

August 2023

East Asia Education Insights

Preparing students for the **jobs of the future** in East Asia

Executive summary

This report aims to provide agents and UK higher education institutions with the information needed to advise students in East Asia on their course selection, with a focus on future employment opportunities in China and Malaysia.

- ◎ The objective of this report is to identify industries in which demand for high-skilled labour is likely to be greatest over the next 3-5 years, so that UK HEIs and agents may better guide their students to the subject areas with the highest potential for future employment in these key markets.

Labour markets in East Asia are undergoing a fundamental transition with demand for service jobs exceeding manufacturing jobs for the first time in the region's history.

- ◎ Digitalisation and the shift to services are the major forces driving change in labour markets for high-skilled workers in East Asia.
- ◎ Yet traditional sectors such as manufacturing also continue to be major job providers for high-skilled labour in volume terms.
- ◎ Even so, the pace of new jobs created in service sectors will continue to outpace those in manufacturing across most of the region in the years ahead.

This report spotlights five sectors with the highest forecast demand for skilled workers in East Asia over the coming years:

- Digital and ICT
- Manufacturing
- Banking and Financial Services
- Healthcare and Life Sciences
- Wholesale and Retail

This report also takes a deep dive into the labour markets of China and Malaysia, finding that:

- ◎ **China continues to lack an estimated 30 million skilled workers, despite surging higher education enrolments in recent years.**
In particular, demand for technological skills among high-skilled and managerial manufacturing workers is expected to rise by 58% by 2030.
- ◎ **In Malaysia, the services sector is expected to account for nearly all growth in demand for skilled workers in the years ahead.**

The trend toward digitalization will be the biggest driver of demand for skilled workers in Malaysia across the finance, retail and IT sectors.

Leaders in these high-growth sectors report that skill gaps severely limit their ability to find qualified workers.

- ◎ Industry experts note that today's graduates too often lack the skills required by the jobs in greatest need of skilled workers.

Experts also identified two key recommendations to address sector-specific skill gaps and prepare younger generations for future employment opportunities.

- ◎ Greater focus on developing soft skills and life-long learning;
- ◎ Better integration between industry and academic institutions to enable more synergies in education and skills development.

Today's graduates are often unsuited for the roles in greatest need of skilled workers

The insights in this report aim to assist agents, education providers and policymakers better inform themselves of the drivers behind changing labour markets in East Asia. It begins by identifying the industries that are forecast to be in greatest need of high skilled graduates in East Asia over the next 3-5 years, with a focus on China and Malaysia. The report then spotlights the specific roles where demand for skilled workers is highest. Finally, it highlights the skill gaps that exist in key industries, alongside recommendations from leading experts on ways to bridge these gaps.

The findings in this report are based on research British Council commissioned from Economist Impact¹ on key labour market and hiring trends in East Asia. The analysis draws from:

- An extensive evidence review of more than 80 reports, academic studies and articles published by governments, think-tanks, researchers and talent management agencies;
- An interview programme of senior leaders from key organisations conducted by Economist Impact between February and April 2023 (see list for further details);
- An in-depth data audit of the top 1,000 job postings in key industries across major job portals in East Asia, with a focus on Malaysia and China.

To determine high-demand sectors, this report uses the volume of employment and the rate of employment growth at a sector level as the two key filters. However, given the lack of comparative data for China and Malaysia, the analysis also corroborates quantitative analysis based on available data with additional qualitative assessment to arrive at the sectors and job roles that are in highest demand of skilled graduates.

