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EMPOWERING ECONOMIC RESILIENCE THROUGH ECONOMIC INTELLIGENCE OPTIMIZATION

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Abstract

In the face of uncertain global dynamics, national economic resilience has become a strategic issue that demands a response based on accurate data and information. This study aims to explore the relationship between Economic Intelligence (EI) and Economic Resilience (ER) and to formulate a strategy for optimizing EI as a proactive instrument in mitigating economic risks. Using an exploratory qualitative approach through a systematic literature review, this study analyzes various scientific sources and official institutional reports related to the role of EI in strengthening economic resilience, particularly in Indonesia. The results indicate that optimizing EI plays a crucial role in early crisis detection, supporting evidence-based policymaking, and increasing the resilience of micro, small, and medium enterprises (MSMEs) to economic shocks. However, EI implementation still faces various obstacles such as low data literacy, limited technological infrastructure, and the lack of integration of cross-institutional information systems. Therefore, a comprehensive strategy is needed that encompasses strengthening data infrastructure, developing human resource capacity, reforming data regulations, and intersectoral collaboration. This study provides a conceptual contribution to the development of an EI and ER framework and offers policy recommendations to support resilient, inclusive, and sustainable economic development.

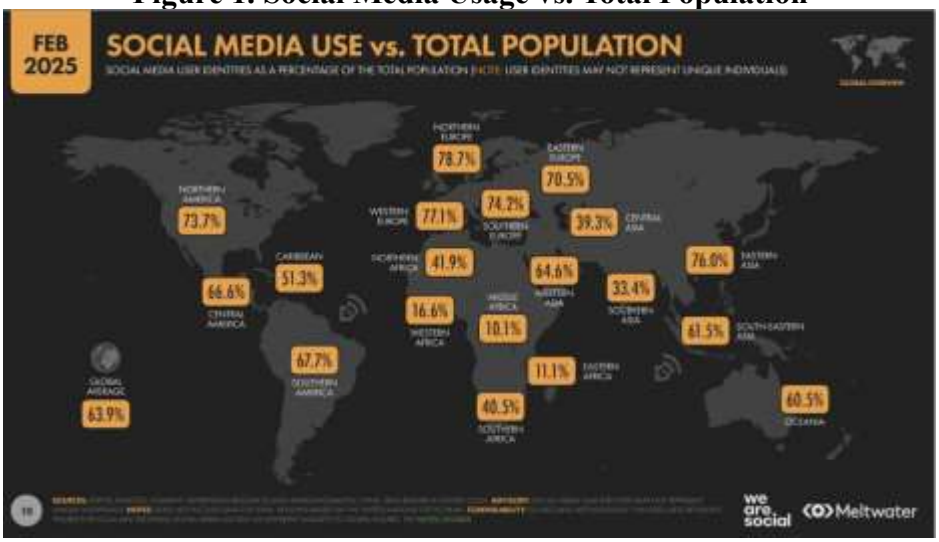
Keywords: ***Economic Intelligence, Economic Resilience, economic resilience, data-based policies, MSMEs, digital transformation.***

INTRODUCTION

Resilience has become a key in the study of the dynamics of economic systems, especially regarding how these systems respond to shocks and disturbances. Economic resilience has become a determining factor and the functioning of the economy ((Gu & Liu, 2024);(Pan et al., 2023)) as a key to ensuring strong economic progress, especially in adverse environments. Economic resilience is the ability of a country or a company to transform economic development into a safe haven in the face of stress or disaster (Lei et al., 2023); (Ji & Huang, 2024); (Burunsuz, 2021); (Zhang, B., Yang, X., Tong, 2022)). The emerging digital economy, as an innovative economic paradigm, has developed rapidly through new forces in the economic world. This not only drives the evolution in the economic field, but also enhances economic resilience to face risks and adapt to changes and resource allocation. The global financial crisis that occurred in 2007-2008 resulted in a severe decline in liquidity in global financial markets (Oprea et al., 2020) originating in the United States as a result of the collapse of the US housing market ((Brian, 2024); (Spillman, 2023)). This devastated the international financial system, causing the failure of several large investment and commercial banks, mortgage lenders, insurance companies, and savings and loan associations (Brian, 2024). In addition to the 2008 crisis, the COVID-19 pandemic has created demand shocks, supply shocks, and financial shocks simultaneously (Kharas H., 2020). This has an impact on the business cycle that occurs in the world.

