THE ROLE OF THE GOVERNMENT TO BUILD HUMAN RESOURCES MANAGEMENT IN PRIVATE COMPANIES IN INDONESIA BY IMPLEMENTING INDUSTRIAL REVOLUTION 4.0 TRANSFORMATION

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Abstract. *The Role of private companies in Indonesia is good, where through private companies there are estabilished in Indonesia helphful in opening jobs for Indonesian people, that can help government in reducing unemployment in Indonesia. Then in the process must be mutually synergized reciprocal relationship between the government and the Private Companies in Indonesia to build human resource management capable, superior, and competent. Especially facing the current era of industrial revolution 4.0 transformation, where every company is required to make changes both in their business or organization to transformed into digital company in order to be able compete and face the changing times. Human Resource are an important asset for the company, so that to be able to transform their company their must transform their human resource first. So their human resource can have technologically capable to carry out innovations that can help their company dealing with change. This research is qualitative descriptive. The data source in this study were 3 (three) informant as HRD in 3 (three) different company in Medan city, namely (PT. Maja Agung Latexindo, PT. Karunia Abadi, PT Ace Hardware Medan). Data collection techniques in this study were observation, interview techniques, and documentation. Data analysis used the data collection , data reduction , data presentation , concussion drawing/ verification .The results of this study show that the governments role in improving the competence of human resource in private companies is very good through job training programs organized by Kementerian Ketenagakerjaan Indonesia (BBPVP), its just that they are still constrained by the companies ability regarding the cost that must be incurred by the company to be able to try out digital transformation to all of their business processes which are quite large.*

Keyword: *Human Resource Management, Digital Transformation, Revolution 4.0*

1. INTRODUCTION

The role of private companies in Indonesia is quite important, if we look at the numbers, we can see that there are more private companies in Indonesia than government companies. For government companies themselves through data from BPS in 2021, the majority, namely as many as 69 BUMN companies that have the legal form of a Limited Liability Company (Persero), followed by 14 BUMN companies with the legal form of a Limited Persero (Persero Tbk), and 12 BUMN companies with the form public company law (Perum). Judging from the business sector, in 2021 the majority of BUMN operate in the processing industry, namely 28 companies, followed by the transportation and warehousing sector with 16 companies. The total number of state-owned companies recorded until 2021 is 95 companies.
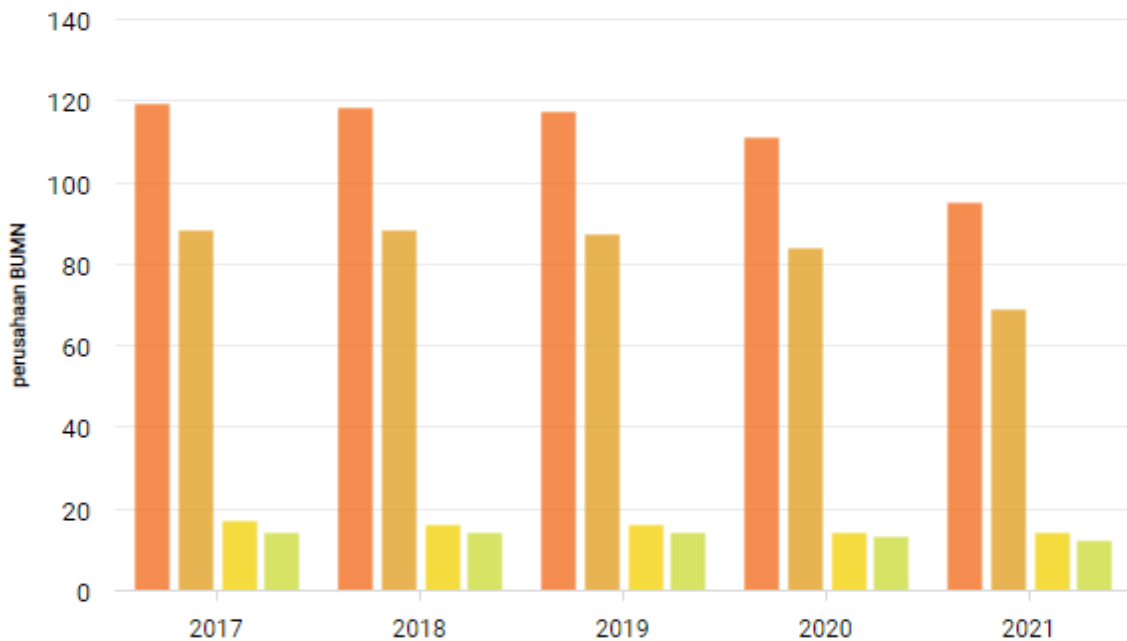
Source: Databox

