

IMPACT OF THE FOURTH INDUSTRIAL REVOLUTION ON WORKERS' EMPLOYMENT

DAO XUAN HOI

Law Faculty, University of Labour and Social Affairs, Hanoi city,
Vietnam

<https://doi.org/10.37602/IJSSMR.2020.3530>

ABSTRACT

The fourth industrial revolution has a significant impact on worker employment. The application of advanced technologies such as automation, artificial intelligence and robotization can lead to fundamental changes in the way industries operate and organize labour. This article analyzes the theoretical basis of the impact of the 4th industrial revolution on workers' employment. This article also evaluates the current impact as well as some recommendations on production development and job creation for workers.

Keywords: Employment, Labour relations, Labour laws; Trade Union; Vietnam.

1.0 THEORETICAL BASIS FOR THE IMPACT OF THE 4TH INDUSTRIAL REVOLUTION ON WORKERS' EMPLOYMENT

The fourth industrial revolution has a significant impact on worker employment. The application of advanced technologies such as automation, artificial intelligence and robotization can lead to fundamental changes in the way industries operate and organize labour.

According to Article 9 of the 2012 Labour Code: "Employment is any income-generating labour activity that is not prohibited by law" [1]. In fact, the above employment is expressed in three forms: First, doing work to receive salary, wages or in kind for that work; Second, doing work to profit while having the right to use or own (partly or completely) the means of production to carry out that work; Third, doing work for employee's household but not receiving remuneration in the form of salary or wages for that work, including agricultural production, non-agricultural economic activities by the head of the household or a member of the household. Other family members have the right to use, own or manage it [2]. Jobs ensure workers have a stable source of income to support themselves and their families. In terms of society, jobs help society survive and develop stably. There is a workforce, but there also needs to be jobs to ensure that workforce works and creates wealth for society.

In the context of international integration and the fourth industrial revolution, employment is seriously changing, workers face the risk of losing their jobs due to structural changes, technology, and robots being introduced today. More and more [3] leads to simple jobs being easily replaced. In addition, the shift in employment structure in industries may also be affected in the direction of reducing employment in the agriculture, forestry and fishery industries, increasing in the construction and technology industries... Unemployment and underemployment may also take place in an increasingly worse direction.

2.0 CURRENT STATUS OF THE IMPACT OF THE 4TH INDUSTRIAL REVOLUTION ON WORKERS' EMPLOYMENT

The fourth industrial revolution has had a significant impact on worker employment. Automation and the spread of information technology, artificial intelligence and robotization have led to changes in the way labour is organized and the way it works in many industries. These technologies have created new sources of employment in the information technology and artificial intelligence sectors, but have also caused employment declines in some traditional industries. This requires workers to possess appropriate skills and knowledge to adapt to new working environments, requiring flexibility and the ability to continuously learn. However, thanks to the development of industry, the 4.0 industrial revolution also creates many new career opportunities and increases the demand for highly skilled labour in high-tech and industrial sectors creative. Specifically, according to the report of the General Statistics Office in 2017, we can see:

In the fourth quarter of 2017, the number of employed people increased, and the labour restructuring by industry changed positively. In the fourth quarter of 2017, the number of employed people was 54.05 million, an increase of 282.8 thousand people (0.53%) compared to the third quarter of 2017 and 646.6 thousand people (1.21%) compared to the fourth quarter/2016. There are 23.48 salaried employees, accounting for 43.44% of the total number of employed workers (compared to 42.62% in the third quarter of 2017). Labourers working in the Agriculture, Forestry and Fisheries industry (AFF) decreased from 41.54% in the fourth quarter of 2016 to 39.75% in the fourth quarter of 2017.