Job losses due to COVID-19 wiped out all of the previous year's job growth, with total nonfarm employment falling by 20.5 million jobs in April 2020. The COVID-19 pandemic and associated economic shutdowns have created a crisis for all workers, but the impact has been greater for those with low levels of education, and those with low levels of education. In the 21st century, digital technologies and big data have revolutionized the way economic information is collected, analyzed, and used.

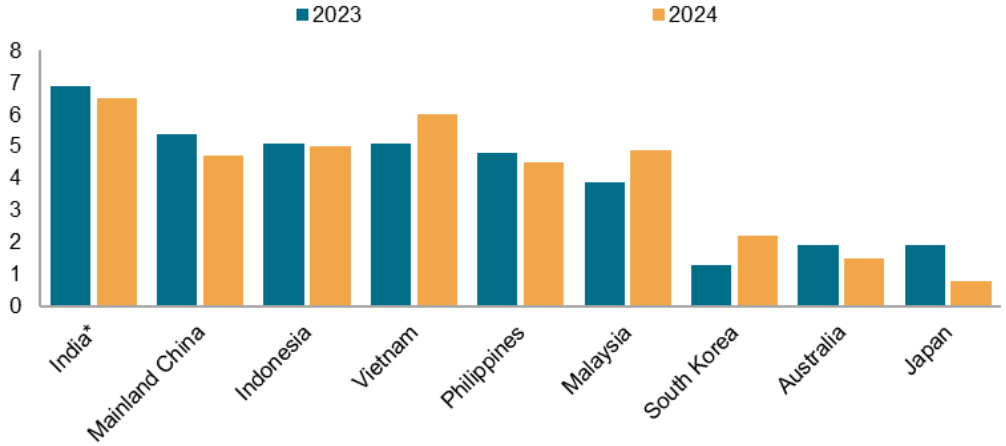
Figure 1. Social Media Usage vs. Total Population



Source: Indonesia Digital Report (We Are Socil, 2025)

Based on the data, it is stated that around 72.7% of the total population of Indonesia uses social media in 2025. This means that more than 207 million people in Indonesia are active on various social media platforms. This figure reflects the rapid growth of social media penetration, driven by increasing internet access and smartphone usage. Social media has become an important part of the daily lives of Indonesians, not only for communication, but also for entertainment, news, and commercial activities.

Figure 2. APAC GDP Growth Forecast for 2024



Source: S&P Global Market Intelligance

Figure 2 confirms that Indonesia needs to strengthen its capacity in economic intelligence to increase inclusive and sustainable growth. Indonesia shows good stability in economic growth. However, the stagnation at 5% shows that economic intelligence (EI), although on a stable path, without innovation in data-based decision-making and optimization of digital assets, Indonesia may lag behind neighboring countries such as Vietnam. Strengthening EI not only supports growth predictions but also strengthens the resilience of the national economy in facing global disruption. Indonesia needs to be allocated to map the

priority of growth sectors and provide early signals for crises or investment opportunities. Intelligence economics is a form of collecting, analyzing, and disseminating relevant economic information for decision-making by governments, businesses, and society (Hromozdova, L., Dubrovyk-Rokhova, A., 2021). Intelligence economics is an extension of various 'observation' techniques (science, technology, trade, competition-oriented, financial, legal, regulatory, etc.) (Saksono et al., 2023). Currently, several countries are gradually adopting intelligence economics as a national policy to maintain government stability and national resilience.

