

## Research Article

# HUMAN RESOURCE DEVELOPMENT IN VIETNAM (2015-2024): TRENDS AND POLICY RESPONSES

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### ABSTRACT

This study examines the development of Vietnam's human resources during the 2015-2024 period, a decade marked by profound economic transformation, digitalization, and the impacts of the Fourth Industrial Revolution. Employing historical-logical and statistical-descriptive methods combined with international comparative analysis, the paper draws on data from the General Statistics Office of Vietnam (GSO), the World Bank (WB), the International Labour Organization (ILO), and key policy documents of the Communist Party and the State. Findings reveal that while Vietnam's labor force size has remained stable, its structure and quality have shifted notably toward a more skilled and industrial-service-oriented composition. The proportion of workers with technical, professional, and digital skills has increased, reflecting positive progress; however, significant challenges persist, including low labor productivity, gender and regional income inequality, and shortages of high-skilled labor. The study recommends several policy directions: reforming education and training systems in line with labor market demands, promoting digital and science-technology human resources, and implementing flexible talent attraction and retention mechanisms. These measures are essential for building a creative, high-quality workforce capable of driving Vietnam's transition toward a knowledge-based, innovation-driven, and sustainable economy.

**Keywords:** Digital transformation; Human capital; Labor productivity; Vietnamese workforce; Human resource development; Sustainable development.

### INTRODUCTION

Human resources are widely recognized as a decisive factor in national competitiveness and a central driver of industrialization, modernization, and international integration. In Vietnam, the period 2015-2024 has witnessed profound transformations in economic structure, growth models, and human resource development, yielding significant progress while presenting new challenges in the context of globalization and the Fourth Industrial Revolution (Industry 4.0). By 2024, Vietnam's labor force reached approximately 52.9 million, accounting for nearly 69% of the population (GSO, 2025). Although labor force participation has remained stable, employment structure and quality have shifted considerably.

Deepened international economic integration through new-generation Free Trade Agreements (CPTPP, EVFTA, RCEP) has created opportunities for labor market development and human resource restructuring, while demanding higher occupational skills, technological adaptability, foreign language proficiency, and global business competencies. Simultaneously, demographic transitions—particularly rapid population aging (9.3% aged 65+) and a declining youth workforce (15-24 years old decreasing by 2.1% per year)—have reduced Vietnam's "demographic dividend," highlighting the need for reskilling, lifelong learning, greater participation of older workers, and productivity enhancement via technological innovation.

Industry 4.0 and digital transformation are further reshaping labor demand, reducing low-skilled jobs while increasing the need for skilled and creative workers. Recognizing these trends, the Communist Party and the State have prioritized high-quality human resource development as a strategic breakthrough, exemplified by Resolution No. 52-NQ/TW (2019) on proactive engagement with

Industry 4.0. However, challenges remain, including regional disparities, uneven vocational education quality, limited investment in science and technology, and weak links between education and industry.

This study analyzes human resource development trends in Vietnam during 2015-2024, examining changes in labor scale, structure, quality, productivity, and utilization efficiency, while evaluating key challenges and policy directions to strengthen workforce quality and ensure sustainable development under the dual pressures of demographic change and digital transformation.

### THEORETICAL FRAMEWORK & METHODS

#### Theoretical Foundations of Human Resource Development

The concept of human resource development (HRD) is understood as the process of enhancing workers' competencies, skills, and educational qualifications to meet the demands of socio-economic development (Dessler, 2015; Noe & Hollenbeck, 2024). According to the International Labour Organization (ILO, 2023), the quality of human resources is determined by three major dimensions: educational attainment and skill levels, labor productivity, and labor market participation capacity. Meanwhile, the World Bank (2019) approaches this concept from the perspective of human capital, emphasizing that knowledge, skills, and health are decisive factors for productivity and long-term growth. Similarly, the classical works of Becker (1993) and Schultz (1971) affirm that investment in people generates superior social returns compared with investment in physical capital.

From a national development perspective, human resource development encompasses three fundamental components: Quantitative development – expanding the scale and ensuring a balanced structure of the labor force; Qualitative development – improving education, vocational skills, health, and innovative capacity; Effective utilization of human resources – creating a

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dynamic, equitable, and inclusive working environment aligned with national socio-economic development strategies (Noe & Hollenbeck, 2024; Mathis & Jackson, 2016).

