Emerging Jobs: Malaysia

The fastest growing jobs in the country

Table of contents

Introduction

New jobs are emerging more rapidly than at any other time in modern history. It's not just a case of old jobs dying and fresh jobs being born. Traditional roles are evolving into new hybrids before our eyes.

In the 1960s, Malaysia started to become a global manufacturing hub for electricals and electronics (E&E).[1] As the economy transformed, the country's workforce has steadily moved up the value chain to focus on more complex and specialised tasks. The E&E industry now provides close to 800,000 jobs in Malaysia in 2018.[2]

Just as it benefited from the rise of E&E, Malaysia can also expect to benefit from the global phenomenon of digitalisation.

By 2021, it's expected that digital transformation will add MYR 41 billion (USD 10 billion) to the country's economy, while 45 per cent of Malaysia's income will be derived from digital products and services.[3] According to Malaysia Digital Economy Corporation (MDEC), the impact of digital transformation on Malaysia's economy is expected to significantly increase by MYR 400 billion (USD 95.3 billion) by 2025.[4]

As digitalisation accelerates, Malaysia is again looking to create opportunities for its economy. In 2016, it was the first country in the world to establish a Digital Free Trade Zone (DFTZ). The zone promotes the growth of e-commerce by providing a state-of-the-art platform for small and medium businesses and other enterprises.[5]

What does this spell for the talent landscape in Malaysia?

1. World Bank: Malaysia's Digital Economy
2. World Bank: Malaysia's Digital Economy
3. Microsoft: Digital Transformation to Contribute US$10 Billion to Malaysia GDP by 2021
4. The Star: Digital Economy expected to show significant growth
5. World Bank: Malaysia's Digital Economy

Tech talent in the digital economy

Malaysia is well-placed to take advantage of automation and digital technologies like Big Data, Internet of Things (IoT), Artificial Intelligence (AI) to increase productivity, spur innovation, and improve livelihoods.

LinkedIn's Emerging Jobs Report indicates that Malaysian talent is already responding to these trends, with four out of five emerging jobs being technology-related.

For instance, the rapid rise of roles like Full Stack Engineer makes sense as organisations try to fill their workforce with multi-skilled engineering professionals. Similarly, as more organisations look to understand and interpret the large amount of data they are creating and collecting, Data Scientists find themselves in growing demand.

In view of this, Malaysia is investing in its talent pipeline. MDEC and the Education Ministry have recognised 13 high-learning institutions as Premier Digital Tech Universities (PDTUs) and Preferred Digital Tech Polytechnics (PDTPs) to promote tech education and skills.[6] Industry

players are involved in PDTUs and PDTPs as well, making sure students get exposure to the latest technology and skills needed in the jobs market.[7]

The industry has also invested in growing the digital talent pool. For example, SAS worked with Malaysia's Statistics Department to certify its talent as Data Scientists.[8]

But while tech roles are dominating the emerging jobs market, this might not be happening in the ways you expect.

In times of rapid change in the talent market, Human Resource (HR) and Talent Acquisition (TA) professionals should look beyond job titles and focus on the candidate's skills. Career paths should not be a checklist of job titles, but considered in terms of skills gained and developed.

The top five emerging jobs:

1   Data Scientist

2   Full Stack Engineer

3   Drive Test Engineer

4   User Experience Designer

5   Content Writer

6.   New Straits Times: Prepping the digital talent
7.   New Straits Times: Prepping the digital talent
8.   Human Resources: Malaysia home to world's first government staff-certified data scientists

How to use this report

This report has crunched LinkedIn's unique data from the last five years to identify the top up-and-coming roles and the skills needed.

Intuition and experience are vital, but with a market this complex and fast-moving, you need to keep your eyes on the latest data. Knowing the trends shaping your world is key to understanding what your own workplace may soon be looking for.

We hope this report will serve as a helpful resource that HR and TA teams can use to:

- **Educate** hiring managers and business leaders about the challenges and opportunities that exist in Malaysia's job market

- **Reference** in executive discussions to give a bird's eye view of the hiring marketplace

- **Understand** what skills to look for instead of job titles

- **Glean** insights into the nature of emerging roles

Show your hiring managers this report and use it in discussions to demonstrate your knowledge of the trends in Malaysia's job market.