There are two factors that support the emergence of economic intelligence, namely the end of the Cold War which caused intelligence executives to become consultants in terms of strategy to serve economic companies and technological improvements. Intelligence economics is becoming increasingly important due to rapid changes in technology, globalization, and market dynamics. Unfortunately, the public does not yet understand the importance of economic intelligence, especially in creating a conducive environment (Saksono et al., 2023). Economic intelligence is the ability to understand, analyze, and make wise economic decisions that are key to meeting the challenges and capitalizing on opportunities that arise in an ever-evolving economic environment. Education, innovation, and policies that support economic intelligence will be key factors in determining the economic success of individuals, organizations, and countries. Governments have an important role to play in improving economic intelligence through education, training, and public policies that support innovation and economic stability. Financial literacy programs, support for research and development, and policies that encourage economic diversification are examples of efforts that can be made.

LITERATURE REVIEW

Regularly, the economies of states are hit by shocks. The impact of this phenomenon varies from state to state and especially from region to region, even in the same situation there are significant differences (Oprea et al., 2020; Rocha et al., 2023) . Much research has been conducted on economic resilience, especially after the COVID-19 pandemic, which highlighted the importance of the resilience of the economic system. Research on economic resilience has been widely conducted, especially after the COVID-19 pandemic which highlighted the importance of the resilience of the economic system to disruption. 21st century skills in economic intelligence to support national economic resilience (Anis & Susdarwono, 2019). The skills in question include critical thinking skills, data and digital literacy, cross-disciplinary collaboration, and strategic analysis-based decision making. In this context, individuals are required not only to be able to access and interpret complex economic information, but also to anticipate market changes, understand global dynamics, and design innovative solutions to overcome economic challenges.

Studied the role of European cities in regional resilience during the financial crisis (Capello et al., 2015; Wen et al., 2024)) they found that the quality of critical elements for production, the density of external cooperation networks, and the quality of urban infrastructure all contributed to stronger economic resilience. Studied the impact of the 2008–2010 economic recession on different regions in Europe and found that the correlation between resilience, regional strength, and vulnerability differed across countries (Bazile & Su, 2024). Regions with more industrial construction showed lower resilience when they were hit by asset bubbles. This study aims to fill the academic gap by combining Economic Intelligence and Economic Resilience in a theoretical and empirical framework. Especially in the development of the EI model in the implementation in the context of Indonesian public policy and strengthening national strategies.

METHOD

This research uses a qualitative exploratory approach using a systematic literature review. The aim of this approach is to explore in depth the relationship between economic intelligence (EI) and economic resilience (ER), as well as to identify conceptual and practical gaps that can be optimized from previous research. This research was obtained from various scientific sources, including reputable international journals indexed by Scopus and Web of Science, and official reports from statistical and economic

institutions. These data sources were selected purposively based on their relevance to the main theme, namely the relationship between economic intelligence systems and economic resilience. The analysis was conducted systematically through a process of identification, selection, and synthesis of the literature, focusing on four main aspects: (1) the concept and scope of economic intelligence, (2) the role of optimizing economic intelligence (EI) in strengthening national economic resilience, (3) the relationship between the level of EI optimization and the resilience of MSMEs to economic shocks, (4) obstacles and opportunities in implementing EI effectively within the national policy framework, and (5) strategies for enhancing EI as a proactive instrument in mitigating economic risk. This literature review method is expected to provide theoretical contributions in the development of the concept of economic intelligence, while also presenting strategic recommendations that can be used as references by policy makers and economic actors in increasing national economic resilience in a sustainable manner.

