three main drivers of globalization and simultaneously represent responses issued by Telkom. Initially, Telkom did not have a wide range of business fields. However, the influence of technology has enabled Telkom to diversify into various business sectors and establish five customer segments, focusing on customer satisfaction. This has also provided Telkom with new ways to conduct its business activ-

ities by adopting technologies such as AI for customer services. Furthermore, this has empowered Telkom to expand its business globally through its subsidiaries, whose services go beyond regional coverage to global reach. As a significant digital telecommunication company in Indonesia, Telkom is influenced by sustainability issues and has taken on various responsibilities to enhance Indonesia's digital capabilities. This includes initiatives related to talent and infrastructure through programs and collaborations, given Telkom's visibility in the public eye. In its global expansion, Telkom collaborates to adapt to regulations in its target countries and elevate its standards. This is crucial as regulations vary across countries and regions, with significant changes occurring regionally, including enhancements in capabilities. The case study drawn from Telkom's global strategy in the digital era, Telkom's technology adoption initiatives, strategic partnerships, customer-centric approach in the global market, and regulations in the digital telecommunications industry guide the analysis and recommendations for Telkom's strategy in the global market in the digital era, utilizing the globalization strategy framework.

Discussion

Telkom's Global Strategy in the Digital Age

Telkom's latest targets in its strategy from 2023-2024 are to achieve the domains of digital connectivity, digital platforms, and digital services (Syahputra and CNBC Indonesia, 2023). Additionally, not to be overlooked, in 2024, Telkom aims to have an

energy-efficient and environmentally friendly blue energy-based data centre (Sudoyo, 2023). The vision is to "Be the King of Digital in the Region" to continuously improve customer experience, expand digital business, and implement lean operations (PT. Telkom Indonesia, 2020a). From these three goals, Telkom has a way to achieve them, namely formulating every experience gained by customers to understand customers better, providing competent and high-quality broadband services, and streamlining digital processes supported by practical, agile, and collaborative organization and leadership. Meanwhile, Telkom's mission is to "Lead Indonesian Digital Innovation and Globalization," where Telkom is an innovation pioneer in Indonesia and becomes a global market player by actively developing the digital ecosystem (PT. Telkom Indonesia, 2020a).

From the global strategy, vision, and mission of Telkom, Telkom has a competitive strategy through innovation in business models, value chains, digital technology, and engaging in the TIMES Portfolio by focusing on customer value from all customer segments. For the strategy to be realized, Telkom has made ten initiatives abbreviated as "Digital Now", which can be seen in Table 2.

Table 2. Abbreviations of "Digital Now"

No	Let-ters	Meaning
1.	D	Defend and sustain the leading mobile position.

2.	I	Ignite Indonesia into a broadband nation
3.	G	Grow Enterprise business through digital ecosystem
4.	I	Invest in smart platform and intensify digital services expansion
5.	T	Transform into global 'hub' for world wide digital ecosystem
6.	A	Acquire capabilities and maximize value through digital and telecom A&A
7.	L	Localize technology businesses through innovation and investment
8.	N	Navigate major operating and organizational model transformation
9.	O	Optimize synergies across The Telkom Group and SOE
10.	W	World-class people and culture

Telkom has undergone many transformations in its implementation by continuously supporting Indonesia's digitalization to become a global player in the digital telecommunications market. Telkom is currently focusing on three main pillars to improve its competencies and capabilities in the digital business, namely digital connectivity, digital platforms, and digital services (Ayu, 2022). Digital connectivity from the existence of In-

dihome, which controls 80% of the Indonesian market, digital platforms to be utilized in various sectors, such as the existence of data centres, cloud computing, and big data which is utilized on various platforms such as Linkaja, Tadex, and others, digital services that aim to provide a variety of digital solutions for all levels of society, such as the agricultural sector with Agree, the logistics sector with Logee, and others. All of this is done to continuously enhance Telkom's excellence as a global player following the five bold moves strategy to maximize opportunities, increase competitiveness, and value creation as changes made by Telkom because, in the digital era, challenges will become greater (Ayu, 2022; Rosadi, 2022). This strategy has five focuses, both domestically and globally, namely strengthening market penetration, unlocking the potential of infrastructure assets, consolidating data centre asset processes, business transformation in B2B, and expanding digital business in both B2C and B2B segments (Kumparan Tech, 2023). Indeed, this aligns with the GSF, which sees the main actors as MNCs striving for their business in the global market. As a state-owned enterprise, they have a big responsibility to enhance Indonesia's digital competitiveness. However, Telkom also wants to become a global player, the influence of technology that transforms Telkom's business processes and the five bold moves as Telkom's strategy aligns with regulations and standards in various countries, including Indonesia. In addition, Telkom is making many efforts that align with the three types of strategies in the GSF.

