



National Training Index 2023

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A BRIEF OVERVIEW

Building a brighter future through
human capital development insights



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Preface

Human Resource Development Corporation (HRD Corp) published the first edition of the National Training Index Report (NTI) last year, which covered the training and development landscape in 2022. This year, we are proud to introduce an update to the NTI, which offers a comprehensive analysis of Malaysia's learning and development performance in 2023.

The NTI was conceived as a robust measurement tool for assessing learning and development performance across various sectors and sub-sectors within Malaysia. It serves as a vital resource for policymakers, industry leaders, educators, investors, and professionals, providing them with insights into the state of training activities and their impact on workforce development.

This report is not just a compilation of data. It is a roadmap for progress. By examining trends, identifying strengths and areas for improvement, and offering recommendations, the NTI Report equips stakeholders with the knowledge needed to drive positive change. Whether you are a government body crafting policy, a Chief Executive Officer (CEO) shaping corporate training strategies, an academia designing curriculum, or a worker seeking to enhance your skills, this report has something valuable to offer you. Throughout the pages, you will find detailed insights of training index scores, trends, and recommendations derived from an analysis conducted within the established NTI framework. We dive into the organisation's readiness in upskilling and reskilling their workers, assessing their workers' skills and competencies, and measuring training providers' quality and availability in supporting Malaysia's learning ecosystem.

I strongly believe NTI 2023 will support us in elevating Malaysia's training and development landscape for the long term by fostering a collaborative environment for nurturing Malaysian workforce and talents.

To that end, I would like to extend our gratitude to all organisations and departments that have contributed to the development and success of the NTI Report 2023.

I would also like to congratulate our Chief Strategy Officer (CSO), Mr Rony Ambrose Gobilee, Ms Norfaezah Ya'acob, the Head of the Research & Analytics (R&A) team, as well as all R&A team members, Ruhaiza Abdullah, Nur Aimi Abdul Aziz, Nur Iman Mohamed Azhar, Mohd Fadli Hussin and Christine Robert for their commitment and dedication in completing the NTI 2023 report. The R&A team's dedication in advancing learning and development initiatives through this report is instrumental in shaping Malaysia's future competitiveness. This research is independent and has not been commissioned or sponsored in any way by businesses, government, or other institutions.

Together, let us continue to harness the power of lifelong learning to build a skilled, resilient, and innovative workforce that drives sustainable growth and prosperity for all Malaysians.



Datuk Wira Shahul Dawood
Chief Executive
HRD Corp



About HRD Corp

Since its establishment in 1993, the Human Resource Development Corporation (HRD Corp) has been mandated to drive Malaysia's talent development aspirations through the collection of levies and funding for training and development programmes for the Malaysian workforce. Governed by the Pembangunan Sumber Manusia Berhad Act 2001 (PSMB Act 2001) and under the purview of the Ministry of Human Resources (MOHR), HRD Corp's vision is to future-proof the economic transformation of Malaysia through the country's most valuable asset – its people.

In 2023, HRD Corp recorded close to 90,000 registered employers across a wide range of sectors, covering over 4.58 million employees. Through its initiatives, HRD Corp strives to empower organisations and individual workers to attain personal and professional growth by fostering a culture of continuous learning and improvement among Malaysia's workforce.

The HRD Corp's Research & Analytics team has been at the forefront of research in human capital development. With a focus on enhancing workforce capabilities and skills, HRD Corp has played a pivotal role in shaping Malaysia's training and development landscape. A significant milestone in its journey is the recent development of the NTI Framework in collaboration with industry stakeholders, academia, and research organisations in 2022. This comprehensive framework represents a culmination of years of collaboration, incorporating benchmarking studies and a series of workshops and discussions. The NTI framework serves as a comprehensive tool for assessing the current trends and performance of learning and development initiatives across diverse industries in Malaysia. Through this framework, stakeholders gain valuable insights into the performance and impact of training programmes, enabling informed decision-making and strategic planning that will enhance workforce capabilities and drive sustainable growth.

For further information about HRD Corp and to download the NTI reports, please visit <https://hrdcorp.gov.my/reports>.

National Training Index 2023

AT A GLANCE

In 2023, the training industry experienced a notable increase in demand due to the growing recognition of continuous learning and professional development. This was evidenced by the HRD Corp's achievement of over 2 million (2,289,163) training participation across various sectors, marking a historic milestone since its establishment. The Services sector had the highest number of approved training participation (1,409,319), followed by Manufacturing (766,769), Construction (58,351), Agriculture, Forestry, and Fishing (29,837), and Mining and Quarrying (24,887).

Management and Leadership emerged as the most sought-after skill among employers, constituting nearly a quarter (24.4%) of the total training participation, last year. Additionally, over 161,000 courses were registered by HRD Corp recognised training providers, with a significant enrolment rate of 77.3%.

Of all the training programmes enrolled in 2023, 94.6% of the courses were non-certification courses, while only about 5.4% were certification courses. Among the skill areas with certification courses are Safety, Operation Management, and Management and Leadership.

Our training providers play a critical role in supporting our mission to provide comprehensive and impactful training programmes that meet the evolving needs of the country's workforce. As of December 2023, a total of 5,609 training providers were registered and actively conducting training through in-house, online, public and hybrid. Based on this, the most preferred modes of training are public training and in-house training, representing 130,280 (42.6%) and 101,243 (33.1%) enrolments throughout the year. Online learning also gained popularity among employers where Remote Online Training (Public), Remote Online Training (In-House) and e-learning comprise 72,037 (23.6%) of all enrolments.

Reviewing the past year, Malaysia's economy grew 3.7% after hitting the highest growth in the Gross Domestic Product (GDP) (8.1%) in two decades in 2022. The economic performance was primarily driven by the Services sector, which experienced a notable growth of 4.2%. On the other hand, the Mining sector contributed 3.8%, reflecting positive developments within the industry. This was followed by the Construction sector which displayed a substantial growth of 3.6%. Additionally, the Agriculture, Forestry and Fishing sector exhibited growth at a rate of 1.9%. However, the Manufacturing sector showed a marginal decline of 0.3% (GDP Q4, 2023).

Only about a year has passed since the first edition of NTI, and the overall index score for the country climbed up to 0.75 in 2023, from 0.70 in 2022, recording a 0.05 increase from the previous year.

To put that into perspective, Malaysia's index score was categorised as 'Experienced' with all eyes expecting a possible transition in the near future. The higher NTI score suggests that all key Malaysian sectors are investing in the development of its workforce through training, which can lead to an improvement in skills and productivity. Different sectors within Malaysia's economy may have varying needs in training and development. With this, NTI helps to highlight the sectors and sub-sectors that are investing vigorously in employee training, which can be indicative of where the economy is focusing its efforts for growth.

This information can be used to align economic policies and investments in the country. By understanding where the strengths and weaknesses lie in the training ecosystem, respective stakeholders can better allocate resources and implement programmes that support economic development and contribute to GDP growth. NTI can lead to the creation of more skilled workers who will drive innovation, efficiency and productivity, all of which will contribute to growing the country's GDP.

While the NTI is not a direct component of GDP, the index provides invaluable information about the quality and effectiveness of training programmes which impacts human capital development, productivity and sectoral performance. This is further amplified by Malaysia's focus on lifelong learning as evident from the high enrolment in certification courses, regular training programmes, and digital training across various economic sectors.

By leveraging the well-trained and skilled workforce, investors can capitalise on the productivity gains and innovation potential offered by employees who are continuously upgrading their skills and competencies.

National Training Index 2023

Dimensions of the National Training Index

Firm Preparedness / Readiness / Commitment Assess employer's readiness or ability to support their employees' upskilling and reskilling through budget allocation, training participation rate, post training recognition, training facilities and support for learning.

Worker Skills Development Measure worker's competencies and skills, e.g., level of certification, duration of the training, types of training, skills and skills transferable to the workplace.

Training Provider Effectiveness Assess the training provider's quality and availability to support the learning ecosystem, through course content, digital training platform, certification, trainer's competency and training facilities.

Illustration 1

The National Training Index score for 2023 has improved by 0.05 points compared to the previous year, which also demonstrated that Malaysia has an established training framework and a commitment to continuous development.

Training Index Scores for National and 5 Economic Sectors, 2023

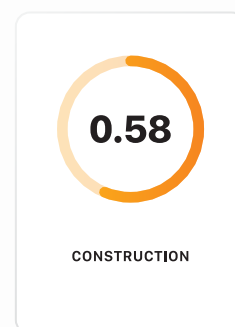
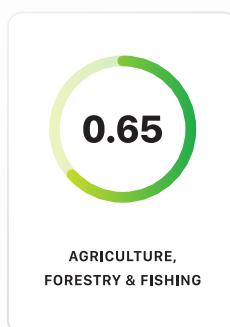
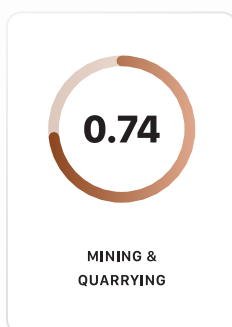
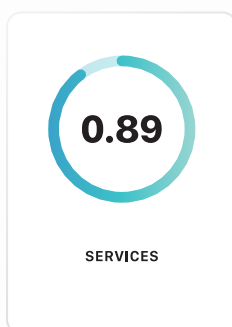
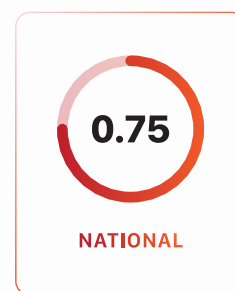


Illustration 2

The three (3) interconnected dimensions suggest a comprehensive approach to evaluating progress and effectiveness within the training and development landscape, encompassing various aspects of the training ecosystem.

