

Measurement and Structural Correlation between the Digital Economy, Employment, and Steady Growth

Songtao Dong¹, Huaiwang Shi²

¹School of economics, Anhui University of Finance and economics, Bengbu Anhui 233030, China

²Anhui University of Finance and economics, Bengbu Anhui 233030, China

Abstract

Given the deteriorating job situation in China, our government should indeed address the immediate problem of how to better and more effectively ensure employment. This article investigates the benefits and disadvantages of the emergence of the digital economy on overall employment in China, in additionally looking at its relationships with China's industry distribution, employment structure, gender balance, and urban-rural income gap. Finally, based on the findings, policy recommendations are made to support the growth of the digital economy sector and related industries, advance enterprise digital transformation, support the momentum of innovation and entrepreneurship in the digital economy, hasten the development of infrastructure and talent training in the digital economy, and promote higher quality employment and better economic development.

Keywords

Digital Economy; Total Employment; Employment Structure; Economic Development

1. Introduction

Employment is the biggest livelihood. Currently, China's economy is facing the triple pressure of demand contraction, supply shock and weakened expectations. This year's government work report proposes to "strengthen the employment priority policy" and "all regions should do everything possible to stabilize and expand employment". The employment target is "urban employment of 11 million or more, the annual urban survey unemployment rate is controlled at 5.5% or less." In the face of the country's employment goals, the stabilization of employment policies have been put into practice in various departments around the country. How to address the employment issue ultimately depends on the economy's development; specifically, how can the economy be expanded to produce more full-time, higher-quality jobs? One of the most crucial paths is the growth of the digital economy. Under the direction of General Secretary Xi Jinping, the Party Central Committee has recently placed a significant focus on the utilization of big data, the network power strategy, and other initiatives to continually expand and improve China's digital economy. Since 2016, the growth rate of the digital economy as a share of GDP has exceeded 50%. Employment stability and growth in China have been significantly influenced by the growth of connected industries and businesses within the digital economy. But the employment that the digital economy creates varies and has negative repercussions on different demographics, economic sectors, and geographical places.

In order to serve as a reference, this paper examines the benefits and drawbacks of the development of the digital economy on workforce in China, as well as how it has affected the country's employment structure. On the basis of the literature review, it then contains suggestions for strategies and a plan of action to support the development of elevated employment in the digital economy.

2. Literature Review

To better understand and capitalize on the positive employment-related effects of the development of the digital economy, as well as to lessen regional disparities between provinces and municipalities and the negative employment-related effects of the digital economy, is currently a crucial and realistic topic. The goal is to promote higher-quality and fuller employment in the long run.

Panel data analysis is used by Lu Chuan (2022) to support his claim that China's labor market has been significantly impacted by the growth of the digital economy. The manufacturing sector is one whose capacity to absorb jobs created by the digital transformation is steadily declining. Further research reveals that, in the context of unequal growth in different locations, the expansion of the digital economy is bad for the employment of labor in regions with lower economic levels, while it is beneficial for women and low-skilled employees. Sheng Lei (2022) and coworkers contend that the manufacturing sector has experienced shocks as a result of the rising digital economy, including a drop in overall employment, problems filling various job types, and a decline in the appeal of employment. The mobile commerce, which is the outcome of the growth of the digital economy, has fundamentally changed the structure, character, and scope of a considerable number of vocations, according to Li Lixing (2022) et al. This has led to structural changes in the labor market on a global scale. It has had a significant impact on labor force employment options and has substantially broadened the panorama of employment in the labor force and entrepreneurship. Huang, Haiqing (2022) et al. measured the level of digital economy development in each city using panel data of Chinese cities from 2007 to 2018, and they discovered that this development can significantly increase the scale of employment in cities. Subsequent research revealed that the digital economy not only encourages the economic scale and capital deepening of cities, but also the entrepreneurial activity as well as employment quality. Through two mechanisms—the "deepening effect," "broadening effect," and "raising entrepreneurial activity"—the digital economy helps increase urban employment. Wang Yafei (2022) et al. came up with the following experimental results based on the linear weighted average technique of the digital economy development index of 30 Chinese provinces from 2010 to 2019 and empirically tested using the least squares method: The influence of the digital economy on overall employment varies significantly, with the eastern region being negatively impacted and the middle and western regions being positively impacted. At the national level, the digital economy has a sizable restraint on the expansion of total employment but makes a sizable contribution to the improvement of job structure and employment quality. According to Wang Wen (2020), from the standpoint of those utilizing artificial intelligence in the digital economy, the economy is more favorable to employment. He contends that intelligent production can be the primary vehicle for industrial innovation and transformation, fostering greater industrial structure sublimation and transformation and producing high-quality employment. Using the current epidemic as a context, Wang Yangjie and colleagues (2020) explain the development opportunities of the digital economy industry based on neoclassical economic growth theory. They discover that the epidemic presents numerous development opportunities for traditional enterprises in China to shift to the digital economy industry, and that by relying on the advancement of new technologies like the Internet, traditional industries can lessen the negative effects of the economy and provide more jobs.