RESULTS AND DISCUSSION

The Role of Optimizing Economic Intelligence (AI) In Strengthening National Economic Resilience

Optimizing Economic Intelligence (EI) is crucial for strengthening economic resilience. Economic intelligence remains essential for meeting a country's economic or security goals for many reasons (Herzog, 2008). This can be achieved through systematic collection and analysis of economic data. Economic intelligence helps governments detect impending economic turmoil and prepare rapid economic mitigation measures. In times of economic uncertainty, such as crises and pandemics, EI serves as an early warning system for several countries, providing signals of threats and opportunities that could impact the country's economic stability. Another role of Economic Intelligence is to help design economic policies in several countries. Economic security, which is defensive in nature and aims to protect economic assets (Saksono et al., 2023), is crucial. Governments and economic actors can use

Figure 3. Changes in Growth, Inflation, and Trade Projections for 2025

Source: WEO IMF Okt-24; Jan-25; Apr-25

EI analysis results to design fiscal, monetary, industrial, and trade policies that are more adaptive to global dynamics. In the context of economic digitalization, EI can strengthen national capabilities in managing big data and business intelligence to support innovation, market efficiency, and global competitiveness. Equally important, EI also plays a role in supporting sustainable and inclusive economic development (Saksono et al., 2023). Through data and information strategies, EI encourages evidence-based decision-making, particularly in resource allocation, protection of vulnerable sectors, and strengthening the socio-economic resilience of communities. In the long term, EI helps shape an economic ecosystem that is intelligent, resilient, and adaptive to future challenges. Thus, optimizing economic intelligence is key to building a strong, measurable, and long-term foundation for national economic resilience. Combining technological innovation, entrepreneurship, and data-driven policy, EI helps achieve high-quality economic development. Optimizing economic ecosystems enables resilient ecosystems to survive, adapt, and recover from disasters. In other words, international finance is not just an analytical tool; it is a strategic infrastructure used by countries to ensure stable and sustainable economic growth over the long term.

The Relationship between the Level of Economic Intelligence (EI) Optimization and the Resilience of MSMEs to Economic Shock

Economic Intelligence (EI) can improve the resilience of Micro, Small, and Medium Enterprises (MSMEs), particularly in facing economic shocks. Optimizing EI enables MSMEs to understand changes in market demand, maintain supply chain stability, analyze competitor behavior, and identify potential risks before significant losses occur. In a digital context, EI can help MSMEs access real-time market data, including raw material price trends, regulatory changes, or currency bulletins that impact their business activities. In a context encompassing global and domestic economic events, such as the COVID-19 pandemic, inflation, and market shifts, EI is a crucial tool in helping MSMEs identify threats early and respond adaptively. However, barriers such as limited access to technology, lack of data literacy, and a shortage of skilled labor force prevent MSMEs from optimizing EI, particularly in developing countries. A 2023 Bank Indonesia report indicates that only around 19 percent of MSMEs in Indonesia use data-driven technology for their business management. Therefore, there is still significant untapped potential to improve MSME resilience. Therefore, improved digital literacy, training on how to use EI systems, and collaboration between the government, private sector, and academia are key to increasing the positive impact of EI on MSME resilience.

Constraints and opportunities in implementing EI effectively within the national policy framework

The implementation of Economic Intelligence (EI) in national policy faces various structural and technical challenges. One major obstacle is limited data and technology infrastructure, particularly in developing countries like Indonesia. Access to real-time data, unintegrated information systems, and the limited availability of reliable analytical platforms remain significant obstacles to realizing effective EI. Furthermore, data fragmentation persists among government agencies, both at the central and regional levels. The lack of coordination and data integration between ministries, institutions, and regional governments leads to overlapping information or even data disclosure. This reduces EI's ability to function as a predictive tool and data-driven policy planning tool. Another obstacle lies in low data literacy and limited human resource capacity. Many state officials and small businesses, such as MSMEs, do not yet understand the importance of EI in strategic decision-making. The availability of experts in data analysis, artificial intelligence, and big data technology is also still very limited. Furthermore, regulatory and data security aspects do not fully support the widespread implementation of EI. The absence of clear policies regarding data protection, information accessibility, and ethical use of public and private data potentially poses risks of modification and privacy violations. Without comprehensive and transparent data governance, EI implementation could generate resistance from the public and businesses.