To compete in the global market, Telkom continues to improve its digital business capabilities through building, borrowing, and buying strategies. The strategy is built by maximizing infrastructure capabilities and digital talent so that Telkom can provide the best for its users (Antara, 2021). Borrowing strategy by building partnerships with large technology companies, regionally and globally, such as Telkom's cooperation agreement with Microsoft Indonesia. A buying strategy by encouraging investments that prioritize synergies in order to increase TelkomGroup's digital capabilities, such as investing in large digital companies and startups both regionally and globally, including increased investment in the Gojek company and 50 startups in 12 countries through MDI ventures, which enabled Telkom to have an annual consolidated revenue of 3.9 per cent to IDR 69.5 trillion (Antara, 2021).

Telkom utilized the ASEAN Indo-Pacific Forum (AIPF) to expand its business. Telkom presented its investment focus on three pillars, namely connectivity, platforms, and digital services, but currently, Telkom still needs partners to supply digital platforms. In addition, Telkom partnered with Singtel in this forum to build a Hyperscale Data Center in Batam with an investment value of 581 million US dollars (Razak, 2023). In this forum, many international actors expect the positive impact of the digital financial revolution on the economy and social inclusion despite facing challenges such as geographic diversity and variations in talent, technology, and infrastructure readiness. Additionally, this forum helps bring together

the public and private sectors, both from regional and global players within the Indo-Pacific and ASEAN region (Razak, 2023).

Telkom Technology Adoption Initiative

The adoption of technology by Telkom has to do with the digitalization that occurs in the telecommunications industry. Companies invest in people, processes, and technology as three elements to get more benefits from the market, such as increasing market share (Gharib, 2019).

If companies adopt technology, they will benefit from an increased percentage in their business processes, including in telecommunications companies, such as a 75% increase in customer engagement, a 63% increase in customer satisfaction, a 53% higher digital traffic, a 49% increase in lead generation (Gharib, 2019), and visitor conversion becomes greater by around 46% (Gharib, 2019).

To maximize Telkom's business expansion in the global market, Telkom undertook a technology adoption initiative by applying artificial intelligence (AI) to optimize business operations that have the potential to be used in the long term. The type of AI developed is a chatbot for customer services to respond to various questions from customers. This initiative was described at The Bali Annual Telkom International Conference (BATIC) in 2023 in Nusa Dua, Bali (Hariyanti, 2023). The emergence of various AI innovations is an opportunity for digital telecommunication companies to lure customers because, in several case studies, many other companies from other industries use AI to

maximize services for many users, such as Tiktok, Instagram, Spotify, and others (Hariyanti, 2023).

As for the challenges in adopting AI, only some companies in Indonesia invest in R&D in AI development, with around 28%, while around 57% of companies consider adopting AI in their business processes. This low percentage is caused by uneven talent distribution that can develop AI, difficulties in finding the right partners, lack of knowledge in AI investment, and issues with personal data. In response to this low percentage, Telkom openly absorbs knowledge from existing AI technologies by adopting and developing them, such as metaverse, openly announces the desired partner criteria, and develops applications based on cyber security like Open Web Application Security Project (OWASP) and IT General Control (ITGC) (Fitri, 2022; Suhartanto & Firdaus, 2023; Waranggani, 2022). Even so, Indonesia has experienced a high economic increase of around 366 million USD, equivalent to a 12% increase in Indonesia's GDP in 2030 (Hariyanti, 2023). Telkom, as a large digital telecommunications company in Indonesia, has access to build partnerships with Google and Microsoft and invest in many potential startups because the development of AI requires competent sources, broad bandwidth capacity, energy, and processing machines. Telkom's adoption of technology, including AI, has inspired many companies to achieve successful business operations that were previously unsolved. However, Telkom has yet to go too far in developing AI, such as AI, which completely replaces the role of

humans. However, Telkom is aware of the coming technological innovations and can prepare its digital talents to face the future (Hariyanti, 2023).

