

Artificial Intelligence: Obstacle or Opportunity?

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Abstract: At the beginning of its civilization, humans always thought of creating tools that could help or facilitate their lives. Through their imagination they make equipment that their predecessors never thought of. Humans can go to other places that are far away by using airplanes, information can be disseminated quickly by telephone are an example of a technological development that is used to make human life easier. Along with the development of technology, humans arrived at the digitalization era which greatly facilitated humans in living their lives. In this era humans can create technology that allows humans to do many things using only the touch of their fingers. Humans managed to create sophisticated computers, android, internet networks, intercontinental wireless connections, communication devices, applications for trading to medical devices. The latest technology that is currently emerging is artificial intelligence that is capable of doing things done by humans. Gradually, artificial intelligence replaces the role of humans in doing their jobs, even certain jobs are threatened with extinction. Technology that was created to facilitate human life turned to threat human existence itself. This research was conducted to determine the impact of the application of artificial intelligence to the employee in the banking industry.

1 INTRODUCTION

When the operating costs of an industrial business are large compared to income, is a one way out option chosen by business people. According to Winston and Prendergast (1984: 25), from the very beginning of their creation, artificial intelligence was built for the purpose of making machines more intelligent and useful. Like its original purpose, scientists have now succeeded in making more intelligent machines used in various industrial fields.

In the field of health, scientists have managed to plant artificial intelligence in CT scans so that they can analyse recordings more accurately. This tool can sharply analyse the colour gradations on the scan results which are invisible to the eye as the differences are difficult to identify. This tool can even provide identification of types of diseases and drugs that are suitable for use by the patient.

In the field of processing agricultural products, artificial intelligence is used to help separate coffee beans that are ripe and raw by analysing the colour of the fruit. Raw fruit will be directed to a special container while the ripe one will be directed to the next process.

Robot hands driven by artificial intelligence are currently used in the motor vehicle assembly industry. Beside its precision in assembling, these robotic hands are also faster and stronger to move heavy equipment. They are operated 24 hours without time break which is very useful to push the production turnaround time.

In the banking industry, artificial intelligence is planted in an online service answering machine so that customers can easily get the necessary information such as account balances, remaining debts, reset pins or passwords. Artificial Intelligence can also be applied in customer data updating process so that the processing time is improving.

Recently Japanese scientists have made an artificial tongue that can identify how much sweet, salty and acidic elements are in a food. This tool can analyse the percentage of each element contained in a particular food. This tool helps chefs to be able to develop new foods that are healthier with a taste that is as good as the food normally consumed by humans. It is not impossible in the future, people can diet with food that tastes delicious.

If at the beginning of its creation it was used to facilitate human work, but over time the function of

artificial intelligence began to shift the role of humans.

2 DEFINITION AND IMPACT OF ARTIFICIAL INTELLIGENCE

Artificial intelligence according to Teahan (2010), commonly abbreviated as AI is the science of how to build a computer system that shows intelligence in various ways. Artificial intelligence was originally built to help humans facilitate activities in their lives. According to Winston and Prendergast (1984) there are three objectives of the establishment of artificial intelligence:

- Making the machine smarter (the main goal);
- Understanding what intelligence is (scientific goals);
- Making the machine more useful (entrepreneurial goals);

Like its initial purpose, scientists have succeeded in making machines which are getting smarter in various industrial fields. But in its development, artificial intelligence began to bring influence both positively and negatively to human life.

2.1 Impact of the Use of Artificial Intelligence

The use of artificial intelligence in various industries triggers various debates among academics, regulators, entrepreneurs and even in the wider community. Some argue that artificial intelligence is an opportunity, but some argue otherwise.

According to the Balliester & Elsheikhi study (2018) although the threat of using artificial intelligence to jobs that currently exist will not be felt in the near future, but fears begin to emerge because of indications that show a significant number of loss of some types of work.

2.1.1 Positive Impact

Artificial intelligence is created to help or facilitate human work. Systems that are planted in the computer can remember the steps of repetition which are carried out daily by humans. This has an impact on savings in settlement time. Artificial intelligence can be run 24 hours, so it can increase work productivity because there is no need to have time to rest like humans.

In the heavy equipment industry, the engine assembly is run by robotic hands that help improve

the safety of employees, because heavy and dangerous activities can be replaced by machines.

In the field of health, the application of artificial intelligence is very helpful for medical personnel to detect diseases experienced by patients more accurately through laboratory results and can also identify the types of drugs suitable for their patients.

In the banking sector, the application of artificial intelligence can be used to help work online services, customer service and tellers in branches.

2.1.2 Negative Impact

One of the negative effects that humans gradually feel is the disappearance of various kinds of human work that can be replaced by artificial intelligence machines.