Dimension Scores for National and 5 Economic Sectors, 2023

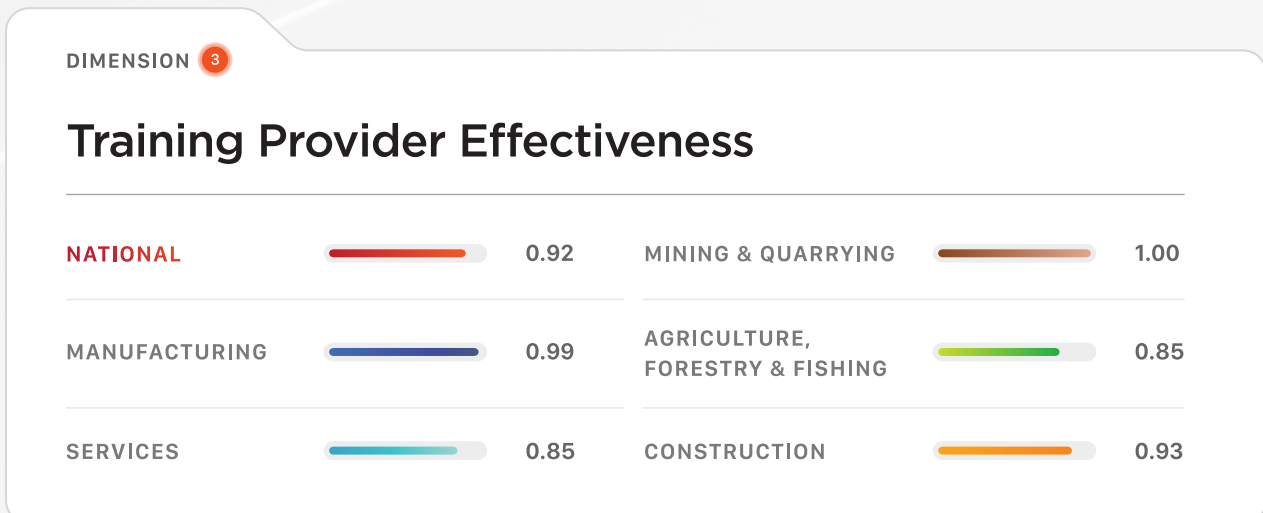
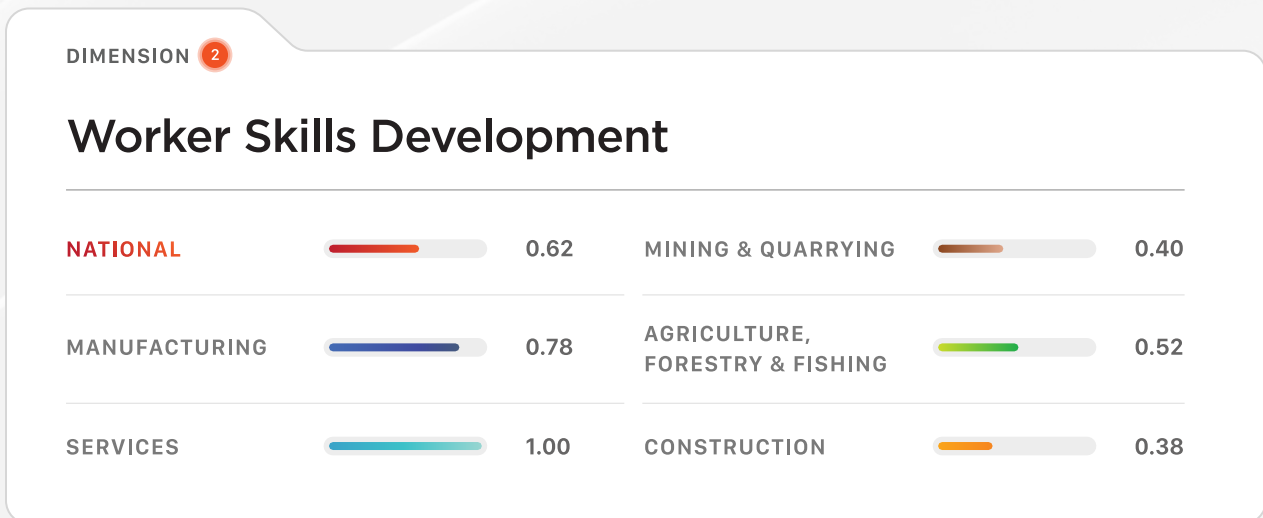
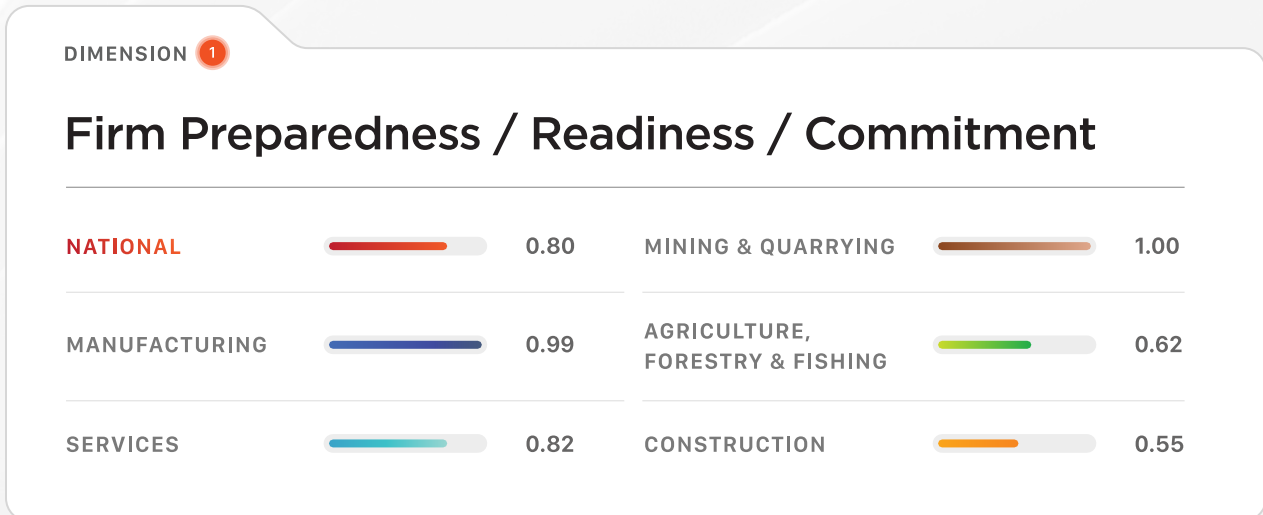
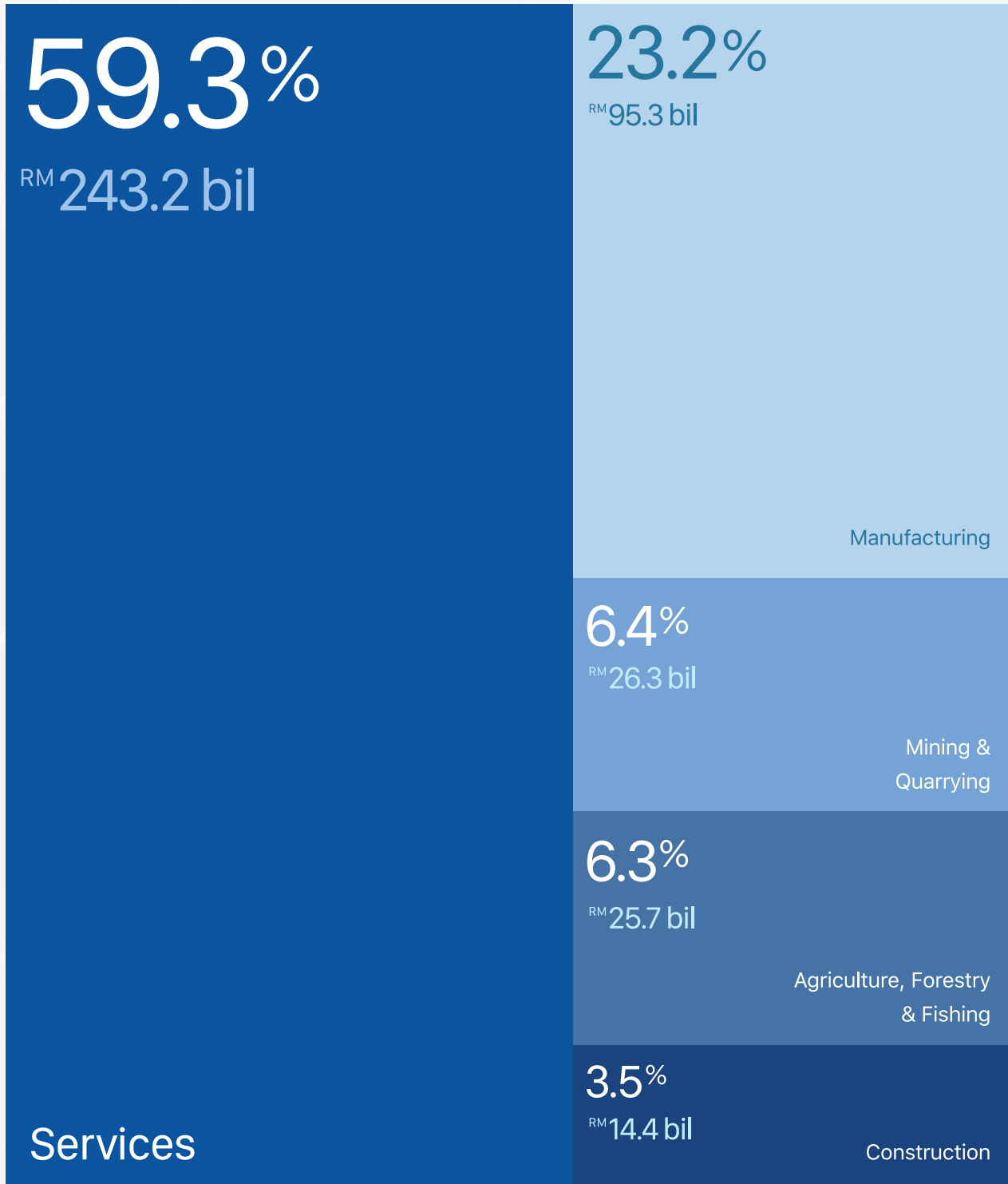


Illustration 3

In 2023, Malaysia's economy experienced a growth rate of 3.7%, reflecting a moderate expansion driven by resilient domestic demand and recovery in key sectors following pandemic-related disruptions. While the growth rate was lower compared to the previous year, it marked a positive trajectory for Malaysia's economic recovery efforts.

