

Report on Talent Development in Asia under Technology Transformation (2023)

Alliance of Global Talent Organizations (AGTO)

Center for China and Globalization (CCG)

Morgan Philips Group (MPG)

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Introduction

Report to the 20th National Congress of the Communist Party of China regards science and technology as the primary productive forces, talent as the primary resource, and innovation as the primary driver of growth. By implementing the strategy of invigorating China through science and education, the workforce development strategy, and the innovation-driven development strategy, China aims to open up new areas and new arenas in development and steadily foster new growth drivers and new strengths. In recent years, against the backdrop of rapid development of internet technologies, artificial intelligence (AI) has become a key technology leading to a new round of technological and industrial revolution, widely applied in various fields, promoting the multi-sector and multi-dimensional reconstruction of the society and the economy.

As early as the 1980s, the academic community began to discuss the impact of technological development on talent. In March 2017, AI was first included in the Report on the Work of Chinese Government. In March 2021, the New Generation AI was listed as one of the seven frontier fields of science and technology in *Outline of the 14th Five-Year Plan (2021-2025) for National Economic and Social Development and Vision 2035 of the People's Republic of China*. In July 2022, the Ministry of Science and Technology and five other Departments issued *the Guiding Opinions on Accelerating Scenario Innovation and Promoting High-quality Economic Development with High-level Application of Artificial Intelligence*, which mentions the need to cultivate innovative talents for AI application scenario through multiple channels, encourage universities to enhance students' innovation literacy and ability in AI disciplinary teaching, and train professional talents with innovative consciousness and ability. Report to the 20th National Congress of the Communist Party of China also points out that new growth engines, such as the new generation of information technology and AI should be built.

In order to keep track of the impact of technological changes, including AI, on the Asian talent market in a timely manner, the Alliance of Global Talent Organizations

(AGTO), the Center for China and Globalization (CCG), and Morgan Philips Group (MPG) jointly launched the *Report on Talent Development in Asia under Technology Transformation (2023)*, which is the first talent report released by AGTO. Starting with the impact of technological changes on talent development, the research team analyzed literature and conducted surveys on practitioners, experts, and youths from various industries. The team found that the Asian human resources (HR) market has seen a shift towards job polarization in the context of technological changes. Respondents were mainly concerned about the impact of global economic state on their jobs, and about related issues such as company integrity and transparency, hybrid work and interpersonal space. Among them, young respondents were more worried about layoffs caused by technological advances. In general, the report's research shows that the perception of the Asian talent market regarding layoffs caused by technology is not yet apparent.

Combined with relevant literature and research, this report summarizes the impacts of technological changes on talent development and the HR market. From the perspectives of talents, enterprises, talent education and cultivation systems, and policy-making departments, this report provides relevant recommendations on how to cope with the impact brought about by technological change on talent development.

Key findings

The report discusses six aspects that technological changes will impact talent development.

Firstly, through human-computer interaction and integration, a two-way interaction has been formed between human and AI, expanding human capabilities and promoting better performance of human talents.

Secondly, AI may redefine the boundaries between talent and intelligence, virtualizing talent resources, no longer limiting talent in people themselves, but leading to a new model of talent development, such as human-computer collaboration, which has a certain impact on existing legal and ethical systems.

Thirdly, technologies such as AI will bring more opportunities for being automated and intellectualized, dramatically improving the institutions, standards, and procedures in talent management and gradually replacing work with the characteristics of repetitiveness, low creativity, and low judgment.

Fourthly, AI's application has changed the way of production and life. While transforming and overturning traditional jobs patterns, AI also create new business models and employment opportunities, and promote international talents education and relevant training.

Fifthly, the management model of talent resources will be shifted from large enterprise domination to virtual platforms domination, the work forms will be shifted from a single labor-oriented to combined labor, and talent sharing and mobilization will be more obvious. Remote work will be widely accepted, while working patterns will become more flexible and digitized, leading to new variations in talent flow, incentive, and protection mechanisms.

Lastly, AI's development drove the restructuring of talent demand and transformed traditional workforce structure, requiring more flexible and diversified talents, and pioneering new talent assessment and cultivation systems. Collaboration between humans, systems, tools, and platforms tends to be a norm, and human-computer

collaboration abilities will be transformed into an important evaluation criterion. AI talents, composite talents, and innovative talents will become the focus of the HR market demand in the future. Talent cultivation is also shifting towards an interdisciplinary direction, and the philosophy, content, and ecology of talent education need to be transformed.

The report also indicates that there are four aspects of the Asian HR market due to technological change.

Firstly, the labor market has seen a shift toward job polarization. Though polarization used to mean fewer middle-level jobs, this report found that due to the negative impact of the international political stress and economic downturn, the positions for chief executives and senior managers have been significantly reduced compared to the previous year. In contrast, middle-level jobs did not decrease. 34% of the respondents indicated that the number of middle-level positions did not change compared to the previous year, but even increased. Due to the existing flow of employees between different industries in many regions of Asia over the past year, middle-level positions remain relatively stable.

Secondly, over 70% of the respondents are concerned about whether their jobs will be subjected to the current state of the global economy and the upcoming economic crisis. However, there is merely a low level of concern in mainland China compared with other developed Asian markets. Respondents aged 31 to 60 generally worry about the impact of global economic developments on their jobs, while those under 30 are significantly less concerned than other groups.

Thirdly, younger respondents are more concerned about layoffs caused by technological advances. Respondents' perception sensitivity to the professional impact of technological change is not robust, with only 8% of respondents worried about it. This may be partly due to the fact that the respondents are mainly in Asia, where AI tools like ChatGPT have not yet been widely popularized, and the HR market has not yet experienced the impact of AI on a large scale. This report found that the youth are more concerned about layoffs caused by technological progress, with 21% of

respondents aged 20-25 and 16% of respondents aged 26-30 worried about it. By sector, a higher proportion of respondents in the banking, financial, and insurance services, as well as IT, software, and Internet industries, are more worried about this issue, with 18% of respondents in both sectors respectively expressing concerns.

Fourthly, under these changes, talents pay more attention to the integrity and transparency of companies, hybrid work, and interpersonal spaces. Salary remains to be the most important factor in attracting talents, with “integrity and transparency” topping the list of non-monetary incentives, followed by the company’s “diversity” philosophy. Nearly 50% of respondents believe that emphasizing integrity and transparency or embracing diversity are their primary motivators. Nearly one-third of respondents express their willingness to continue to work remotely or in a hybrid work in the next few years, and 26% of them believe that providing flexible working hours is an important factor in their career choices. More than 26 percent of respondents across different regions opine that a lack of interpersonal space and privacy protection affects their enthusiasm and efficiency for work.