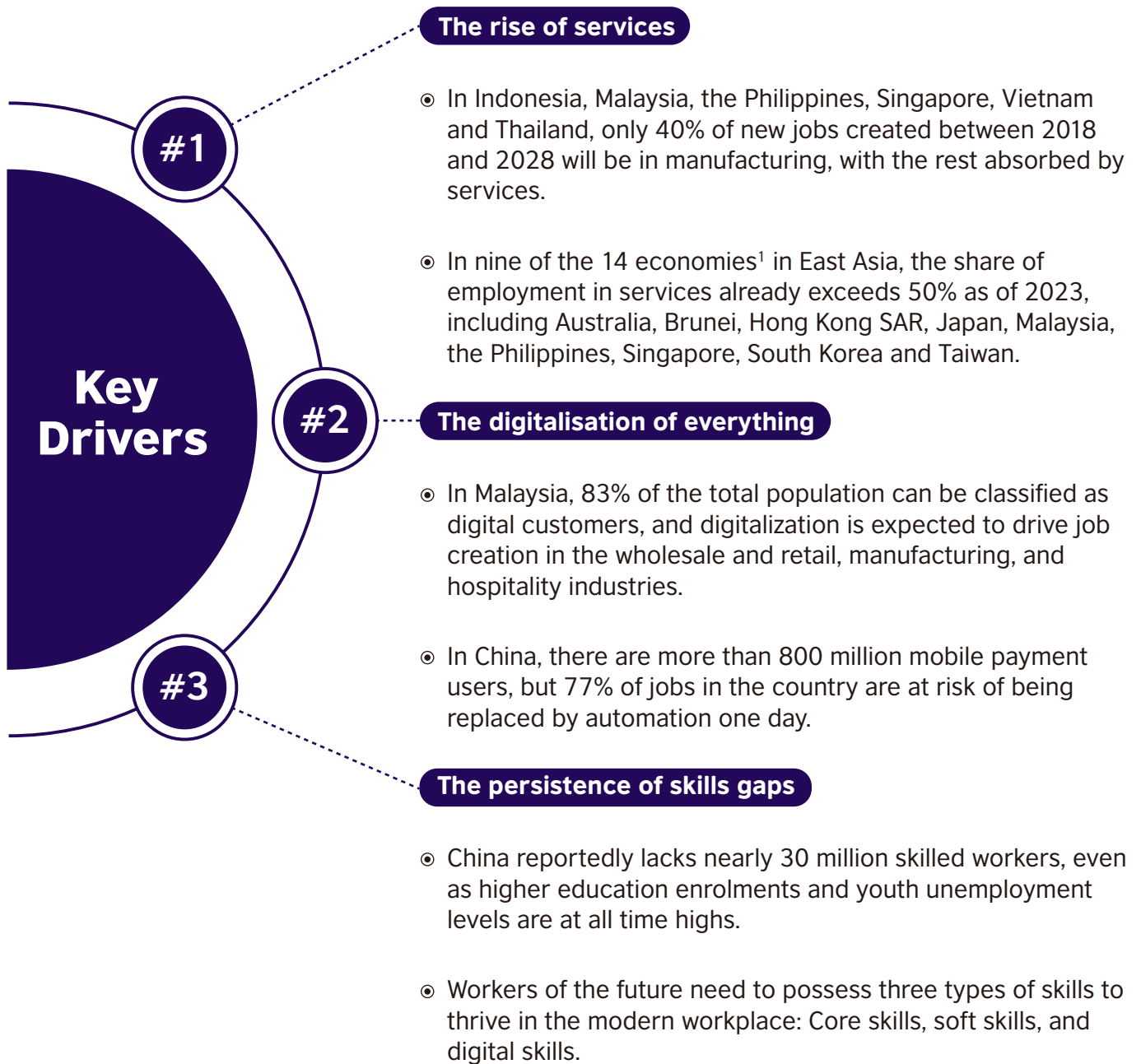
Expert interviews

This report draws on interviews with senior executives from the following organisations:

- The Edge Partnership, Malaysia
- Michael Page Malaysia
- International Labour Organisation (Asia-Pacific)
- Page Group China
- Zhaopin.com
- PLUS Malaysia
- Oxford Economics
- Ashoka
- Healthcare and medical devices firm in Malaysia

1. Economist Impact is the research wing of the Economist Group, which also includes the Economist Intelligence Unit (EIU).

The industries in greatest need of skilled workers are changing across the region



1. Countries/markets in East Asia include: Australia, Brunei, China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Myanmar, Philippines, Singapore, Taiwan, Thailand, and Vietnam

Skills gaps persist across China’s economy despite greater higher education attainment

- ◉ Despite surging levels of higher education enrolment over the last two decades in China, the country continues to suffer from a deficit of nearly 30 million skilled workers.
- ◉ Key reasons for the persistent skills gaps in China are the time taken to build expertise in the given role and the high cost of hiring and retaining medium and senior skilled workers.
- ◉ According to data from the fourth quarter of 2022, talent gaps mainly exist in China in:
 - High-tech industries such as integrated circuits, IT and computer software;
 - Industries facing dynamic talent gaps such as intermediary, catering, logistics and insurance;
 - Industries with fast-growing business needs such as professional services, consulting, entertainment and sports.
- ◉ Over the next 3-5 years, the key high-demand recruitment sectors in China are expected to be:

High-demand sector	Key industry trend	Key statistic
High-skilled manufacturing	Shift to high-tech manufacturing such as robotics, aircraft engines, electric vehicles, medical equipment.	Demand for technological skills among manufacturing workers is expected to rise by 58% by 2030.
Banking and financial services	Shift underway in hiring needs from traditional banking roles to workers skilled in providing digital solutions and using automation.	86% of fintech CEOs consider finding fintech talent with both innovative thinking and practical ability to be their greatest challenge.
Construction and real estate	Demand is expected to grow for skills such as 3D design, building information modelling and process management.	79% of respondents in the industry claim that skills gaps are on the rise, particularly for workers with familiarity with technology.
Digital and ICT	The rapidly evolving sector continues to experience widespread skills shortages, particularly for AI engineers and technicians.	Demand for employees with AI skills outstrips supply by a ratio of 10:1.
Healthcare and life sciences	Demand for healthcare is surging due to China’s rapidly aging population.	The medtech industry is expected to grow by 7.4% per year from 2023 to 2027.