GDP by Sector (RM bil) and Percentage Share (%) in Q4 2023



Source: National Accounts, Gross Domestic Product, Department of Statistics Malaysia (DOSM)

Illustration 4

The index score for states is a new measurement produced in the latest edition of NTI. With more granular information, the report found that states face unique challenges and opportunities across geography, demographics, and economic structures. This enables the development of targeted solutions for each state that capitalise on their strengths while addressing their specific needs.

The States Index Score

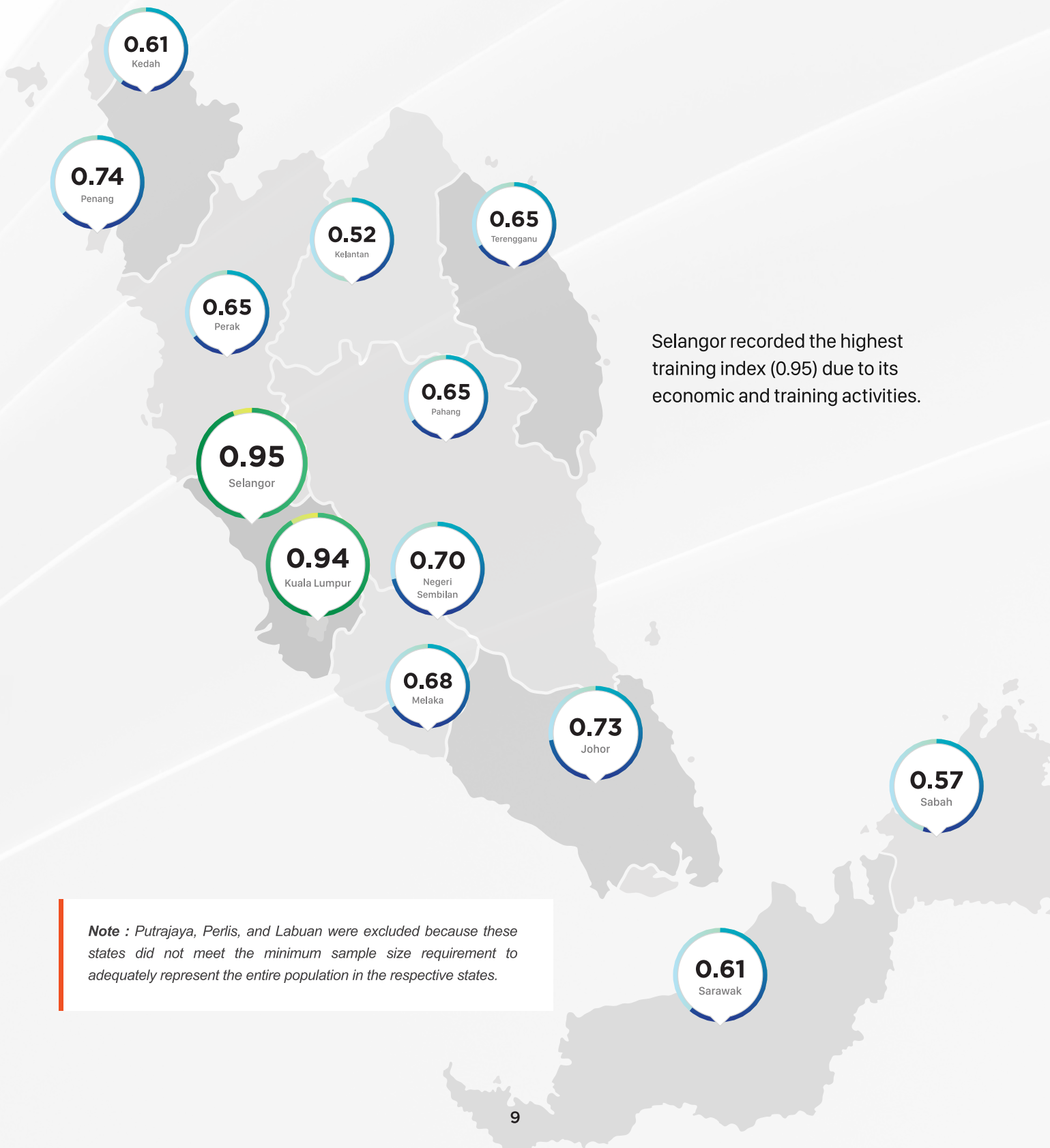


Illustration 5

HRD Corp Registered Employers

According to Sectors and Company Size for 2023

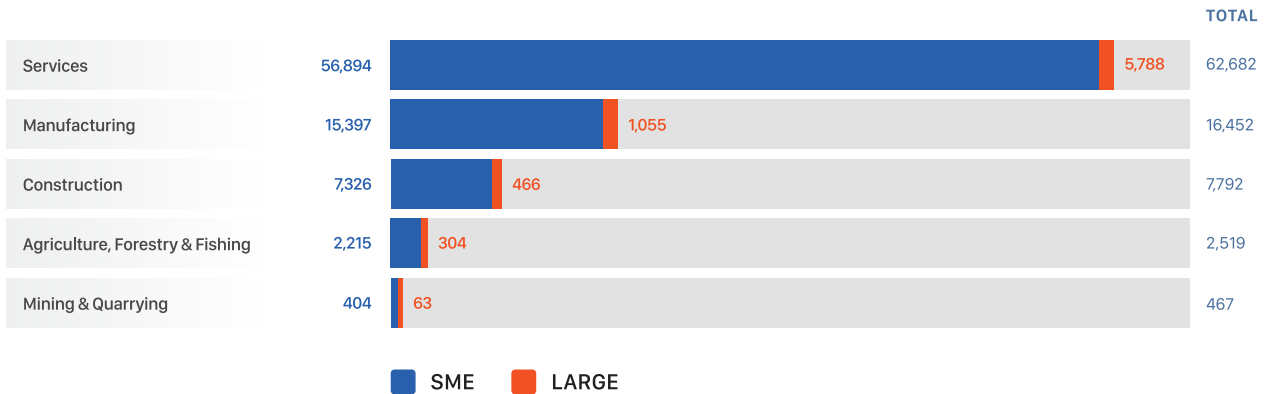
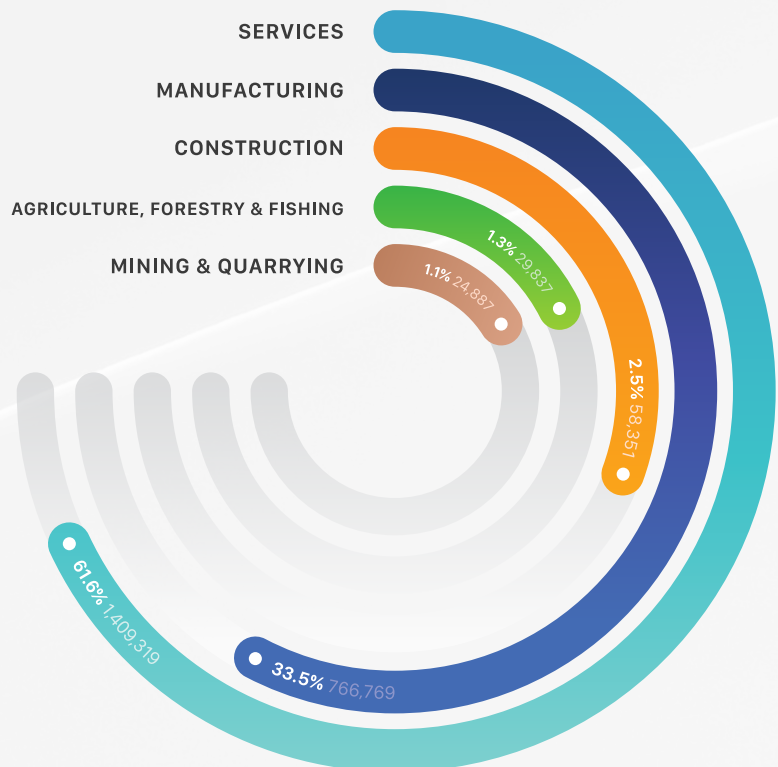


Illustration 6

HRD Corp's training participation reached 2.2 million, an all-time high since its establishment in 1993. This indicates a strong commitment towards skills development.

Training Participation

According to Sectors for 2023



Most of the training participation is observed in the Services sector at 61.6%, followed by Manufacturing (33.5%), Construction (2.5%), Agriculture, Forestry and Fishing (1.3%) and Mining and Quarrying (1.1%).



A Brief Overview

The assessment of the NTI 2023 performance is grounded in a comprehensive analysis of lifelong learning conditions and achievements, focusing on the dimensions and indicators across five (5) primary sectors. This analysis spans a comprehensive database encompassing a total of 89,912 organisations' learning and development activities. While the report focuses on the detailed performance of activities within each sector, the 2023 report also dives directly into key trends and challenges, offering recommendations to address the issues effectively.

The report showed Malaysia has a stronger-than-expected lifelong learning performance with a 0.05 index score growth to 0.75 in 2023.

The growth was in tandem with Malaysia's 2023 GDP growth of 3.7% within the same period. The economy remains resilient amidst various challenges, showing the industry's commitment to fostering continuous learning and development across every economic sector. The 2023 findings indicate a significant transition within Malaysia's workforce, with a noticeable reliance on skilled labour. The increasing necessity for skilled workers is underscored by the evolving landscape of work, which is marked by intricate economic dynamics and swift advancements in technology and digitalisation, including automation, artificial intelligence, and mechanisation.

To meet the demands of these evolving industries, concerted efforts have been made in 2023 to empower skilled workers through certification programmes and integrating technical and hands-on learning into the mainstream. Similar to the pattern observed in 2022, the industry continues to exhibit a preference for digital learning platforms as the primary mode of training. This trend underscores the growing recognition and utilisation of digital tools and platforms within the training landscape, highlighting the industry's inclination towards leveraging technology to facilitate learning and skills development among its workforce.