I. The Impact of Technological Transformation on Talent Development

In recent years, with the rapid development of Internet technology driven by big data and cloud computing technology, artificial intelligence (AI) has become a key technology, which leads a new round of technological revolution and industrial transformation, brings a series of high-tech developments, and affects human production, daily life, and even the way of thinking. Artificial intelligence is widely applied in various fields of society, such as deep learning, robotics, data mining, image and speech recognition, natural language processing, etc. It is also gradually applied in intelligent transportation, e-commerce and retail, manufacturing security, financial risk control, education, healthcare, and personal assistants, turning into a vital engine which facilitates the digital economy and reshapes industrial structure, production, and lifestyle, as well as social governance.

In March 2017, AI was included in the Report on the Work of Chinese Government for the first time. China has continued to increase its investment in funding, technology, and personnel in the field of AI. While focusing on AI research and technology application, China has started applying new technologies, methods, philosophies, and means related to artificial intelligence to social governance, including the construction of a talent development governance system. In March 2021, *the Outline of the 14th Five-Year Plan (2021-2025) for National Economic and Social Development and Vision 2035 of the People's Republic of China* listed the new generation of AI as one of the seven frontiers of science and technology. The Report to the 20th National Congress of the Communist Party of China pointed out the need to promote the integrated development of strategic emerging industries and to construct a new batch of growth engines including the new generation of information technology, artificial intelligence, biotechnology, new energy, new materials, high-end equipment, and green

environmental protection.^①

As the most crucial revolutionizing element of social productivity, AI has driven the changes in traditional industrial production methods and structures, facilitated the flow of talent to the digital economy, and had a significant impact on the future development structure of HR. With the unprecedented changes in the form, development patterns and demand structure, AI has led to a profound impact on the multidimensional transformation of talent resources, which are fundamental to economic and social development.

Firstly, through human-computer interaction and integration, a two-way interaction has been formed between humans and AI, expanding human capabilities and wisdom, and promoting better performance of talents. ChatGPT, for example, provides online education and training services helping people gain more knowledge and skills during their work and learning. ChatGPT equips talents with a wealth of information and advice to help them better evaluate themselves and receive feedback based on their behavioral data, better understand their strengths and weaknesses, and better plan their optimal path of future development.

Secondly, AI may bring about the virtualization of talent resources, leading to a new model of talent development, such as human-computer collaboration, rather than limiting talent to people themselves. The boundaries between human capabilities and intelligence will be redefined, with intelligence no longer exclusively attached to human beings. To ensure the safe provision of services by robots, in February 2017, the Committee on Legal Affairs of the European Parliament adopted a resolution on a regulatory framework for robotics that establishes the legal status of “electronic persons” for robots.^② This means that robots become the attached objects of intelligence, leaving an imaginative space for the future development of AI technology, but posing certain challenges to the existing legal and ethical frameworks

① http://www.gov.cn/xinwen/2021-03/13/content_5592681.htm.

② <https://www.europarl.europa.eu/news/en/press-room/20170110IPR57613/robots-legal-affairs-committee-calls-for-eu-wide-rules?quizBaseUrl=https%3A%2F%2Fquizweb.europarl.europa.eu>.
<https://www.europarl.europa.eu/news/en/press-room/20170210IPR61808/robots-and-artificial-intelligence-meps-call-for-eu-wide-liability-rules?quizBaseUrl=https%3A%2F%2Fquizweb.europarl.europa.eu>.

as well. As robots gradually acquire the ability to think close to human beings, the issue of the boundary between humans and computers arises. Take the accidents caused by driverless vehicles as an example, there exist legal and ethical issues that need to be addressed immediately, which have a profound impact on the concepts, approaches, and methods of talent development governance.

Thirdly, technologies such as AI will bring more opportunities for automation and intellectualization and gradually replace work with repetitiveness, low creativity, and low judgment. With the characteristics such as short chain, low cost, low risk, unified standard, and consistent action, AI could be replicated and mass-produced to meet the needs of social development, and has a high input-output ratio which can effectively reduce the talent costs as well as significantly improve institutions, standards, and procedures of talent management. With the wide use of intelligent machines and AI, workers engaged in repetitive and physical labor will be liberated through technological innovation, while some of them will be replaced. According to collaborative research conducted by Citigroup and Oxford University, China's rapid development of AI technology will lead to more than half of the jobs being replaced by "talent-like" workers. By 2030, 70% of companies will use AI technology, providing an added value of over \$13 trillion to the world economy.^① In February 2023, Resume Builder, a job-seeking service company in the United States, surveyed on the impact of ChatGPT on the working environment among 1,000 American companies. The survey found that 49% of the surveyed companies were already using ChatGPT, and an additional 30% planned to adopt it in the future. Meanwhile, 48% of them reported that they had replaced employees by using ChatGPT, and 99% of the companies applying ChatGPT reported cost savings as a result of its usage.^②

Overall, the development of AI technology will bring more opportunities for being automated and intellectualized. Workers engaged in repetitive, low-creative, low-

① 孙学玉.人工智能与人才发展[J].社会治理,2022(03):5-9.

② <https://www.resumebuilder.com/1-in-4-companies-have-already-replaced-workers-with-chatgpt/>.

judgmental, and high-risk jobs, such as customer service and translators, are more likely to be replaced by AI. AI, while improving efficiency and productivity, also reduces social demand for certain positions, creating an occupational conundrum for those who are replaced. The substitution of manual labor for robots and automated systems results in increased unemployment rates among low-skilled workers and changes in social distribution mechanisms, highlighting issues pertaining to the distribution of social wealth, employment, and social security, all of which require the government's urgent regulation and supervision. Some scholars argue that the substitution effect of artificial intelligence outweighs the income effect, and the overall employment scale is expected to shrink due to the application of AI. For instance, Carl Benedikt Frey and Michael Osborne (2017), using a probabilistic classification model and analyzed data collected from over 700 occupations, found that around 47% of occupations could be replaced in the near future. Steven Rolf (2021) asserts that traditional positions will gradually disappear with the rapid development of automation. ^①

Fourthly, the application of AI has changed the ways of production and life, and created new business models and employment opportunities. AI promotes lean production in society, leading to increasingly refined production methods, and empowering producers to provide diversified products and services to consumers, thereby changing traditional lifestyles. The endowment of resources such as labor, land, and capital has lost its inherent and irreplaceable advantages due to AI. The digital and intelligent nature of AI accelerates management intellectualization. On one hand, it transforms and disrupts traditional industries and sectors; on the other hand, it gives rise to entirely new industries based on AI technology, ultimately shaping the industrial structure of the intelligent era. ^② The development of emerging industries has also created a demand for talent in these fields, resulting in a talent gap for related positions and the derivation of new occupations and positions. In this context, the cultivation of highly skilled and innovative talents related to AI has received significant attention, and

① 孙文远,刘于山.人工智能对劳动力市场的影响机制研究[J].华东经济管理,2023,37(03):1-9.

