The information that appears in this Industry Overview contains information and statistics on the industry in which we operate. The information and statistics contained in this section have been derived partly from publicly available government and official sources. Certain information and statistics set forth in this section have been extracted from a market research report prepared by China Insights Industry Consultancy Limited ("CIC"), an Independent Third Party which we commissioned. The information from official government sources has not been independently verified by us, the Overall Coordinators, the Joint Global Coordinators, Joint Sponsors, Joint Bookrunners, Joint Lead Managers, the Co-manager, any of the Underwriters, any of our or their respective directors, supervisors, officers, employees, advisors, agents or representatives or any other party involved in the Global Offering and no representation is given as to its accuracy.

SOURCES OF INFORMATION

This section contains information extracted from the China Insights Consultancy Report ("**CIC Report**") prepared by CIC independently, which is commissioned by us, for this listing document. We expect to pay CIC a total of RMB980,000 for the CIC Report and our use of the report. CIC is a consulting company which provides industry consulting services, commercial due diligence and strategic consulting services for a variety of industries. CIC undertook both primary and secondary research using various resources to construct this report. Primary research involved interviewing key industry experts and leading industry participants. Secondary research involved analyzing data from various publicly available data sources, such as the PRC National Bureau of Statistics, and China Internet Network Information Center. The information and data collected by CIC have been analyzed, assessed, and validated using CIC's in-house analysis models and techniques.

CIC prepared its report on the following basis and assumptions for historical data and projections: (i) the overall social, economic, and political environment in China is expected to remain stable during the forecast period, (ii) the Chinese economy is expected to grow steadily during the forecast period, and (iii) there will be no extreme unforeseen events, including regulations and government policies, which may materially affect the market during the forecast period.

HCM MARKET IN CHINA

Overview

Human capital management, or HCM, encompasses a set of solutions and related professional services that enterprises use for recruiting, managing, developing, retaining and optimizing their workforces. The HCM market is highly complex with a number of modules addressing a variety of use cases, as illustrated by the following chart.

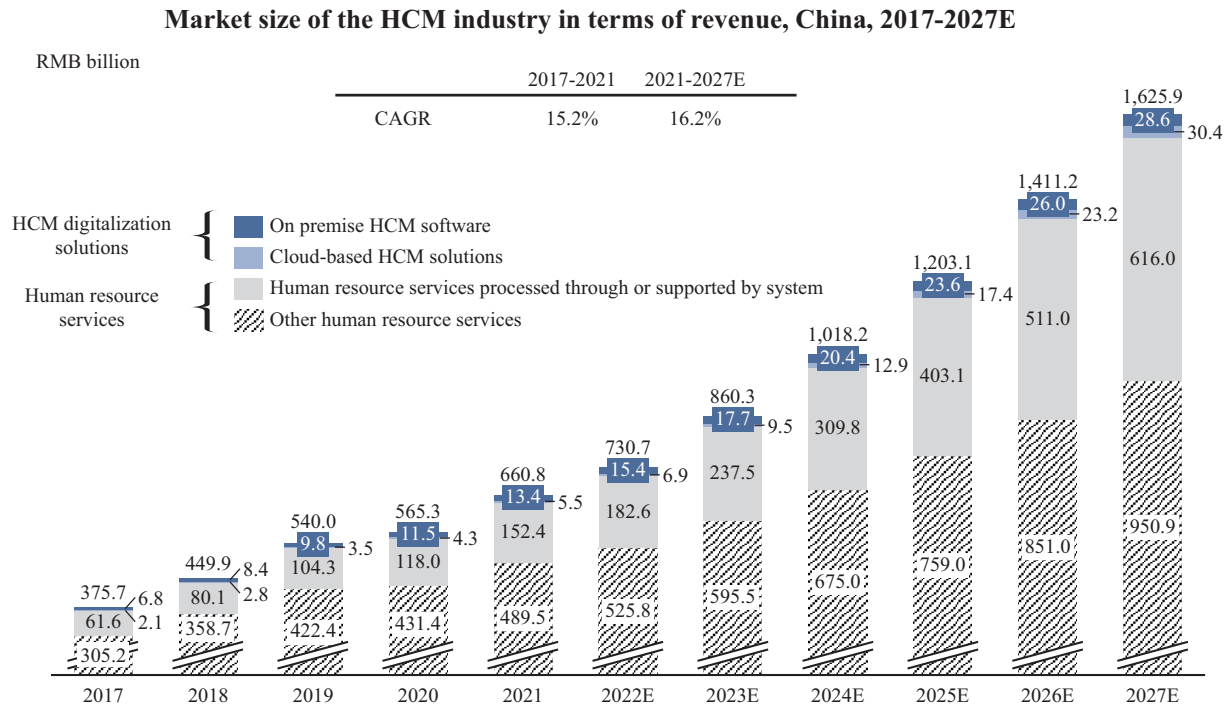| Modules of HCM	Key functions
Recruitment	• Talent screening, talent referral, interview management, applicant tracking, background check, talent acquisition
Assessment	• Talent evaluation, talent potential measurement
Core HCM	• Human resources: on-boarding and off-boarding, probation management, position transfer management, organization structure, contract management, personnel management • Attendance management: attendance, scheduling, labour allocation • Payroll: salary accounting and payment, compensation structure optimization, social insurance and tax treatment, flexible benefits, commercial insurance
Performance	• Performance measurement and review, performance improvement
Succession	• Talent calibration, workforce analytics, critical roles identifying
E-learning and others	• On-board training, professional skill training, course and exam management, learning plan and process management

Source: CIC Report

The HCM market in China has experienced a steady growth in recent years. According to CIC, the size of China's HCM market increased from RMB375.7 billion in 2017 at a CAGR of 15.2% to RMB660.8 billion in 2021, and expected to reach RMB1,625.9 billion in 2027, representing a CAGR of 16.2% between 2021 and 2027.

Enterprises in China have in recent years continued to grow in number, driven by the growing macro economy and continued transformation and structural upgrades across industries. The increasing number of enterprises and their growing expenditures have been and will continue to be the main driver for growth of China's HCM market. According to CIC, the number of enterprises in China grew from 30.3 million in 2017 to 48.4 million in 2021, and is expected to reach 87.1 million by 2027 representing a CAGR of 10.3% between 2021 and 2027. This will outpace China's expected nominal GDP growth at a CAGR of 6.7% between 2021 and 2027 according to CIC.