Talk to your local LinkedIn relationship manager about how they can be your partner in helping you meet your hiring goals.

How LinkedIn data revealed what's emerging

We looked at all LinkedIn members in Malaysia who included work experience on their profiles. We then grouped together the millions of unique, user-input job titles based on common job roles.

This involved clustering job titles together. For example, our category of 'machine learning engineer' includes user input titles such as 'machine learning software engineer' and 'machine learning engineer II.' We then counted the frequencies of job titles that were held in 2013 and compared the results to job titles that were held in 2017. Our 'emerging jobs' are the top five job titles that saw the largest growth in frequency over the five-year period.

Key Takeaways

Digital transformation accelerates in Malaysia

Looking at the emerging roles in Malaysia, it is little surprise that four out of five are tech-related.

Malaysia's digital transformation is rapidly picking up pace. In 2017, 7 per cent of Malaysia's GDP was delivered from digital products – that's expected to grow more than six times by 2021.[9]

While most Malaysians are connected to the Internet and the rate of individual mobile subscriptions is more than the population, businesses have been slower to embrace digitalisation.[10]

Rapid digital transformation is in part driven by large export-oriented firms, however things are set to change as the barriers to going digital are reducing for all organisations, regardless of size.[11]

One pertinent example of how small-to-medium sized enterprises are embracing digitalisation is the rise of e-commerce. With extremely high rates of mobile usage and nearly three quarters of the

population engaged on social media, it is unsurprising that Malaysia has been a particularly early adopter of e-commerce.[12] The industry is expected to increase earnings by as much as MYR 9.8 billion (USD 2.1 billion) by 2022.[13]

This uptick in online shopping is further helped by the introduction of the DFTZ, and the plan to make it easier for small-to-medium sized enterprises to enter the digital marketplace.[14]

This is creating strong demand for talent that can help organisations take their businesses online and implement digital transformation.

For instance, UX Designers are helping Malaysian businesses ensure that customers enjoy a seamless user experience when using their products and services online.

---

9.   Microsoft: Digital Transformation to Contribute US$10 Billion to Malaysia GDP by 2021
10. World Bank: Malaysia's Digital Economy
11. World Bank: Malaysia's Digital Economy
12. Statista: Active social media users as percentage of the total population in Malaysia from 2016 to 2018
13. Techwire Asia: The history of e-commerce in Malaysia
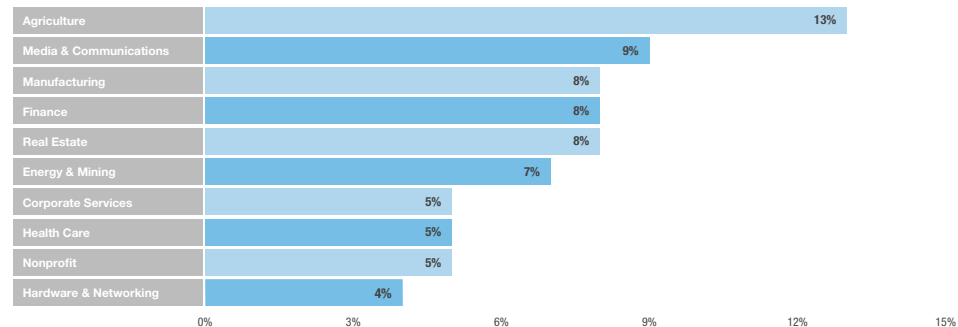14. World Bank: Malaysia's Digital Economy

The rise of data is driving demand for talent

As more industries adopt technology and digitalise their systems, data collection will become a common practice.

E-commerce, for example, is using data to better understand their customers and lift sales. This may be as simple as seeing what advertising is delivering website traffic to using exit surveys to understand the last barrier to securing sales.[15]

Meanwhile, Malaysia's agriculture and manufacturing sectors are also starting to use digital tools like sensors and technologies like IoT to capture data for quality control.[16] Digitally skilled professionals are increasingly being hired in Malaysia, even across more traditional sectors.