At the international level, the trends in HRD during 2015–2024 have been shaped by three transformative global shifts: Digital transformation and Industry 4.0, which require digital literacy, soft skills, and cross-disciplinary adaptability (OECD, 2021); Green transition and sustainable development, demanding an environmentally responsible workforce equipped with green skills (ILO, 2022); Population aging, which urges national HRD strategies to focus on lifelong learning and extending the effective working age (UNDP, 2023).

In Vietnam, the conception of HRD has been consistently affirmed by the Communist Party of Vietnam (CPV) across successive National Congresses. Since the 1991 Political Platform, the Party has identified education and training development, and the promotion of human potential, as decisive factors for the success of industrialization and modernization. From the 11th Congress (2011) to the 13th Congress (2021), this viewpoint has been further specified within the context of globalization and digital transformation.

The Documents of the 13th National Congress of the CPV emphasize: "To build comprehensively developed Vietnamese people with good health, capacity, education, and a strong sense of responsibility toward themselves, their families, society, and the nation. To accelerate human resource development, particularly high-quality human resources, to meet the requirements of the Fourth Industrial Revolution and international integration" (Communist Party of Vietnam, 2021, Vol. 1, p.110). The Ten-Year Socio-Economic Development Strategy (2021-2030) further asserts: "Arouse the aspiration for national development, strongly promote cultural and human values, and the strength of the era; mobilize all resources for rapid and sustainable development based on science, technology, innovation, and digital transformation" (Communist Party of Vietnam, 2021, Vol. 1, p.103).

To realize these goals, the Party and the State have promulgated a series of strategic policy instruments: Resolution No. 52-NQ/TW (2019) of the Politburo on proactive participation in the Fourth Industrial Revolution, which identifies digital human resource development as a central task; Decision No. 176/QĐ-TTg (2021) - the Program on Supporting Labor Market Development to 2030, focusing on three solution pillars: (1) improving education and training quality; (2) developing a modern labor market; (3) linking training with enterprise demand; Decision No. 2239/QĐ-TTg (2021) - the Strategy for Vocational Education Development (2021-2030), with a vision to 2045; Decision No. 1331/QĐ-TTg (2021) - the Vietnam Youth Development Strategy (2021-2030), emphasizing the role of high-quality young human resources; Decision No. 749/QĐ-TTg (2020) - the National Digital Transformation Program, defining digital human resource development as the prerequisite for successful national digital transformation.

Collectively, these policies constitute an integrated national policy framework for human resource development in Vietnam, aiming toward three strategic objectives: Enhancing labor quality and productivity; Promoting labor restructuring in association with innovation-driven growth models; Building a workforce capable of adapting to the knowledge-based economy and international integration.

## Research Methodology

This study employs the historical-logical method to analyze the formation, development, and transformation of Vietnam's human resource (HR) policies during the period 2015-2024. Concurrently, the statistical-comparative method is applied to examine secondary data collected from the *Vietnam Statistical Yearbooks (2016-2025)*, the *Labor and Employment Reports (GSO, 2015-2024)*, and international databases provided by the World Bank (WB), International Labour Organization (ILO), and United Nations Development Programme (UNDP). Additionally, the study adopts policy content analysis to synthesize and evaluate the effectiveness of government resolutions, strategies, and decisions, while integrating trend analysis to identify long-term dynamics within the national labor market.

## Analytical Framework

The analytical framework of this study is structured around three core pillars: (1) Human resource structure (quantity and composition) - reflecting the scale, gender, age distribution, and educational attainment of the labor force. (2) Human resource quality (education, skills, health, productivity) - measured according to indicators established by the GSO, WB, and ILO. (3) Efficiency of human resource utilization (employment, income, labor productivity, and structural transformation) - analyzed by region, sector, and economic area. This framework enables a comprehensive assessment of changes in Vietnam's human resources from 2015 to 2024, while also providing empirical foundations for policy orientations for the period 2025-2035.