The following chart illustrates the size of China's HCM market in terms of revenue for the periods indicated:

Market size of the HCM industry in terms of revenue, China, 2017-2027E

RMB billion

	2017-2021	2021-2027E
CAGR	15.2%	16.2%

HCM digitalization solutions
- On premise HCM software
- Cloud-based HCM solutions

Human resource services
- Human resource services processed through or supported by system
- Other human resource services

Note: Calculation of the size of the HCM market includes revenues generated from human resource outsourcing services.
Source: CIC Report

In terms of business model, the HCM market can be categorized into HCM digitalization solutions market (with a size of RMB18.9 billion in 2021) and traditional human resource services market (with a size of RMB641.9 billion in 2021). HCM digitalization solutions, including cloud-based HCM solutions (with a size of RMB5.5 billion in 2021) and on premise HCM software (with a size of RMB13.4 billion in 2021), are mainly designed to streamline and optimize enterprises' internal HCM process. In contrast, traditional human resources services, consisting primarily of outsourcing services, employee recruiting services, corporate training services, personnel management services and payroll processing and benefit administration services, are designed to allow enterprises to outsource their in-house HR functions.

Competitive Landscape

According to CIC and the Ministry of Human Resources and Social Security of the PRC, China's HCM market is fragmented with a variety of verticals. In 2021, there were approximately 59,100 players in this market. The major types of market players in China's HCM digitalization market are SaaS companies and enterprise software companies. As opposed to the HCM digitalization market, the major types of players in China's traditional human resource services market are professional HR services companies such as recruiting firms and platforms, staffing agencies, payroll processing and benefit administration service providers, and corporate training service vendors.

Major Industry Transformations

For the past almost two decades, China's HCM market has undergone several major transformations, switching from traditional, paper-based HCM processes to digital HCM solutions represented by on-premise software, further to smarter and more efficient cloud-based HCM solutions, and to the more recent emergence

of integrated, all-in-one HCM solutions. The table below demonstrates the distinct industry landscape and Beisen's strategic focus at each stage of development along these transformations.

Stage of Development	Industry Landscape	Beisen's Strategic Focus
Before 2010	In China, advanced technologies that later enabled cloud-based HCM solutions, such as data analytics, AI and cloud computing, were at the nascent stage of development. Therefore, substantially all of the major players in China's HCM market were still focused on providing (i) traditional on-premise software, such as enterprise resource planning solutions, or ERP solutions, and (ii) traditional human resource services, such as payroll services and recruitment process outsourcing services. In China, traditional human resource services appeared after 1978, and then traditional on-premise software emerged in the 2000s.	• During this period, Beisen's research and development efforts and investments were mainly focused on building and evolving employee assessment software running on different infrastructure. • Historically, Beisen had been primarily focused on offering non-SaaS digital assessment tools, helping enterprises identify qualified job candidates and existing employees with substantial growth potential. These non-SaaS digital assessment tools are web-based applications designed to run on a web browser. Unlike cloud-based SaaS products, these non-SaaS digital assessment tools require reliable and stable web servers and internet connection to function, and are usually limited in scalability and uptime. • In addition, Beisen has continued to invest heavily in technology innovation and pioneered the industry's first cloud-based assessment module delivered via a SaaS model, according to CIC.
2010 – 2015	As the demand for cloud-based HCM solutions increased over time, an increasing number of peers kicked start the development of their own cloud-based HCM solutions, yet at a relatively slower pace as compared to Beisen. In the meantime, many market leaders that had predominated China's HCM market remained focus on on-premise ERP solutions	• This period has witnessed the emergence of cloud-based HCM solutions in China as technological advancement and digital transformation accelerated. • Beisen has pioneered the industry in the development and commercialization of cloud-based HCM solutions and have gained tremendous first-mover advantages as compared to its main peers. • During this period, Beisen has strategically made substantial R&D investments in expanding its product portfolio to cover recruitment, performance management and succession planning modules. The goal of these investments was to capture tremendous market opportunities driven by the growing customer demands for cloud-based HCM solutions to achieve sustainable growth in the long term. In particular, Beisen's Recruitment Cloud, being one of its key products to date, has achieved initial commercialization with a scalable customer base since 2013, driven by its continued R&D and marketing efforts. According to CIC, Beisen pioneered commercializing the recruitment module, which has become the most popular recruitment software product in China with the largest customer base since 2013. • To improve product development efficiency, Beisen also developed an application

| Stage of Development	Industry Landscape	Beisen's Strategic Focus
		programming interface, which allows unified data storage across software modules.

2016 – 2020	Due to continuous technology innovation, accelerated digital transformation and growing customer demands, China's cloud-based HCM solutions market had experienced rapid growth during this stage of development. The size of the cloud-based HCM solutions market in China in terms of revenue grew from RMB1.4 billion in 2016 to RMB4.3 billion in 2020, representing a CAGR of 32.7%, according to CIC. Driven by this emerging industry trend, leading software providers tapped into China's cloud-based HCM solutions market with increasingly diversified product portfolios, and certain fast-movers also sought to build a complete suite of cloud-based HCM solutions.	• During this period, a vast majority of the then existing market players offered incomplete product suites that deliver only a portion of the capabilities needed by enterprises. To cater to the increasingly complex business use cases, China's enterprises had to use standalone modules from multiple vendors, which led to increased costs, reduced operational efficiency, suboptimal user experience, and data segregation across different system.
		
		• To meet customers' unaddressed demand for an all-in-one HCM solution, Beisen continued to:
		
		  • invest in building a comprehensive suite of cloud-based HCM solutions that cover enterprises' HCM needs throughout the entire employee lifecycle, and
		
		  • devote substantial financial and R&D resources in building a unified and open PaaS infrastructure to strengthen the foundation for an integrated, all-in-one HCM solution.

2020 Up to Now		• Building upon the strong PaaS infrastructure, Beisen launched its iTalentX platform in 2020, which is synonymous with its holistic approach to address customers' HCM needs, from proprietary cloud-based HCM solutions to expertise and know-how in people science that are deeply integrated with such solutions, and further to data insights informing customers' decision-making. • iTalentX set another milestone along Beisen's path towards a fully integrated HCM solution, and Beisen started marketing its cloud-based HCM solutions by offering multiple modules as one bundled package, which has allowed Beisen to improve its sales and marketing efficiency during the Track Record Period. This unique holistic approach also creates significant monetization opportunities. • Substantial R&D investments were also made to enhance the capacity of its PaaS infrastructure and expand product offerings. E-learning Cloud was developed in-house and launched during this period. • Beisen has continued to invest heavily in enhancing product functionality and technology capabilities and broadening customer base, while seeking to capitalize on these attractive monetization opportunities to improve its profitability.