The number of BUMN companies is getting smaller than before which only reached 119 companies in 2017. Over the past 5 years, there has been a decrease of 24 companies (20.18 %) due to mergers, acquisitions between BUMN companies, and also liquidations. This makes the number of BUMN companies less and less. Of the 95 state-owned companies, there are 28 companies engaged in the processing industry. This amount is the largest compared to other sectors.

In 2023, the number of government companies listed on the IDX will increase from 14 companies in 2021 to 28 companies. While the data for private companies that are established in Indonesia have a lot of potential which can be seen from the Indonesian stock exchange, where there are around 833 companies that have been listed on the IDX, and only about 28 companies out of 833 registered companies are government companies, which means that as many as 805 companies those listed on the IDX are held/dominated by private companies, not including private companies that are closed or go private that are delisted from the IDX.

*data sampai 11 Januari 2023
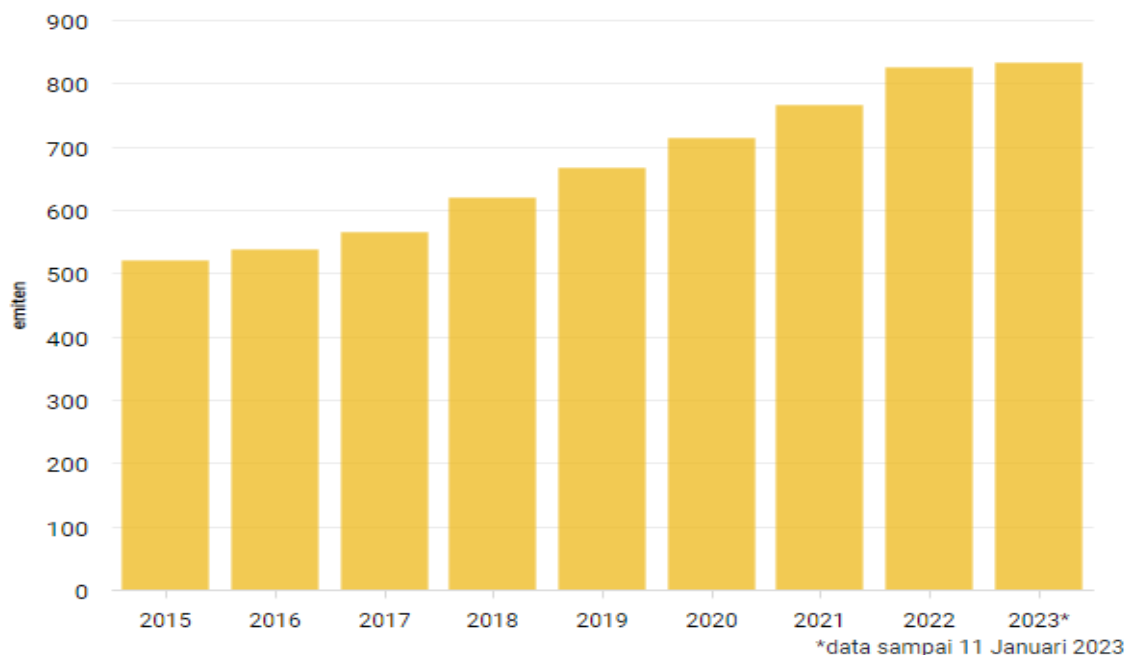
Source: databox

Based on this, it can be concluded that private companies play an important role for economic progress in Indonesia. Digital transformation continues to this day, with the shift from conventional to digital methods. The pandemic period has accelerated this change, which is unavoidable because of the importance of increasing business effectiveness. Not only in the technology sector, digital transformation also has an impact on the business sector. Of course, this change also requires the company's human resources to also be able to transform. Digitalization is a stage carried out by companies to harmonize digital technology in all business sectors.