Top 10 Growth Industries in Digitally Skilled Hires*

Industry	Growth
Agriculture	13%
Media & Communications	9%
Manufacturing	8%
Finance	8%
Real Estate	8%
Energy & Mining	7%
Corporate Services	5%
Health Care	5%
Nonprofit	5%
Hardware & Networking	4%

Percentages represent year-over-year growth in the number of digitally skilled hires as a proportion of hires in the industry.
*Digitally skilled hires are defined as new hires made in the last 1 year who possess 1 or more Software Development, Information Technology or Information Science related skills.

15. Big Commerce: 3 ways to use customer data to increase conversions right now
16. New Strait Times: Malaysia's stats department world's first to have certified data scientists

The rise of data is driving demand for talent cont.

The rise of data is driving demand for Data Scientists who can understand, interpret and gain valuable insights from it.

The Malaysian Government's investment and collaboration with local universities to develop talent is driving the report's top emerging job, Data Scientist.

Malaysia wants to more than double its 8000 Big Data professionals to 20,000 by 2020.[17]

In January 2018, Malaysia's Statistics Department was the world's first government agency to have its staff certified as Data Scientists.[18]

Higher learning institutions such as International Medical University, Universiti Sains Malaysia, Henly Business School of University of Reading Malaysia, HELP University, Universiti Teknologi Petronas and Universiti Teknologi MARA are introducing Data Analytics curriculum into non-ICT related degrees, such as Accounting, Business, Education, Pharmacy, Medical Biotechnology and Dietetics with Nutrition.[19]

Sharala Axryd, the Founder & CEO, The Center of Applied Data Science, says when hiring data talent, business leaders should keep soft skills in mind, as well as the required technical ability.

" Sometimes on paper, Data Scientists tick all the boxes – Machine Learning, Data Analytics, Domain expert – but what might be lacking is the ability to ask business questions. Within the realm of Data Scientists, we tend to hire technical-minded people and then expect them to have the business acumen to discover problems that need to be solved.

When hiring Data Scientists, we look for communication, visualisation and critical thinking skills. We want to find experienced Data Scientists who not only possess technical skills like machine learning and AI, but also those who are strategic and business-oriented. "

Sharala Axryd
Founder & CEO,
The Center of Applied Data Science

17. MDEC: Malaysia continues to groom data professionals
18. New Straits Times: Malaysia's stats department world's first to have certified data scientists
19. MalayMail: MDEC a lot more work still to hit 2020's data professionals target

Hybrid skills are in demand

According to World Economic Forum (WEF), more than a third of the desired core skill sets of most occupations will comprise skills that are not yet considered crucial to the job by 2020.[20]

Just as the shift to automobiles generated demand for car salespeople and drive-throughs, the rise of tech is creating a demand for a diverse range of talents.

Gone are the days when being a specialist in a single skill was enough. Today, candidates have realised that the shelf life of their skills is limited. They need to continually develop and broaden their skills set to stay competitive.

This has given rise to a new breed of talent – the hybrid workers. This includes Full Stack Engineers or User Experience Designers who run projects from the technical side, as well as understand the customer-facing aspects of projects.

Demand for a diverse range of tech skills may dominate, but soft skills are vital to get the most from the digital world – whether it's understanding data, communicating clearly, or managing projects.

The talent pool crunch makes hybrid talent very attractive to organisations that are looking for people who are able to manage end-to-end processes. A hybrid skill set could also indicate to an employer that this kind of talent might be open to learning, reskilling and upskilling as per the constantly changing directions of the business.

Yet the problem with desirable soft skills – like adaptability, collaboration, and leadership – is they can be tough to identify. With business set to continue evolving fast, the challenge for HR and TA teams is to identify individuals with soft skills that can be built upon at scale.

20. World Economic Forum: The Future of Jobs Report

Prepping digital talent through upskilling

Business leaders should recognise talent's role in digitalisation, and encourage transformation. Upskilling and reskilling can be used to retain talent and help promote an adaptable and responsive mindset across the organisation.