Telkom's Customer-Centered Approach in the Global Marketplace

In its expansion in the global market in the digital era, Telkom takes a regional and global customer-centric approach to the various services offered. Telkom continues to increase value to take a customer-centric approach; Telkom organizes its business by dividing customer segments or Customer Units (CFU), which are divided into five segments, namely Consumer, Mobile, Enterprise, Wholesale and International Business, and others (PT. Telkom Indonesia, 2022a). In each segment, there are product specifications, namely:

1. Products for the consumer segment consist of fixed voice, fixed broadband, IP-TV, and digital services, with 9.2 million subscriptions.
2. Products for the mobile segment consist of cellular legacy services (voice and SMS), mobile broadband, IoT, big data, financial services, VOD, music, gaming, and digital advertising with more than 300 million subscriptions.
3. Products for the enterprise segment consist of platform and ICT services such as connectivity, IT services and cloud, business process outsourcing, devices, satellite business, e-health services and ATM management with more than 300 million customers.

4. Products for the wholesale and international business segment consist of wholesale traffic, networks, digital platforms, and services such as towers, data centres, and managed infrastructure and networks covering regional and global with more than 500 customers and partners.
5. Products for other segments include digital platforms, digital content, and e-commerce for B2B with 77 users.

These products are distributed in regional and global coverage, such as Australia, Hong Kong, Malaysia, Myanmar, Singapore, Taiwan, Timor-Leste, Dubai, the United States, the United Kingdom, and the Philippines (PT. Telkom Indonesia, 2022a). In each segment, they have marketing strategies to adopt a customer-centric approach, namely:

1. The consumer segment focuses on improving the quality of services and a broader customer experience through the 'You Are First' program, based on the belief that customers are the top priority. Additionally, Telkom engages in activities through loyalty programs to continuously interact directly with customers, enhance network equipment, and reduce response times to address disruptions. The offered products provide attractive value to customers through digital channels, campaigns, and celebration promotions, such as the 'Unlimited Activities' tagline that emphasizes brand stories, gimmicks, special offers, and

community empowerment (PT. Telkom Indonesia 2022a). Telkom also collaborates and contributes to significant events such as Mandalika MotoGP, IndiHome Gideon Badminton Academy (IGBA), International Basketball Federation, IndiHome Blog Competition, FIFA World Cup broadcasting sponsorships, IndiHome Limitless E-Sport Academy, and more. Moreover, multisectoral activities focus on multi-sector events across Indonesia almost weekly, including sports, e-sports, arts, literacy, education, and social activities. Through all these approaches in the consumer segment, its main product, IndiHome, is promoted to a wide range of potential customers (PT. Telkom Indonesia, 2022a).

2. The mobile segment refers to a marketing strategy that focuses on the specifications of customer segments and personalizes offers through various channels for efficient implementation. Additionally, Telkom enhances payload growth and acquires new users through improvements in network quality, services, product offerings, digital capabilities, acceleration, and expanding the digital ecosystem. To continually improve customer satisfaction, Telkom's partners and others increase data usage and digital products and create more creative content on digital platforms based on what customers need. One implementation is enhancing digital life-

- style capabilities in games and videos, such as the influence of Maxstream on the streaming industry, and supporting the mobile game industry by providing solutions that empower the gaming community through 'Dunia Games' (PT. Telkom Indonesia, 2022a).
3. The enterprise segment focuses on continuous improvement and fundamental enhancements, increasing consultative sales, and developing strategies that support products and services to be closer to customers. Additionally, Telkom expands business partnerships, attracts high-end customers, and collaborates with customers to design what they genuinely need. In this segment, Telkom has a more competitive marketing strategy by organizing digital transformation initiatives conducted by a company, enhancing its portfolio in the market, supporting SMEs to gain greater access through digital platforms, and becoming a trusted partner in the ICT industry for the Indonesian government. Telkom has several specific employee positions to improve customer service, such as Account Managers, Government Relationship Officers, Business Account Managers, and Tele Account Management (PT. Telkom Indonesia, 2022a).
 4. The wholesale and international business segment focuses on improving the effectiveness and efficiency of the cost structure, creating new opportunities, supporting state-owned enterprises (BUMN) to go global, and evaluating the portfolio to become better, ensuring the value of this segment continues to increase. The specific strategy for this segment includes offering attractive business schemes with competitive prices based on the quality of its services, enhancing services for global data centre customers, providing comprehensive solutions to tower service customers, and expanding into regional markets by offering submarine cable deployment and maintenance services (PT. Telkom Indonesia, 2022a).
 5. The other segment refers to the continuous improvement of digital innovation, including digital content, more engaging digital services, brand, platform, operations, customer experience, enhancing the digital business portfolio, and more (PT. Telkom Indonesia, 2022a).
- Customer-centric Telkom received positive feedback from customers due to the growth in customer satisfaction in 2022, reaching 29.72% for the services provided by Telkom, including Telkomsel by.U, especially with the addition of digital prepaid services. In addition, the percentage is higher than that of XL Axiata, which puts Telkom in first place (Jatmiko, 2023).