Digitalisation is driving change, and better coordination is needed between industry and academia

- ◉ The services sector will account for nearly all growth in demand for new workers in Malaysia in the coming years, as the country aims to transition from a middle-income country to a high-income one.
- ◉ While digitalisation will lead to some job displacements, Malaysia is expected to see net positive growth in hiring over the next five years due to the digital trend.
- ◉ However, Malaysia continues to suffer from low integration across industry, academia and government, which exacerbates the skills gap in the country.
- ◉ Hiring managers report too many graduates with similar qualifications, and skills acquired at university that are often not compatible or relevant to the current industry landscape.
- ◉ Demand for workers in Malaysia is expected to grow fastest over the next 3-5 years in the following sectors:

High-demand sector	Key industry trend	Key statistic
Digital and ICT	Half of the online job postings in Malaysia require digital skills ranging from productivity tools like Microsoft Office to programming.	Digital job vacancies tripled from 19,000 in 2020 to 56,000 in 2021.
Wholesale and retail	Digitalisation will lead to net creation of 105,000 high-skilled jobs in this sector by 2028, mainly in sales, service, technical and professional roles.	66% of all advertising and marketing roles in the retail industry are targeted towards fresh graduates.
High-skilled manufacturing	The electrical and electronics (E&E) sector grew four times faster than the overall economy from 2017-21, with 25,000 job vacancies in 2022.	Over 70% of E&E companies are expanding beyond traditional manufacturing into research, design, development and global business services.
Banking and financial services	Demand for digital banking and online financial services surged during the pandemic, with government investment also aiding growth.	51% of financial services firms in Malaysia report difficulty in hiring workers, largely due to skills mismatches for mid and high-skilled roles.
Healthcare and life sciences	Due to demographic shifts, demand is growing quickly for radiographers, lab technicians, clinical researchers, specialist doctors and R&D scientists in Malaysia.	This year, the government’s health budget increased by 11.5% – the largest increase for any ministry in the country.

Service industries are in greatest need of skilled workers across East Asia

High-demand sector	East Asia	China	Malaysia
Digital and ICT	Desktop support engineers, quality assurance (QA) engineers and embedded systems engineers	Software developer, technology manager, product manager and IT consultant	Software and app developers, and user experience (UX) and user interface (UI) designers
Banking and financial services	Banking officer, accounts officer, and finance, budget, accounting and tax staff	Digital roles including IT application analyst and Python development engineer Analyst profiles such as financial analyst, investment analyst, credit risk analyst and ESG analyst. Job roles requiring social and emotional skills, such as relationship management	Digital roles including data analysts; digital strategy specialists; big data, AI, ML, and cyber security specialists; business development and network professionals. Finance and costing analysts, accountant, auditors, actuarial and pricing roles for insurance, risk managers and compliance officers Job roles requiring strong stakeholder management and communication skills
Manufacturing	Technical engineers (mechanical, production, service, electronic and hardware)	Engineering roles, including mechanical, process and design engineer. Sales representatives and managers	Engineering roles, technicians and operators Customer-centric skills like quality control, maintenance & repair and troubleshooting
Healthcare and life sciences	Caregivers and health attendants	Nurses and health assistants Specialists (such as mental health experts, stem cell culture, bioengineering)	Health assistants and staff nurses Specialists (Radiographers, laboratory technologists, clinical researchers, specialist doctors and R&D scientists) Administrative and customer service roles
Wholesale and retail	Store management, finance and accounting job roles	Technology roles to develop digital platforms, marketing and data analytics roles, supply-chain managers	Advertising and marketing, administrative associate, accountants and auditors, and software developers Digital and marketing skills, like proficiency in Canva, Microsoft Power BI, Enterprise resource planning tools like SAP ERPt and other SAP tools.

How can higher education institutions bridge the skills gap and better prepare graduates to meet the evolving needs of industry in East Asia?

Key labour market trends across East Asia



Growth of automation and digitalisation in nearly every industry



Demand for high skilled workers shifting from manufacturing to services



'Green' jobs expanding over the long term

Key responses from UK HEIs



1 Guiding students to the subject areas and industries in greatest need of skilled workers in the future



2 Better integrating the needs of industry in the teaching of academic institutions to improve the competitiveness of graduates



3 Developing soft skills and life-long learning techniques in today's students



The future we live in is going to be characterised by change and uncertainty, and to navigate this, we need core strengths. ... Skills such as changemaking ability, empathy, leadership quality and collaboration fall within these core strengths.

Sumitra Pasupathy,
Global Stewardship Lead,
Ashoka



Things change so quickly that the reality is that students today will do jobs that do not even exist or have not been created yet. ... it is very hard for university or academia to react quickly enough to meet those changes. But we're better placed if there is more integration among [government, academic and corporations].

Nic Chambers,
Managing Director,
Michael Page Malaysia



There are parts of our job that require us to use unique human capabilities like interactions that generate novel ideas. ... The formal education system needs to equip learners with the skills required to complement technology in the workplace and to add value to the stock of knowledge that is already out there.

James Lambert,
Director of Economic
Consulting for Asia,
Oxford Economics

QUESTIONS OR COMMENTS?

Jazreel Goh

East Asia Insights Hub

jazreel.goh@britishcouncil.org