② 朱嘉明: AI 已来, 智能时代的变革与创新.

countries around the world have strengthened the education and cultivation of AI-related talents. So far, in China, efforts had been made to establish AI-related programs in “Double First-Class” Universities, local undergraduate institutions, and vocational colleges. In April 2018, the Ministry of Education issued the *Action Plan for Artificial Intelligence Innovation in Higher Education Institutions*, and in March 2019, the Ministry announced that 35 universities had been qualified to establish undergraduate programs in AI.^① In 2022, the pilot colleges and universities of the Plan for Strengthening Basic Academic Disciplines included a group of new interdisciplinary majors related to AI. Additionally, vocational education has introduced programs in AI technology and applications, further expanding AI-related education to the primary and secondary schools.^②

Fifthly, the trends of talent sharing and talent flow are more pronounced, and work patterns are more flexible and digitalized. With the advancements in technologies such as AI, blockchain, virtual reality, etc., the sharing economy, platform economy, and micro-economy continue to thrive. The flow and aggregation of HR transcended geographical limitations, shifting its management model from large enterprises domination to virtual platforms domination. Work patterns evolve from predominantly single-labor to combined labor, giving rise to various work modes integrated by fragmented time, multi-interests, and multi-skills.^③ In the future, the sharing model will become the primary organizational mode for talent resources, driving talent mobility and development. In this context, as remote work models become widely embraced, the work patterns and processes of talents tend to be digitized, and the feasibility of remote and online work has led to the increase of flexible workers. According to *the Future of Jobs Report 2020* published by the World Economic Forum, 84% of employers are accelerating the digitization of work processes and significantly expanding the scale of remote work, with 44% of employees potentially transitioning

① https://www.thepaper.cn/newsDetail_forward_3226193.

② 周丹. 数字经济时代人工智能人才培养的意义、现状及路径, 教育参考. 2023(01).

③ 吴帅, 谢予昭. 数字时代的工作形态变革与社会保险制度创新, 行政管理改革. 2023(02).

to remote work.^① According to relevant surveys and research, 78% of companies have used remote work methods, and 47% of them plan to hire more flexible workers in the next two years. It is estimated that by 2024, the number of remote workers worldwide will reach around 600 million.^② The advancement of AI has strengthened the mobility of talent resources, improved resource utilization, blurred and diminished the geographical boundaries of the workplace, enabling faster and more efficient matching of talent resources with job opportunities, enhancing the efficiency of talent resource management, avoiding obstacles to talent mobility, and promoting new changes in talent flow, incentives, and safeguard mechanism.

Lastly, the progress of AI has driven the transformation of talent demand structure and changes in talent evaluation and cultivation systems. Technological innovation is increasingly supporting the manufacturing industry, and the development of AI will better promote the transformation and upgrading of traditional industries, resulting in changes in the demand structure and skill requirements for talents at the industry level. The intelligence and technological advancements in traditional industries have altered the traditional labor structure, requiring talents to be more flexible and diverse. The traditional linear career development model is gradually being replaced by more flexible and diverse development models. There is an increasing demand for talents with interdisciplinary and cross-domain backgrounds, while cultivating talents with comprehensive abilities and interdisciplinary knowledge has been acknowledged as a trend. The evaluation and cultivation systems for talents will also undergo transformation and breakthroughs. Collaboration between humans and systems, tools, and platforms tend to be a norm, and the ability to collaborate with AI systems will become an important evaluation criterion. AI talents, hybrid talents, and innovative talents will become the focus of future demand in the labor market, and talent cultivation will shift toward interdisciplinary directions. The structural changes

① 世界经济论坛. The Future of Jobs Report 2020[R/OL].

https://www3.weforum.org/docs/WEF_Future_of_Jobs_2020.pdf.

② Gartner Research. Invest Implications: Forecast Analysis: Remote Workers Forecast, Worldwide.

<https://www.gartner.com/en/documents/3989492>.

in talent demand have raised higher requirements for talent development, as a large number of creative and flexible jobs still need to be performed by humans. It also poses new challenges for education, as adjustments need to be made to the mode of talent cultivation. First, educational concepts need transforming, and knowledge acquisition channels should include not only traditional classrooms but technological channels like databases and online resources. Next, the content of teaching should not only focus on new knowledge, new technologies, and new tools, but also emphasizes the cultivation of critical thinking. What's more, the educational ecosystem should shift from the binary relationship of teacher-student to a diverse relationship involving teachers, students, and technology.^① Last but not least, AI has fostered the demand for autonomous and continuous learning. Resultingly, talents need to possess the ability to continuously learn and adapt to new technologies in order to keep up with technological advancements.

In summary, the advent of the AI era has had far-reaching impacts on various aspects including ethical concepts, legal norms, socio-economics, industrial development, corporate organizations, individual talents, etc., generating great demands for talents in the field of AI. The arrival of this era has led to the optimization of talent structure, enhanced allocation of talent resources, improved the efficiency of talent distribution, facilitated talent development, mobility, and improvement, as well as posed new challenges to existing talent development and governance strategies.

^① According to the speeches delivered by Huang Kan, President of the Beijing Education International Exchange Association, and Zhang Ning, Chairman of the International Competence Development Professional Committee and former Deputy Secretary-General of the China Scholarship Council of the Ministry of Education, at the 2023 International Talent Training and Development Forum organized by the Center for China and Globalization (CCG) and ETS China on April 12, 2023, the following points were summarized.

II. The Impact of Technological Change on the Asian Labor Market

This section is based on a survey conducted by the research team from November 2022 to January 2023, which involved over 5,000 employees in the Asia-Pacific region, analyzing the changes in the Asian labor market under technological change.

2.1 The Shifting Polarization of the Labor Market

According to relevant studies, since the mid-1990s, there has been a clear trend of job polarization in OECD countries, characterized by a reduction in middle-skill jobs and an increase in high-skill and low-skill jobs. ^① Initially, this was attributed to the impact of technological progress on employment structure, but further analysis revealed that the main causes of polarization include the increasing offshore outsourcing of services, production, or other business sectors, the growth of international trade and interdependence, and the higher salary, position, and responsibility expectations of new employees with higher education.

Regarding the so-called “job polarization,” respondents believe that the two main factors causing it are the changing world economic situation and the fundamental transformation of job market demands. Across all regions, an average of 53% of respondents mentioned these two factors. In addition, 12% of respondents stated that government policies would cause job polarization, and 10% of respondents believed that technological development is the root cause of job polarization.