In the fourth quarter of 2017, the number of people working in the "Manufacturing and Processing Industry" industry continued to increase compared to other industries, increasing by 226 thousand people compared to the previous quarter and 460 thousand people compared to the same period last year. Next are the following industries: "Construction" increased by 127 thousand people and 307 thousand people respectively; "Transportation and warehousing" increased by 41 thousand people and 102 thousand people; "Wholesale and retail; repairing cars, motorbikes, motorbikes and other motor vehicles" increased by 53 thousand people and 183 thousand people. The number of people working in the AFF industry decreased the most, down 209 thousand people compared to the previous quarter and 698 thousand people compared to the same period last year. Next are the industries: "Gas production, distribution and air conditioning" decreased by 27 thousand people and 29 thousand people respectively; "Mining" decreased by 27 thousand people compared to the previous quarter but increased by 2 thousand people compared to the same period in 2016. The whole country has 11.6 million people with degrees/certificates working (accounting for 21.5% of the total number of people working). Working). Of these, nearly 8.2 million people (70.1%) work in the service industry, 2.6 million people work in the industry-construction industry (22.41%), only 870 thousand people (7.49%) work in the Agriculture, Forestry and Fisheries industry [4].

Summary of information on recruitment needs and job search needs from the employment portal of the Ministry of Labour, War Invalids and Social Affairs in the fourth quarter of 2017 as follows:

- Regarding labour recruitment needs: There are 169.4 thousand job vacancies posted by businesses to recruit, an increase of 4.7 thousand people (2.9%) compared to the third quarter of 2017. The need to recruit female workers accounts for 53.0% of the total, an increase of 0.4 percentage points compared to the third quarter of 2017 (43.6%). Recruitment needs of "non-state" companies accounted for 80.1%, an increase of 2.3 percentage points compared to the third quarter of 2017. According to Navigos [5], the demand for recruiting middle and high-level personnel continues to increase, led by the fields of construction, electricity - electronics and automation, consumer goods - retail, finance - banking and technology information technology; Next is food - beverages and fashion - accessories; information technology industry (information technology services and software). Enterprise recruitment needs still focus on "unskilled workers" (accounting for 67.7%, an increase of 9.0 percentage points compared to quarter 3/2017); "textile and garment" (accounting for 17.1%, down 1.5 percentage points compared to quarter 1/2017) [4].

Regarding job search needs: The number of people looking for jobs is 48.1 thousand people, an increase of 17.2% compared to the third quarter of 2017. Of which, female workers looking for work are 21.6 thousand people (accounting for 45.0%), an increase of 3.1 thousand people (16.8%) compared to the third quarter of 2017. In there:

- The group with intermediate degrees has the most need to find a job, accounting for 27.8%.
- The group with college degrees accounts for 20.2%.
- The group with a university degree or higher accounts for 18.3%.
- The group without a degree accounts for 22.1%.

By occupational group, "driving", "accounting-auditing" and "electrical-electronics" had an increase in the number of job seekers compared to the third quarter of 2017; respectively increased by 0.7 thousand people, 0.6 thousand people and 0.5 thousand people compared to quarter 3/2017. The group "unskilled workers" and "personnel" had a decrease in the number of job seekers compared to the third quarter of 2017; correspondingly decreased by 0.7 thousand people and 0.1 thousand people compared to quarter 3/2017 [4].

Thus, it can be seen that the Industrial Revolution 4.0 brings profound impacts to the way of operating and organizing labour in many industries. Advanced technologies such as artificial intelligence, automation and digital technology have created local structural changes in the production process, while also creating new career opportunities in the field of information technology and artificial intelligence. Developing production and creating jobs for workers in the context of the 4.0 industrial revolution is extremely necessary.

However, to take advantage of this new career opportunity, developing the manufacturing workforce is important. Workers need to be equipped with the necessary skills to adapt to new technology, and businesses also need to find ways to create career opportunities, train and develop talent towards new skills. This helps create high-quality jobs and improve labour productivity, while helping businesses expand their scale, earn profits and develop sustainably. Therefore, developing the production workforce in the context of the 4.0 industrial revolution not only ensures that workers will have jobs, but also helps optimize benefits for both workers

and businesses in the future a period of transformation and modernization of structures and production processes.