Successful implementation of the recommendations may boost Malaysia's economic revival. The insights and findings from this report should be followed by the mobilisation of each industry and sub-sectors to address areas requiring improvement. This is not the only insight, but the report provides what must be done in a concerted effort across all industries, including governmental bodies, to collectively advance the overarching national goal of developing at least 35% skilled workforce by 2030.



Our Methodology

To assess the overall lifelong learning performance for the country, we analysed and measured the performances of all sectors and subsectors, as well as the progress they made in 2023. This has enabled us to identify industry training needs, challenges, areas of improvements and policy interventions.

The NTI was constructed based on conceptual and analytical principles established through a framework collaboratively developed with the industry in 2022. This framework comprises three (3) primary dimensions aimed at gauging the extent of training activities through 19 indicators.

The set of training activities from each organisation is mapped and assessed across 19 indicators, sourced from HRD Corp's database. This was done to ensure consistency across all 238 sub-sectors.

HRD Corp provided the primary data source to ensure the consistent use of standard concepts, classifications, and target populations that promote coherence. Additionally, we also employed a uniform methodology utilising the aggregation method to maintain consistency across the analysis. Ultimately, the NTI scores are a reflection of the learning and development performance of the workforce in Malaysia. The results are dependent on the methodology used and the assumptions made. NTI's value lies in its aptness, methodological rigour, and robustness as a score that enables government decision-makers and industries to gain a solid understanding of the current state of lifelong learning activities in Malaysia.

Reference of the NTI score categories:

0.76 — 1.00 Leader

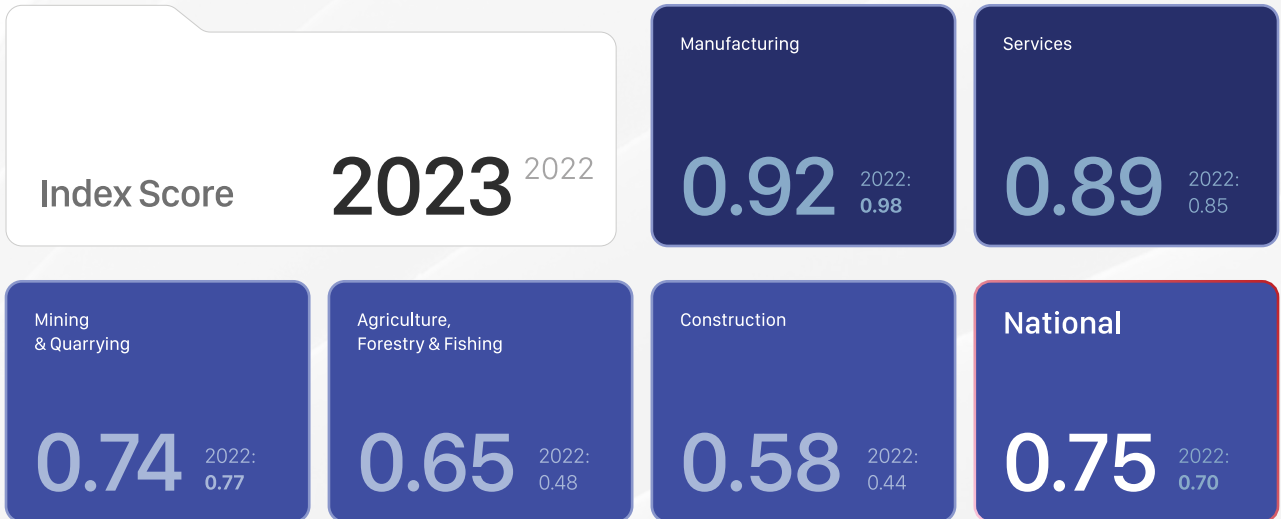
0.51 — 0.75 Experienced

0.26 — 0.50 Adopter

0.00 — 0.25 Beginner

Illustration 7

National and Sectoral Training Index Score for 2023 According to 19 Indicators



DIMENSION 1

Firm Preparedness / Readiness / Commitment

SECTOR	D111	D112	D113	D114	D115	D116	D117
MANUFACTURING	0.74	0.94	1.00	0.93	0.32	1.00	1.00
SERVICES	0.52	0.65	0.61	0.72	1.00	1.00	1.00
MINING & QUARRYING	1.00	0.92	0.80	1.00	0.00	1.00	1.00
AGRICULTURE, FORESTRY & FISHING	0.54	0.55	0.34	0.60	0.06	1.00	1.00
CONSTRUCTION	0.40	0.34	0.45	0.70	0.00	1.00	1.00
NATIONAL	0.64	0.68	0.64	0.79	0.28	1.00	1.00

D111 Financial Allocation per Worker (for Training)	D115 Enrolment in Recognition of Prior Learning (RPL)
D112 Usage of HRD Levy (Utilisation Rate)	D116 Training Facilities on Premise
D113 Workers Trained Ratio	D117 Dedicated Training Unit
D114 Skilled Workers Trained	

DIMENSION 2

Worker Skills Development

SECTOR	D211	D212	D213	D214
MANUFACTURING	0.52	0.57	0.99	0.44
SERVICES	0.61	1.00	0.42	1.00
MINING & QUARRYING	0.63	0.02	0.57	0.02
AGRICULTURE, FORESTRY & FISHING	1.00	0.02	0.40	0.02
CONSTRUCTION	0.67	0.04	0.31	0.03
NATIONAL	0.69	0.33	0.54	0.30

D211 Training Days (Attended)

D213 Enrolment of Skilled Employees in Certification Courses

D212 Enrolment in Technical Courses

D214 Enrolment in Practical/Hands-on Training

DIMENSION 3

Training Provider Effectiveness

SECTOR	D311	D312	D313	D314	D315	D316	D317	D318
MANUFACTURING	0.89	0.84	0.86	1.00	0.93	1.00	1.00	0.36
SERVICES	0.89	0.78	0.73	0.35	0.79	1.00	1.00	0.34
MINING & QUARRYING	0.89	0.95	0.95	0.80	0.96	1.00	1.00	0.41
AGRICULTURE, FORESTRY & FISHING	0.88	0.75	0.82	0.42	0.65	1.00	1.00	0.30
CONSTRUCTION	0.89	0.89	0.88	0.43	1.00	1.00	1.00	0.33
NATIONAL	0.89	0.84	0.85	0.60	0.86	1.00	1.00	0.35

D311 Enrolment in Courses Offered by Qualified (Competent) Training Providers (TPs)

D315 Enrolment in Digital Training

D312 Enrolment in Courses Offered by a Certified Trainer

D316 Enrolment in Regular / Repetitive Courses

D313 Enrolment in Courses with Evaluation

D317 Enrolment in Courses Offered by Training Providers (TPs) with Training Facilities

D314 Enrolment in Certification Courses offered by Training Providers (TPs)

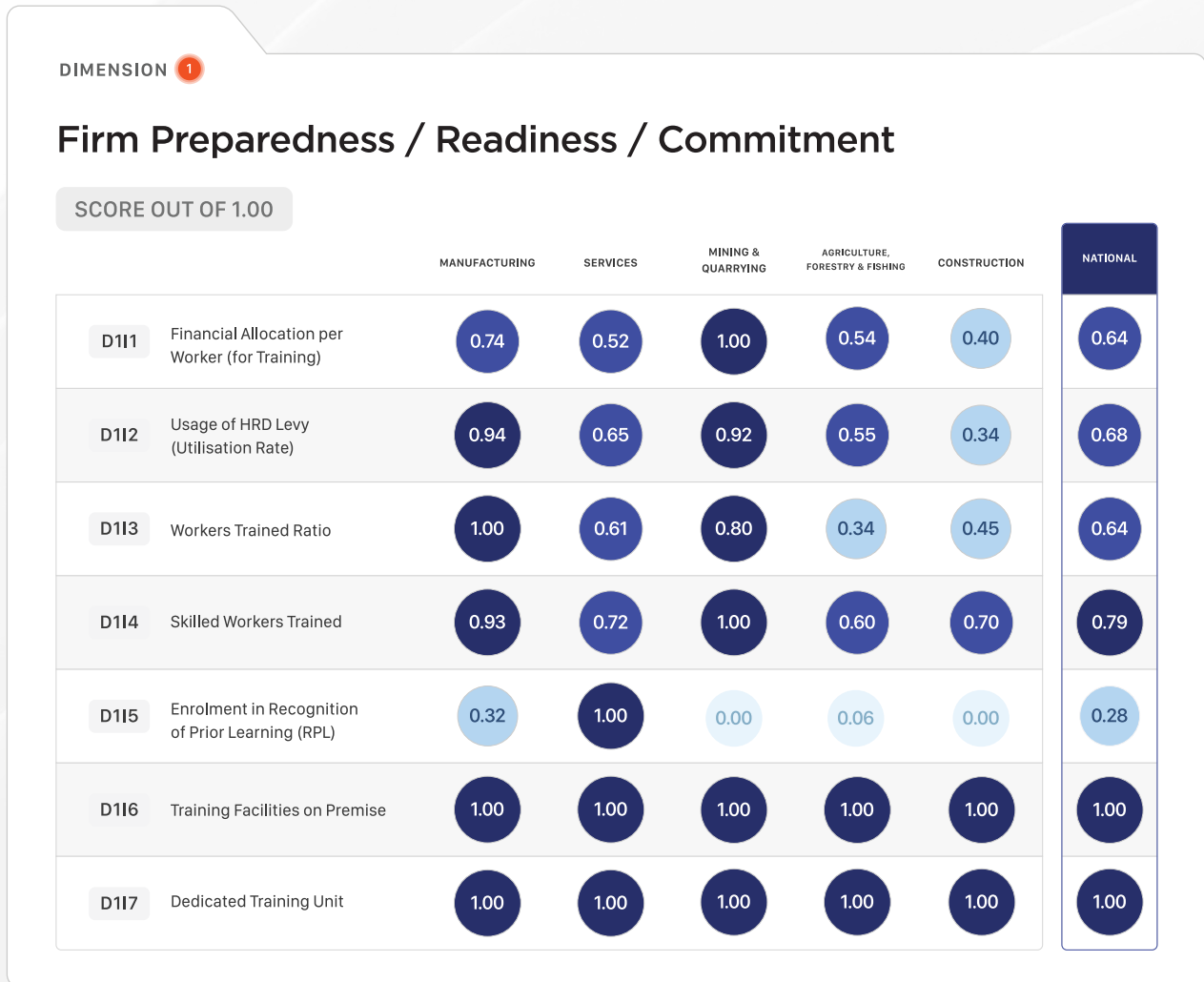
D318 Enrolment in Courses Offered by Established Training Providers (TPs)

From an agricultural nation to a sustainable Industry 4.0 powerhouse, Malaysia has made progressive development in many perspectives. The MADANI Economy Framework offers a dynamic strategy to enhance our economy and strengthen national competitiveness. This seamless development is also reflected in the NTI 2023 where Malaysia has demonstrated a positive increment in the index score.