① 王俊美. 有效应对数字化对劳动力市场影响[N]. 中国社会科学报,2023-02-15(002).

Table 1: Investigation of the Causes of Job Polarization (Regional Distribution)

What do you believe is the fundamental cause of job polarization in your industry?

	Job Sector Demand	World Economics	Government Policies	Technological Development
Mainland China	24%	29%	16%	12%
Taiwan	29%	29%	6%	12%
Hong Kong	22%	27%	17%	9%
Singapore	23%	27%	11%	8%
Other Asian Markets	20%	33%	8%	10%
Average	24%	29%	12%	10%

* Other factors include:

- More university graduates are demanding higher-level entry positions, leading to a decrease in the number of middle-level employees.
- Increase in project/job outsourcing.
- Increase in overseas job seekers.

Source: Research data from the Morgan Philips Group Talent Database.

Respondents in the technology, media, and telecommunications sector believe that the fundamental shift in job market demands has the greatest impact on job polarization, with 31% of respondents considering the change in job market demands as the root cause of job polarization. In the healthcare and life sciences sector, the highest proportion (34%) of respondents believe that changes in the global economic situation are the fundamental cause of job polarization. Among respondents in the healthcare and life sciences sector, the highest proportion (14%) consider technological advancements to be the primary cause of job polarization, followed by the IT, software, and internet sector (12%), and the technology, media, and telecommunications sector (11%).

Table 2: Investigation of the Causes of Job Polarization (Sector Distribution)

What do you believe is the fundamental cause of job polarization in your industry??

	Job Sector Demand	World Economics	Government Policies	Technological Development
Banking, Financial, and Insurance Services	23%	25%	15%	8%
Healthcare and Life Sciences	20%	34%	10%	14%
Technology, Media, and Telecommunications	31%	28%	11%	11%
IT, Software, and Internet	27%	29%	10%	12%

* Other factors include:

- More university graduates are demanding higher-level entry positions, leading to a decrease in the number of middle-level employees.
- Increase in project/job outsourcing.
- Increase in overseas job seekers.

Source: Research data from the Morgan Philips Group Talent Database.

The research results indicate a rapid decrease in the number of higher-level positions, which differs from the previous perception of job polarization. In the past, job polarization meant a reduction in mid-level positions, but the survey results reveal a significant decrease in executive and senior management positions compared to the previous year. One-third of the respondents perceive this decline as negative. The decrease in higher-level positions may be attributed to the impact of the international situation and the global economic downturn, such as geopolitical tensions and inflation in major economies. Companies are no longer hiring expensive executives and are instead turning to the mid-level talent market. As a result, mid-level positions have not seen a decrease. 34% of the respondents indicated that there was no change or even an increase in mid-level positions compared to the previous year. This could be due to the employee mobility across different industries in many Asian regions over the past year, which has contributed to the relative stability of mid-level positions.

The decrease in executive-level positions and the ongoing demand for mid-level managers and professionals in the market suggest that companies can consider the

following strategies:

- Bridge the expertise gap by hiring consultants or freelancers;
- Invest in the training and promotion of internal employees to promote their progress and development;
- Review existing promotion mechanism and other incentive criteria to ensure that employees are treated fairly and equally.

2.2 Over 70% of the respondents expressed concerns about the impact of the global economic situation on their jobs.

Negative factors are closely related to the need for employees to maintain their livelihoods, and any form of income reduction will have a direct and substantial impact on them.

On average, 70% of the respondents believe that the current global economic situation and the upcoming economic crisis may lead to negative changes in their jobs in 2023. This data reflects people's concerns about rising inflation, increased cost of living, and global economic recession. Compared to other developed markets in Asia, respondents from mainland China have expressed relatively lower levels of concern, as shown in Table 3.

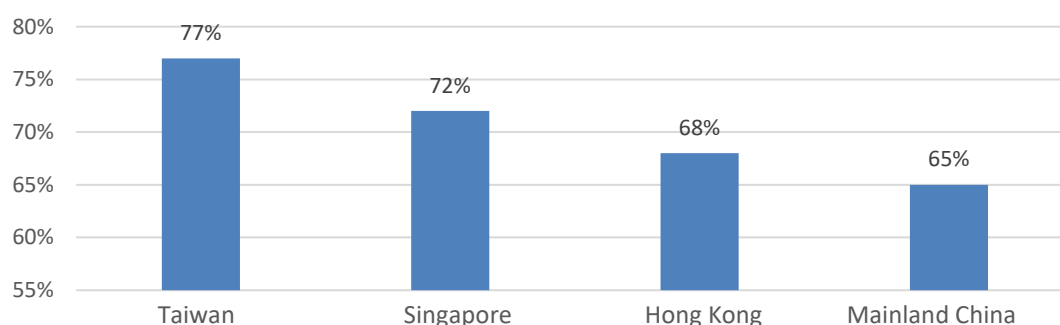


Table 3: Concerns of talent from different regions regarding the impact of the global economy on their positions

Source: Research data from the Morgan Philips Group Talent Database.

Respondents in the age group of 31 to 60 generally express concerns about the impact of global economic development on their own positions. Among respondents aged 31 to 40, 73% expressed concerns, while among respondents aged 41 to 60, 70% shared the same concerns. The proportion of young people under the age of 30 expressing concerns is significantly lower compared to other age groups, as shown in Table 4.

2.3 Younger respondents are more concerned about layoffs caused by technological advancements.

The respondents' awareness of the career impact brought about by technological changes is not very high. Overall, only 8% of the respondents express concerns about job cuts due to technological advancements. This could be attributed to the fact that the respondents are mainly from the Asian region, where AI tools like ChatGPT have not yet become widespread, and the human resources market has not experienced the widespread impact of AI on a large scale.

Looking at the age distribution, younger individuals are more concerned about layoffs resulting from technological advancements. Among respondents aged 20-25, 21% expressed concerns about layoffs due to technological advancements. Among those aged 26-30, 16% shared the same concerns. In comparison, only 8% and 9% of respondents in the 31-40 and 41-50 age groups, respectively, expressed concerns about layoffs due to technological advancements. The percentage of respondents aged 51 and above who are worried about layoffs resulting from technological advancements is even lower, ranging from 4% to 5%.

Younger individuals are more concerned about the impact of technology for several reasons. Firstly, they tend to be more sensitive to technological changes. Secondly, their career development may not be as stable, making their job roles more susceptible to being replaced by AI and other technologies. On the other hand, respondents aged 51 and above have a lower level of concern regarding layoffs resulting

from technological advancements. This could be due to their lower sensitivity to technological changes and their relatively more established and stable career paths.