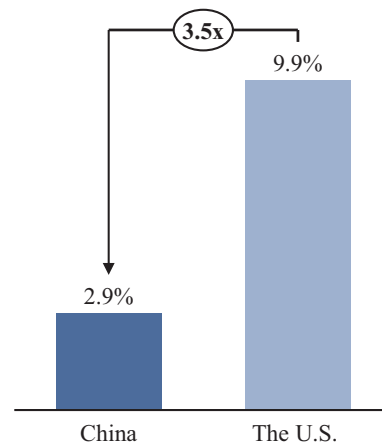## HCM DIGITALIZATION SOLUTIONS MARKET IN CHINA

Overview

China's HCM market has long been characterized by low level of digitalization. While China has achieved an internet penetration rate largely comparable with that of the United States, China's HCM market has remained significantly less digitalized than that of the United States, the world's largest market for enterprise software solutions. According to CIC, China's HCM digitalization rate, calculated by dividing the size of the digitalized HCM solutions market by the total HCM market size, was only 2.9% in 2021, significantly lower than that of 9.9% for the United States. The lack of digitalization, combined with organizations' significant demand for HCM solutions, suggests that there is substantial room for future growth of digitalized HCM solutions.

The following chart illustrates the size of the HCM digitalization solutions market and HCM digitalization rates of China and the United States in 2021:

HCM digitalization solutions market size (RMB billion)
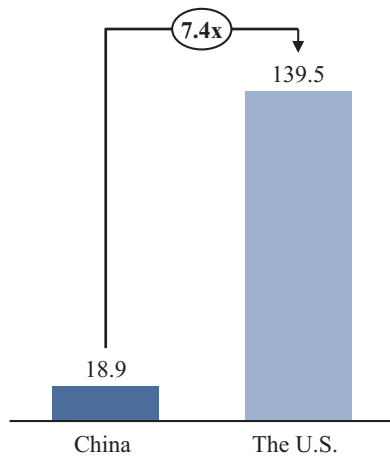
HCM digitalization solutions market size and as a % of total HCM market (%)

Note: The calculation of the size of the HCM digitalization solutions market includes revenues from human resource outsourcing services.
Source: CIC Report

Organizations and their workforces have diverse HCM needs, as a result of their different sizes, organizational structures, and industries in which they operate. However, many existing HCM vendors only offer single, standalone solution that is not scalable or easily customizable to meet such needs. This has led to the rise of integrated cloud-based HCM solutions, as discussed in further detail below.
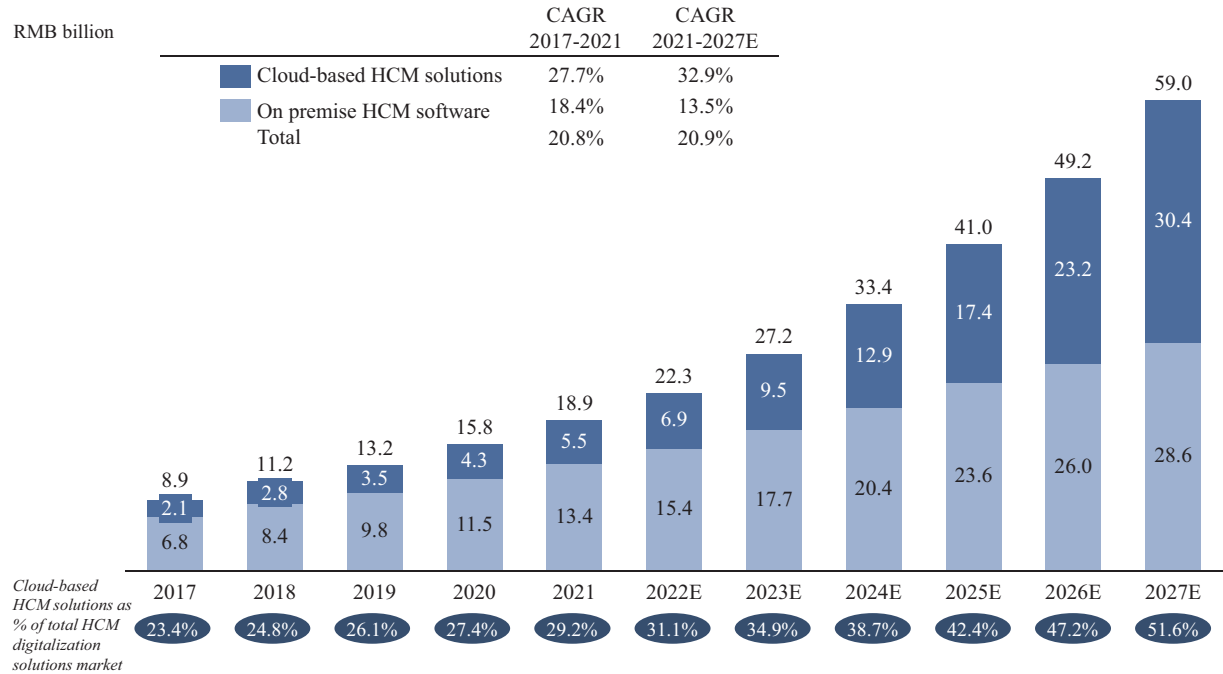
Market Size and Growth Potential

According to CIC, the size of China's HCM digitalization solutions market has grown significantly in recent years, from RMB8.9 billion in 2017 to RMB18.9 billion in 2021. Driven by technology advancements, increasing awareness of digital transformation and strong demands for digitalized solutions in part due to the COVID-19 pandemic, the size of China's HCM digitalization solutions market as a percentage of the total HCM market is estimated to grow from 2.9% in 2021 to 3.6% in 2027 according to CIC. According to the same source, the market for HCM digitalization solutions in China is expected to continue to grow rapidly and reach RMB59.0 billion in 2027, representing a CAGR of 20.9% between 2021 and 2027.