Despite facing various obstacles, the implementation of Economic Intelligence offers significant potential within the context of national digital transformation. Programs such as Indonesia Digital Vision 2045 provide a strategic framework to strengthen the integration of EI into development planning systems. The digitization of public services, the development of a national data center, and the implementation of an e-government system create an infrastructure that supports more systematic data utilization. Furthermore, technological advances such as artificial intelligence, machine learning, and big data analytics offer significant opportunities for the government to develop early warning systems for economic risks and make more accurate predictions. Another opportunity arises from the potential for collaboration between the government, the private sector, and academia. With the right synergy, the development of national EI platforms—such as digital economy dashboards, MSME monitoring systems, and AI-based labor market analysis—can be effectively implemented. Furthermore, the global trend toward evidence-based policymaking is encouraging the adoption of EI as a standard in modern governance. Support from international organizations such as the OECD, UNDP, and the World Bank reinforces the importance of EI in the formulation of adaptive and transparent policies.

Strategies to improve EI as a proactive instrument in mitigating economic risks.

To make Economic Intelligence a proactive economic risk mitigation tool, a series of planned and integrated strategies are required. First, the government must strengthen interconnected data infrastructure

across sectors and institutions. The establishment of a National Data Warehouse or Economic Intelligence Center that combines fiscal, monetary, trade, labor, and industrial data is a vital first step. This system must support real-time data exchange and interoperability, as has been successfully implemented in Estonia and South Korea. Furthermore, the use of advanced technologies such as AI, big data, and machine learning needs to be enhanced to bolster EI's ability to predict economic dynamics, including inflation trends, exchange rates, and potential employment crises. Another equally important strategy is improving human resource capacity. Government officials need intensive training in data literacy, statistical analysis, and economic risk management. Meanwhile, MSMEs must also be empowered through training in the use of business dashboards, market data utilization, and simple analytics to support business decision-making. The government also needs to develop regulations that guarantee the security and ethical use of data, including public accessibility, information privacy, and user accountability. This step is crucial for building public trust in the national EI system. Furthermore, multi-sector collaboration between the government, the private sector, and academia must be optimized. Universities can play a role in research and development of EI models, while the private sector, especially technology companies, can help build adaptive and inclusive platforms. To facilitate this synergy, a dedicated forum such as the Public-Private Economic Intelligence Taskforce can be established. Finally, the development of a visual and dynamic web-based national economic dashboard is an essential tool for policymaking. This dashboard should include key economic indicators—such as GDP, inflation, commodity prices, investment, and consumer sentiment—and be regularly updated based on EI analysis.

CONCLUSION

Economic Intelligence (EI) has proven to be a strategic instrument in strengthening national economic resilience, particularly in the face of global threats, digital disruption, and constantly changing market pressures. By optimizing EI, the government and economic actors can identify potential risks and opportunities earlier and formulate more adaptive and responsive data-driven policies. This study shows that the implementation of EI is not only relevant for macroeconomic stability but also plays a crucial role in enhancing the resilience of micro, small, and medium enterprises (MSMEs), the backbone of the national economy. The implementation of EI in Indonesia still faces various structural obstacles, such as limited data infrastructure, low digital literacy, and suboptimal regulations related to data governance and security. Therefore, the national strategy must focus on strengthening integrated data systems, developing human resource capacity, and enhancing cross-sector collaboration between the government, academia, and the private sector. In the long term, the planned and sustainable implementation of EI will create a smart, resilient, and highly competitive economic ecosystem, while simultaneously promoting inclusive and sustainable development. Therefore, it is not merely a technical tool but a crucial foundation for building a modern and proactive economic resilience system. Through synergy between technological innovation, public policy, and strengthening the capacity of economic actors, EI can be key in creating quality and sustainable national economic growth in the digital era.

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