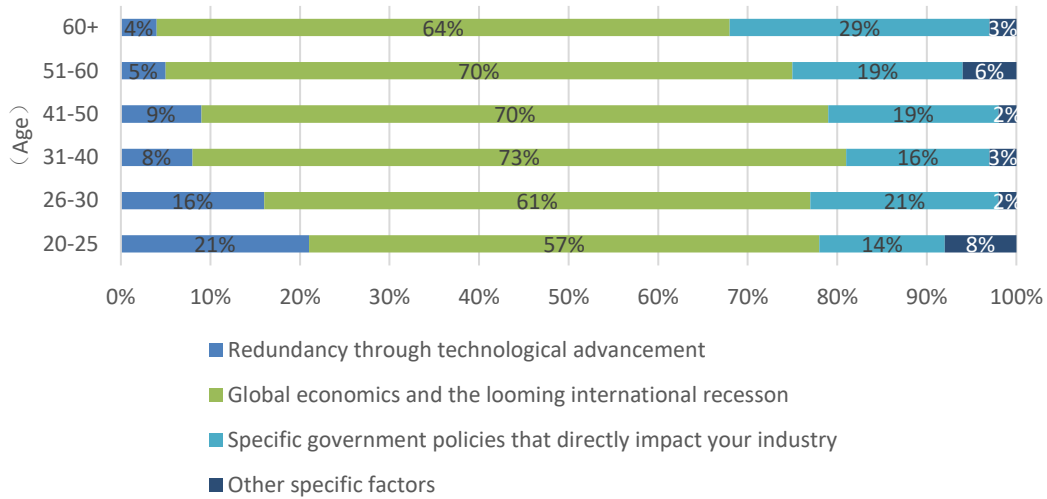


Table 4: Concerns of talent from different age groups regarding the impact of different factors on their positions

Source: Research data from the Morgan Philips Group Talent Database.

From a sectoral perspective, respondents in the banking, financial, and insurance services sector, as well as the IT, software, and internet sector, express a higher proportion of concerns about layoffs resulting from technological advancements. In both sectors, 18% of the respondents expressed such concerns. Among respondents in the healthcare and life sciences sector, 9% shared similar concerns.

Table 5: Concerns of Talent in Different Sectors about Factors Affecting Their Positions

What do you think are the key negative factors that will affect your position in the future?

	Layoffs caused by technological advancements	Global economic changes and the upcoming international economic recession	Specific government policies which will directly impact the industry
Banking, Financial, and Insurance Services	18%	68%	15%
Healthcare and Life Sciences	9%	68%	19%
Technology, Media, and Telecommunications	2%	71%	25%
IT, Software, and Internet	18%	64%	14%

Source: Research data from the Morgan Philips Group Talent Database.

2.4 Amidst the technology changes, talent is more concerned about the company's integrity and transparency, hybrid work, and interpersonal space

Research data shows that while salary remains the primary factor in attracting talent, it is closely followed by:

- Integrity and Transparency, which refers to respecting employees' perspectives and feelings and considering them in the decision-making process;
- Diversity embraced by the company.

According to the survey results, "Integrity and Transparency " ranked high among non-monetary motivators, followed by the company's commitment to "diversity." Nearly 50% of respondents believed that "integrity and transparency" or "embracing diversity" were the main motivators for them. On the other hand, factors like "social justice" and "extreme inclusivity" ranked relatively lower. In Singapore, respondents were particularly focused on integrity and transparency, with 29% of Singaporean

respondents believing that successful companies should uphold these principles and values. In the banking, financial, and insurance services sector, respondents showed more concerns about "integrity and transparency" compared to other sectors, with 34% of respondents in this sector recognizing the importance of companies conveying these principles. The healthcare and life sciences sector followed closely, with 29% of respondents acknowledging the significance of "integrity and transparency" in companies.

Table 6: Recognition of Company's Guiding Principles and Fundamental Beliefs among Talent in Different Regions

Which aspirational guiding principles and fundamental beliefs do you believe a successful company should deliver?

	Integrity and Transparency	Embracing Diversity	Social and Corporate Governance
Mainland China	24%	21%	19%
Taiwan	28%	20%	17%
Hong Kong	27%	17%	11%
Singapore	29%	12%	13%
Other Asian Markets	28%	15%	15%
Average	27 %	20%	18%

*Other factors include:

- Showing compassion and enhancing employee well-being.
- Advocating for social justice and unconditionally embracing employees in the workplace, ensuring fair distribution of resources, opportunities, and rights.
- Demonstrating sustainability by responsibly using resources, avoiding environmental impacts, and safeguarding employee health.
- Cultivating an environment of extreme inclusivity.

Source: Research data from the Morgan Philips Group Talent Database.

**Table 7: Recognition of Company Guiding Principles and Fundamental Beliefs
by Talent in Different Industries**

Which aspirational guiding principles and fundamental beliefs do you believe a successful company should deliver?

	Integrity and Transparency	Embracing Diversity	Social and Corporate Governance
Banking, Financial, and Insurance Services	34%	13%	13%
Healthcare and Life Sciences	29%	20%	15%
Technology, Media, and Telecommunications	26%	19%	19%
IT, Software, and Internet	28%	18%	18%

*Other factors include:

- Showing compassion and enhancing employee well-being.
- Advocating for social justice and unconditionally embracing employees in the workplace, ensuring fair distribution of resources, opportunities, and rights.
- Demonstrating sustainability by responsibly using resources, avoiding environmental impacts, and safeguarding employee health.
- Cultivating an environment of extreme inclusivity.

Source: Research data from the Morgan Philips Group Talent Database.

In the changing environment, many employees prefer remote work or hybrid work models. In the Asian region, nearly one-third of the respondents indicated that they would continue to maintain remote work or hybrid work models in the coming years. Another major factor influencing talent's workplace choices is whether the company can provide flexible working hours for employees. 26% of the respondents consider flexible working hours as an important factor in their workplace choices.