Digitalization apart from facilitating work can also reduce space, for example where in the era before transformation, documents or archives had to require one or two cupboards to store their files. Digitization transformation makes it easier, storing documents into applications that no longer require physical cupboards or files to store them, easier to find data, and of course more secure storage. If it is in a cupboard it can be eaten by termites, which can cause the data / important documents to be lost. Likewise digital transformation that many companies applied when the covid outbreak hit, where meetings which were usually carried out by meeting and gathering in a room to discuss something, now no longer have to meet physically, but can meet virtually through the media application zoom/google meetings, for example, which make it easier for everyone to be able to keep doing and completing their work without having to meet physically. Through the use of this zoom application many things are facilitated, in terms of time , cost and effort. This development previously could only meet one by one virtually via video call, now you can meet many people virtually.

But of course this would not have been possible without the human resources that created/invented the zoom application and also the human resources that use it. If so, no matter how sophisticated the technology is, it will be useless/useless if there are no capable human resources. to manage it. Therefore, in order to continue to transform digitally, companies must not only keep abreast of existing technological developments, but also their human resources as the driving force of these updated technologies. Because it would be useless if a company has sophisticated and modern technology but does not have adequate, reliable human resources who can apply it.

Companies are companies that are established and whose ownership is (wholly or mostly) owned by the state, which are generally referred to as State-Owned Enterprises (BUMN). the large role of private companies in Indonesia, which of course contribute a lot to Indonesia in helping the government reduce poverty, by opening up many jobs that absorb a lot of energy from Indonesia's human resources. It should be if the government helps private companies in Indonesia to continue to grow. Digital transformation in the current era is something that cannot be denied anymore, because to be able to survive in this era, every company must be able to keep up with these changes. changes that occur. For example, Blue Bird previously got customers directly (with a wave of the customer's hand) and with the meter system, but after the presence of digital applications such as grab and gojek, Blue Bird inevitably had to follow these changes, Blue Bird also chose to join with gojek in order to retain its customers even though during the transition period it had experienced a decline, and now blue bird apart from following the changes is also trying to innovate its business again through the units used such as alphard and electric cars like tesla, which is called silver bird which also uses a meter, but become an attraction for customers with the luxury units they offer, so that they are considered to be able to meet today's luxury lifestyle needs which can be ordered by yourself through Blue Bird's online application, namely (My Blue Bird Taxi).

It is because of this that this research was conducted, namely to see how the role of the Indonesian government is to develop human resource management in private companies in Indonesia by implementing the transformation of the industrial revolution 4.0. The role of government is the actualization of state sovereignty in achieving its goals which are controlled by basic norms and values in interaction with the environment (Sitanggang, 1996: 134). Why is the role of government so important for the development of private companies in Indonesia? because the government plays a role in overcoming social and economic problems in society. This is because the government has the highest position and authority in making policies in a country. This policy must also be obeyed and implemented by the community. Because The main focus of the digital revolution is not only on digitalization or application development, but more importantly is driving changes in the mindset and logic of organization and interaction. Since the digital revolution is a changing goal, the government has a central role in ensuring and coordinating the

harmonization of views and interests. To deal with this problem, the important cooperation is the government. Although this does not exclude the importance of ensuring domestic resources / digital literacy, domestic participation, and cooperation between state and non-state parties.

2. LITERATURE REVIEW

2.1 Definition of Digitalization

Digitization is the transfer of analog processes to digital by using technology. In the digital era, digitization refers more to how technology changes business with new technologies such as machine learning, big data, and the internet for everything. Digital transformation in business has changed the way customers interact, commerce, marketing and more. Cloud computing and artificial intelligence can increase organizational productivity by automating routine tasks and speeding up business processes.

1. Increase efficiency
    By adopting new technologies, organizations can improve their operational efficiency by reducing costs and time required to complete certain tasks.
2. Improve customer experience
    Digital transformation can help organizations improve the customer experience by delivering faster and more responsive services, as well as providing more innovative and relevant solutions.
3. Improve data security
    In an era where data security is becoming increasingly important, digital transformation can help organizations improve their data security by adopting the latest security technologies and increasing employee awareness of good data security practices.
4. Increase competitiveness
    By adopting a digital transformation strategy, organizations can stay competitive in a changing market and maintain their position as an industry leader.