The following chart illustrates the market size of China's HCM digitalization market:

Market size of the HCM digitalization industry by delivery model, in terms of revenue, China, 2017-2027E

RMB billion

	CAGR 2017-2021	CAGR 2021-2027E
Cloud-based HCM solutions	27.7%	32.9%
On premise HCM software	18.4%	13.5%
Total	20.8%	20.9%

	2017	2018	2019	2020	2021	2022E	2023E	2024E	2025E	2026E	2027E
Total	8.9	11.2	13.2	15.8	18.9	22.3	27.2	33.4	41.0	49.2	59.0
Cloud-based HCM solutions	2.1	2.8	3.5	4.3	5.5	6.9	9.5	12.9	17.4	23.2	30.4
On premise HCM software	6.8	8.4	9.8	11.5	13.4	15.4	17.7	20.4	23.6	26.0	28.6
Cloud-based HCM solutions as % of total HCM digitalization solutions market	23.4%	24.8%	26.1%	27.4%	29.2%	31.1%	34.9%	38.7%	42.4%	47.2%	51.6%

Note: For the purpose of the chart above, the calculation of the size of cloud-based HCM solutions market includes subscription fee, implementation service fee, and customized product development service fee (i.e. fees paid by customers for customization of existing solutions for their specific needs), and the calculation of the size of the on premise HCM software market includes license fee, installation fee, maintenance fee, and customized product development service fee.
Source: CIC Report

While we offer solely cloud-based HCM solutions, we nonetheless consider the HCM digitalization solutions market as our addressable market for the following reasons. First, despite the difference in delivery model, both on-premise HCM software and cloud-based HCM solutions serve the same ultimate goal of digitalizing, streamlining and optimizing an enterprise's internal human resources management to improve overall operational efficiency. Therefore, enterprises typically view on-premise HCM software and cloud-based HCM solutions as substitutes for each other, and select one that functions better to achieve the goal. Second, cloud-based HCM solutions offer significant advantages over on-premise HCM software in terms of improving enterprises' efficiency, cost-effectiveness and productivity, attributable to its substantial scalability and adaptability benefits. This has led to a clear trend in the HCM digitalization solutions markets in China and worldwide, with a shift from on-premise HCM software to cloud-based HCM solutions. In the United States, the cloud-based HCM solutions have already become the market norm, with a market share of 69.3% in 2021, according to CIC. In addition, an increasing number of Chinese enterprises are also seeking to replace their legacy on-premise HCM software with cloud-based HCM solutions, according to the same source.

The Rise of Cloud-based HCM Solutions

In terms of delivery model, HCM digitalization solutions can be divided into two categories: on premise HCM software and cloud-based HCM solutions. On premise HCM software has long been the

mainstream delivery model in China's HCM market with a market share of 70.8% in 2021. In contrast, the cloud-based model has become the market norm in the United States with a market share of 69.3% in 2021.

The proliferation of cloud-based technologies and enterprises' growing need for flexible, easy-to-use and affordable HCM services have led to the rise of cloud-based HCM solutions. By leveraging leading technologies such as big data, AI, and cloud computing, cloud-based HCM solutions have significant advantages over on premise HCM software in improving organizations' efficiency, cost-saving and productivity. Cloud-based HCM solutions are more adaptable and scalable than on premise HCM software, with easy-to-use features and strong data analytics tools that the latter does not offer. Compared to legacy on premise HCM software, cloud-based HCM solutions are built to be more easily accessed by employees via mobile and PC devices with rich functions and easy-to-navigate interfaces, delivering a more friendly and intuitive user experience. Additionally, cloud-based HCM solutions require a significantly less upfront investment in initial implementation than on premise HCM software. Furthermore, the cloud-based delivery model also provides service providers with significant cross-selling opportunities as organizations prefer to integrate various HCM functions onto one cloud-based platform for better synergy and cost-saving. As a result of these benefits, an increasing number of Chinese organizations are looking to replace their legacy systems and adopt cloud-based HCM solutions to improve operational efficiency and better serve their employees.

Snapshots of Development of A SaaS Company

As cloud-based HCM solutions are delivered via a SaaS model, market players offering primarily cloud-based HCM solutions are essentially SaaS companies. A SaaS company typically experiences three development stages from its "start-up" to "growth and scaling-up" and further to "maturity:"

Start-up

A typical SaaS company invests substantially in the construction of its own cloud infrastructure and purchasing services from public cloud service providers, as well as development and continuous upgrades of its products and services as a starting point. In the meantime, substantial selling and distribution expenses are incurred for acquisition of new customers, which is usually challenging for a start-up company delivering new products and services.

At the start-up stage, the rapid increase in revenue primarily depends on the acquisition of new customers. Even after obtaining its first batch of customers, a SaaS company is nevertheless unlikely to quickly recover its initial investments, especially in R&D and customer acquisition, as under the subscription model, most of the potential values of customers are not monetized immediately upon engagement of such customer, but rather realized gradually over the entire lifetime of subscriptions.

At this stage, a SaaS company usually tends to prioritize "proof of concept" of its products (innovations and product development), and customer acquisition (focusing on locating targeted customer groups and reference clients in particular), over short-term profitability. The annual revenue retention rate for a SaaS company is generally 70% to 90% at this stage.

Growth and Scaling-up

At this stage, a SaaS company has relatively mature products and a sizable customer base. It continues to invest in R&D and marketing activities, but the proportion of selling and distribution

expenses to its total revenues starts to stabilize gradually. The growth rate of the number of new customers and the proportion of the total revenue contributed by new customers will gradually stabilize or decline. Long-term stable revenue growth is largely supported by additional purchases from existing customers.

Therefore, at this stage, a SaaS company tend to focus more on upselling and cross-selling to existing customers and enhancing product experience while keeping a balance of acquiring new customers in a cost-effective manner. Upselling and cross-selling as well as quality services will enhance customer stickiness and reduce churn, receive more revenue from an existing customer with a lower customer acquisition cost. At this stage, a healthy SaaS company has a gradually increasing average selling price per customer, high existing customer retention rate with increasing recurring revenue, and annual revenue retention rate exceeding 100%. As customer acceptance and stickiness continue to increase, the SaaS company benefits from improved customer acquisition efficiency. As a result, R&D and selling and distribution expenses as percentages of revenues start to stabilize gradually, resulting in its improved profitability profile. Nevertheless, even a healthy SaaS company is usually loss-making at this stage.

Maturity

At this stage, a SaaS company's products are more mature. Its high existing customer retention rate contributes to stable revenues from continuing subscriptions, while its products and services which are standardized are highly scalable and therefore start to benefit from economies of scales.

In terms of costs and expenses, a SaaS company's R&D and selling and distribution expenses as percentages of total revenues and customer acquisition costs will decrease, as it already has mature products and services (without having to continuously make high level of R&D investments as in previous stages), a sizable and stable customer base contributing recurring revenue and established brand name to attract new customers without incurring high marketing or selling expenses.