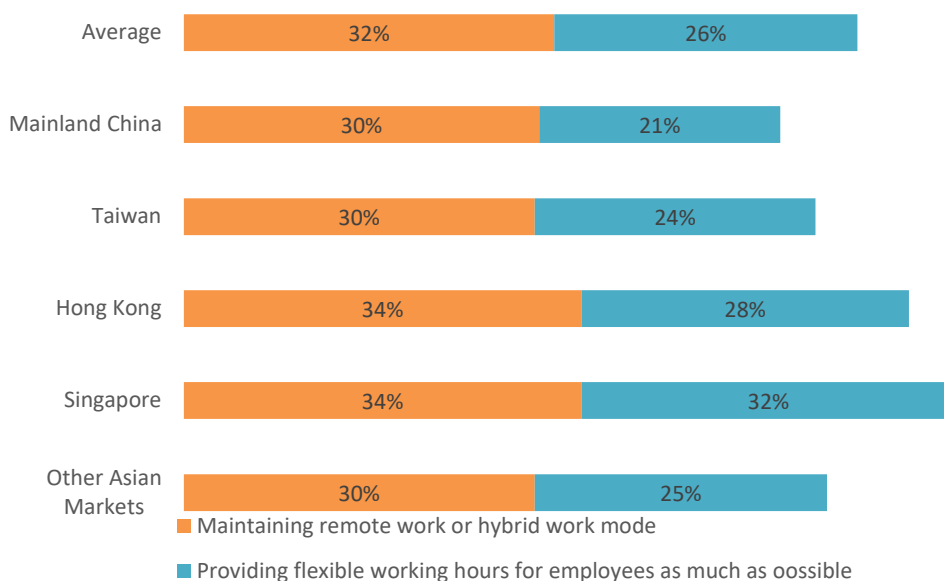


Table 8: Talent's Recognition of Maintaining Remote or Hybrid Work Models and Providing Flexible Time for Employees

Source: Research data from the Morgan Philips Group Talent Database.

Among the surveyed respondents of different genders and age groups, compliance with company rules, codes of conduct, and industry standards ranked at the bottom of the list of motivating factors. This indicates a significant shift in the respondents' attitudes towards innovative thinking, innovative practices and individual mindset. The respondents believe that they are motivated by recognition and are willing to take responsibility for their work and their teams.

In talent recruitment, recruiters have observed that the shortage of experienced professionals is a key factor leading to increased recruitment costs. Most Asian countries and regions have recognized that the problem of rising recruitment costs can be best avoided, especially in industries such as technology, media, electronics, and semiconductors. These industries can continue to rely on recruiting remote or external (market/region) talents to expand their talent pools and achieve the purpose of cost reduction, without being limited by the shortage of local talents.

Salary increase is no longer the sole means of retaining talent. Introducing hybrid work models and developing goal-oriented companies^① are effective strategies so far. 19% and 21% of the respondents, respectively, believe that these two strategies can effectively attract and retain talent.

Understanding the career development needs of employees is crucial for retaining talent. For senior employees, companies need to provide tangible and effective talent re-development programs, such as skill enhancement and reskilling initiatives. By offering internal training programs that align with their individual needs and adapting to industry trends, companies can more easily retain and nurture experienced talent.

To attract new talents and retain experienced employees, companies need to consider the following key factors:

- Actively identify, nurture, and develop employees' key skills, encouraging their growth in the workplace.

- Improve communication channels, enhance transparency between different levels of positions, recognize employees' individual and collective contributions, and ensure that their raised concerns receive clear and accurate feedback and responses.

Meeting the current talent needs is fundamental to ensuring that a company can attract potential talents. Most respondents want to avoid negative and divisive company cultures. They believe that managers who do not interact with employees and are difficult to approach create an uncomfortable and even unsafe work environment. For employees, these factors have a greater impact on them than factors such as bullying, harassment, inappropriate behavior, and unnecessary physical contact.

Through data analysis, it has been found that workplace privacy should be taken seriously. Over 26% of respondents, on average, across different regions believe that a lack of interpersonal space and privacy protection can negatively affect their work motivation and efficiency. In the work environment, "interpersonal space" refers to a

^① It refers to that a mission-driven company goes beyond pursuing profits and aims to have a positive impact on society and the environment. It prioritizes the well-being of its employees and customers and integrates its mission into all aspects of its operations.

safe or buffer zone between individuals, and providing employees with appropriate interpersonal space can be beneficial regardless of office layout or work environment.

Table 9: Feedback on the Benefits of Maintaining Proper Interpersonal Space among Talent in Different Regions

What is the most beneficial aspect gained from maintaining proper interpersonal space from your view?

	Privacy Protection	Increased Productivity	Disease Prevention	Avoiding Harassment
Mainland China	30%	23%	19%	10%
Taiwan	25%	25%	27%	8%
Hong Kong	25%	23%	21%	8%
Singapore	25%	21%	20%	11%
Other Asian Markets	25%	21%	26%	11%
Average	26%	23%	22%	9%

Source: Research data from the Morgan Philips Group Talent Database.

Table 10: Feedback on the Benefits of Maintaining Proper Interpersonal Space in Different Sectors

What is the most beneficial aspect gained from maintaining proper interpersonal space from your view?

	Privacy Protection	Increased Productivity	Disease Prevention	Avoiding Harassment
Banking, Financial, and Insurance Services	27%	22%	23%	8%
Healthcare and Life Sciences	28%	25%	18%	11%
Technology, Media, and Telecommunications	29%	21%	23%	5%
IT, Software, and Internet	26%	22%	24%	8%

Source: Research data from the Morgan Philips Group Talent Database.

Another significant factor that affects employee motivation and efficiency is when employees feel excluded or treated unfairly based on their age, race, gender, or other personal reasons. Therefore, companies should ensure fair and transparent skills assessments, quantify employee performance, and provide objective rewards for outstanding achievements to create a diverse and vibrant work environment.

To achieve the purpose of sustainable development rapidly, businesses also need to take effective actions such as:

- Actively fostering a diverse environment and establishing training programs that enable employees from different backgrounds to transcend gender, racial, or cultural boundaries and better understand and collaborate with each other;

- Reviewing internal assessment processes to ensure fair and equitable treatment of every employee;

- Reviewing company policies and regulations to ensure that day-to-day operations align with employee expectations.

It is crucial to refine the company's development direction and maintain a positive corporate public image. As global attention towards corporate social responsibility (CSR) continues to grow, many talents prefer to work for companies that have clear development goals and a positive corporate image. The emphasis on corporate public image and the shift in talent's job-seeking motivations will greatly impact traditional perceptions of talent-driven factors within organizations.

In the future, companies can implement several effective measures, including:

- Focus on developing and cultivating the company's overall sustainable development goals to enhance its public image.

- Stay abreast of social issues and trends, such as climate activism, gender equality, and racial equity, and take appropriate company stances on these issues, encouraging employee engagement.

- Provide as much work flexibility as possible within reasonable limits to attract younger generations of talent who are accustomed to hybrid work models.

III. Suggestions

As mentioned above, Artificial Intelligence has had a significant impact on the HR market. For example, some jobs will be replaced by AI, and AI technology will also create new professions and industries, leading to structural changes in the labor market. AI help improve productivity and workforce efficiency, from which individuals who possess high-tech skills will benefit. AI will also change the way governments, businesses, and talents perceive jobs and labor markets, creating new working models. To cope with the impact of technology on the labor market, it is necessary for individuals, businesses, education institutions, and governments to work closely together to find appropriate solutions and measures, maximizing the favorable potential and minimizing the adverse impact of AI technology.