## RESEARCH FINDINGS

### Socio-Economic Context of Vietnam during the Period 2015-2024

The period 2015-2024 marks a decade of profound transformation in Vietnam's economy, with an average GDP growth rate of approximately 5.95% per year, peaking at 8.12% in 2022 and bottoming out at 2.56% in 2021 due to the impacts of the COVID-19 pandemic. Rapid industrialization, modernization, and urbanization have driven the expansion of the industrial-service sectors, fundamentally altering the national labor structure toward a more modern and diversified composition. However, this period also reveals emerging structural challenges. Vietnam has been simultaneously influenced by three major global megatrends: (i) Digital transformation and automation, (ii) Rapid population aging, and (iii) The transition toward a knowledge-based and green economy.

These trends have exerted significant pressure on the employment structure, skill levels, and labor productivity. The COVID-19 pandemic resulted in the loss or disruption of employment for nearly 1.5 million workers (GSO, 2022); nevertheless, Vietnam experienced a swift recovery from 2023 onward, supported by macroeconomic stabilization policies, initiatives for labor reskilling, and the promotion of digital competencies. By 2024, GDP per capita reached USD 4,700, and the total economic size amounted to USD 476.3 billion, ranking 4th in ASEAN and 34th globally (GSO, 2025b, p.11).

Overall, this decade reflects a strategic shift from extensive growth toward intensive, productivity-driven growth, in which human resources play a pivotal role. Nevertheless, economic recovery and long-term development remain heavily dependent on the quality of human capital, labor productivity, and adaptive capacity to digital

transformation-key determinants of Vietnam's competitiveness in the coming decade.

### Scale and Structure of the Labor Force

According to the General Statistics Office of Vietnam (GSO), in 2015, the country's average population reached 91.7 million people. The labor force aged 15 years and over totaled 53.9 million, corresponding to a labor force participation rate of 77.8%. The number of employed persons was 52.8 million, of whom 953.9 thousand were underemployed, accounting for 1.89%. The unemployment rate among the working-age population stood at 2.33% (GSO, 2016, pp. 3-6). By 2024, the preliminary average population was estimated at 101.3 million people. The labor force reached 52.9 million, representing a modest increase of 566.3 thousand persons compared to the previous year. The labor force participation rate declined to 68.9%, marking a significant drop from the 77.8% recorded in 2015. The number of underemployed workers was 846.8 thousand (equivalent to 1.85%), while the unemployment rate decreased slightly to 2.24% (GSO, 2025b, p.17). Although the overall labor force size continued to expand slightly, the participation rate fell by nearly nine percentage points over the nine-year period. This trend reflects both population aging and a decline in the proportion of young workers (aged 15-24). It signals that Vietnam is gradually entering the post-"demographic dividend" phase, in which the pace of new labor supply expansion has slowed significantly compared with previous decades.

By gender, the proportion of employed male workers declined from 60.1% in 2015 to 57.4% in 2024, while the female employment rate decreased from 55.1% to 47.7% over the same period. This indicates a gradual narrowing of female labor force participation, primarily driven by economic structural transformation and the increasing care giving burden associated with an aging society. The share of informal employment also fell from 76% to 64.5%, reflecting Vietnam's continuous efforts toward labor market formalization. However, the proportion remains relatively high—particularly among female workers (61%)—indicating that women continue to face disadvantages in access to social protection and employment benefits (GSO, 2025b, p.175).

By geographic area, urban employment slightly declined from 53.0% in 2015 to 51.1% in 2024, while rural employment decreased from 59.9% to 51.2% during the same period (GSO, 2025b, p.166), reflecting an ongoing labor redistribution and population shift toward urban areas. Although the rate of informal employment declined, it remained high: from 55.2% to 49.0% in urban areas, and from 85.3% to 74.1% in rural areas (GSO, 2025b, p.175). This disparity underscores the uneven pace of economic development between the two regions, where rural areas continue to experience structural disadvantages in terms of productivity, employment quality, and access to formal labor markets.