Organisations looking for tech talent don't necessarily need to compete in the crowded talent market. In-house training can help diversify the skillset of your in-house Data Scientist, or help further develop your software engineers into Full Stack Engineers.

Talent Corporation Malaysia Berhad (TalentCorp) has recognised the importance of nationwide upskilling and reskilling to help labour force adapt to Industrial Revolution 4.0 (IR4).
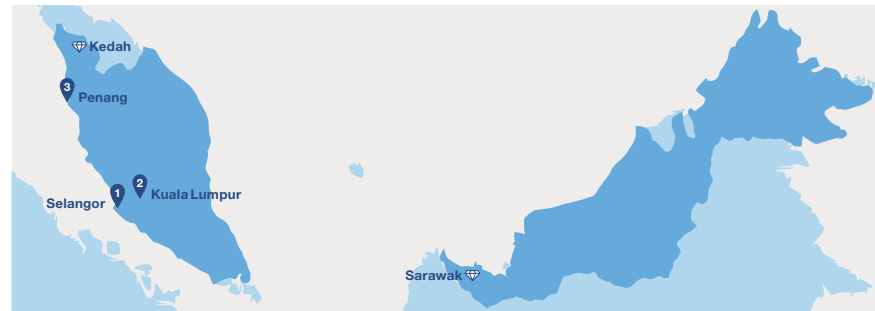
Smart factories, for example, will require talent that possess machine learning, AI and data analytics skills.

TalentCorp works with organisations, both public and private, and individuals to ensure that Malaysia is able to transit into a labour force that is ready for the future of work.[21]

Malaysian companies are investing significantly to train their employees. For example, Maybank has allocated MYR 30 million (USD 7.3 million) to launch its FutureReady digital upskilling programme, where employees can acquire new skills such as computer science, data analytics and data science.[22]

Organisations looking for digital talent can also look where the talent is. Selangor, Kuala Lumpur and Penang have the top three highest supply of digital talent in Malaysia. Beyond these cities, Sarawak and Kedah are "hidden gem" locations where the supply of digital talent is higher than that of the demand. Organisations can start looking for digital talent in these places.

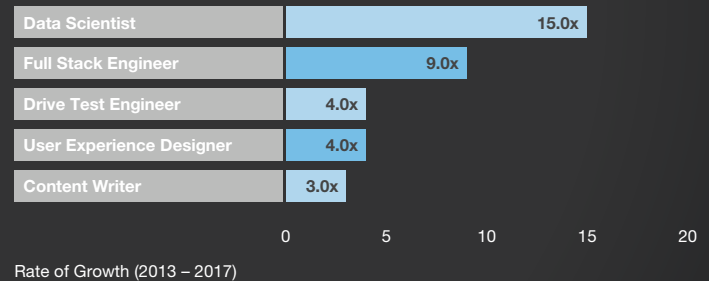**Supply of Digital Talent in Malaysia**

Deep dive:
The top 5 emerging jobs

LinkedIn has crunched its enormous stack of data from the past five years to identify the top emerging jobs in Malaysia.

Our data shows us the career paths that most people have taken into these roles, as well as the skills most commonly associated with the jobs.

Identifying these leading emerging jobs offers HR and TA teams a unique insight into where the jobs market is heading.

The Fastest Growing Roles are Largely Digital in Nature

Role	Rate of Growth
Data Scientist	15.0x
Full Stack Engineer	9.0x
Drive Test Engineer	4.0x
User Experience Designer	4.0x
Content Writer	3.0x

Rate of Growth (2013 – 2017)

1 Data Scientist

Malaysia's talent pipeline for Big Data professionals is growing.
The market for Big Data Analytics software solutions alone is
set to top MYR 595 million by 2021, up 10.9 per cent from 2016.[23]

The government has partnered with Asean Data Analytics eXchange to launch the Data Star program to fast-track the development of world-class data professionals. The hope is that this will help local companies innovate with data and build Malaysia into a global hub for data analytics and talent.[24]

Demand for Data Scientists is breaking out of the traditional tech silos. For HR and TA teams, this presents opportunity to find highly qualified talent.