3. The Greatly Affect of the Digital Economy on Employment Basically

3.1. Positive Effects of the Digital Economy's Rise on Employment

3.1.1. Employment Effects of the Digital Economy

First of all, as the digital economy has grown, the related industries have directly created new occupations and jobs, and these jobs are expanding in scope to fully meet the employment needs of people from various societal groups, from high-skilled practitioners to the initial unemployed individuals looking for work to the initial low-skilled employees who are not closely associated with digital technology. According to pertinent data from the Research Institute, China's digital industry employed 191 million people in 2018, making up 24.6% of all occupations. By 2020, more than 200 million employment will be directly supported by the digital economy, and both the share of Chinese workers and the number of workers in associated industries will grow.

Second, numerous spin-off sectors have grown as a result of the rise of the digital economy. The proliferation of new employment opportunities brought forth by the new digital economy has resulted in a diversification of professions and social employment opportunities. For instance, the takeout industry, express delivery industry, sharing economy industry, and online taxi company have all grown together with the rise of the Internet platform industry. After being classed and contrasted with it and its industry statistics categorization, the Ministry of Human Resources Security determined that more than 30 of the 56 new roles it had announced in the preceding three years were directly tied to the digital economy.

3.1.2. Demand and the Repercussions of the Digital Economy

Another proof of the growth of the digital economy and the digital push for general employment growth is the fact that digital technology has considerably increased labor productivity in China, increasing the scale of production and the market while also creating jobs. Digital technology and its products have been used more widely as a result of the growth of digital industrialization, and some businesses related to the digital economy have improved their labor productivity as a result. Businesses with high labor productivity have gained a larger market scale and easier access to international markets, and rational businesses have become more prevalent. As a consequence, there is an increase in both employment and the labor requirement.

3.1.3. Income Implications of the Digital Economy

The aforementioned advancement in the digital economy boosts worker productivity for businesses. The decrease in socially necessary work time brought on by the rise in social labor productivity results in lower commodity prices and higher domestic per capita income, both of which improve the personal disposable income of our citizens. In addition to boosting consumption to boost domestic demand, the government's policy of raising personal disposable income has increased the demand for our citizens' purchases of domestic goods. The boost in demand has sparked a rise in supply, which has prompted many domestic businesses to enhance their production capacity, increasing labor demand and overall employment.

3.1.4. The Effect of the Digital Economy on the Effectiveness of the Labor Market

The efficiency of the labor market has increased as a result of the growth of digital technologies. The next two factors will help you see this.

The cost of labor migration is decreased by the growth of the digital economy.

There are three types of costs associated with labor migration: direct costs, opportunity costs, and psychological costs. The opportunity cost is the income that workers could earn while they are looking for new jobs. The psychological cost is the psychological difference between the original living environment and the network resources that workers give up when they migrate.

The direct cost is the cost of housing, travel, etc. The cost of labor migration for employees who are migrating is reduced by new types of employment in the digital economy, flexible employment, family employment, and self-employment.

Labor search expenses are declining as a result of the digital economy.

The most important change brought about by the expansion of the digital economy to the labor market is the reduction of workers' costs associated with job searching. In the traditional labor market, information is very unequal, which causes a number of problems such difficulty finding employment, poor job matching, and high turnover rate. Online interviewing saves time and money for both parties, allowing for greater consultation for both job seekers and hiring organizations. In addition to improving the match between job seekers' talents and open openings, this considerably reduces the time it takes for job searchers to find employment. The time spent looking for a job has significantly decreased, the job fit between workers and themselves has increased, and the turnover rate has decreased. The labor market is becoming more efficient.

3.2. Employment Consequences of the Digital Economy

The substitution effect is the primary indicator of the negative impact of the digital economy on employment.

While the development of digital technology increases labor productivity, it also somewhat lessens the need for labor in businesses. Enterprises require significantly less labor to produce the same amount of output, and over time, they aim to increase their profits. As production increases, many jobs will unavoidably be replaced by sophisticated automated equipment.

The original sales system consisted of manufacturers, general agents, local city agents, and distributors. The information imbalance between manufacturers and customers is improved in the business-to-consumer (B2C) system when manufacturers or enterprises engage consumers directly, greatly eliminating the need for conventional middlemen like agents, intermediates, and other positions.

4. Workforce Composition and the Growth of the Digital Economy

To evaluate the impact of the development of the digital economy on China's employment structure, four perspectives will be used: industry distribution, employment skill structure, employment gender structure, and urban-rural employment income gap.

4.1. China's Industrial Distribution and the Rise of the Digital Economy

As the digital economy grows, digital technology steadily permeates China's businesses, inspiring many of them to begin their transition. The service sector has become a hotbed for entrepreneurship and employment as a result of the digital economy, at the expense of manufacturing and agricultural employment. Industrial digitalization has substantially increased production efficiency compared to the original traditional industries and encouraged the growth of the former. Due to its high added value, low technical barriers, and low technology intensity, the service sector in China's three industries benefits from industrial digitization more than the other two. As a result, this sector's digitization is occurring much more quickly than that of the primary and secondary sectors, and it has become the primary port for absorbing labor exodus. As a result, a portion of the labor force from primary and secondary sectors migrates to the tertiary industry, which is quickly increasing. As a result, China's industrial distribution is edging closer to the "three, two, one" pattern.