Likewise, in the previous year, the Manufacturing sector led with an impressive NTI score of 0.98, placing it in the "Leader" category. However, in 2023, it experienced a slight dip to 0.92 while still retaining its "Leader" category. Meanwhile, the Services sector maintained its "Leader" status in both years, scoring 0.85 in 2022 and becoming stronger at 0.89 in 2023.

On the other hand, the Mining and Quarrying sector recorded a score of 0.77 in 2022, which slightly declined to 0.74 in 2023. Agriculture, Forestry and Fishing started as an "Adopter" in 2022 with a score of 0.48 but transformed into an "Experienced" sector by 2023, achieving an index score of 0.65. Similarly, the Construction sector began as an "Adopter" in 2022 with a score of 0.44. In 2023 however, it showed significant progress, reaching an index score of 0.58.

Illustration 8



INDUSTRY TITANS:

Certified Professionals Leading the Way

2023 recorded 790,155 (63.5%) skilled workers, 380,191 (30.6%) semi-skilled workers, and 73,219 (5.9%) low-skilled workers enrolled in the training and development (Illustration 9).

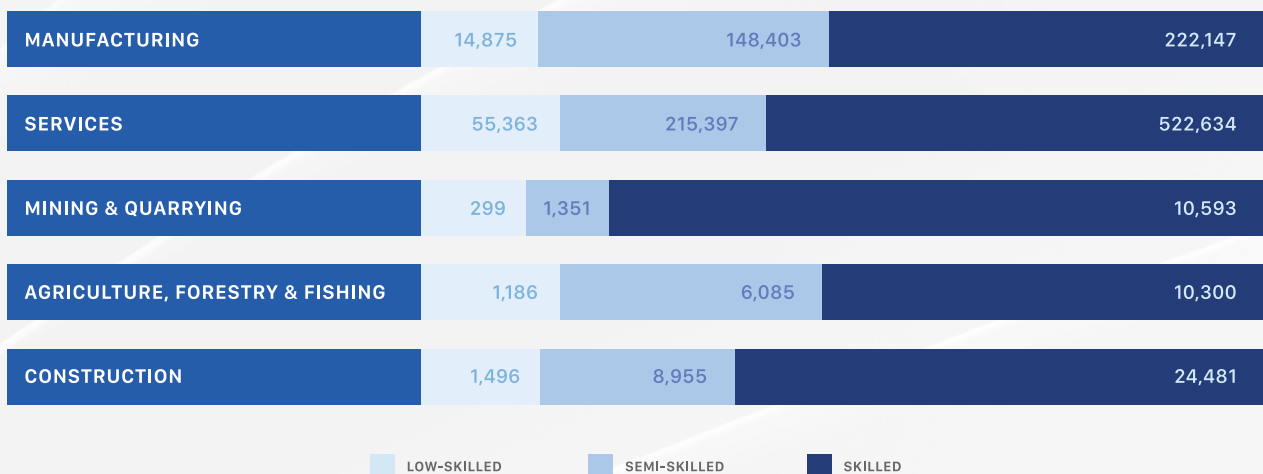
In the NTI, skilled workers' development is measured under indicator D114, based on the proportions of skilled workers trained out of the total trainees trained according to the skill designation which is categorised based on the Malaysia Standard Classification of Occupations (MASCO) definition.

Skilled workers' development is essential for the Mining and Quarrying sector to align with the 12th Malaysia Plan (12MP) under the Strategic A1 Thrust to accelerate structural economic reforms for the Mining sector. This includes transforming the sector to become more sustainable through low carbon

emission and technology adoption. In this regard, highly skilled workers are required to develop a comprehensive business model to guide the development of a responsible mineral industry that can become a new source of economic growth. Based on the NTI findings for skill workers' development, the indicator score is 1.00 which suggests a high level of commitment from employers in the Mining and Quarrying sector to invest in the training and development of their skilled workers in 2023. The fact that 76.0% of skilled workers among the 249 active employers have undergone training indicates a concerted effort to address potential skills gaps. As this sector requires a high level of safety protocols among the workforce, large funds are allocated for programmes related to standard Safety and Quality measures. Continuous training helps build a skilled workforce capable of implementing sustainable practices, minimising environmental impact, and maintaining top safety standards.

Illustration 9

Trainees Trained by Skills Category According to Economic Sectors, 2023



Skilled workers also play an important role in ensuring the successful integration and operation of Industry 4.0 technologies into the Manufacturing industry. In essence, the importance of skilled workers in the Manufacturing industry cannot be overstated. They serve as the backbone of Industry 4.0 transformation, facilitating the seamless integration of advanced technologies, ensuring product quality, operational efficiency, and innovation.

The Manufacturing sector has successfully trained more skilled workers with an index score of 0.93 in 2023. This positive outcome can be attributed to the implementation of the Industry4WRD policy in 2018, a National Policy on Industry 4.0 that runs from 2019 to 2025. The primary goal of the policy was to drive the adoption of Industry 4.0-related technologies, which include advanced manufacturing practices and digital technologies. The integration of these advanced technologies has transformed the landscape of the Manufacturing industry, necessitating a workforce adept at utilising, and managing these sophisticated systems.

As the Manufacturing landscape continues to evolve, the demand for skilled workers will only intensify, underscoring the imperative for ongoing investment in workforce development and training initiatives. The International Labour Organization (ILO) in 2023 asserts that training is the platform for enhancing worker performance, enabling them to adapt to changes and plans. From an employer's perspective, training contributes to heightened employee loyalty and efficiency.

During challenging periods, training becomes a valuable tool to aid workers in adapting to new circumstances. Correspondingly, the commitment and efforts of the employers and workers to enhance the skills and competencies of the workforce within the Services sector were shown in 2023, with the training index of skilled workers trained by the sector recorded at 0.72. This indicates that the sector has achieved an adequate level of training and certification among skilled workers. The training index not only signifies an adequate level of training and certification among skilled workers but also implies that the Services sector is well-prepared to meet the challenges and opportunities of the future.

By having a certified and skilled workforce, the Services sector can provide better value and quality to its customers and increase its productivity and competitiveness in the global market. Furthermore, it will also help the sector adapt to changes such as digital transformation, innovation, and globalisation. Training programmes should be adapted to evolving resources, needs and technologies, equipping workers with skills for sustainability and emerging tech, ensuring a seamless workforce transition. This will lead to improved operational efficiency, lower risks, and a flourishing industry benefiting both society and the environment.

Almost in the same range as the Services sector, the rapid development of the Construction sector propelled the index for the number of skilled workers developed to 0.70. This resonates well with the National Construction Policy 2030 (NCP 2030) objective to stimulate and enliven a culture of high standards and quality in the sector. The Quantity Surveyors International Conference 2023/2024 urges industry players to ramp up the number of technical and professional personnel. Similar to engineers and architects, quantity surveyor plays a crucial role in ensuring the success of construction activities that directly involve financial management and building contracts from the early stage to the final account settlement. Stepping into 2024, among the efforts to nurture a more skilled workforce include introducing construction-related Technical and Vocational Education and Training (TVET) courses.

The Agriculture, Forestry and Fishing sector recorded an index score of 0.60 for the number of skilled workers trained in 2023. This proved that the sector was actively engaged in sustaining the number of skilled workers via upskilling and reskilling initiatives in the past year. The importance of increasing the number of skilled workers in this industry is supported by the forecast highlighted in the Economic Outlook 2024, where the Agriculture, Forestry and Fishing sector is projected to expand moderately due to contributions by the oil palm, other agriculture and livestock sub-sectors. Despite the fact that this is a new sector covered by HRD Corp, the awareness of training and development by the sector has improved significantly compared to the previous year.

DIMENSION 2

Worker Skills Development

SCORE OUT OF 1.00

	MANUFACTURING	SERVICES	MINING & QUARRYING	AGRICULTURE, FORESTRY & FISHING	CONSTRUCTION	NATIONAL
D211 Training Days (Attended)	0.52	0.61	0.63	1.00	0.67	0.69
D212 Enrolment in Technical Courses	0.57	1.00	0.02	0.02	0.04	0.33
D213 Enrolment of Skilled Employees in Certification Courses	0.99	0.42	0.57	0.40	0.31	0.54
D214 Enrolment in Practical/ Hands-on Training	0.44	1.00	0.02	0.02	0.03	0.30

ADVANCING THE WORKFORCE THROUGH TECHNICAL TRAINING:

More Proficient in the Roles, Leading to Increase Productivity and Efficiency

According to a study by the World Bank, International Labour Organization (ILO), and United National Educational, Scientific and Cultural Organizational Education (UNESCO), TVET systems in many low- and middle-income countries are not aligned with the needs of the skills and labour market. Therefore, it faces a huge challenge in meeting the growing demand for TVET in the coming years (World Bank, 2023). In response to this issue, the Malaysian government has initiated various programmes and policies to enhance the quality and accessibility of TVET in the country.

One of the key agencies involved in this effort is HRD Corp, which is responsible for driving Malaysia’s talent development aspirations through the collection of levies from employers and the funding of training and development programmes for the Malaysian workforce. As a result of these initiatives, many employers have enrolled their employees in technical courses that are relevant to the future of Malaysia’s economy, especially in the fields of technical training and education.