According to Angela Merkel in 2014, the Industrial Revolution 4.0 is a major change that involves all aspects of industrial production through the merger of digital and internet technology with traditional industries. Meanwhile, according to Schlechtendahl and colleagues in 2015, the Industrial Revolution 4.0 focuses more on the speed of information available where all elements in the industrial environment are connected and can share information. There is also another technical definition put forward by Kagermann and colleagues in 2013, namely that the Industrial Revolution 4.0 involves the integration of Cyber Physical Systems (CPS) and the Internet of Things and Services (IoT and IoS) into industrial processes which include manufacturing, logistics, and other processes. The conclusion is that digital transformation is a change in the company's industrial processes by utilizing technological sophistication, internet data, and human resources, to facilitate every activity in every existing business process.

2.2 Definition of Digital Transformation

Digital transformation is the process of changing a business or industry so that it can integrate and make the most of digital technology. This process requires a change from a conventional way of working to a way of working that is supported by digital technology, so as to maximize the results of digitization and digitization that have been carried out previously. One of the factors that triggers digital transformation is the demands or needs of customers for faster services. This has resulted in the emergence of digital applications that can meet these needs. The digital transformation process that is clearly felt is the change in the way a person purchases or obtains services from a manual or physical store to digital or online.

For example, ordering food, making reservations, and buying a new car can all be done through an application or website that can be accessed quickly via a computer or smartphone.

2.3 Supporting Technology for the Industrial Revolution 4.0

There are 10 (ten) types of technology supporting the Industrial Revolution 4.0. The ten types of technology are [2]:

*   *Internet of Things* (IoT) / Internet for Everything
*   Cloud Computing (*Cloud Computing*)
*   Artificial Intelligence (*Artificial Intelligence*)

- *Big* Data
- *Augmented Reality* (AR) / Augmented Reality
- System Integration (*System Integration*)
- *Cyber* Security
- Simulation (*Simulation*)
- Autonomous Robot (*Autonomous Robot*)
- 3D Printing / *Additive Manufacturing*

2.4 Digital change and the Industrial Revolution 4.0

The Industrial Revolution 4.0 is also closely related to Digital Transformation. Digital Transformation is defined as changes that occur due to the application of digital technology in various aspects of people's lives. If an organization or company wants to carry out Digital Transformation, it must be prepared to face cultural changes that occur due to the application of digital technology. According to the survey, 57% of companies worldwide are implementing digital transformation. However, about a third failed. This failure occurs because the Digital Transformation process is not fully understood. Digital Transformation is not just about making digital versions of physical products, it also involves changing the behavior of consumers, employees and various other aspects of culture. There are four components that support Digital Transformation, namely: empowered employees, engaged customers, transformed products, and optimized operations.

2.5 Industrial Revolution 4.0

In late November 2022, US company OpenAI launched ChatGPT, a chatbot that uses artificial intelligence and supervised learning and reinforcement learning algorithms that are trained on very large data sets. ChatGPT managed to attract public attention because within two days of its launch, this chatbot was able to attract one million users. ChatGPT's ability to respond to user inquiries on various topics makes it considered an effective personal assistant to support many jobs in various fields, such as education, business, programming, marketing, and so on. However, it also raises concerns that ChatGPT could replace many human jobs within the next 1-2 years.

Prior to the emergence of ChatGPT, various human needs had been accommodated through the support of the internet and the digital world. For example, in the sharing economy, there are Airbnb, Swap.com, Zopa, Cycle, BookMooch, Zilok.com, Zipcar, and Netflix which are currently popular among teenagers. In the field of education, there are Coursera, Audacity, Canvas Network, Edx, NovoED, Iversity, Open2Study, and Future Learn.

In the e-government sector, there are eGovernance, KlikDokter.com, and HealthTap. In the field of cloud collaboration, there are Google Drive, Dropbox, and Microsoft Office. Meanwhile, in the e-commerce sector, there are Bukalapak, Shopee, Tokopedia, and others. Finally, in the field of Smart Manufacturing, there are Sculpteo and 3D painting.

a. Challenge or Threat

In the digitalization era of the Industrial Revolution 4.0, there is a threat that around 1 – 1.5 billion jobs will disappear in the 2015-2025 period because human work will be replaced by automated machines (Gerd Leonhard, Futurist). However, in the future, it is estimated that about 65% of elementary school students worldwide will be working in jobs that have not existed before (US Department of Labor Report).

b. Opportunity

The era of digitalization also offers opportunities to create up to 2.1 million new jobs by 2025. In addition, there is the potential to reduce carbon emissions by 26 billion metric tons from three industries: electronics (15.8 billion), logistics (9.9 billion) and automotive (540 billion) from 2015-2025 (World Economic Forum). Therefore, expertise in electrical, mechanical, chemical, informatics and other engineering fields is important for Indonesian HR to take advantage of this opportunity.