By economic sector, employment in agriculture, forestry, and fisheries declined sharply from 44.0% in 2015 to 26.5% in 2024; industry and construction increased from 22.8% to 33.4%; while the services sector rose from 33.2% to 40.1%. Notable sectoral shifts included: manufacturing, accounting for 23.6% of total employment in 2024 (up from 20.7% in 2015); wholesale and retail trade; repair of motor vehicles and motorcycles at 15.1% (up from 13.3% in 2015); accommodation and food services at 6.0%; and education and training at 3.9%. These changes reflect the dynamics of industrialization and economic restructuring, indicating a gradual shift toward higher-value and service-oriented sectors. However, labor productivity remains relatively low, particularly within the informal

services sector. The rate of informal employment in agriculture remained almost unchanged (from 98.9% to 98.6%), while it declined significantly in industry (from 59.7% to 46.9%) and services (from 57.3% to 56.7%) (GSO, 2025b, p.177). This pattern underscores a broader trend toward modernization and formalization in the organized production and service sectors.

Age Structure, in 2015, the 15-24 age group represented 14.8% of Vietnam's population, while those aged 60 and above accounted for 8.4%. By 2024, the population aged 60+ reached 14.2 million, an increase of 2.8 million (1.25 times) compared to 2019, with those 65+ comprising 9.3% and children under 15 making up 23.3%, indicating a marked shift toward older age groups. The aging index rose to 60.2%, up 11.4 percentage points since 2019—one of the fastest increases in Southeast Asia. Simultaneously, the youth labor force (15-24) has declined by around 170,000 per year, or 2.1% annually, driven by low fertility and longer life expectancy. By 2030, the elderly population is projected to reach 18 million, classifying Vietnam as an aged society under UN standards (GSO, 2024, p.10). This rapid aging pressures a shift in the labor force from labor-intensive sectors toward technology, services, and social care, necessitating adjustments in human resource development policies aligned with the digital economy transition.

By type of economic sector, the period 2015–2024 demonstrates a clear structural shift. In 2015, the non-state sector dominated the labor market, accounting for 85.0% of total employment, while the state sector represented 9.0%, and the foreign direct investment (FDI) sector only 6.0%. By 2024, these proportions had changed to 81.9%, 7.7%, and 10.4%, respectively (GSO, 2025b, p.165). The labor structure indicates the rapid expansion of the FDI sector, which nearly doubled within less than a decade, reflecting Vietnam's deep economic integration and strong attraction of international capital. Meanwhile, employment in the state sector continued to decline, consistent with the policy orientation toward streamlining the administrative apparatus and enhancing governance efficiency. However, the non-state sector still accounts for the largest share of employment, confirming its role as the primary engine of job creation in Vietnam's labor market.

In terms of occupational structure, in 2024, Vietnam's workforce was concentrated mainly in elementary occupations (25.61%), personal services, security, and sales workers (20.08%), and craft and machine operators (14.71%). In contrast, highly skilled professionals accounted for only 7.52%, and medium-skilled technicians made up 3.09%. Clearly, Vietnam's human resources remain heavily concentrated in low-skilled and unskilled labor, reflecting the limited professional qualifications and skills needed to meet the demands of a digital economy and modern industrialization.

By employment status, wage and salaried workers accounted for 53.76%, self-employed workers for 34.22%, and unpaid family workers for 10.33% (GSO, 2025b, p.172). This indicates that the formalization of the labor market is improving, as evidenced by the growing number of wage earners in enterprises and foreign-invested firms. However, nearly 45% of workers remain self-employed or engaged in household-based activities, demonstrating that informal employment still constitutes a large proportion of the workforce—particularly in agriculture and small-scale service sectors.

The informal employment rate remains high: skilled workers in agriculture, forestry, and fisheries (98.0%), elementary occupations (91.4%), personal services, security, and sales (75.6%), and craft and related trades (73.8%) (GSO, 2025b, p.178). Overall, Vietnam's labor market continues to rely heavily on informal and low-skilled employment, while highly skilled and technically qualified human

resources remain in short supply. This poses a major challenge to labor productivity, national competitiveness, and the broader goal of developing a high-quality workforce in the context of digital transformation and global integration.