Regulation in the Digital Telecommunications Industry

As a significant digital telecommunications company in Indonesia, global and regional regulations impact Telkom. Regional regulations originating from Indonesia are created to address challenges arising in the digital telecommunications industry by enabling the inhibition of growth in the digital market due to disparities in infrastructure development among regions in Indonesia, such as Java, Bali, and others. The Indonesian government's efforts in developing the telecommunications industry aim to equalize digital capabilities across Indonesia by fully opening up the industry to investors through the regulations outlined in Law Number 11 of 2020 on Job Creation (Omnibus Law) and facilitating the licensing process for establishing businesses in this industry, ultimately attracting significant investments (Hartanto et al., 2023). Another initiative by the Indonesian government involves enhancing data protection, given the numerous data breaches in Indonesia, with a peak occurrence between August and September 2022, primarily within the digital telecommunications industry. In response to this significant risk, Indonesia swiftly enacted the Personal Data Protection Law in September 2022 to comprehensively regulate data privacy, similar to the General Data Protection Regulation of the European Union. Indonesia's actions became more stringent, requiring all companies engaged in digital business, including telecommunications companies, to promptly register their electronic systems in Indonesia. While attracting significant public attention,

this move proved effective, as many digital platform companies swiftly registered themselves after that (Hartanto et al., 2023).

Digital telecommunications companies in Indonesia are subject to the Ministry of Communication and Information Technology (Kemenkominfo), which regulates the management of resources, postal and information technology equipment, postal and information technology administration, information technology application management, and public information and communication management. They must also be involved in cybersecurity and data protection regulations supervised by Kemenkominfo and the National Cyber and Crypto Agency (BSSN) (Hartanto et al., 2023). As for more detailed sources of regulation for the digital telecommunications industry, including cybersecurity and data protection, they include:

Key regulations in the digital telecommunications industry:

1. Law Number 36 of 1999 concerning Telecommunications (Telecommunications Law), later amended by the Omnibus Law into Law Number 11 of 2020 concerning Job Creation.
2. Law Number 11 of 2008 concerning Electronic Information and Transactions (ITE Law) was later amended into Law Number 19 of 2016.
3. Government Regulation Number 46 of 2021 concerning Post, Telecommunications, and Broadcasting (PP 46/2021).
4. Government Regulation Number 71 of 2019 concerning Operational Systems and Electronic Transactions (PP

- 71/2019).
5. Ministry of Communication and Information Technology Regulation Number 5 of 2020 concerning Electronic System Providers in the Private Sector, later amended into Ministry of Communication and Information Technology Regulation Number 10 of 2021.
 6. Ministry of Communication and Information Technology Regulation Number 5 of 2021 concerning Telecommunications Operations.
 7. Circular Letter of the Ministry of Communication and Information Technology Number 3 of 2016 regarding the Provision of Internet-based Application Services (over the top).

Regulations on data protection and cybersecurity:

1. Law Number 27 of 2022 concerning Personal Data Protection (Personal et al. Law).
2. The ITE Law (Law Number 11 of 2008 concerning Electronic Information and Transactions, last amended into Law Number 19 of 2016).
3. PP 71/2019 (Government Regulation Number 71 of 2019 concerning implementing Electronic Systems and Transactions).
4. Ministry of Communication and Information Technology Regulation Number 20 of 2016 concerning Personal Data Protection in Electronic Systems.
5. BSSN Regulation Number 8 of 2020

concerning Security Systems in the Management of Electronic Systems.