2.6 Professions in the Industrial Revolution Era 4.0

There were several interesting and promising professions during the Industrial Revolution 4.0. Here are some of these professions:

a. Data Scientist

His job is to analyze company data, be responsible for the quality of company data, conduct research related to company data which is often in the form of big data.

b.   Robot supervisor

His job is to supervise, maintain, and repair robots, both semi-autonomous robots, autonomous robots, and humanoid robots.

c.   IoT/IT Architect

His job is to design systems in companies/manufacturing that connect products, machines and employees online and in real time using various technologies or specific platforms.

d.   Computer Programmer/Engineer

His job is to create or develop applications that power systems that have been designed by an IT/IoT architect.

e.   UI/UX designer

His job is to make interfaces for digital products such as websites, applications, etc. and find ways on how data in the field can be implemented into these interfaces.

f.   Cyber Security Expert

Their duties are so broad that they can be divided into many specialists, such as handling IT system security, building and maintaining IT systems, providing solutions to IT system security problems, acting as digital investigators, digital auditors, and so on.

g.   Digital Marketing Expert (Digital Marketing)

Their duties are also very broad so they can be broken down into many specialists, such as digital marketing strategists, social media marketing experts, SEO experts, and others.

h.   Engineer Prompt (Prompt Engineer)

With the emergence of ChatGPT, the need for people who can formulate prompts as commands for ChatGPT to do what the user asks has grown. Especially for specific uses

2.7 Implementation of Digitalization

Digitization is the process of changing the way business is done by leveraging digital technology. The application of digitalization requires appropriate evaluation, strategy and implementation to achieve the desired business goals. Here are some important steps in implementing digitization.

1.   Setting Goals and Strategies

The first step that must be taken is to set goals and strategies for implementing digitalization. Identify business problems that you want to address through digitization, such as difficulties in meeting customer demands, inefficient business processes, or data management issues. After identifying business problems, the next step is to set digitization goals. For example, increasing productivity, reducing costs, or improving the customer experience.

2.   System and Process Evaluation

Identification of systems and business processes that will be digitized. Examples could be information systems, production processes, or customer service processes. Evaluate current systems and processes to determine what needs to be improved or changed. In addition, in evaluating systems and processes, document systems and processes to facilitate understanding and ensure that existing processes are carried out consistently. Find aspects of systems and processes that are likely to become problematic in the future.

3.   Application of Technology

The next step is applying technology to digital transformation. There are several things that must be considered when implementing technology, such as choosing the right technology. Some of the technologies commonly used in digital transformation are cloud computing, big data, internet of things (IoT), and cellular technology. What should not be forgotten in the application of technology is integration with systems that have been used previously. The system integration process with new technology needs to be carried out to ensure that business processes can run smoothly and employees can adapt to the new system quickly.

4. Training and Adjustment

Training for employees to be able to use new technology and adapt to changing business processes. Training can be in the form of formal training or *on-the-job training*. In addition, adaptation to the culture and way of working of the company is needed to adjust to the changes that occur due to digital transformation.

5. Final Measurement and Evaluation

Measuring and evaluating results in digital transformation is very important in the transformation process. This can help companies determine the success of their digital transformation and areas for improvement. Several things can be done to measure and evaluate, such as making Key Performance Indicators, data analysis, customer surveys, employee feedback, and cost analysis.

2.8 What are the types of digital transformation

There are four main types of digital transformation that organizations can adopt:
1. Business Process Transformation
2. Business Model Transformation
3. Business Domain Transformation
4. Organizational or Cultural Transformation

2.8.1 Business Process Transformation

Business process transformation involves innovative ways to improve existing internal and external workflows. New technologies often radically change and improve processes to achieve better business results. For example, Origin Energy Ltd (Origin) is one of Australia's leading energy companies. Origin empowers its customers to independently manage their energy bills and utilities by switching to AWS services.