3.0 RECOMMEND SOLUTIONS TO DEVELOP PRODUCTION AND CREATE JOBS FOR WORKERS

Our country's current labour supply is largely rural, low-quality labour, most of whom have not undergone vocational training. Therefore, the above-mentioned labour force cannot meet the needs of occupations that use modern technology while the paradox of the labour market is a huge shortage of high-quality labour but there is a surplus of unskilled labour. Therefore, it is necessary to have many forms of training suitable to each age and interest of workers to improve the quality of labour supply. Along with expanding the scale and types of vocational training, attention must be paid to improving the quality of training, physical training and industrial behavior for workers, especially problem-solving skills and the ability to Creativity and soft skills.

To increase demand for labour, the State needs to encourage the spirit of entrepreneurship and build many new industrial and service enterprises. In the global startup wave, Vietnam needs to adapt to new trends in industry 4.0 to breakthrough the economy, develop society and integrate, catching up with leading countries in the world. A testament to the success of startups when grasping the trend of the 4.0 revolution is the case of Mr. Do Dang Duong - Sales Director of Lumi Vietnam Joint Stock Company. "Looking back at his startup journey, Mr. Do Dang Duong - recounted: I and a few workers started a business with a smart home model because of the influence of the 4.0 industrial revolution, especially is IoT (Internet of Things) with difficulties related to people, finance, competition with foreign partners... After 5 years of starting a business with the desire to bring Vietnam's smart home technology to the world, Lumi currently has more than 56 agents nationwide and Lumi products have also been officially launched in markets such as India, Australia... At the present time, workers are receiving a lot of support regarding technology and mechanisms to help workers start a successful business in the IoT field. However, the Sales Director of Lumi Vietnam Joint Stock Company is afraid that these technologies can easily become a trend among workers, leading to young people starting businesses without careful preparation and failure. Failure is inevitable" [6]. This is understandable, as Vietnamese workers still have many weaknesses. For workers who have returned from studying abroad, although their knowledge and skills base is very good, when they return to Vietnam, this group of workers shows their weakness when they do not understand the Vietnamese market and sometimes standing at a slightly higher position compared to the needs of the business, creating a gap in supply and demand. For workers who study domestically, they do not have discipline and a systematic working spirit. Thus, although encouraging the entrepreneurial spirit, the State needs to organize seminars and programs for young people to gain knowledge, understanding and preparation for a more effective entrepreneurial path.

At the same time, the State needs to encourage the development of handicrafts and traditional craft villages, promote commodity-oriented agricultural production, develop farms, and promote labour export to create jobs for people number of workers affected by the 4.0 Industrial Revolution; Create opportunities for workers to create their own jobs through long-term and short-term employment policies such as start-up loan policies to promote the spirit of creativity

in labour and production. In addition, the State needs to have policies and measures to encourage industrial establishments to prioritize recruitment and attract redundant labour force from textile, garment, footwear and electronics enterprises that are unemployed due to the impact of from these industrial revolutions.

4.0 CONCLUSION

In the context of the fourth industrial revolution, the impact on workers' employment has undergone significant changes. This requires workers to be willing to upgrade their skills and adapt to new work environments, pursuing continuous learning. Despite these challenges, the 4.0 industrial revolution also brings many new career opportunities and increases the demand for highly skilled labour in high-tech and creative fields. To take advantage of these opportunities and effectively deal with the challenges of change, workers need to equip themselves with flexibility, be willing to learn and proactively adjust their career strategies in the new era industrial revolution 4.0. Besides, there also needs to be solutions to develop production and create jobs for workers.

REFERENCES

- Vietnamese National Assembly, Vietnamese Labour Code 2012, 2012.
- Khuat Thi Thu Hien, Textbook of the University of Labour and Social Affairs, 2016.
- AIT school of management, Everything about the 4th Industrial Revolution: history, concepts, applications, opportunities and challenges, 2017.
- General Statistics Office of Vietnam, employment statistics 2017, 2017.
- Navigos, VietnamWorks, 2017.
- Ministry of Industry and Trade Web Portal, Vietnam (2017). "Revolution 4.0: Startup opportunities for young people with high qualifications", address <https://moit.gov.vn/thuong-mai-dien-tu/cach-mang-4.0-co-hoi-khoi-nghiep-cho-gioi-tre-voi-trinh-do-c2.html>, date 25 September 2017.