4.2. The Effects of the Digital Economy's Growth on China's Labor Market's Skill Structure

Because of the rise of the digital economy, high-skilled workers are in more demand, and China's talent structure has been optimized. The labor force needed by the digital economy sector must be compatible with the sector's unique qualities. The most recent industrial development is the digital economy. Because technology is used in applications with a very high degree of integration, the occupations produced by the digital economy have very high requirements for employee quality and competence.

Demand for low- and medium-skilled workers typically drops as a result of the digital economy sector, whilst demand for knowledge-intensive and highly trained specialists typically increases. The development trend of intelligent and automated entrepreneurship associated to the digital economy has had a substantial impact on low- and medium-skilled workers engaged in procedural work, especially for medium-skilled workers. As a result, China's medium-skilled workers are constantly facing new challenges. With the expansion of digital economy, middle-skilled workers in China have been flowing to both levels, while more middle-skilled workers have been flowing to low-skilled employment due to the high entrance barrier of high-skilled workers.

More young people are entering high-paying, high-skill employment as a result of the development of the digital economy; as a result, the wage gap between these positions and low-paying, low-skill professions will increase over time. The establishment and extension of China's labor skill premium have been profoundly impacted by the development of digital technology and the digital economy. Relevant research show that high-income groups, especially high-income youthful groups, are significantly more affected by the premium for digital technology skills than are low- and middle-income groups.

4.3. The Effect of China's Developing Digital Economy on the Gender Distribution of Employment

Addressing gender discrimination in work is a crucial part of developing the digital economy. Because women take on more family responsibilities and have less bargaining power than male job seekers, female job seekers are more susceptible to discriminatory pay treatment in the traditional job market. The gender structure of employment in China has improved for two key reasons, both related to the digital economy.

First off, the poor spatial features, virtualization, and platform training unique to the digital economy. Many job searchers who are unsuited to working far from their place of residence prefer the flexible and home-based sorts of employment it delivers. Women who want to work can do so. Network and flexible employment at home become unquestionably the greatest option for housewives when it is clear that traditional employment does not suit their needs. So that is as well. The increasing effectiveness of job searching in the digital economy has helped women more than males, leading to a general rising trend in the percentage of employed women.

The gap between female and male job seekers in terms of education and quality has, however, gradually closed as a result of China's policy directives to support educational equity and the ongoing development of its digital economy. Additionally, thanks to advancements in production technology, such as sweeping robots and automatic dishwashers, intelligent homes have significantly reduced the burden on female job seekers and increased their labor productivity. The demand for mental labor and digital technology abilities has increased as a result of the second factor: businesses connected to the digital economy have implemented more automation technologies. The gender pay gap in the workforce can be reduced and cognitive skill benefits for female job seekers can increase.

4.4. Effect of the Digital Economy's Growth on the Wage Gap between Urban and Rural Areas

The use and growth of digital technology has a higher impact on rural inhabitants' income levels than it does on urban residents. This means that the use of digital technology has a more noticeable impact on the income of rural residents (especially the young), has a significantly better rate of return than urban areas, and contributes to the reduction of the income gap between urban and rural areas as a result of the expansion of the digital economy. Important Part Due to a significantly greater gap between demand and availability than in metropolitan regions, digitally skilled labor is more expensive in rural areas. Due to knowledge asymmetry between the supply and demand of labor, transaction costs are higher in rural locations. The rise of digital technology has a greater influence on rural areas than on urban ones, increasing information asymmetry and reducing transaction costs.

5. The Digital Economy's Strategies for Fostering Higher-Quality Employment

This essay examines the effects of the growing digital economy on overall employment as well as a number of effects on job structure. The rise of the digital economy has, according to the study above, considerably helped China's employment and economic development, but this development has also raised a number of challenges and concerns for China's employment. How might the growth of the digital economy support more high-quality jobs? 1. To increase job possibilities, increase employment overall, and play a more active role in China's employment structure, encourage the expansion of related industries, the digital economy, as well as the digital transformation of China's traditional industries; 2. Support China's digital economy and encourage innovation and entrepreneurship in the digital sector. By creating open platforms to leverage the external effects of the digital economy, leading companies and regions with high levels of sector development might have a greater impact, create more jobs and professions, and promote the expansion of a variety of employment channels; 3. Speed up the building of the infrastructure for the digital economy. The unequal pace of building this infrastructure is a major factor in the geographical inequalities in the digital economy. Building up the digital economy's infrastructure in underdeveloped areas helps to level the playing field for employment in that sector across industries and regions, boost overall employment levels, and enhance the organization of the labor force there; 4. Increase the employment rate of high-level digital technology skill while accelerating the training of talents for the digital economy. This action can raise the skill level of Chinese digital economy practitioners, hasten the advancement of digital technology.

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