As a result, a SaaS company will be able to achieve break-even during this stage. It may enjoy a sustained and stable profit that primarily comes from renewals of subscriptions and additional purchases from existing customers. Depending on the level of competition and company's targeted market share or growth objectives, this stage can be reached earlier or later.

Competitive Landscape

According to CIC, as of 2021, there were over 500 market participants in China's HCM digitalization market. China's HCM digitalization market is relatively fragmented, with the top five players taking up approximately 15.6% market share in 2021. Beisen ranked the third in terms of revenues in 2021 in China's HCM digitalization market, with a market share of 3.4%. According to CIC, among the top five players in China's HCM digitalization market, Beisen is the only one that generates revenues solely from cloud-based HCM solutions and ancillary professional services. In contrast, cloud-based HCM solutions and ancillary professional services only accounted for approximately 35% of the combined revenues of the other four players in 2021.

Top five providers of HCM digitalization in China in terms of revenue, 2021

Rank	Company	HCM digitalization revenue, for the calendar year of 2021 (RMB million)	Market share in terms of HCM digitalization revenue, for the calendar year of 2021 (%)
1	Company E	~143 (19.0%) ~610 (81.0%) ~753	~4.0%
2	Company D	~240 (36.1%) ~425 (63.9%) ~665	~3.5%
3	**Beisen**	~640 (100.0%) ~640	~3.4%
4	Company F	~113 (19.4%) ~466 (80.6%) ~579	~3.1%
5	Company A	~320 (98.8%) ~4 (1.2%) ~324	~1.7%
Subtotal		~2,961	~15.6%
Others		~15,961	~84.4%
Total		18,922	100.0%

■ Cloud-based HCM solutions
□ On premise HCM software

Notes:

Company E is a Chinese software company offering ERP and cloud services. It was founded in 1988 with the headquarters located in Beijing and is listed on Shanghai Stock Exchange. Company E had more than 25 thousand employees as of September 30, 2022, serving customers of all sizes globally.

Company D is a Chinese software company serving enterprises of different scales with HCM, ERP, finance software, etc. It was founded in 2003 and is listed on the Hong Kong Stock Exchange. As of June 30, 2022, Company D had more than 7,000 employees.

Company F is a Chinese software company in the enterprise application software sector with a focus on finance, HCM and tax management. It was founded in 1993 with the headquarters located in Shenzhen and is listed on Hong Kong Stock Exchange. Company F had more than 11 thousand employees as of June 30, 2022.

Company A, founded in 1972, is an international software company that has over 100 thousand employees across more than 140 countries and regions. Company A is primarily engaged in offering HCM, CRM and ERP software. Company A entered the Chinese market in 1992. In 2012, it entered the cloud-based HCM solutions market by acquiring a cloud-based business.

Source: CIC Report
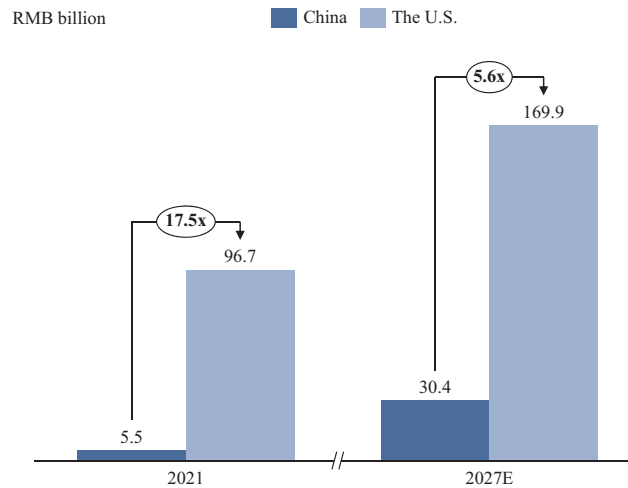
CLOUD-BASED HCM SOLUTIONS MARKET IN CHINA

Market Size and Growth Potential

According to CIC, the market for cloud-based HCM solutions in China is expected to grow at a CAGR of 32.9% from 2021 and 2027, more than doubling the CAGR of 13.5% of on premise HCM software. CIC expects the market share of cloud-based HCM solutions to exceed that of on premise HCM software and reach 51.6% in 2027.

Despite its recent rapid growth, China's cloud-based HCM solutions market remains much smaller in size than that of the United States, suggesting significant room for future growth. According to CIC, cloud-based HCM solutions market size in terms of revenue in the United States is 17.5 times larger than that of China in 2021. The gap is expected to narrow quickly to only 5.6 times in 2027, as illustrated by the chart below.

Cloud-based HCM solutions market size in terms of revenue, China and the United States, 2021/2027E


Source: CIC Report

According to CIC, in the United States, where the largest cloud-based HCM solutions market is located, it is observed that the enterprises providing integrated cloud-based HCM solutions are taking up an increasing market share, which can be attributed to the growing customer demand as well as the emerging trend of market consolidation by enterprises offering integrated cloud-based HCM solutions. Chinese market, as a less developed market and a follower, is likely to replicate the trend in the United States.