These courses are offered by various training providers as well as public and private TVET institutions in Malaysia, which provide qualifications ranging from certificate to degree levels. The participation in technical courses by the sectors is measured in the training index under indicator D2I2, which gauges the proportions of Technical and Non-Technical areas based on the courses enrolled in, in 2023. This indicator's aim is to measure the types of skill sets required to develop the knowledge, abilities and experience needed to perform a job.

One of the sectors that benefits from the improved TVET system in Malaysia is the Services sector. The Services sector is undergoing rapid transformation that requires a high level of technical skills and competencies. The 2023 index revealed that the demand for technical skills in the Services sector remains high (1.00), as reflected by the number of technical courses (D2I2) enrolled in this sector through the measurement of the workforce, whether the workforce is equipped with the relevant skills and competencies for the technical and industrial transformation of the economy.

The high score of the sector is largely driven by the high enrolment in the technical courses offered by various training providers. These courses cover a wide range of skills that are essential for the services sector, such as Food Safety, Confined Space Safety, Coffee Making, Data Analysis, and Data Visualisation. The high enrolment in these courses demonstrates the strong interest and motivation of the workers in the Services sector to upgrade their skills and enhance their employability.

List of Top Technical Courses Enroled by Employers According to Sectors, 2023

ECONOMIC SECTORS	TOP TECHNICAL COURSES ENROLED
MANUFACTURING	Food Handler
	SMART Riding Education (SRE)
	Chemical Safety Awareness
	Measurement System Analysis (MSA)
	Root Cause Analysis
SERVICES	Food Handler
	Authorised Entrant & Standby Person for Confined Space
	Barista Basic
	Microsoft Excel (Intermediate)
	Python & Power BI
MINING & QUARRYING	Defensive Driving
	Authorised Gas Tester & Entry Supervisor for Confined Space
	Working at Height and Basic Rescue
	Rigging and Slinging
	Advanced Industrial Fire Fighting (AIFF)
AGRICULTURE, FORESTRY & FISHING	Good Agriculture Practice for Early High Yield
	Safe Chemical Handling
	Log Extraction-Tractor (Natural Forest)
	Basic Wheel Loader and Mini Tractor Operator
	Forklift Operator
CONSTRUCTION	Safety Passport
	Lifting Supervisor
	Qlassic Awareness
	Master Builders Association Malaysia (MBAM) Annual Safety & Health Conference 2023
	Building Information Modeling (BIM) Concept & Theory

Technical training for the Manufacturing industry recorded a score of only 0.57, indicating under-investment and challenges to this aspect within the industry. Despite the growing demand for technical skills in Malaysia's Manufacturing sector, there has been a concerning trend of declining enrolment in technical courses. HRD Corp data indicates a 0.12 score index decrease in enrolment into technical courses from 2022 to 2023. **The consequence of less adequate enrolment in technical courses is a shortage of skilled workers in the Manufacturing industry.** This indicates a pressing need for improvement in enrolment rates, as well as the quality and relevance of training programmes for various organisations within the Manufacturing sector in Malaysia. A key contributing factor to the underinvestment in technical training is the lack of updated training modules reflecting the current skills demanded by the Manufacturing industry. This results in outdated curricula that fail to align with the evolving needs of the sector (CIPD, 2019).

According to a report from JobStreet by SEEK (2023), only 10% of recruits in the ICT sector are considered employable, while others are required to go through substantial retraining before they are considered work-ready employees. This is because ICT is a rapidly changing industry – the courses taken by these graduates during their tertiary education may no longer be relevant when they graduate and mid-career professionals may face difficulty in keeping up with the steep learning curves due to the fast moving and fast evolving nature of technology. To address this concern, HRD Corp through the Industrial Skills Framework has collaborated with industry players and organisations to develop and compile the IndSF documents. This collaboration aims to develop and provide relevant resources that meet the evolving needs of the industries.

From a skills competency perspective, employers in Mining and Quarrying have low enrolment in technical-related courses with an index score of only 0.02. This finding underscores a critical gap in human capital development within the industry, signalling the need to enhance technical skills among workers. Inadequate skills may indirectly lower the quality of the extracted materials and may impact the worker's well-being, especially in safety concerns. Guided by the numbers, safety-focused courses have been among the top courses prioritised and enrolled in by the workforce in this industry, reflecting its inherent risks. **Proper training equips workers to identify and address hazards, leading to fewer accidents. Compliance with safety regulations often requires specialised training, underscoring its critical importance.**

Other industry-essential technical courses for the Mining and Quarrying sector, such as Basic Installation and Inspection of Explosion Proof Equipment in Explosive Atmospheres, Hazardous Material Technician, and Chargeman course, are considered expensive. The high fees for these courses may act as a barrier to enrolment, particularly for SME employees in the industry. To align with national objectives promoting sustainable development in the mineral industry and leveraging it for Malaysia's growth, it is imperative to prioritise enhancing and specialising technical training for Mining and Quarrying workers. This strategic focus on upskilling and refining technical expertise demonstrates the nation's dedication to maximising the potential of its mineral resources while ensuring the industry's long-term competitiveness and sustainability.

While the industry was severely affected by COVID-19, the pandemic also presented an opportunity for greater adoption of the Industrialised Building System (IBS) by industry players, given the shortage of foreign labour and ever-increasing material costs. The Construction sector plans, constructs, alters, repairs, and demolishes buildings, and engages in engineering works and other structures.

Nonetheless, low enrolment in technical courses (0.04) highlighted challenges caused by insufficient skilled labour including delays in development projects and slower growth of the sector (Juricic et al., 2021; Chin, 2023).

The heightened concern must be addressed to meet NCP 2030's Thrust 1: Strengthening Quality and Safety in Project Performance Across the Construction Sector, to improve quality and safety in the Construction sector as a continuous effort at the national level. These elements are essential to ensure the efficiency of project delivery, optimal cost and resources utilisation and compliance with quality standards.

The Safety Passport course is a favoured training by the industry. It typically involves a certification process that ensures individuals have undergone specific safety training and are aware of the key safety protocols and regulations within the Construction industry. This training often covers topics such as hazard awareness, risk assessment, emergency procedures, and adherence to safety regulations specific to project sites. Upon the successful completion of the Safety Passport training, individuals are typically awarded a safety passport or certification, indicating that they have met the required safety standards and are equipped to work safely within the Construction sector. This certification is often mandatory for individuals working on construction sites to ensure a safe working environment and mitigate potential hazards.

With advancements to agricultural technology, technical training is necessary to equip workers of the Agriculture, Forestry and Fishing industry with the right skills to remain competitive and perform crucial tasks that include equipment operations, precision agriculture, data analysis, and sustainability practices. Furthermore, emerging technologies are one of the factors that make continuous learning important. The agriculture industry is constantly evolving with the introduction of new technologies such as biotechnology, vertical farming, and automation. Technical training enables individuals to stay updated on these developments and adapt their practices accordingly. Nonetheless, technical training among the workers in the industry in 2023 remains low (0.02). This suggested that the industry must push more technical training related to the sector to ensure the skills are relevant and aligned with the technological development of the industry.

High Enrolment in Practical Courses Fuels Workforce Empowerment

Practical training is of paramount importance across various domains and industries as it provides individuals with real-world, hands-on experience in their field of work or study. This experience helps them to understand the practical application of theoretical concepts that they have learned in classrooms or on any other platforms. Beyond that, practical training allows individuals to develop and hone specific skills that are necessary for the profession. Whether it's technical skills like operating machinery or soft skills like communication and teamwork, practical training provides opportunities for skills development in the real world. The involvement of practical elements is measured in the index under D214 on the number of trainees trained in practical/ hands-on training mode.

List of Top Sub-sectors Enroled in Practical or Hands-On Training According to Sectors, 2023

ECONOMIC SECTORS	TOP SUB-SECTORS ENROLED IN PRACTICAL OR HANDS-ON TRAINING
MANUFACTURING	Manufacture of Electric Motors, Generators, Transformers and Electricity Distribution and Control Apparatus
	Processing and Preserving of Meat
	Manufacture of Basic Chemicals, Fertilizers and Nitrogen Compounds, Plastics and Synthetic Rubber in Primary Forms
	Manufacture of Plastic Products
	Manufacture of Motor Vehicles
SERVICES	Architectural and Engineering Activities and Related Technical Consultancy
	Electric Power Generation, Transmission and Distribution
	Computer Programming, Consultancy and Related Activities
	Hospital Activities
	Wired Telecommunications Activities
MINING & QUARRYING	Extraction of Crude Petroleum
	Quarrying of Stone, Sand and Clay
	Support Activities for Petroleum and Natural Gas Extraction
	Mining of Hard Coal
	Mining of Iron Ores
AGRICULTURE, FORESTRY & FISHING	Growing of Perennial Crops
	Support Activities to Agriculture and Post-harvest Crop Activities Animal Production
	Animal Production
	Plant Propagation
	Logging
CONSTRUCTION	Construction of Buildings
	Construction of Other Civil Engineering Projects
	Other Specialised Construction Activities
	Electrical, Plumbing and Other Construction Installation Activities
	Construction of Roads and Railways

The training index revealed that enrolment for practical/hands-on courses in the Services sector stands at 1.00, aligning with the sector's commitment of investing into human capital development. This suggests that the Services sector prioritises equipping its employees with the necessary current skills, demonstrating a proactive approach to workforce development. The high enrolment in training with practical/hands-on experience in the Services sector in Malaysia presents a promising step towards addressing longstanding challenges faced by the workforce - as highlighted by UNESCO's observation that too many individuals are trapped in vulnerable employment in low-skilled jobs or settling for positions where they are overqualified and underpaid (UNESCO, 2022).

By prioritising practical training and skills development, Malaysia is actively working to equip the workforce with the necessary skills to navigate the changing demands of the labour market. Moreover, by aligning training initiatives with industry needs, the Services sector in Malaysia can potentially offer more fulfilling and rewarding career pathways for individuals, ultimately contributing to the overall socio-economic development of the nation.