For talents:

Firstly, focus on personal development and establish sustainable career development plans. Career development is a long-term process rather than a short-term goal. Talents should develop career plans based on their interests, skills, and values, as well as continuously adjust and optimize them.

Secondly, emphasize learning and self-improvement. With the development of technology and the constant changes in the market, talents need to constantly update their skills and knowledge to remain competitive. Companies should provide training and development plans to help employees continuously improve their skills and knowledge.

Thirdly, pay attention to the culture and values of a company. As talents, finding companies that align with their own values and establishing long-term cooperative relationships with these companies can help achieve personal and career development goals.

Fourthly, establish stable employment relationships. For talents seeking long-term stable employment, they need to establish good professional relationships with

companies to ensure that they can continue to benefit from the company's development and growth in the future.

Fifthly, understand future market trends. With the constant changes in the market and technology, talents need to be informed of market trends in the future and adjust their career development plans accordingly. In addition, companies should also pay attention to future technology and market trends, in order to provide appropriate training and development opportunities for employees.

Lastly, acquire social capital. Talents should establish good social connections to benefit from the power of social capital in the future. For example, building a good social network and participating in industry activities can do favor to establish social capital.

For companies:

It is necessary to deal with the polarization of the talent market, foster a comfortable interpersonal space, cultivate better symbiotic relationships with employees, and actively support the sustainable development of employees and the business.

Firstly, target specific needs and look at key talent pool demographics to meet them, since a "one size fits all" solution will no longer be effective for talent attraction or retention.

Secondly, keep abreast of job polarization trends and adjust attraction, retention and sustainability plans accordingly. For example, motivate and retain senior staffs by offering effective reskilling and development programs which allow them to achieve their personal and professional growth.

Thirdly, keep aware of and develop plans accordingly that as more companies and employees look towards building a "sustainable future", necessary skill sets will change and shift over time.

Fourthly, focus on developing and fostering an overall company purpose to better enhance its image for purpose-driven companies can recruit higher-quality candidates at lower costs.

Fifthly, provide job stability for employees while considering about medium- and long-term measures that companies can sustain in the post-pandemic era, such as remote/hybrid working, flexible working hours and other policies and procedures.

Lastly, fully recognize the value of interpersonal space and the benefits it brings to the company. Maintaining the appropriate interpersonal space, whether in the office or in a remote/hybrid work environment, can boost productivity and bolster morale as a whole.

For the talent education and training system:

The development of artificial intelligence will bring changes to the talent training mode, and the education system needs to make a series of changes.

Firstly, change the lecture-centered education model, improve students' self-directed learning ability, stimulate their interest in learning, provide more practical and inquiry-based learning opportunities, and strengthen students' communication and coordination skills and comprehensive quality cultivation.

Secondly, update the education content timely, strengthen the cultivation of students' critical and innovative thinking, and focus on the cultivation of students' ability to think independently and ask questions logically; strengthen the education of AI technology and data-related skills and knowledge, and adapt to the development trend of AI technology and the new employment modes.

Thirdly, explore new teaching methods and technologies. For example, incorporate online courses, virtual laboratories, and gamified learning to enhance students' learning outcomes and interest.

Fourthly, guide students to develop habits that adapt to new technologies, strengthen independent learning, self-reflection, and continuous exploration etc., to

better adapt to the ever-changing technology.

Fifthly, promote teachers to keep up to date with the latest developments and applications of AI technology, helping them better guide students to acquire relevant skills and knowledge.

Sixthly, strengthen the education of AI ethics, moral literacy, and humanistic care. Guide students to think about and solve the moral and ethical issues brought about by AI technology, and help them clarify the relationship between AI technology and human beings. Guide students to use AI technology and tools cautiously and rationally, and to develop the correct values and consciousness of using tools in moderation. At the same time, cultivate students' humanistic sentiments, such as understanding the direction of the community with a shared future for mankind, paying attention to the interests of their own nations and countries, and focusing on vulnerable groups as well as green and sustainable development. Humanistic sentiment is an essential difference between humans and machines in the future.^①

For policy-making departments:

Firstly, enhance training and re-education. Establish vocational training and re-education programs to help people acquire new skills and knowledge, so as to adapt to new skill demands, work environments, and job markets. At the same time, provide career guidance and employment opportunity information to help people know about new job opportunities. Guide the education sector to adjust talent training methods and modes based on technological changes.

Secondly, adjust talent governance mindset, in response to technological changes, industrial structure upgrades and new economic models that bring about changes in all aspects of talent attraction, education and retention, strengthen the linkage between departments such as human resources and education, optimize the talent evaluation and

^① Based on the speech given by Liu Chang, the Vice President of KONE China and the Chairman of the Government Affairs Forum of the European Chamber, at the 2023 International Forum on Talent Training and Development organized by the Center for China and Globalization (CCG) and ETS China on April 12th, 2023.

training model, and upgrade the talent organizational management system.

Thirdly, improve labor protection related laws, regulations, and system construction. Conduct in-depth research on the development and application trends of AI technology, improve laws and regulations that related to unemployment protection, protect workers who cannot adapt to job changes, support vulnerable groups, and ensure fair competition.

Fourthly, establish and improve privacy and security protection measures. Strengthen research on AI-related norms, systems, privacy protection, and ethical issues. Strengthen supervision of AI technology and related enterprises to prevent security risks in talent management and data use, and take effective measures to respond to the impact of industry changes on talent development.

Fifthly, promote the digital transformation of various industries, facilitate the application of technologies such as cloud computing and big data, improve the ability of data collection, processing and analysis, and provide stronger support for the application of AI technology. Support innovation and entrepreneurship in related fields, and promote the formation and development of new industries, new forms of business, and new positions.

Lastly, strengthen international cooperation. With the globalization of AI technology, the accompanying problems are global, thus requiring universal cooperation. Encourage organizations such as Alliance of Global Talent Organizations to promote international exchanges and coordination, jointly respond to the impact of technological changes on the labor market, share best practices and resources, and ensure that the global workforce can adapt to the challenges and opportunities of technological changes. For new production and work modes, establish international standards and build an international environment for the shared development of talent under technological change.

IV. Conclusion

Currently, discussions on the impact of technology on talent development are highly active both in daily life and academia. As of May 5, 2023, a search on the China National Knowledge Infrastructure platform with the keywords “Artificial Intelligence, talent” yielded over 18,000 articles, with an annual publication volume exceeding 100 articles in 2016, and more than 600 articles in 2017, and growing at an increasingly fast pace thereafter, which indicates the rapidly increasing research interest in this field. However, according to this report, the perception of the talent market regarding layoffs caused by technological advances is not yet clear. The perception of the impact of technology on the talent market varies among different age groups and industries. This report hopes that talents, HR markets, talent training departments, and relevant policy-making departments will pay attention to the impact of technological change on talent development, talent cultivation, talent selection and talent utilization, making preplans as early as possible.