This can be exemplified by similar historical growth trajectories of the two different markets. For example, the U.S. cloud-based HCM solutions market emerged in early 2000s, and reached a market size of approximately RMB8 billion in 2012. In contrast, the cloud-based HCM solutions market in China emerged in early 2010s, and is expected to reach a market size of RMB7 billion in 2022, close to the U.S. market size ten years ago.
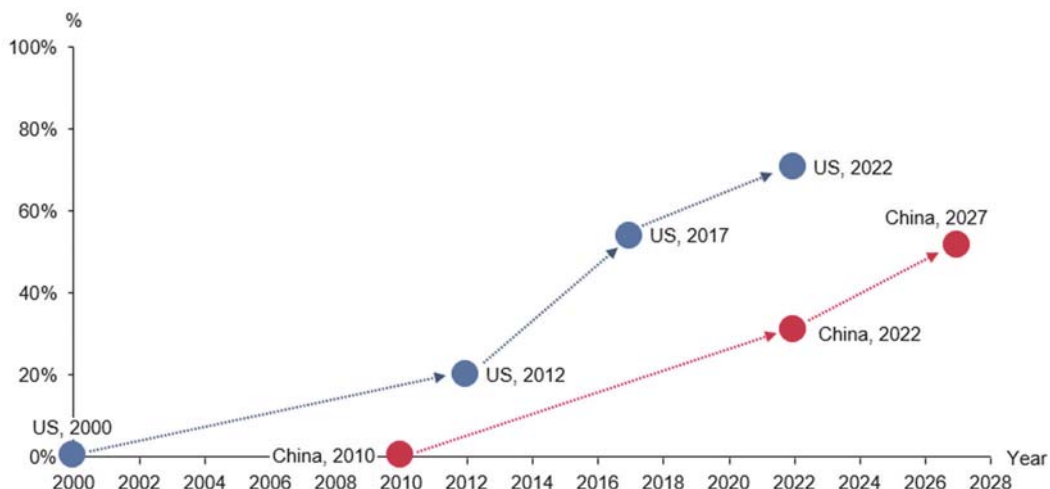
Cloud-based HCM solutions market size in terms of revenue, China and the United States
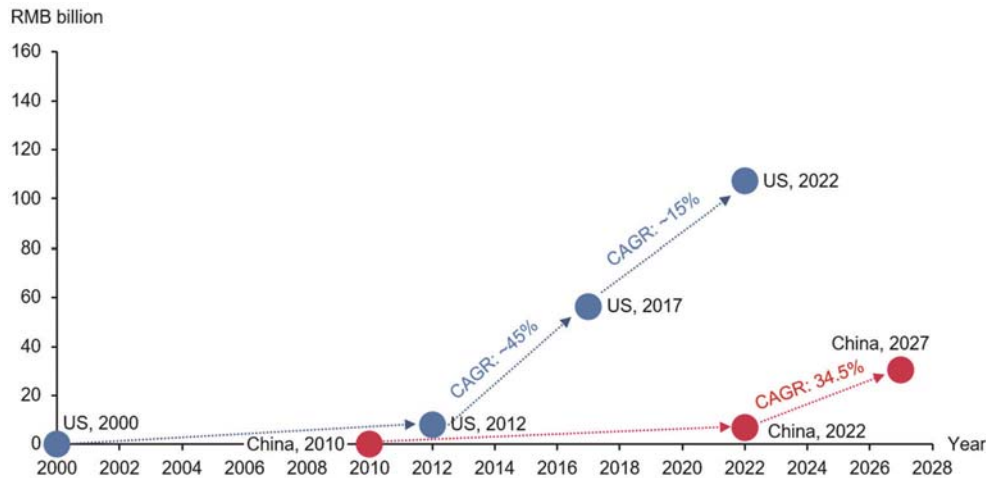
In addition, China's cloud-based HCM solutions market size as a percentage of nominal GDP in 2022 (0.006%) is close to the same figure of the U.S. (0.008%) in 2012, indicating a similar development trajectory. The Chinese market is expected to further grow to reach RMB30 billion in 2027, as compared to RMB56 billion in 2017 in the United States.

Furthermore, the U.S. cloud-based HCM solutions market accounted for 20%- 30% of its HCM digitalization market in 2012, and that percentage figure in China reached 31.1% in 2022, which was similar to the United States ten years ago. That percentage figure in China is expected to further grow to reach 51.6% in 2027, close to that of 54.0% in the United States in 2017.
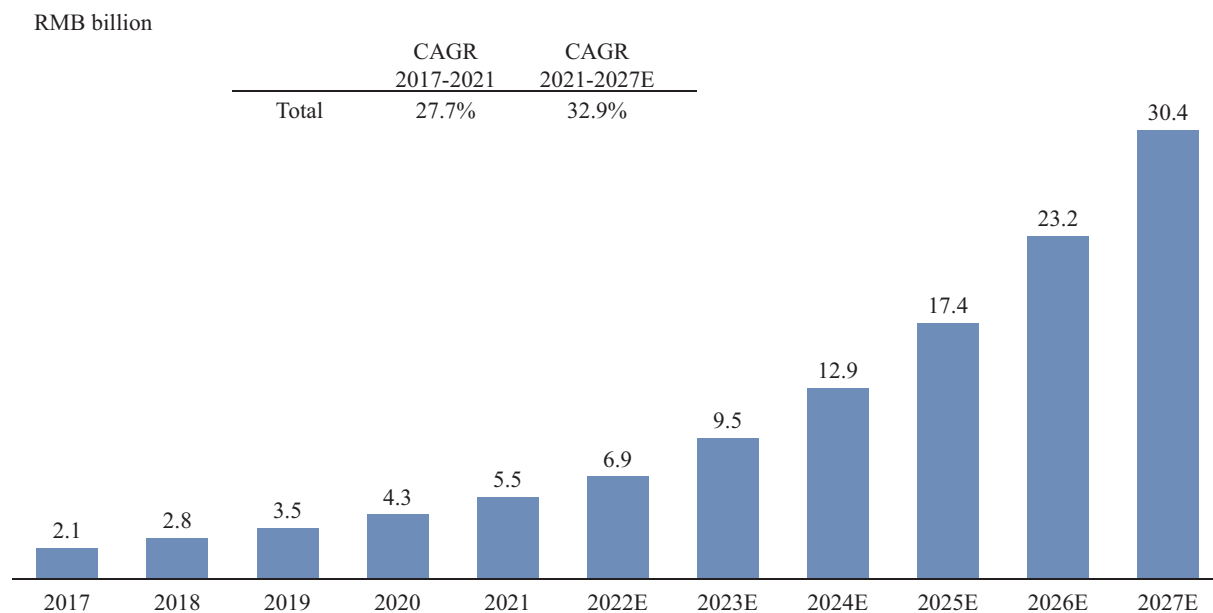
Cloud-based HCM solutions market size as a percentage of the total HCM digitalization market, China and the United States

According to CIC, China's cloud-based HCM solutions market grew at a CAGR of 27.7% from RMB2.1 billion in 2017 to RMB5.5 billion in 2021 and is expected to grow further to RMB30.4 billion in 2027, representing a CAGR of 32.9% between 2021 and 2027, as illustrated by the chart below.

Market size of the cloud-based HCM solutions industry, in terms of revenue, China, 2017-2027E

RMB billion

	CAGR 2017-2021	CAGR 2021-2027E
Total	27.7%	32.9%

2017	2018	2019	2020	2021	2022E	2023E	2024E	2025E	2026E	2027E
2.1	2.8	3.5	4.3	5.5	6.9	9.5	12.9	17.4	23.2	30.4

Note: For the purpose of the chart above, the calculation of the size of the cloud-based HCM solutions market includes subscription fee, implementation service fee, and customized product development service fee (i.e. fees paid by customers for customization of existing solutions for their specific needs).
Source: CIC Report

Key Growth Drivers

The fast growth of cloud-based HCM solutions in China is and will continue to be driven by the following factors:

- *Organizations' growing demand for scalable, flexible and efficient HCM solutions that facilitate their transition to talent-intensive business model.* Organizations in China are demanding scalable, flexible and configurable HCM solutions that align with their specific business processes and workflows. They are increasingly adopting cloud-based HCM solutions that can automate their internal processes to drive efficiency, cost-saving and productivity. In particular, many Chinese enterprises are seeking HCM solutions that facilitate their transition from a labor-intensive business model to one that relies more on talent management for long-term growth. Their needs to improve efficiency, streamline operations and better management talents will continue to drive the demand for cloud-based HCM solutions.

