



# Digital Economic, Hope, and Threats Lesson from Indonesia

*“ Indonesia's industrial production is still concentrated on labor intensive industry and does not have a high added value. At the Global Value Chain (GVC) curve, Indonesian industry is still dominated by industry role as an End-tier supplier ”*

## E-commerce

Since the development of internet in Indonesia at the end of the 90s, the beginning of its development did not show much of prominent change except for the increasingly open information. The communication model through computer-based internet has developed very rapidly and has become one of the economic objects that are rapidly increasing, especially in big cities according to the development of the internet network.

But it has been diverse since internet access increasingly developed, especially after Smartphone technology has become popular, the internet has provided a very drastic and significant development on many sides. After giving enormous social influence as a result of communication and interaction ability, digital and internet developments then entering the economy and the business sector. After initially 'shut down' sending letters manually, the next disruptive process slowly

began to spread in various sectors. The spread of influence occurs slowly from one sector to another, but the processes that occur within each one of them, create radical changes.

For example, on ticket purchasing services. Purchasing tickets in general in Indonesia were far from well-organized, where 'brokers' played a major role. The issue of uncertainty price, lack of services, guarantees and corrupt indications become a 'chronic diseases' that are not resolved in the long term period of time. Digital technology has finally become an important alternative in solving these problems. Digital applications have become a new face for public services that are far better than "chronic diseases" that have occurred so far. In a very short time, the ticket sales service kiosks are 'disappeared' and 'brokers', as well as travel agents began to be replaced by these applications.

Ticket sales applications and travel agents such as Traveloka eventually become one of the unicorns (application / startup that have a valuation of over US \$ 1 billion) from Indonesia origin.

Another example is the transportation in Indonesia, especially in big cities. Traffic congestion becomes a daily look in Jakarta and other big cities. While public transportation facilities are far from adequate. The use of two-wheeled vehicles then becomes one of the alternative solutions that arise under these conditions. Through digital technology, an alternative transportation facility has become very popular, particularly through the various facilities and its conveniences.

Starting from the two-wheeled vehicles service, then switching to four-wheeled vehicles and finally not only used as shuttle services, it also began to develop in other services such as ordering food, house cleaning services, and shipping services and others. This digital application is not only an alternative solution to the transportation problems, it also provides solutions for a wide cross-sector of service-based transportation or even services that can take advantage through the transportation, although it still has not been able to solve the problem of traffic congestion. Beyond alternative transportation issues, through this application there is very large employment absorption. Approximately 1.5 million drivers have joined in the online transportation business and Gojek has been one of the other unicorns from Indonesia.

The emergence of an online market place is a hope for many Micro, Small and Medium Enterprises (SMEs). The issues of poor access to the markets, the promotion, the high costs of the warehouse and other properties and low trading facilities finally get a solution through the capability of online application. At least more than 5 million sellers have joined the market places in Indonesia and provide an increasing income for sellers and producers which amounted way far behind them.

As the most populous country in Southeast Asia with a population of 262 million and 140 million connected to the internet, approximately 28 million

people (13% growth YoY) are actively conducting online transactions. Indonesia with a capacity around 49 million of SMEs, make Indonesian government to be determined by becoming the country with the largest digital economy in Southeast Asia where in 2020 believed to be able to absorb more than 26 million workforces.

Whether this will be successful and get the results as expected? E-commerce has been one of the entry points of flood imported goods into Indonesia. The Ministry of Trade said that the marketplace sells 90% of imported products. The Indonesian E-commerce Association (IDEA) states that under 2017 only 6-7% of local products are sold through e-commerce platforms. Another problem is, Indonesia with 1500 startups- *the 3rd place in the world ranking next to the USA and China* - has to be said 99% of those startups are not innovative. Most of the time the startups are supermarket chain or similar non-innovative businesses

The birth of 4 Indonesia unicorns, Gojek (transportation and cross-sector), Traveloka (ticket and travel), Tokopedia and Bukalapak (market place) occurs after getting funds injections from global investors or major global retailers or players who invest for resale. Four of them are businesses that start from the bottom and with good hard work but their dependency on capital is high, so that they can develop. The entry of major global players makes this online business increasingly integrated with global players who have dominated in many countries. "Democratize Commerce through Technology" will never gain its place.

In the market place, large industrial mass products fight directly and openly with local products based on small and medium industries that have limited capital and technology. This issue makes the Indonesian government try to protect local producers with a variety of provisions that ensure local producers continue to get their space in e-commerce. Even though it is too late, this must be done so that local producers (SMEs) can survive and avoid severe destruction. In this condition, small and unique products have the opportunity to survive, or at least to fulfill the unique local market.