## Human Resource Quality

### Educational Attainment and Technical Qualifications

Indicators of education and training have shown significant improvement. The proportion of trained workers (with degrees or certificates) has steadily increased over time. In 2015, the share of workers with formal training qualifications was 19.9%, rising to 28.4% by 2024 (31.7% for men and 24.7% for women; 42.4% in urban areas and 19.7% in rural areas). The overall rate of trained workers within the working-age population reached 31.0%. Among these, 6.3% held elementary-level vocational training, 4.3% had intermediate-level, 4.2% had college-level, and 13.6% possessed a university degree or higher (compared with 9.0% in 2015) (GSO, 2025b, pp.181-182). However, more than 70% of workers have not received formal vocational education, with most acquiring short-term skills or on-the-job experience. Meanwhile, achievements in general education have placed Vietnam among the top-performing countries in East Asia and the Pacific in terms of the Human Capital Index. According to the Human Development Report (HDR) 2025, Vietnam's Human Development Index (HDI) reached 0.766 in 2023, ranking 93rd out of 193 countries and territories, placing it within the high human development group.

This upward trend reflects the government's strong commitment to expanding the vocational and higher education network, which currently includes over 2,464 vocational training institutions and 243 higher education establishments (GSO, 2025b, pp.936, 928). As of September 2025, Vietnam had 200 higher education institutions accredited under national quality standards, and 16 universities together with nearly 700 undergraduate programs meeting international accreditation standards (Van Trang, 2025).

According to the World Bank (2023), only 35% of Vietnamese workers are considered to possess the skills required for modern jobs, significantly lower than the averages of Malaysia (52%) and Singapore (70%). This finding underscores that the quality of human resources remains a major bottleneck in Vietnam's labor productivity growth.

### Health and Workforce Longevity

The quality of human resources is not only reflected in educational attainment and vocational skills but also in health status and labor longevity—key determinants of productivity and sustainable labor market participation. According to the General Statistics Office (GSO), the average life expectancy of Vietnamese people increased from 73.3 years in 2015 to 74.7 years in 2024, with men averaging 72.3 years and women 77.3 years; urban residents reached 76.8 years, higher than rural residents (74.4 years) (GSO, 2025b, p.143). Regional disparities are also evident: the Southeast region recorded the highest life expectancy (76.5 years), followed by the Red River Delta (75.9 years), while the Northern Midlands and Mountainous Area (72.8 years) and the Central Highlands (72.2 years) were below the national average.

A regional comparison shows that Vietnam's average life expectancy (74.7 years) is higher than the Southeast Asian average (72 years) but remains lower than more developed neighboring countries such as Thailand (76 years), Malaysia (77 years), and Singapore (83 years). Notably, according to the World Health Organization (WHO,

2023), the healthy life expectancy (HALE) of Vietnamese people is only about 64.1 years, nearly 11 years shorter than the overall life expectancy. This highlights the growing burden of chronic diseases, occupational health risks, and quality-of-life challenges—all of which pose significant obstacles to achieving high-quality human resource development in the coming period.

### Social Protection Network and Labor Welfare Policies

The expansion of the social protection network has contributed significantly to stabilizing workers' livelihoods. In 2024, the number of social insurance participants reached approximately 20.11 million, accounting for 42.71% of the working-age labor force—a 10.2-fold increase compared with 2017. The number of health insurance participants totaled 95.523 million, equivalent to 94.2% of the population covered, while unemployment insurance enrolled 16.093 million people, representing 34.18% of the working-age labor force (Vietnam Social Security, 2025).

Wage policies have been adjusted appropriately; between 2016 and 2024, the minimum wage increased by an average of 5.96% per year, and the average wage rose by 6.57% annually, leading to a notable improvement in workers' living standards (Ngan Anh, 2024). During the COVID-19 crisis, government authorities successfully maintained labor supply chains, preventing labor market disruptions, while also implementing emergency assistance policies to support affected workers, enabling their return migration and reintegration into the labor market.

### Labor Productivity and Utilization Efficiency

Labor productivity serves as a comprehensive indicator reflecting both the quality and efficiency of human resources. During the 2016-2020 period, average labor productivity increased by 5.8% per year, compared with 4.3% in the 2011-2015 period. According to the General Statistics Office (GSO, 2025), Vietnam's labor productivity in 2024 reached approximately VND 222.0 million per worker (at current prices), equivalent to USD 9,184 per worker.