CNN describes the fields of work that will be extinct in the future, namely:

- Finance and insurance (reduced by 25 percent);
- Retail (reduced by 28 percent);
- Construction (reduced by 15 percent);
- Public administration and defence (reduced by 23 percent);
- Transportation and warehousing (38 percent reduced);
- Manufacturing (reduced by 30 percent);

The work sectors above are sectors where the majority of jobs are carried out repetitively and administratively. This type of work does not require special skills so that they can be easily replaced by artificial intelligence.

2.2 Impact of Using Artificial Intelligence on Labour in Indonesia

With the application of artificial intelligence to various industrial sectors, this will affect the availability of job opportunities for workers, especially laborers in Indonesia. Indonesia as a developing country still relies on its operations with human resources. According to the Central Bureau of Statistics or BPS in the 2016 Indonesian Economic Census, the industry of large and retail trade, repair and maintenance of cars and motorbikes; processing industry; the industry that provides accommodation and provision of food and beverage, and the financial and insurance industries are examples of industries that absorb the most labor. If the companies in the above sectors begin to apply the use of artificial intelligence tools, automatically the reduction of labor cannot be avoided. With the reduction of jobs above means that it will increase the number of

unemployed who if not anticipated will become a source of social problems in the future.

Based on BPS data, 48% of the total population of Indonesia works as laborers. 38% of the total workers work as factory workers and the economic sector which will directly feel the influence of the use of artificial intelligence in the production process. In the future, these workers without special skills will lose their jobs. This matter must be watched out by many parties, especially the government in preparing its citizens in the face of waves of the use of artificial intelligence.

2.3 Impact of Using Artificial Intelligence on the Financial Industry in Indonesia

In the world of banking today, the development of artificial intelligence has made the company change its business strategy by placing technology as a major factor in the process of product and service innovation. The same thing is also done by one of the international banks in Indonesia which is known as an innovation leader. This bank applies artificial intelligence in its services so that it has been recorded to have reduced 10 branches from a total of 20 branches in 2018. Customers can now do activities in their hands.

This international bank does not only use artificial intelligence for things that are directly related to customer service, but also in the operational process. One process that was immediately replaced by artificial intelligence was the process of completing customer administrative documents. This process is carried out to ensure that the administrative information of customers recorded in the bank system is in accordance with current conditions. This process can last for two months with a process carried out by human power. This bank has planned to apply artificial intelligence that can shorten this process, from two months to only two days. One day direct charging by the customer in an application and one day to get the bank's internal approval.

On the other hand, this international bank also has outsourcing employees who will immediately feel the impact of the application of artificial intelligence. The problem is whether the application of artificial intelligence has an effect on the motivation of the work of outsourcing employees. This research aims to investigate the impact of the implementation of artificial intelligence to outsourcing employees which will also influence the company's performance especially in operation processes.

3 RESEARCH METHODS

Research on the influence of the application of artificial intelligence and outsourcing to employee motivation using descriptive quantitative research. According to Bungin (2005: 59), quantitative descriptive research methods can be interpreted as research methods used to describe, explain or summarize various conditions, situations, phenomena or various variables.

4 DISCUSSION AND LIMITATION

Artificial intelligence at the beginning of its creation was used to facilitate human work. But along with its development, the function of artificial intelligence began to shift the role of humans. This phenomenon is the responsibility not only by companies that apply it but also the government.

The government has a very important role to be able to prepare the Indonesian people, especially citizens with productive working age. One effort that can be done is to make education evenly distributed in all provinces. Adding information technology content to the education curriculum from basic to university level can also prepare citizens to be tech savvy so they have special skills.

From the BPS data there are indications that the population per province with ages 15 to 59 who have technological skills are as follows:

Table 1: Proportion of Adolescents and Adults Aged 15-59 Years with Information and Computer Technology (ICT) Skills by Province (Percent)

| Provinces | 2015 | 2016 |
|-------------|-------|-------|
| DKI Jakarta | 53.25 | 58.40 |
| Papua | 11.43 | 15 |

From the above data, the regions that still have the lowest level of technological knowledge was Papua and the highest was DKI Jakarta. There are striking differences that indicate the lack of even distribution of Information and Computer Technology (ICT) skills education. By increasing the content of computer science skills in the education curriculum, it is expected that the distribution of information and computer skills will become wider so that the Indonesian nation is ready to face the challenges of the emergence of artificial intelligence technology.

Companies that plan to implement artificial intelligence technology must anticipate the impacts

that affect internal and external ones that will be faced. Internally, outsourcing employees are those who are directly affected by the presence of this technology because outsourcing employees are employees who are employed because their administrative capabilities are not due to special skills. With the application of this technology, outsourcing employees are threatened with termination of employment.

The research limitation in this journal is that it is only discussing the impact of the implementation of artificial intelligence in the banking industry that will reflect on the motivation of outsourcing employee. This research will not discuss further to the government involvement in anticipating the implementation of artificial intelligence. This research will focus on the specific industry which is banking.

By starting the implementation of artificial intelligence technology, both companies and employee need to be aware of the impacts that will be caused so they can prepare themselves to deal with it.

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