A new kingdom is being formed and the battle for control of global production through the mastery of potential local production in each country is also taking place.

E-commerce is like a "double-edged sword" where one side gives hope for the development of local industries, especially SMEs, but on the other hand also opens up the market for large and massive industrial products. **Without strict rules in protecting people's production e-commerce will be a disaster for global justice.**

### **Industry 4.0 & Local Industry Condition**

Industry 4.0., it's all about building networked systems, which are focused on an intelligent and digital structure. Its aim is to self-organize the production - In the industry 4.0 humans, machines, equipment, products and logistic communicate and cooperate directly. The 4th Revolution is supposed to be more up to full automatized. Manufacture will be smaller, compact and smart with ability to produce multi products. When this point is reached the workforce will change as well. The typical blue-collar worker will disappear and supervisors will be needed.

In terms of the production, 3D printing is on its way to get more common. Compared to assembly line work it is way more effective, faster, the process is very precise. Also, if we consider the long-term work, it is less capital intensive because of the lower need of worker. This is going to impact the world trade supply chain as well. The machine can print almost everything, even a bridge with a 3D printer. Companies that won't go with the industrial revolution, won't be able to keep up with the global competition anymore, what will have a huge impact to their intern financial structure.

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Related to the development of industry 4.0, Indonesian Government issued Indonesia's Industry 4.0 Strategic Plan in 2018. However, this effort is perceived as an optimization program for certain existing industries in Indonesia rather than the development of new model industry based on digital technology.

Other efforts are preparing certain areas as integrated industrial areas and persuading foreign investors to establish their industry in Indonesia, especially those which are based on industry 4.0. The establishment of SEZ (Special Economic Zone) that is integrated with other resources becomes one of the mainstays being offered. In this situation, industry 4.0 is perceived as a mere term rather than an effort that will be done thoroughly.

A consideration of labor condition in Indonesia is an issue that is also discussed in the government's proposal. Previously, cheap labor wages is the mainstay of industrial development in Indonesia, especially in attempt to attract global investors. However, this situation began to change. Workers' demand has urged the government to issue regulations that provide more wage for them. In a study, government states that Indonesian workers have lower productivity with higher costs, compared to workers in India and China. This issue seems to be one of the reasons why industry 4.0 which relies more on machines or robots, is an option to be developed. This is done in the belief that at the same time, the service sector is expected to open new jobs.

The undeveloped concept of Industry 4.0 offered by the Government is due to current digital era that has not reached the final stage yet and leaves a big question. People are still learning what is going to happen in the future, including changes of industrial model that will happen in Indonesia and other Asian countries that have been assisting advanced industrial countries. This also includes changes that will happen in international trade and GVC (Global Value Chain) today, and what role Indonesia could take in GVC scheme as well as global production network in the future. This still remains a mystery.

As a note of Indonesia's national industrial conditions, Indonesia does not have a strong industry and it is still catching up with technological in the industry until today. In general, Indonesian industry is still based on industry 2.0 or 3.0. Some try to maintain the technology base and some are transitioning. Moreover, Indonesia's industrial production still focuses on labor intensive industries and does not have high added value. On the smiling curve of the Global Value Chain (GVC), Indonesia's industry is still dominated by industry players who take on the role of end-tier suppliers.

This is proven by Indonesia's trade composition which is still dominated by the supply or import of industrial raw materials. BPS data shows that throughout 2017 the contribution of auxiliary raw material imports reached 74.56%.

This pragmatic national industrial situation has impacted the Indonesia's stagnant and fragile economic growth. This is due the source of Indonesia's growth is more supported by the consumption sector which reaches up to 51% of the GDP structure, compared to the productive sector which tends to absorb few workers. Thus, the strengthening of the consumption sector is not matched by an increase in people's income which eventually. Indonesia will be trapped continuously in a situation of low middle income countries. At present, the average Indonesian labor wage is only at the level of Rp. 2.65 million per month.

## **Labour Issues**

How Indonesian workers will face the industry 4.0 in the future? In Indonesia, the change is already happening when it comes to the big sized companies. Those companies have large scaled capital and are easily able to cut out worker, to buy new techniques, to move forward this change and develop themselves new. Small or mid-sized companies have more trouble to follow this trend. The employers are more suspicious about the changes. Because the price of industrial 4.0 is very high, the people want to keep their machines as long as possible. They don't see the need of

replacing them as long as they work properly. But that's exactly what they should do in terms of reaching a more efficient way of working and adapting to the technology, to keep up with the world trade.