In terms of purchasing power parity (PPP, 2021), Vietnam's labor productivity (2023) equaled 11.2% of Singapore's, 36.2% of Malaysia's, 64.6% of Thailand's, and 84.8% of Indonesia's (Ngoc An, 2025). Despite these gaps, the positive trend lies in the rapid productivity growth observed in the industrial–construction and service sectors. In particular, industries such as information technology, finance, logistics, and manufacturing have achieved average productivity growth rates exceeding 6.5% per year, thereby enhancing Vietnam's competitiveness within the regional supply chain.

### Economic Structure and the Shift in Human Resource Composition

Vietnam's economy has gradually shifted from agriculture toward industry and services. By 2024, agriculture-forestry-fishery accounted for 11.86% of GDP, industry and construction 37.64%, and services 42.36% (GSO, 2025a). Accordingly, employment has shifted: 13.7 million in agriculture (26.4%), 17.4 million in industry and construction (33.5%), and 20.8 million in services (40.1%) (GSO, 2025b, p.98).

Low productivity and limited technology in agriculture have driven youth migration to industry and services, causing rural labor aging. The industrial-construction sector benefits from FDI and export-oriented growth, offering higher productivity and income. The service sector, now the largest employer, continues to absorb labor from agriculture but remains segmented, with low-skilled jobs

predominating and high-skilled positions in short supply, reflecting structural disparities in the labor market.

### Average Income and Labor Inequality in Vietnam

According to the General Statistics Office (GSO, 2025), the average monthly income of Vietnamese workers in 2024 reached VND 7.7 million, up 8.6% from 2023, reflecting post-pandemic recovery and improvements in job quality. However, significant income disparities persist across gender, regions, and sectors. Male workers earned 1.34 times more than females (VND 8.7 million vs. 6.5 million), and urban workers earned 1.39 times more than rural workers (VND 9.3 million vs. 6.7 million), indicating unequal access to higher-value positions. By sector, most industries saw income growth, yet differences remain pronounced: agriculture, forestry, and fisheries earned VND 4.5 million/month, manufacturing VND 8.4 million, mining VND 11.2 million, and finance–banking–insurance VND 12.8 million/month. Overall, while average incomes increased, the distribution continues to reflect clear stratification between high- and low-skilled labor and between modern and traditional sectors.

### Vietnamese Overseas Labor Force and Remittances

According to statistics from the Ministry of Labour, Invalids and Social Affairs (MOLISA, 2024), by the end of 2024, there were over 700,000 Vietnamese workers employed abroad under labor export contracts, earning stable incomes and sending home a substantial volume of remittances, estimated at USD 3.5–4.0 billion per year. In 2024 alone, approximately 150,000 Vietnamese workers went abroad for contract-based employment. This segment of the human resources (HR) pool not only helps ease domestic labor market pressures but also facilitates the transfer of skills and technology back to Vietnam, contributing to national human capital accumulation and socio-economic development.

## POLICY DIRECTIONS AND RECOMMENDATIONS

Based on the above findings, five key policy directions are identified to guide Vietnam's human resource development strategy for the period 2025–2035. Fundamental reform of education, training, and skills development remains the cornerstone of Vietnam's human resource development strategy for 2015–2024, aimed at meeting the demands of the digital economy and the Fourth Industrial Revolution (Industry 4.0). The reform's central focus is on aligning education and training with the real needs of the labor market, where enterprises play a pivotal role in defining the occupational skill sets required. This approach helps narrow the gap between "training" and "employment," ensuring that graduates can effectively integrate into the workforce upon completion of their studies.

At the same time, reskilling and upskilling the middle-aged labor force has become an urgent task in the context of automation and digital transformation, which are rapidly reshaping occupational structures. Vietnam needs to build an open and flexible vocational education and training (VET) system, integrating vocational learning - lifelong learning - and digital skills, allowing workers to continuously update their knowledge and competencies.

In parallel, reforming the quality assurance and evaluation mechanisms in education and training is a critical component. The focus should shift from a "learning-to-test" model to a "learning-to-work" paradigm, emphasizing practical competence, creative thinking, and adaptability rather than purely academic achievements. Furthermore, the development and implementation of the National Skills Framework (NSF) aligned with ASEAN standards represents an important step toward standardizing occupational competencies, facilitating skills recognition and labor mobility within the region.