Digital telecommunication services can only be owned by companies holding licenses regulated by the Ministry of Communication and Information Technology. This includes the organization of telecommunication networks, telecommunication equipment and its usage, spectrum, service areas, provisioning, and delivery of telecommunication services. In recent years, there have been changes in ownership and market access, including the digital telecommunication industry, as outlined in Presidential Regulation Number 10 of 2021, Presidential Regulation Number 49 of 2021, and Presidential Regulation Number 44 of 2016. The aim is to restrict foreign investments in various industries, as previous investments had negative impacts, resulting in significant foreign ownership (Hartanto et al., 2023).

Global regulations are derived from several international actors that exert influence in the global market. Among the highly influential international actors in global digital telecommunications regulations are, firstly, the International Telecommunication Union (ITU), a specialized United Nations agency responsible for coordinating global telecommunications operations and services. ITU plays a significant role in developing international standards, allocating global radio spectrum resources, and fostering innovation in the telecommunications sector (Utilities One, 2023). Secondly, the Federal Communications Commission (FCC) is an independent agency in the United States

with significant responsibilities for regulating cross-country and international communications. It enforces regulations related to Internet service providers, promotes competition in the telecommunications market, ensures smooth and efficient communication channels, protects consumer interests, advocates for network neutrality, and ensures continued access to telecommunication services. Finally, the European Telecommunications Network Operators' Association (ETNO) operates in the European Union to develop policies that stimulate industry growth, promote innovation, and enhance Europe's global competitiveness. This is achieved through policies that ensure fair competition, innovation opportunities, incentives for investment in the European telecommunications market, collaboration with policymakers, and more (Utilities One, 2023).

The presence of regulations has a real impact when Telkom operates its business operations under regulations. Telkom successfully obtained the Most Excellent Good Corporate Governance Implementation by implementing Good Corporate Governance (GCG), which includes transparency, accountability, responsibility, independence, and fairness and equality that can enhance the company's national and international competitiveness (Anam and CNBC Indonesia, 2023). This shows that Telkom's standards at the national and international levels are based on both regulations that can improve its business.

Innovation and Research & Development (R&D)

In facing the global market in the digital era, Telkom engages in innovation and research and development (R&D) with actors both at the regional and global levels. Telkom consistently explores innovation and R&D by developing AI for AI Voice, AI Image/Video, and AI Text/NLP, which are predicted to become significant businesses driving the growth of the 4.0 industry (PT. Telkom Indonesia 2020b). Telkom also establishes comprehensive facilities to support innovation and R&D, such as the AI Lab, Robotics Lab, RPA (Robotic Programming Automation) Lab, Blockchain Lab, AR (Augmented Reality)/VR (Virtual Reality) Lab, Biological Signal Lab, and others, equipped with various advanced devices like the NVIDIA DGX A100 to accelerate the training data process and AI algorithms. The presence of innovation and R&D is expected to contribute to providing incubator services for many startup companies by collaborating with universities, businesses, communities, governments, and media to enhance Telkom's and Indonesia's competitiveness in the global market (PT. Telkom Indonesia, 2020b).

To further accelerate innovation and R&D, Telkom collaborates with the Indonesian Telecommunications and Digital Research Institute (ITDRI) and the Massachusetts Institute of Technology (MIT) through the Industrial Liaison Program (ILP), primarily focusing on enhancing digital talent through digital transformation development. This collaboration also addresses the rapid and extensive technological advancements,

such as the Internet of Things (IoT). MIT is a globally renowned institute that contributes significantly to research, knowledge, innovation, and alumni, impacting the world's technological progress (PT. Telkom Indonesia, 2022b). The primary focus on developing digital talent aims to meet global needs for digital skills across various sectors. This collaboration adopts the Penta helix scheme, involving the government, business partners, academia, technology providers, and the community, including many international actors. Both parties gain access to databases, articles, and more to generate ideas that provide solutions. The implementation of ILP through the adoption of the Penta helix scheme in the regional context is carried out by Telkom in collaboration with ITDR, involving the Bandung Institute of Technology (ITB) and Padjadjaran University (Unpad), with a focus on IoT, Blockchain, and AI tailored to industry needs and strengthening Indonesia's digital talent capabilities (PT. Telkom Indonesia 2022b; Syahputra, 2023).

As a subsidiary of Telkom, Telin engages in the exploration, investment, provision, and utilization of submarine cable technology. Submarine cable technology enables more efficient and robust data transmission across borders, accelerating innovation and positioning Indonesia as a primary gateway for high-speed data delivery in the regional and global markets through programs like WIDE and APNIC. This is achieved through collaboration with the Asia Pacific Infrastructure Development Trust (APIIDT). Additionally, this collaboration supports joint investments and development initiatives

(PT. Telekomunikasi Indonesia Internasional, 2023).