Despite the Government's efforts to enhance the skill level of the labour force through expanded access to TVET, the uptake rate remains low for the Manufacturing sector. This is due to the challenges faced by the industry in attracting students to enrol in TVET programmes, which are crucial for producing skilled workers tailored to industry needs. The low enrolment rate in practical and hands-on programmes, standing at only 0.44 compared to 0.63 last year, is concerning, especially when compared to the other economic sectors. This indicates a significant gap in the adoption of TVET programmes in the Manufacturing industry which provides the participants with valuable skills and knowledge essential for promoting safety, environmental stewardship, efficiency, teamwork, and logistics management within manufacturing operations.

Moreover, the Construction Industry Development Board (CIDB) via its Contractor Development Division stated that drafting, planning and implementing programmes related to improving the contractor's capacity in terms of productivity, technology and quality promotes an overall growth for the industry. Although the sector's prime activity involves installation and assembling project equipment and materials at the site, the Construction sector registered a shallow growth in practical or hands-on training at 0.03. One of the underlying reasons for the waning growth is the influx and over-dependency of foreign workers into the sector, which is estimated at 8% of Malaysia's total employment. These workers are ineligible to be covered and trained under HRD Corp. Lifting Supervisor Training garnered the highest training enrolment in the Construction sector. The training is formulated to provide adequate knowledge while enhancing the supervisory skills and competency levels of trainees. This will ensure that every aspect of the lifting operations at the site is executed and managed safely (Master Builders Association Malaysia, 2024).

The majority of the courses listed in the figure aim to provide the training necessary for the Construction workers to understand the hazards and risks present during the project. **The Government has acknowledged the importance of TVET in developing skilled workers and generating revenue to support Malaysia in reaching its goal of becoming a high-income nation.** Due to its potential to raise the

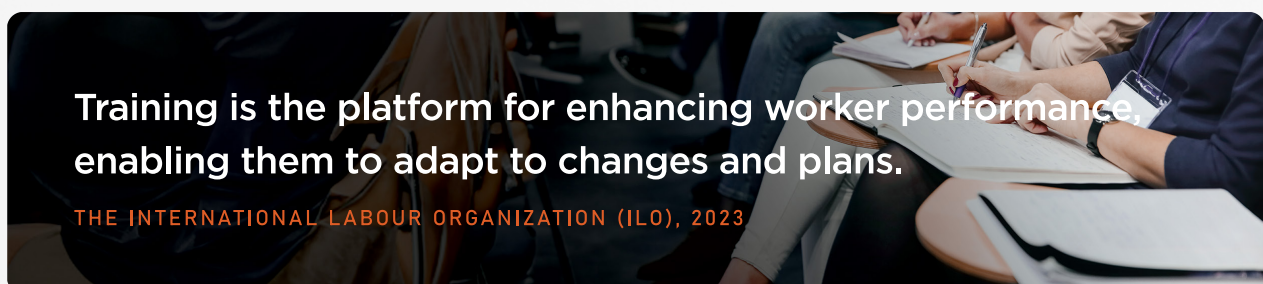
employment rate, TVET will be essential in luring highly skilled workers. TVET not only ensures employment but also has the potential to turn employee into a business owner (Yunos, 2023). Effective collaboration between the Construction companies and TVET institutions can lead to a better alignment between the skills being taught and the demands of the industry, ultimately resulting in a more skilled workforce and increased productivity.

Similar to Manufacturing, Mining and Quarrying activities can cause significant impact on the social, biological and physical environments of its site and surrounding areas. This may require extensive and effective mitigation measures (Department of Environment, 2019). Hence, a practical approach to training is important to this sector as it emphasises hands-on experience and real-world application of skills and knowledge.

According to the Institute of Quarrying Malaysia (2024), critical modules for Quarry managers like Drilling, Shot-Firing, Crushing & Screening, Occupational Safety and Health and Environment Management require a practical demo at the quarry site. This is to ensure trainees can develop proper techniques that are crucial for safety and efficiency in the real world. The 2023 scoring index for practical training among the workforce is remarkably low, at only 0.02. This highlights limited employer involvement in offering training tailored to practical or TVET courses to their employees which is particularly critical in the Mining and Quarrying sector.

The Ministry of Agriculture and Food Industries (MAFI) has implemented the Agriculture Livelihood Programme which falls under the responsibility of three (3) departments and seven (7) agencies; DOA, DOS, DVS, FAMA, LPP, LKIM, LPNM, MARDI, MADA and KADA, within the Ministry. One of its objectives is to improve the knowledge, skills and competitiveness of the Malaysian agriculture and food industries by training targeted groups and employees (MAFI, 2024). **This initiative shows the government's commitment to nurturing, growing and sustaining workers' competency within the industry.**

While the index score for enrolment in the practical training among the Agriculture, Forestry and Fishing workers remains low (0.02), this can serve as a reminder for the industry to buckle up to create more skilled labour for the industry. According to the National Agrofood Policy 2021-2030 (NAP 2.0), the lack of skilled and semi-skilled labour continue to be a challenge in the agro-food industry. The less conducive work environment, limited career advancement opportunities, low wages and negative perception led to a lack of interest by the younger generation to work in the agro-food industry compared to the Services and Manufacturing sectors. This resulted in the dependency on foreign labour, which also reflects the low score index for the training in this industry according to the HRD Corp data, as foreign workers are not covered for financial assistance under any of the HRD Corp schemes.



Training is the platform for enhancing worker performance, enabling them to adapt to changes and plans.

THE INTERNATIONAL LABOUR ORGANIZATION (ILO), 2023

Illustration 13

DIMENSION 3

Training Provider Effectiveness Overall Index Score

SCORE OUT OF 1.00

	MANUFACTURING	SERVICES	MINING & QUARRYING	AGRICULTURE, FORESTRY & FISHING	CONSTRUCTION	NATIONAL
D311 Enrolment in Courses Offered by Qualified (Competent) Training Providers (TPs)	0.89	0.89	0.89	0.88	0.89	0.89
D312 Enrolment in Courses Offered by a Certified Trainer	0.84	0.78	0.95	0.75	0.89	0.84
D313 Enrolment in Courses with Evaluation	0.86	0.73	0.95	0.82	0.88	0.85
D314 Enrolment in Certification Courses Offered by Training Providers (TPs)	1.00	0.35	0.80	0.42	0.43	0.60
D315 Enrolment in Digital Training	0.93	0.79	0.96	0.65	1.00	0.86
D316 Enrolment in Regular / Repetitive Courses	1.00	1.00	1.00	1.00	1.00	1.00
D317 Enrolment in Courses Offered by Training Providers (TPs) with Training Facilities	1.00	1.00	1.00	1.00	1.00	1.00
D318 Enrolment in Courses Offered by Established Training Providers (TPs)	0.36	0.34	0.41	0.30	0.33	0.35

Local versus Overseas Training Opportunities

Upskilling and reskilling via certification programmes play a crucial role in ensuring that the workforce is equipped with the necessary skills and knowledge to meet the demands of the industry. Under D3I4, the ratio of the enrolment to the training providers who offer certification courses in 2023 was measured. The index findings reveal that employers within the Manufacturing sector value certifications and credentials obtained from reputable training providers. The enrolment in certification programmes offered by training providers is a priority for the Manufacturing sector, resulting in an impressive index score of 1.00. These credentials serve as a reliable indicator of an individual's competency and proficiency in specific areas, helping employers make informed hiring and promotion decisions. Certified skills are also essential within the Mining and Quarrying workforce to uphold product effectiveness and quality. Addressing this need, the availability of certification courses among industry stakeholders and training providers has been assessed to ensure workers possess pertinent certifications to manage work-related risks. The score index, measuring the provision of certification programmes by training providers, stands at a substantial level of 0.80. This indicates a high availability of certification courses by Mining and Quarrying training providers.

Certification courses help maintain quality within the sector by ensuring that professionals possess the necessary skills and knowledge to perform their jobs competently. This, in turn, contributes to the overall quality of construction projects in Malaysia. Having certifications from reputable training providers can give professionals a competitive edge in the job market. Competent project managers are essential in ensuring the success of a construction project (CIDB, 2024). Nonetheless, the enrolment in certification courses offered by training providers is moderately low at 0.43 for the Construction sector. Heightened concerns about sending employees for certification courses often stem from various factors, including cost, time away from work, and potential disruptions.

Similarly, the Agriculture, Forestry and Fishing sector recorded 0.42 in the enrolment to certification courses offered by training providers. Despite being classified as an Adopter, the Agriculture sector has made significant strides in enhancing the effectiveness of its training programmes compared to the previous year. An impressive 1,887 participants have enrolled in Professional Certificate courses, highlighting the sector's commitment to fostering talent development for a sustainable workforce and aligning with the United Nations' Sustainable Development Goals. However, it's worth noting that the Agriculture, Forestry, and Fishing sector has not seen any enrolments in overseas courses in 2023. This can be attributed to the availability of the courses offered locally or high-cost fees, which has been a significant deterrent. Therefore, the Agriculture, Forestry, and Fishing sector must optimise their levy utilisation as the HRD Corp database reveals a moderate utilisation rate in this domain. Employers within the sector should conduct a comprehensive assessment of their current practices to ensure they align with the highest industry standards. Through this process, the industry can maximise its levy utilisation and make a significant contribution to the growth and advancement of the entire sector.

The Services sector on the other hand, recorded a 0.35 index score for the same. These certifications serve as tangible evidence of individuals' proficiency in specialised fields, empowering workers to remain

competitive amidst industry transformations. By emphasising on certification, Malaysia not only enhances its workforce's skill set but also fosters a culture of continuous learning and professional development within the Services Sector.

Deciding whether to enrol in a local or overseas training programme for certification courses depends on several factors such as the availability and quality of the programmes, cost, networking opportunities, time commitment and more.

The Services sector shows a strong preference for domestic training activities. From the total enrolment in certification courses recorded, 99.9% were conducted locally. Only 0.1% were conducted abroad. This high investment in domestic capacity building highlights Malaysia's self-reliance in skills enhancement efforts within the Services sector, demonstrating a dedication to nurturing local talent and ensuring industry competitiveness.

Delving deeper into the specifics of the top sub-sectors that have enrolled their employees in certification courses, Architectural and Engineering Activities and Related Technical Consultancy are at the forefront with 5,099 training participation. This indicates a strong demand for certified professionals in these fields. This was followed closely by Private Security Activities with 4,430 training participation, highlighting the importance of certification in ensuring competence and professionalism in the security industry. Overall, these statistics shed light on the diverse areas within the Services sector where certification programmes are in high demand, reflecting the evolving needs of the industry and the importance of specialised skills and knowledge.