If demand is high, good candidates have many options to choose from. LinkedIn data shows that digital talent such as Data Scientists care most about a good work-life balance, excellent compensation & benefits and flexible work arrangements. An organisation that projects a strong employer brand, that includes promoting the conditions Data Scientists want, will help them stand out in a busy talent market.

PREVIOUS ROLES FOR DATA SCIENTISTS

Research Assistant	Software Engineer	Data Scientist	Business Analyst	Web Developer

TOP SKILLS FOR DATA SCIENTISTS

Python	R	Data Analysis	Machine Learning	SQL

23. The Edge Markets: Econ 4.0: How big is big data?
24. The Edge Markets: Econ 4.0: How big is big data?

2 Full Stack Engineer

As Malaysia ramps up its digitalisation efforts, the versatility and efficiency of this talent has them in high demand.

A combination of front- and back-end web and application development, Full Stack Engineers are the Swiss Army knives of tech talent.

Full Stack Engineers are able to run a digitalisation project from start to finish, on a technical level, as well as from a project management perspective.

They have intimate and technical knowledge of all layers of the project – from website server hosting to user experience design.

Malaysia's emerging start up scene is likely to be fuelling further demand for talent that can cover more ground.

With one of the highest start-up densities in the region, one startup per 26,955 people, the rapidly growing organisations will be on the hunt for the adaptable, flexible and comprehensive talent of a Full Stack Engineer.[25]

PREVIOUS ROLES FOR FULL STACK ENGINEERS

Software Engineer | Web Developer | Full Stack Engineer | Frontend Developer | Java Software Engineer

TOP SKILLS FOR FULL STACK ENGINEERS

JavaScript | Cascading Style Sheets | MySQL | PHP | HTML

25. Tech in Asia: A peek into the startup economies of Malaysia, Vietnam, and Indonesia

3 Drive Test Engineer

Drive Test Engineers are key to making sure Malaysia stays connected.

Drive testing is used by telecommunication networks to monitor and improve coverage and capacity of their networks. They use the latest data collections systems to gather information, while also testing, identifying, and troubleshooting problems.

Mobile cellular penetration in Malaysia has reached 135.5 per cent as of the third quarter of 2018, while its broadband penetration has risen to 118.6 per cent in 2018 from just 99.8 per cent in 2016.[26] Given the high penetration of mobile usage and the increasing push for wider Internet and telecommunications coverage in Malaysia, it's not surprising that Drive Test Engineers are in high demand.

PREVIOUS ROLES FOR DRIVE TEST ENGINEER

| Computer Technician | Drive Test Engineer | Process Technician | Project Engineer | IT Engineer |

TOP SKILLS FOR DRIVE TEST ENGINEER

| Telecoms | Drive Test | 3G | Nemo | GSM |

26. Malaysian Communications and Multimedia Commission: Communications & Multimedia Facts and Figures 3Q2018

4 User Experience Designer

"How can I make the user's experience better?" That is the fundamental question that drives User Experience Designers – whether they are improving an app, developing a website, or making products easier for use.

As Malaysian organisations increase their digital offerings, UX Designers are breaking out of their tech company and spreading across companies in the e-commerce, finance and manufacturing sectors. These industries are increasing their digital offerings and looking for talent with technical, analytical and customer-focused skills.[27]

The User Experience Designer role requires talent with a hybrid of soft skills such as analysis, collaboration, and prioritisation and hard skills such as coding and prototyping.

PREVIOUS ROLES FOR USER EXPERIENCE DESIGNER

- Graphic Designer
- User Experience Designer
- Web Designer
- User Interface Designer
- Digital Designer

TOP SKILLS FOR USER EXPERIENCE DESIGNER

- Adobe Photoshop
- Adobe Illustrator
- Web Design
- User Interface Design
- Graphic Design

27. Marketing Interactive: Marketing jobs in Malaysia on the rise from JB, Penang and Selangor

5 Content Writer

A good Content Writer is vital for online brands and media wanting to pull in an audience and drive customer engagement.