The development of digital and science-technology human resources constitutes a strategic orientation for Vietnam in the 2020–2030 decade, aimed at meeting the demands of the knowledge-based economy and comprehensive digital transformation. The synchronized implementation of the National Digital Transformation Strategy has laid the groundwork for integrating basic digital skills into the curricula of 100% of higher education and vocational institutions by 2030.

In parallel, Vietnam needs to establish a digital human resource ecosystem comprising technology training centers, artificial intelligence (AI) institutes, big data centers, and innovation and startup hubs, thereby cultivating a workforce capable of adapting to emerging technologies. Within the context of international integration, enhancing cooperation in STEM education, technology transfer, and vocational internships with strategic partners such as Japan, the Republic of Korea, and Germany is of critical importance to improving the quality of high-skilled technical labor. In particular, priority should be given to developing human resources in key frontier sectors such as artificial intelligence, cybersecurity, automation, renewable energy, and biotechnology - industries that serve as the driving forces of green growth and sustainable development.

Along with the aforementioned strategies, the policy of talent attraction and utilization must be regarded as a breakthrough measure in developing high-quality human resources. The formulation of a National Strategy for Talent Attraction and Utilization toward 2045, associated with competitive and transparent incentive mechanisms and a creative working environment, constitutes an urgent requirement.

Local governments and enterprises should proactively establish Talent Development Funds to encourage and retain competent individuals through performance-based rewards, training opportunities, and career advancement mechanisms. At the same time, developing a global network of Vietnamese experts and professionals abroad-through scientific cooperation programs and knowledge transfer initiatives-will play a crucial role in facilitating the diffusion of global knowledge and enhancing the overall quality of the domestic workforce.

In the context of rapid population aging, Vietnam must proactively formulate a National Strategy for Aging Adaptation and Demographic Transition, integrating the gradual extension of the retirement age with reskilling and upskilling programs for older workers. A flexible social insurance policy should be expanded to attract participation from the informal sector, thereby ensuring social security and mitigating labor market risks. At the same time, developing flexible employment models and increasing investment in occupational health systems and workplace healthcare services are essential measures to extend the "healthy working life expectancy", thereby maintaining labor productivity and employability amid an aging population.

In addition, strengthening institutions, data systems, and labor market governance serves as a foundational pillar for sustainable human resource development. Vietnam needs to establish a National Database on Skills and the Labor Market, interconnected with the ASEAN Labour Market Portal, to enhance forecasting capacity and evidence-based policymaking. Reforming the labor demand forecasting system is essential to align education and training planning more closely with actual economic needs. Furthermore, the transformation of state management of labor and employment from a model of "control" to one of "support and market facilitation" will maximize the dynamism of a socialist-oriented market economy. Integrating human resource development with the National Green Growth Strategy, while promoting green transition and sustainable employment, constitutes a strategic orientation to ensure harmony

between economic growth, social development, and environmental protection.

## CONCLUSION

The period 2015-2024 marks a pivotal phase in Vietnam's socio-economic development, during which human resources have continued to serve as the central pillar of the nation's strategy for industrialization, modernization, and digital transformation. Analytical data indicate that Vietnam's labor force has steadily expanded in size and undergone a positive structural shift; however, its quality and productivity remain relatively low compared to regional peers. Labor productivity continues to lag behind that of ASEAN countries. Furthermore, the rapid aging of the population, persistent gender disparities, and regional inequalities have created significant challenges for the sustainable development of the labor market. In response, Vietnam needs to shift the strategic focus of human resource development from quantity to quality, and from knowledge-based training to skills and creativity-based capacity building. Key strategic orientations include: comprehensive reform of education and training, development of digital and scientific-technological human resources, modernization of labor market institutions, adaptation to population aging, and linking human resource development with green growth and innovation.

From a historical perspective, this decade represents a transformation from a "labor-based economy" to a "knowledge-based economy," reflecting a fundamental change in the nation's approach to human development. In the long term, investment in human capital must be regarded as a strategic investment in the nation's future, a determinant of Vietnam's position and competitiveness in the process of regional and global integration.