- *Increasingly complex and fast-changing regulatory landscape.* The regulatory landscape for payroll, social insurance and tax in China is highly complex and fast evolving and could vary significantly from one region to another, presenting significant operational and compliance challenges to organizations. This is expected to drive the adoption of cloud-based HCM solutions that help organizations, especially those with geographically dispersed workforce, better navigate the shifting regulatory environment.

- *Employees' expectation for hassle-free, intuitive experience.* Members of Generation-Z are beginning to enter the workforce. This demographic is generally fluid, mobile and tech-savvy, driving the demand for cloud-based HCM solutions that can deliver more hassle-free and employee-centric user experience with intuitive, easily navigable and accessible interfaces and functionality. Cloud-based infrastructure outperforms other solutions in terms of user interface, security, and more frequent iteration, which generates better customer experience and in return contributes to growth.

- *Accelerated digital transformation, in part due to COVID-19.* Organizations in China have been undergoing a significant digital transformation to make their business more intelligent, agile and cost effective. This trend has been significantly accelerated by the COVID-19 pandemic, resulting in more employees working remotely and more organizations shifting away from offline manual HCM processes toward cloud-based solutions that improve collaboration and foster employee engagement even in remote working environments.

Rise of "Integrated" Cloud-based HCM Solutions

Cloud-based HCM solutions can be further divided into two business models, namely "integrated" cloud-based HCM solutions and those that are considered to be non-integrated. Cloud-based HCM solutions are considered integrated when all modules are built upon a unified PaaS infrastructure and accessible via a single platform, making it possible to integrate data across the entire employment lifecycle to generate insights into organizations' HCM and broader business operations.

Integrated cloud-based HCM solutions have substantial advantages over the traditional non-integrated solutions in terms of functionality, flexibility for customization and user experience, resulting in significantly lower customer churn than non-integrated solutions. Due to these advantages, integrated solutions have become an industry trend in the cloud-based HCM solutions market in the United States since 2000s. It is expected that China's cloud-based HCM solutions market will follow largely the same development trajectory, according to CIC. The following table summarizes the major advantages of integrated cloud-based HCM solutions as compared to non-integrated cloud-based HCM solutions.

	Integrated Cloud-based HCM Solutions	Non-Integrated Cloud-based HCM Solutions
Functionality	• Cover all major HCM use cases across the entire employment lifecycle	• Cover only selected HCM use cases
Flexibility for customization	• Can be customized more easily at lower cost for specified HCM needs and use cases than non-integrated solutions	• Lack of flexibility and higher costs for customization
Accessibility, level of integration and user experience	• Fully integrated solutions accessible on a single one-stop platform, delivering better user experience than non-integrated solutions	• Solutions are less integrated, resulting in lack of synergies and mediocre user experience

	Integrated Cloud-based HCM Solutions	Non-Integrated Cloud-based HCM Solutions
Characteristics	• Higher revenue per customer than non-integrated solutions with greater cross-selling opportunities and higher customer value contributions	• Limited cross-selling opportunities, and lower customer value contributions generating relatively less revenue per customer

Source: CIC Report

Competitive Landscape

According to CIC, the cloud-based HCM solutions market in China is relatively fragmented, with the top five players accounting for approximately 31.0% of the market in 2021. Among these top five cloud-based HCM solutions providers, Beisen is the largest in terms of revenue in 2021 with a 11.6% market share which is larger than the second and third players combined.

Top five providers of cloud-based HCM solutions in China in terms of revenue, 2021

Rank	Company	Cloud-based HCM solutions revenue, for the calendar year of 2021 (RMB million)	Market share in terms of cloud-based HCM solutions revenue, for the calendar year of 2021 (%)
1	Beisen	~640	~11.6%
2	Company A	~320	~5.8%
3	Company B	~260	~4.7%
4	Company C	~250	~4.5%
5	Company D	~240	~4.3%
Subtotal		~1,710	~31.0%
Others		~3,811	~69.0%
Total		5,521	100.0%

Notes:

1. Cloud-based HCM solutions revenue (including the cloud-based HCM solutions revenue used in the numerator and denominator in calculating the market shares) in the table includes the revenue generated from both cloud-based HCM solutions subscriptions and related professional services such as implementation service and customized product development service. According to CIC, it is consistent with the industry norm to include revenues generated from these professional services when determining the size of the cloud-based HCM solutions and the rankings of market players, on the basis that these professional services are designed to enable and optimize cloud-based HCM solutions, which is also an integral part of a market player's capability to serve customers comprehensively.

2. For all the numbers of revenues presented in the table, we use data for the calendar year of 2021 to make the comparison between cloud-based HCM solutions providers meaningful.

3. Company A, founded in 1972, is an international software company that has over 100 thousand employees across more than 140 countries and regions. Company A is primarily engaged in offering HCM, CRM and ERP software. Company A entered the Chinese market in 1992. In 2012, it tapped into the cloud-based HCM solutions market by acquiring a cloud-based business.

   Company B was founded in 2004 with the headquarters located in Shanghai and is a domestic company. It offers employee-centric HCM services in China and overseas, including workforce management service and cloud-based HCM solutions. Company B had more than 1,000 employees as of May 31, 2022. Company B's revenue in the table includes revenue from both cloud-based HCM solutions and end-to-end HCM services (excluding workforce management services), which is accounted for as a whole and inseparable as Company B's services are provided and charged as a comprehensive package.

   Company C, founded in 2008, is a domestic HCM service provider headquartered in Shanghai. It primarily offers cloud-based HCM solutions and human resources services such as headhunting and outsourcing staffing services and consulting services, etc. With more than 900 employees in China, it serves customers of all sizes in manufacturing, internet, pharmaceuticals and other industries.

   Company D is a domestic software company serving enterprises of different scales with HCM, ERP, finance software, etc. It was founded in 2003 and listed on the Hong Kong Stock Exchange. As of June 30, 2022, Company D had more than 7,000 employees.