In Malaysia, many Content Writers are coming out of journalism and publishing because they're able to tell a compelling story that resonates with their readers. They understand audiences, have excellent social media skills and know the importance of creating a narrative.

It's unsurprising that these expert storytellers are in demand in Malaysia given the high penetration of smartphones and the large social media population. Brands know that engaging online content is key to a successful "mobile first" approach.

PREVIOUS ROLES FOR CONTENT WRITER

(Writer) (Editor) (Copywriter) (Content Writer) (Content Specialist)

TOP SKILLS FOR CONTENT WRITER

(Social Media) (Creative Writing) (Editing) (Web Content Writing) (Copywriting)

What's Next?

Final thoughts for HR and TA teams

1

Hire for skills, not just job titles

Look beyond the job titles and focus on the skills needed for the role. Hiring for the future state of the business means hiring for potential – potential to learn, grow and adapt in a world of digital transformation.

The digital workplace creates demand for the multidisciplinary worker, who can wield their hard skills to develop the product or find the insights, but also communicate and manage projects.

It's about soft and hard skills: Foundational or adjacent hard skills are table stakes, but no matter how technical the role, it's the soft skills that will show you who's good versus great.

2

Review your hiring strategy and invest in your employer brand

The market is highly competitive, and TA teams must continually review their hiring strategy and adopt a digital approach to find talent.

Globally, more than 90 per cent of tech-savvy talent are job hunting online. Traditional recruitment is no longer enough. Social recruiting is essential to get the talent in the door.

Build an attractive employer brand. Organisations must offer something different to discerning talent – understand what candidates value most in a job and give an authentic view into your culture.

Final thoughts cont.

3

Leverage on the power of data and insights

Use data to make well-informed decisions that can anticipate what talent might be needed, rather than rushing to catch up.

Insights on the most in-demand jobs and skills will help TA teams understand talent availability in the market, make decisions on expanding their search and look beyond the obvious environments.

4

Invest in upskilling your employees

When talent is thin on the ground, the 'perfect candidate' will be highly discerning and very expensive.

In times of rapid change, the company that will succeed is the one that makes its workplace conducive to continuous learning. Organisations will benefit from investing in further training, either in-house or external. An organisation's next Data Scientist may already be working for the firm as a Data Analyst. The Full Stack Engineer the team needs may be found in the Software Engineer who already understands the demands of the business and only needs to brush up on Cascading Style Sheets (CSS).

An existing employee, with the soft skills to engage with clients and understand their needs, may be more suited to the role if they are taught the technical skills they need. Investing in employees is a vital part of an employer's brand, and helps with retention.

HR and TA teams already know the talent market is tight, so creativity will be the key.

Why LinkedIn?

As the largest professional network in the world with more than 590 million members, LinkedIn is the best platform to reach and engage the right talent you need.

Connect with more than 4 million professionals in Malaysia and build a data-driven recruiting strategy.

Transform the way you hire in Malaysia

Post jobs
Target the right candidate for any job

Build a strong talent pipeline
Reach active and passive talent

Build your employer brand
Target the right candidate for any job

Contact candidates proactively using InMail
On average, InMail response rates are 3x higher than emails

Connect with more than 4M professionals in Malaysia
From entry level to managers to directors, you will find them all on LinkedIn

About LinkedIn's Economic Graph

The Economic Graph is a digital representation of the global economy based on 590 million members, 50 thousand skills, 30 million companies, 20 million open jobs, and 84 thousand schools. In short: it's all the data on LinkedIn.

Through mapping every member, company, job, and school, we're able to spot trends like talent migration, hiring rates, and in-demand skills by region. These insights help us connect people to economic opportunity in new ways. And by partnering with governments and organizations around the world, we help them better connect people to opportunities.

Authors

Sofia Balmaceda
Senior Marketing Manager
Southeast Asia

Candice Cheng
Senior Insights Analyst
APAC

Akash Kaura
Data Scientist
Economic Graph and Public Policy

Wei Ting Goh
Field Marketing Specialist
Southeast Asia

Linked **in** Talent Solutions