Some of the Trade Unions are in conflict with the industrial changing and have a clear opinion about it. They don't want the change. At the moment the labor especially, the blue-collar workers don't see any benefits from the digitalization. From their point of view the industrial Revolution 4.0 brings mass unemployment and poverty because of the missing support of the government. By reasons of this, the Trade Union tries to boycott the Digitalization 4.0 by trying to force the big companies to re-employ the labor they have replaced by machines. What they are fighting for is to stay in the industrial stage they are currently in and they have worked in for the last decades. Trade Unions fight for good work conditions and a minimum wage the people can live on. And to reach this aim in the opinion of some Trade Unions the Digitalization would be a huge barrier.

The industrial revolution will have a big impact to the labor. Many jobs from the 2nd industrial generation (most Indonesians have a job in this generation) will be dropped and the labor will have to focus on other jobs. Especially when it comes to the IT sector, workforce will be needed. There will be many professions that will change a lot. When it comes to sectors like banking, transportation or the retail sector there is already a big change happening. Many jobs can be done by computers, for example in the manufacturing or the logistic sector. Especially jobs with low requirements will be affected. In the future there will be two categories of workers: on the one side the workers who tell the computers what to do and on the other side the workers who get told by computers what to do. Because it is very easy to replace workers from the second category (for example with robots), many people in the first category will be needed.

As well as there will be a lot of chances for the economy there will also exist many risks. An example would be the debase of the human

labor. Intelligent software makes human work unnecessary in many sectors or cheapens it. Jobs like seller, copywriter, language assistant or banker lose their socially and social importance. In the meantime, internet platforms provide service provider or craftsman.

Another risk is the stress based illness related to the permanent availability. Labor who are always accessible and constantly accept new work, are more likely to suffer on an increasing work load. Consequences are a rising of stress based illnesses like Burn-Out or depression. Many people can't relax after work and take their stress with them at home.

Another issue with the Indonesian labor market is the inequality between the informal and the formal sector. Two-Third of working Indonesians are working in the informal sector. If many people lose their jobs in the formal sector by reasons of the digitalization 4.0, this number can even rise. In the informal sector the social security coverage is insufficient which leads to social conflicts and unsafe living conditions. The inequality between the formal and informal sector has to stop. The best resolution would be that everybody should work full employed, which includes appropriate wages, social security and freedom of associations.

## **Summary:**

### **New Model of Competiton in The Same System**

Industrial change that is increasingly compact and smart will likely urge Indonesian industry to a new turning point, like starting from scratch. Indonesia or other developing countries will be forced to take part in a new global competition with the industrial digitization model. The high investment needed and the gap to technology makes this system will remain capital-driven by global capitalists.

Changing the model of global trade competition in the digital era will certainly also encourage changes in rules at the global level which aims to maintain the interests and monopolies of the old regime of global capital. The process of globalization in the

WTO and at the regional level (FTA's) plays a role in shaping the mechanism of globalization in the digital era. In this position, the WTO and FTA's are the gateways in opening markets globally and new competition models based on industry 4.0 or digitalized industry.

The important points in the negotiation process and through the agreement that have been done on some FTA's show that basically, FTA's stimulate broader market opening that is not limited to trading as well as investment, IPR (Intellectual Property Rights), ISDS (Investor-State Dispute Settlement) and others in a comprehensive manner. In addition, with the existing demand, it will ensure there will not be any limitation or at the minimum extent, the limitation on transaction / transmission data of the country that provides a wide space for developing industry 4.0 to establish a global corporate monopoly.

So, some important notes in this article are:

- Changes through digitalized industry are very likely to totally rearrange the structure of industry in Indonesia. What has been established all this time tends to change, like starting from a scratch. As what happened to the 'manual' service industry which 'vanished' through the emergence of digital applications
- Workforce will decrease and shift massively to new industries, especially SMEs and services.
- The possibility of new job opportunities is the reason for encouraging standardization of industry 4.0-based manufacture that has been challenged through its impact on decreasing the workforce. Even so, it will still set aside a workforce transition process which is not easy.
- Industrial models or digital-based manufacturing (Industry 4.0) will be the base for a new face of global competition and the FTA becomes the gateway' for the regulation drafting globally.
- Protection in digital issues must be done in protecting the people's interest, especially from broader control of global capitalist interests.

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