The company has transformed end-to-end customer-facing digital processes with the following benefits:
- Cloud computing resources to cope with peak demand
- Decreased bill processing time by 30%
- High performance cloud storage to handle multiple customer interactions through websites and apps

This digital transformation has reduced call center workload and operating costs while increasing customer satisfaction.

2.8.2 Business Model Transformation

Business model transformation involves redeveloping existing business models by leveraging modern technology. The goal is to provide core business services in new ways or through different channels to increase revenue and reach more customers.

For example, TUI, one of the largest tourism companies in the world, has several travel agencies, hotels, airlines, cruises, and retail stores. During the pandemic, TUI had to reinvent its business model to cope with the mass cancellations and constant changes in the travel industry. The company created a new business model focused on bringing stranded travelers back home and cutting internal IT operational costs by up to 70%.

2.8.3 Business Sector Transformation

Business sector transformation occurs when a successful business enters a new market segment or field. This can be achieved by focusing on digital transformation projects that expand offerings, rather than simply enhancing existing ones. For example, Amazon was originally just an e-commerce platform. However, then we added our own streaming platform, Amazon Prime, and entered the cloud service. Today, Amazon Web Services (AWS) is the largest cloud computing and infrastructure service in the world. We used business transformation to build our business in two completely new areas.

2.8.4 Organizational Transformation

Organizational transformation considers reinventing the overall organization or internal culture with a focus on delivering the highest value to customers. This is the best way to get ahead of the competition and meet business goals more quickly. For example, Thomson Reuters is a leading provider of business information services. The company decided to separate its trading business and financial data into a separate entity called Refinitiv. As part of this move, Thomson Reuters migrated hundreds of customer-facing

applications to Amazon Elastic Cloud Compute (Amazon EC2), completely overhauling its legacy systems. This company was able to achieve this ahead of schedule by changing the way its internal IT team worked.

3. RESEARCH METHODS

This type of research is qualitative research, with data collection through literature reviews through textbooks, journals, articles, and also interviews. This research was conducted for 1 month, from May 2023 – June 2023. The research was conducted with 3 respondents who were HRD from PT. ACE Hardwaradae gatot subroto Medan with Mr. Salman as the speaker, then PT. Maja Agung Latexindo with sources, Mr. Abdi, and PT. Kurnia Abadi with Mrs. Rachel as the speaker.

4. RESULTS AND DISCUSSION

The results of this research are.

Mr. Salman Firdaus as HRD of PT. ACE Hardware Gatot Subroto Medan said that "we at PT. ACE Hardware gatot subroto Medan has carried out digital transformation in all of our business processes, not through the government's role but through IT staff that we have hired ourselves specifically to create online applications according to what we need in our work environment. Such as the store mode application for customers to shop online, the colibri application for online exam employees for those who extend work contracts, the mobile checklist application for employees to use in field work observations, then there is the Miss Ace application for each ACE Hardware outlet to order shortages of goods in every store, even up to ordering employee lunches, there is also an application that directly connects to the canteen and can be accessed by each employee. There are still several applications that are being built and the company will continue to carry out digital transformation in order to keep up with the times and technology in order to maintain the continuity of the company.

Mr. Abdi as HRD PT. Maja Agung Latexindo said that "we at PT. Maja Agung Latexindo has not implemented digital transformation 4.0 at all, because this company is only engaged in production where consumers have also been registered (not to direct consumers) so that PT. Maja Agung Latexindo considers that the 4.0 transformation is not really needed. The government has also not provided worker training offers for human resource development at PT. Maja Agung Latexindo, so we haven't felt the role of the government yet."

Mrs. Rahel as HRD PT. Kurnia Abadi, said that we at "PT. Kurnia Abadi has experienced the role of the government which is already qualified, namely by offering it from the government through the Ministry of Manpower institutions which provide electrical training to some of our selected employees to support their work performance here, but for digitization 4.0 it has not been fully digitized in all business processes, due to constrained company operational costs"

CONCLUSION

The government's role in developing human resources with the transformation of the industrial revolution 4.0 has not been evenly distributed throughout private companies in Indonesia. Of the three companies that the author examined, not all of them have had a role from the government in building their human resources. Meanwhile, in Indonesia the role of private companies is very large in creating jobs and reducing unemployment in Indonesia, so the government should pay more attention to the development of private companies. in Indonesia by launching constructive programs so that private companies can develop more than now and can recruit more workers and work together to reduce unemployment in Indonesia.

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