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WHY IS INDONESIA'S INNOVATION RANKING LOWEST AMONG THE ASEAN-6



Opinion by Chairil Abdini – Mar 14, 2022
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Innovation is important for a nation because it makes goods and services more competitive in the global market, reduces dependency on imports, and increases the accessibility and efficiency of social and public services.

Unfortunately, Indonesia's innovation ranking is still lagging behind other ASEAN-6 countries – member countries of the Association of Southeast Asian Nations (ASEAN) whose economies are relatively advanced in the region.

Based on the Global Innovation Index released by the World Intellectual Property Organization (WIPO), the United Nations (UN) agency that deals with intellectual property, Indonesia's innovation ranking in the last ten years is below the rankings of Singapore, Malaysia, Thailand, Vietnam and the Philippines.

[In 2021](#), Singapore is ranked 8th, Malaysia 36th, Thailand 43rd, Vietnam 44th, Philippines 51 and Indonesia is ranked 87th.

However, Indonesia's Gross Domestic Product (GDP/GDP) is far above these countries.

What are the factors that hinder innovation in Indonesia? My study found several reasons behind Indonesia's low innovation rating, including market failure and lack of government intervention, low utilization of global networks, and lack of external threats.

Why is Indonesia's innovation rating low?

Mark Zachary Taylor, an expert on comparative studies and international political economy from the United States, [concluded that](#) the level of innovation of a nation is determined by factors such as market failure, government and institutional policy interventions, global social networks, and creative insecurity.



Based on [data on research and development expenditures](#) from the United Nations Educational, Scientific and Cultural Organization (UNESCO), Indonesian companies' investment in research and development is 0.02% of GDP, the lowest compared to Singapore 1.26%, Malaysia 0.59%, Thailand 0.27%, Vietnam 0.21% and the Philippines 0.04%.

The low investment of Indonesian companies in the research and development sector indicates that market failure factors contribute to the low level of innovation in Indonesia.

Market failure occurs when a company is not interested or unable to invest in research and development, because the results of innovation can easily be imitated by other companies. In addition, the lack of ability to provide the resources needed (talent, finance, equipment, knowledge and technology) is also a barrier towards innovation.

Innovation is also expensive and high-risk. Therefore, companies tend to choose business activities with lower risks, such as licensing, assembly, agency, and marketing of goods and services from abroad.

Meanwhile, foreign goods and services that are being marketed continue to experience innovation in their home country. As a result, domestic companies are falling further and further behind in their ability to produce products of the same level.

When market failure occurs, governments usually intervene via policies and institutions. In this context, the existing problems in Indonesia include weak law enforcement on intellectual property rights, low research budgets, low quality of education, underdeveloped research universities, and lack of support for foreign trade policies.

Without a strong justification for innovation, government intervention in the form of policies and institutions will only lead to mismanagement and misallocation of resources. Previously, President Joko Widodo questioned research conducted by ministries and institutions that spent [a budget of Rp 24.7 trillion](#).

In addition to market failure and government intervention, a nation's success in innovation is also determined by the role of global social networks that provide access to research personnel, knowledge, technology, equipment and funds to conduct research and development, and sponsorship from global philanthropic foundations.

[Studies](#) show that the involvement of Indonesian academics and researchers in global social networks is still low and limited to the institutions where they teach and conduct research.



This is because Indonesian academics have low mobility and do not interact with global academic colleagues. Due to the lack of utilization of global social networks, innovation in Indonesia is not advancing and is far behind other nations in ASEAN.

Creative insecurity as a driving factor for innovation

Taylor put forward the hypothesis that creative insecurity is a factor that drives a nation to innovate. Creative insecurity manifests when external threats, both economic and military, are stronger than domestic issues, so that the government provides full support and strong motivation for innovation in both fields.

On the other hand, when domestic issues are more prominent than external threats, the government will politically prioritize spending on public services over spending on innovation.

The low priority of innovation is because apart from being expensive and high risk, spending on innovation will also reduce the budget available to address domestic issues such as poverty, unemployment, equitable distribution of education and health services, equitable distribution of infrastructure, housing subsidies, agricultural subsidies, energy subsidies, and improving the welfare of state apparatus.

The strength of perception of external threats in the military sector can be seen via the military spending data of ASEAN-6 countries. In the 2010-2020 period, the average Indonesian military spending was 0.78% of GDP. This figure is relatively low when compared to Singapore (3.07%), Malaysia (2.25%), Thailand (1.41%), Vietnam (1.32%), and the Philippines (1.07%).

Relatively speaking, this data shows that the perception of external threats in the military sector in Indonesia is low compared to other countries in ASEAN. For example, Vietnam, Malaysia and the Philippines face external threats in relation to China's claims in the South China Sea.

Indonesia's weak creative insecurity in the military sector combined with weak creative insecurity in the economy characterized by market failures resulted in the low impetus for innovation.

What can and needs to be done

It can be concluded that in building innovation, Indonesia faces problems of market failure, weak implementation of policies and institutions, and weak global networks.

Meanwhile, in terms of impetus to innovate, Indonesia is faced with relatively weak external threats in both the economic and military sectors. This condition in the short term will become an obstacle towards improving Indonesia's innovation performance.

The question is, does Indonesia need to 'fabricate' its external threats?



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In an open society, fabricated external threats are easy to uncover and can generate false and even dangerous signals. This can lead to the creation of enemies and unnecessary trade and military conflicts.

However, without a real threat, research and development policies and institutions will ultimately mismanage and misallocate their resources.

In fact, the external threat of the COVID-19 pandemic can be a strong enough impetus due to the scarcity of medicines, vaccines, and health equipment which resulted in heavy dependence on product imports.

The question is, can we capitalize on this pandemic as a creative insecurity? Will the intensity of creative insecurity decrease and even weaken when this pandemic passes?

In the medium term, the balance of payments deficit due to Indonesia's high dependence on imports of goods (drugs, vaccines, biosimilars, energy, transportation and equipment) and imports of services (higher education, health, finance and logistics) can be transformed into external threats and creative insecurity to generate political support. Therefore, this will in turn increase the motivation to innovate in these areas.

In the long term, the government needs to reflect on the real threats that Indonesia will face, such as energy scarcity, the impact of climate change, the loss of the demographic dividend, the threat of diseases, and pandemics.

This is the direction in which political support and leadership are at least needed to increase innovation in Indonesia.

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