Telkom is engaged in further innovation and research and development (R&D) by creating new network services in the Asia-Pacific region, focusing on virtual infrastructure technology for the years ahead, specifically targeted for 2020. This innovation and R&D are conducted through collaboration with Nippon Telegraph and Telephone Corporation (NTT) as part of implementing the Asia-Pacific Telecom Innovation Initiative (ATII) program. The initiative aims to develop proof of concepts (PoCs) and technical studies to strengthen partnerships. Many service providers in the Asia-Pacific region face challenges such as natural disasters and diverse traffic needs due to uneven population growth (Antara, 2017). Moreover, this innovation and R&D initiative aims to create new markets using Information and Communication Technology (ICT), focusing on sustainable development through collaboration and promotion with various partners in the Asia-Pacific region. The goal is to lead the global economy in the future. Ultimately, the ATII program resulted in three projects: high-value-added network services, server platform virtualization, and flexible access network virtualization (Antara, 2017).

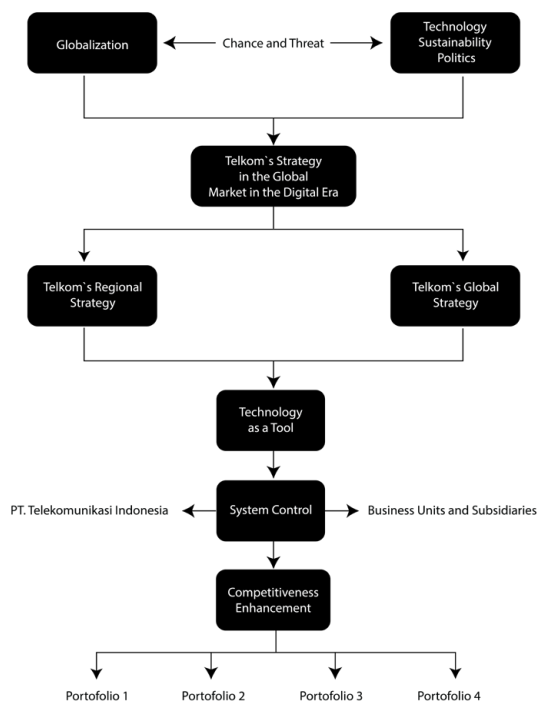
Policy Recommendation

In this final section, the author recommends policies while providing conclusions. In this digital era, Telkom has extensively transformed its business by diversifying its business types to align with current trends in the global and regional markets. As a signifi-

cant digital telecommunications company in Indonesia, Telkom is responsible for enhancing the country's digital capabilities. While expanding globally by strengthening its regional presence, Telkom possesses a competent portfolio to enter the global market. The digital influence also requires Telkom to navigate regulations in different regions, each with its digital regulations. The complex coordination among Telkom, its subsidiaries, and business units due to the many businesses owned serves as a subject for future exploration. It represents limitations that need to be addressed in this study.

The policy recommendations for Telkom in the global market in the digital era are formulated based on the globalization strategy framework by analyzing numerous case studies, as depicted in Figure 2.

Figure 2. Telkom Policy Recommendations



In Figure 2, it is explained that the interaction between globalization with technology, sustainability, and politics presents threats and opportunities for Telkom. This underscores the importance of carefully formulating Telkom's strategy to manage both opportunities and risks in the global market in the digital era. Telkom's strategy in the global digital market is crucial to complement its regional strategies, given the undeniable fact that Telkom is a leading digital telecommunication company in Indonesia. In implementing these strategies, Telkom must leverage technology in its business operations to manage the control system between Telkom and its subsidiaries and business units. Once Telkom's control system is competent, it will generate high competitiveness with various business portfolios that align with its strategy in the global digital market. It is also important to note that national and international regulations are crucial to improving standards, enhancing competitiveness and compliance with regulations, which is equally important. Therefore, the author believes that Telkom must acquire and absorb knowledge and technology from the global market, whether through competition, collaboration, or regulations, to continually enhance Telkom's value-added and ensure its position in Indonesia against its competitors. Although its position in the global market may still need to have a significant impact due to intensified competition, its presence among established global players adds value.

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