Source: CIC Report

The shift towards SaaS is not only happening in China's HCM digitalization solutions market, but also the traditional human resource services market. Cloud-based HCM solutions, plus the human resource services processed through or supported by SaaS, are part of the broader SaaS-based HCM market. In 2021, the size of China's SaaS-based HCM market was RMB157.9 billion, and Beisen ranked the fifth among China's SaaS-based HCM Platforms in terms of revenue.

Furthermore, according to CIC, Beisen is the only integrated cloud-based HCM solutions provider in China covering all major HCM use cases, and is the only cloud-based HCM solutions provider in China that has built a unified and open PaaS infrastructure synchronizing all functions to offer integrated solutions. According to the same source, among these top five cloud-based HCM solutions providers, Beisen is the only one whose solutions are fully "cloud-native", meaning that all of its solutions are built to be accessed via the cloud, as opposed to being implemented on premise or manually.

The following table sets forth a comparison of the offerings of the top five cloud-based HCM solutions providers in China, including Beisen:

Rank	Company	Cloud-native	Modules of cloud-based HCM solutions									Unified and open PaaS platform
			Recruitment	Assessment	Core HCM			Performance	Succession	E-learning and others		
					Human resources	Attendance management	Payroll					
1	**Beisen**	√	√	√	√	√	√	√	√	√		√
2	**Company A**		√		√	√	√	√	√	√		
3	**Company B**		√		√	√	√	√		√		
4	**Company C**		√	√	√	√	√	√		√		
5	**Company D**		√		√	√	√	√		√		

Source: CIC Report

Additionally, Beisen has established competitive edges which allows it to compete effectively against various market participants within China's cloud-based HCM market:

- *Competition against cloud-based HCM solutions providers in China*. Currently, other local cloud-based HCM solutions providers in China mainly offer single-module or less comprehensive products, and it is expected to take at least 3 to 5 years for these local players to develop an integrated layout. In addition, it is estimated that Beisen's local peers will have to take at least 5 to 6 years to build a PaaS capability as Beisen.

  ○ Beisen's product modules are comprehensive and mature. These cloud-native products and the construction ability and iterative upgrade ability of the unified open PaaS platform form the integration barrier of Beisen;

  ○ All modules of Beisen are built on a single PaaS infrastructure, and the integration of data and functions is stronger than other local peers. This enables Beisen to have the ability to serve a large and diverse customer base and build Beisen's scale barriers;

  ○ Over 70% of Fortune China 500 are customers of Beisen. The HCM demands of these leading companies in each of their respective industry categories may represent

the next industry trends, and Beisen's unique access to and insights from these customer demands have allowed it to better address the pain points across industries; and

- ○ Beisen's integrated cloud-based HCM solutions can reduce other operational and maintenance costs. Therefore, the price of Beisen's integrated cloud-based HCM solutions is lower than the price of different modules bundled together offered by other local peers, which allows Beisen's price advantages over other local peers.

- *Competition against global cloud-based HCM solutions providers*.

  - ○ Beisen's Core HCM Solutions can directly connect with official websites of various Chinese governmental authorities, such as China's national tax system, which allows it to update its software algorithms in real time in response to policy changes, whereas its global peers may find it hard to achieve this due to policy restrictions in China;

  - ○ Beisen can provide more localized e-learning content, while it is difficult for global peers to provide training content with local features that cater to Chinese customers' need;

  - ○ Global peers' cloud-based HCM solutions are often highly standardized, making it difficult to meet local needs of Chinese companies; and

  - ○ The services provided by global peers within the Chinese market are often constrained by geopolitical relations and their own regulatory compliance obligations across jurisdictions.

- *Competition against enterprise software providers in China*. Beisen's cloud-based HCM solutions are superior in terms of scalability and flexibility, user experience and cost-effectiveness, as compared to traditional HCM software offered by these local enterprise software providers.

  - ○ By utilizing leading technologies such as data analytics, artificial intelligence and cloud computing, Beisen's cloud HCM solutions provide powerful data analytics tools to effectively improve enterprises' operational efficiency;

  - ○ Cloud-based HCM solutions offered by Beisen have versatile functionalities and an easier-to-understand interface than on premise HCM software, and can be easily accessed by employees through mobile or PC devices, offering a friendlier and intuitive user experience. Additionally, the update speed of cloud-based HCM solutions is faster; and

  - ○ The upfront investment required for initial implementation of cloud-based HCM solutions is much lower than on premise HCM software, and the cloud-based delivery model can present significant cross-selling opportunities as enterprises prefer to consolidate various HCM functions onto a single cloud-based platform, to achieve better synergies and cost savings.

- *Competition against technology giants*. Compared with these technology giants, Beisen has been focused on human capital management over decades, which has allowed it to accumulate profound industry know-how and expertise as well as deep understanding of

customers' HCM needs, and these valuable insights are not likely to be amassed in short term. Beisen's extensive experience tackling pain points of customers across different industries have also enabled it to continuously optimize its solutions to better address the diverse business needs of customers operating in complex business environments.

Key Success Factors

The following trends are expected to drive the development of the market for cloud-based HCM solutions in China, and companies that adapt to these trends quickly are expected to compete more effectively.

- *Increasing popularity of one-stop HCM solutions providers*. Companies that serve as a one-stop-shop of solutions addressing a variety of HCM needs that deliver superior user experience are more likely than their peers to engage and grow customers. Offering integrated HCM solutions also benefits the solutions providers themselves by creating attractive cross-selling and upselling opportunities.

- *Well-designed HCM functionalities and services.* With extensive industry knowledge and well-designed HCM functionalities, solutions providers with better services to optimize customers' HCM process distinguish themselves from their competitors and are better positioned to achieve long-term success.

- *The ability to provide industry-specific solutions to address customer demands.* HCM solutions providers that are able to dive into the industries of their customers and fully comprehend the demands in the corresponding operation scenarios are more likely to build their reputation and win the competition in vertical industries.

- *The ability to build an open platform and a large, diverse customer base.* HCM solutions providers that have built an open platform and a large, diverse customer base comprising high-quality organizations from a variety of sectors are better positioned than their peers to develop sophisticated solutions that meet customer needs for customization. This in turn helps the solutions providers build long-term customer relationships and loyalty.

- *The ability to deliver better workplace experience.* With Generation Z and millennials becoming the majority of the workforce, companies that offer HCM solutions enabling more intuitive, engaging and collaborative workplace experience and facilitate flexible employment relationships are expected to achieve greater growth potentials in the future.