Due to time constraints and limited research team capacity, there are inevitably some omissions in the report. We welcome criticism and suggestions from all sectors of society to help us gain insights in future research.

Appendix: Survey Sample Overview:

The main survey respondents for this report are from mainland China, Chinese Hong Kong, Chinese Taiwan, Singapore, and other neighboring countries in Asia.

In terms of age distribution, the survey sample is dominated by middle-aged and older employees, accounting for 63%, with the highest proportion in the 41-50 age group, accounting for 40% of the total sample. Employees aged 51-60 and over 60 account for 19% and 4% respectively. Young employees account for 37%, with the 31-40 age group accounting for 27% and those under 30 accounting for 10%.

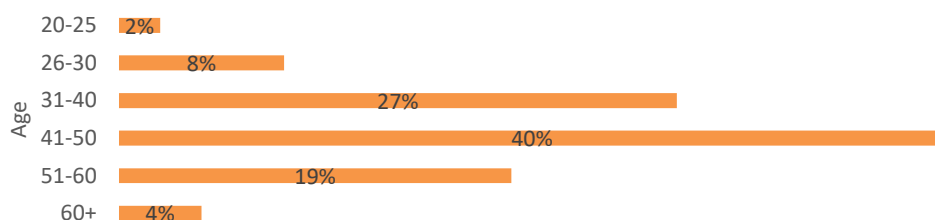


Table 11: Age distribution of the survey sample

Source: Research data from the Morgan Philips Group Talent Database.

In terms of seniority, the survey sample is mainly composed of middle and senior management, with chief executives accounting for 10.3%, senior management accounting for 33.1%, middle management accounting for 35.6%, and non-management personnel accounting for only 21%.

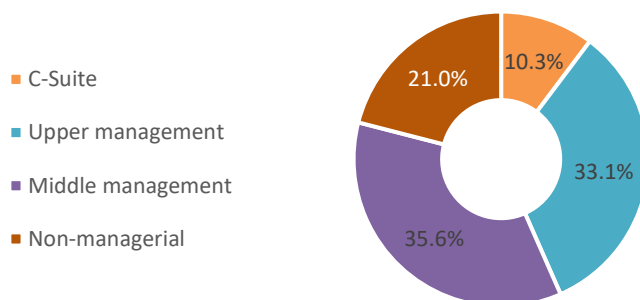


Table 12: Seniority distribution of the survey sample

Source: Research data from the Morgan Philips Group Talent Database.

In terms of sector distribution, the research sample is mainly composed of the following industries: retail and consumer goods (16%), manufacturing and automotive (15%), healthcare and life sciences (11%), electronics and semiconductors (10%), professional services (9%), energy, transportation, industrial and chemical (8%), and banking, financial and insurance services (6%).

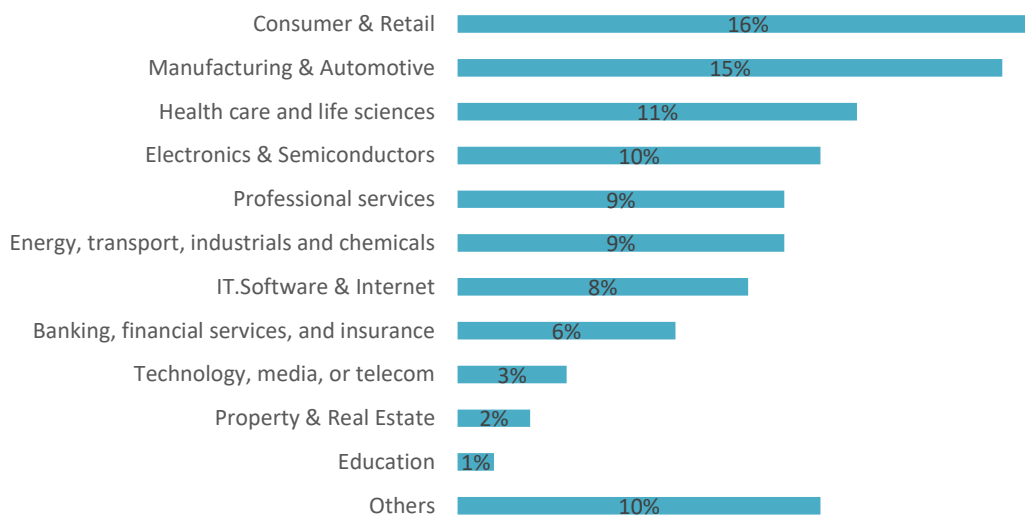


Table 13: Sector distribution of the survey sample

Source: Research data from the Morgan Philips Group Talent Database.

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About Alliance of Global Talent Organization (AGTO)

AGTO is a non-governmental organization initiated by Center for China and Globalization (CCG). It is committed to bring relevant stakeholders together with the aim to enhance the governance of global talent mobility worldwide. It was successfully selected as part of the inaugural Paris Peace Forum from among thousands of global governance project applications worldwide and officially launched at the third edition Paris Peace Forum in 2020.

About Center for China and Globalization (CCG)

The Center for China and Globalization (CCG) is a leading international social think tank in China. It was established in 2008 and is the first Chinese think tank to obtain consultative status with the United Nations. CCG is also the first Chinese social think tank to enter the list of top 100 think tanks worldwide. It has been consistently ranked as the top social think tank in China by various authoritative rankings both domestically and internationally.

CCG has been granted the status of a postdoctoral research workstation by the Ministry of Human Resources and Social Security, and it has the qualification to independently recruit postdoctoral researchers. CCG serves as the National Talent Theory Research Base of the Coordination Group for Central Talent Work. CCG is the location of the International Talent Professional Committee of the China Talent Research Association under the Ministry of Human Resources and Social Security. It is also a founding member of the US Research Think Tank Alliance initiated by the Ministry of Finance. CCG serves as the Vice President Unit of the China Public Relations Association and is the Secretariat of the Global Young Leaders Dialogue (GYLD) project. In 2021, the GYLD project initiated by CCG received a reply from President Xi Jinping.

Website: <http://en.ccg.org.cn/>



About Morgan Philips Group (MPG)

Morgan Philips Group was founded in 2013 and has gathered professionals from over 20 countries across four continents to establish a global platform that disrupts traditional thinking in executive search and talent consulting. Morgan Philips Group helps clients address recruitment and human resources management challenges, improve efficiency and competitiveness, and is committed to using digital technology to enhance client recruitment and human resources management efficiency, providing more comprehensive and accurate solutions.



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To obtain the electronic version, please contact research@ccg.org.cn,
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