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## REFERENCES

1. Vietnam Social Security. (2025). Press release: 10 key achievements of Vietnam's Social Security sector in 2024. Vietnam Social Security Portal. <https://baohiemxahoi.gov.vn/chidaodieuhanh/pages/thong-tin-baochi.aspx?ItemID=24219&CatelID=125>. Accessed October 26, 2025.
2. Becker, G. S. (1993). *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education* (3rd ed.). Chicago: University of Chicago Press.
3. Ministry of Labour, Invalids and Social Affairs. (2024). Report on the evaluation of the 2024 performance and the 5-year plan 2021–2025; orientations and tasks for 2025 and the development direction for the period 2026–2030 in the field of labor, people with meritorious service, and social affairs. Hanoi.
4. Dessler, G. (2015). *Fundamentals of Human Resource Management* (4th ed.). Pearson Education Limited.
5. Communist Party of Vietnam. (2021). *Documents of the 13th National Congress of the Communist Party of Vietnam, Vol. 1*. Hanoi: The Truth National Political Publishing House.
6. International Labour Organization (ILO). (2022). *Skills for Green Jobs: A Global View 2022 Update*. Geneva: ILO.
7. International Labour Organization (ILO). (2023). *Human Resources Development for Inclusive Growth and Sustainable Employment*. Geneva: ILO.
8. Ngan Anh. (2024). 2016-2024: Twelve outstanding achievements in labor, people with meritorious service, and social affairs. *Nhan Dan Newspaper*. <https://nhandan.vn/giaidoan-2016-2024-ghi-dau-an-12-thanh-tuu-noi-bat-ve-lao-dong-nguoi-co-cong-va-xa-hoi-post850395.html>. Accessed October 26, 2025.
9. Ngoc An. (2025). Vietnam's labor productivity equals only 11.2% of Singapore's, facing the middle-income trap. *Tuoi Tre Newspaper*. <https://tuoitre.vn/nang-suat-lao-dong-viet-nam-chi-bang-11-2-singapore-doi-mat-bay-thu-nhap-trung-binh-20251020151606001.htm>. Accessed October 26, 2025.
10. Noe, R. A., & Hollenbeck, J. R. (2024). *Fundamentals of Human Resource Management* (9th ed.). McGraw-Hill Education.
11. Organisation for Economic Co-operation and Development (OECD). (2021). *Skills Outlook 2021: Learning for Life*. Paris: OECD Publishing.
12. Schultz, T. W. (1971). *Investment in Human Capital: The Role of Education and Research*. New York: The Free Press.
13. General Statistics Office (GSO). (2016). *Labor and Employment Survey Report 2015*. Hanoi: Statistical Publishing House.
14. General Statistics Office (GSO). (2022). *Labor and Employment Survey Report 2021*. Hanoi: Statistical Publishing House.
15. General Statistics Office (GSO). (2024). *Key Results of the 2024 Mid-term Population and Housing Census at 0:00 on April 1, 2024*. Hanoi: Statistical Publishing House.
16. General Statistics Office (GSO). (2025a). Report No. 04/BC-TCTK on the Socio-Economic Situation in the Fourth Quarter and for 2024. Hanoi.
17. General Statistics Office (GSO). (2025b). *Statistical Yearbook of Vietnam 2024*. Hanoi: Statistical Publishing House.
18. General Statistics Office (GSO). (2025c). Press Release on January 6, 2025: Labor and Employment Situation in Q4 and 2024. Hanoi.
19. United Nations Development Programme (UNDP). (2023). *Human Development Report 2023: Breaking the Gridlock – Reimagining Cooperation in a Polarized World*. New York: UNDP.
20. Van Trang. (2025). Vietnamese universities meeting international standards and appearing in global rankings are increasing. *Lao Dong Newspaper*. <https://laodong.vn/giaoduc/so-dai-hoc-viet-nam-dat-chuan-quoc-te-vao-bang-xep-hang-the-gioi-tang-1580495.laodong>. Accessed October 26, 2025.
21. World Bank. (2019). *The Changing Nature of Work – World Development Report 2019*. Washington, DC: The World Bank.
22. World Bank. (2023). *Vietnam Skills Report 2023*. Washington, DC: The World Bank.
23. World Health Organization (WHO). (2023). *World Health Statistics 2023: Monitoring Health for the SDGs, Sustainable Development Goals*. Geneva: World Health Organization.

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