The data implies only 0.2% of the Manufacturing industry has participated in overseas certification programmes. This low participation rate can be attributed to the significant financial constraints faced by the industry. The availability of financial assistance, while beneficial, has not been sufficient to encourage more companies to pursue overseas certification opportunities. Additionally, competing priorities for financial resources within the Manufacturing industry, such as investments in technology, infrastructure, and workforce development, may limit the allocation of funds towards overseas certification initiatives.

In the same vein as Manufacturing and Services, the vast majority of Mining and Quarrying employers also subscribed to local training programmes for their workforce development. This may be driven by cost-effectiveness as overseas training programmes generally come with a higher financial burden, compared to readily available local training programmes. There are no enrolments into overseas training programmes by employees in the Agriculture, Forestry and Fishing sector. Further details from the database highlight this trend, with only one enrolment into an overseas course (Prosci's Change Management Certification Program) and one participation from a large company benefiting from it recorded by the Mining and Quarrying.

This may be due to the limited funding where the levy balance allocated to Mining and Quarrying employers for overseas training is restricted, further incentivising them to explore local resources. The demand for certification programmes mainly comes from active sub-sectors among large firms, like Extraction of Crude Petroleum, Quarrying of Stone, Sand and Clay, and Support Activities for Petroleum and Natural Gas Extraction. Professional Certifications among in-demand programmes within these sub-sectors are in safety skills which require specialisation such as Chargeman (A4 Chargeman, B0 Chargeman and A0 Chargeman), Defensive Driving, Further Offshore Emergency Response Team and Basic, Well Intervention Pressure Control and Installation and Inspection of Explosion Proof Equipment in Explosive Atmospheres.

Illustration 14

Distribution of Training Participation in Local and Overseas Certification Courses According to Sectors, 2023

LOCAL						
ECONOMIC SECTOR	DIPLOMA	DEGREE	MASTER	PHD	PROFESSIONAL CERTIFICATE	SKM
MANUFACTURING	478	101	164	5	35,959	35
SERVICES	1,124	125	376	53	50,506	135
MINING & QUARRYING					4,807	
AGRICULTURE, FORESTRY & FISHING	14	2	4		1,887	
CONSTRUCTION	4	6	17	2	3,564	2

Note: SKM - Sijil Kemahiran Malaysia

OVERSEAS						
ECONOMIC SECTOR	DIPLOMA	DEGREE	MASTER	PHD	PROFESSIONAL CERTIFICATE	SKM
MANUFACTURING			2	1	40	
SERVICES	1		5	1	44	
MINING & QUARRYING					1	
AGRICULTURE, FORESTRY & FISHING						
CONSTRUCTION					2	

Note: SKM - Sijil Kemahiran Malaysia

As depicted in Illustration 14, all economic sectors consistently rack up the Professional Certificate as the highest training participation for certification courses locally. Among the certified courses classified under the Professional Certificate category are Certified Environmental Professional in Scheduled Waste Management (CePSWaM), Certified Project Management Professional and many more.

In 2023, Manufacturing employers also demonstrated a strong commitment to diploma-level programmes, with 478 individuals pursuing advanced credentials to deepen their expertise in specific areas within the sector. Meanwhile, enrolment in the PhD and SKM by the Construction industry stands at the extreme low of 2.

To address the demand for certification programmes and internationally-recognised workers' skills development, further initiatives should be developed to enable employees to participate in international upskilling programmes. This will enhance the sector's and sub-sector's efficiency and productivity. Alternatively, despite the limitation in sending employees for overseas certification programmes, knowledge-sharing can help to disseminate information to colleagues upon their return, thereby maximising the impact of both local and overseas training throughout the organisation. Alternatively, virtual international programmes, local subsidiaries of overseas training providers, or collaborative partnerships with international institutions are also cost-effective alternatives.

DIGITAL TRAINING INITIATIVES:

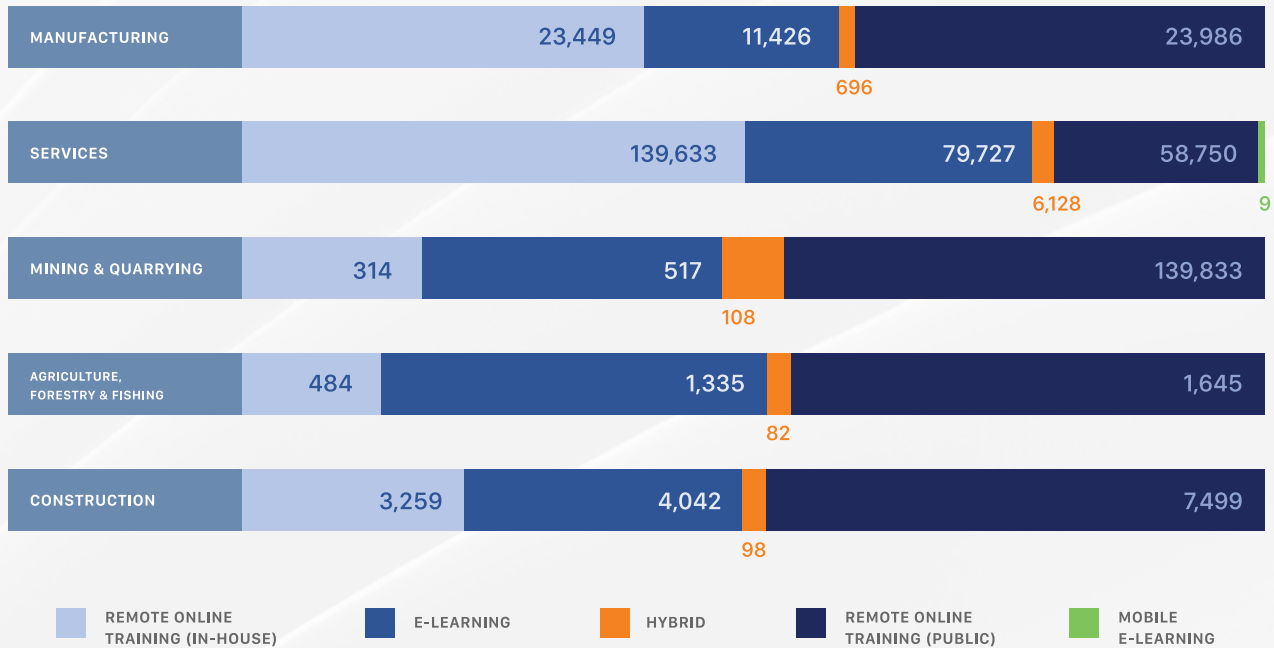
Flexibility or Cost Saving?

The adoption of digital learning is increasing rapidly. According to HRD Corp data, the enrolment for digital learning in 2023 is around 364,020 training participation, a reduction of 22.7% from the previous year. This is also supported by the reduction in the overall index score for digital training enrolment from 1.00 in 2022 to 0.86 in 2023. Participation in digital training is calculated in the index (D3I5) by measuring the ratio of training providers that have invested in digital training platforms to the overall training enrolment.

According to the Bridging the Skills Gap Survey by the Economist Intelligence Unit, only 44.0% of Malaysian employees believe that their skills have become more relevant during the pandemic, while 56.0% said that their ability to earn an income remained unchanged. **There is a need for more reskilling and upskilling opportunities in Malaysia, especially in digital skills, soft skills, and interpersonal skills (Economist Impact, 2023).**

Digital training platforms have been imperative since COVID-19. This has driven radical changes in the training landscape. These platforms support distance education and training by providing interactive and social learning environments that enable both synchronous and asynchronous communication, facilitate access to learning activities, and offer flexibility by allowing learning to occur 'anytime and anywhere'. Besides that, instructional design is defined as a systematic process that reflects the translation of the theories and principles of teaching and learning into practical methods for planning, improving, developing, and continuing education (Gameil & Al-Abdullatif, 2023).

Enrolment in Courses Conducted via Digital Training Platform According to Sectors, 2023



The Construction industry hit a perfect score of 1.00 on the availability of digital platforms. This signals that digital training activities have been instrumental in supporting Thrust 3 of the NCP 2030 which is to "Improve Construction Productivity". The thrust focuses on upskilling and reskilling Malaysian workforce, realigning training modules, embracing new technology, and improving and digitising processes.

With the availability of these platforms, the sector is expected to embrace technology and innovation under IR4.0 within the sector to ensure continued growth and competitiveness regionally and globally.

Aligning with the Malaysian Digital Economy Blueprint, the imperative shift towards digitalisation holds paramount significance for the Mining and Quarrying sector in Malaysia. Zooming into the learning platform offered in training and development among the workforce, Mining and Quarrying is at the same level as the other sectors where digital platforms are widely used by training providers in delivering training and development with an index score of 0.96. The findings suggest a clear preference for Remote Online Training (public), which indicates that most employers preferred public training programmes instead of in-house training. The data shows that the number of organisations in the Manufacturing industry enrolled in digital learning in 2023 is 18,554 employers with an index score of 0.93. Interestingly, the majority of organisations that utilised digital learning were small and medium-sized businesses. These comprised 14,915 employers, which is equivalent to 80.4% of all employers in this sector.

Digital learning offers several advantages for manufacturing companies. It provides flexibility, allowing employees to access training materials at their convenience, which is particularly beneficial for companies with shift-based operations and for SMEs with limited manpower to run operations simultaneously. In the Manufacturing sector, digital learning covers a wide range of topics. Some of these include training on new technologies such as automation and robotics, safety protocols, quality control methods, supply chain management, lean manufacturing principles, and sustainability practices. These digital learning initiatives are designed to equip employees with the necessary skills and knowledge to adapt to the evolving technological landscape of the industry.

As demonstrated in Illustration 16, LinkedIn Learning has become the trend for every key sector, particularly in the Manufacturing, Services and Agriculture, Forestry and Fishing sectors.

Illustration 16



Top 5 Digital Learning Courses Enroled by Employers According to Sectors, 2023

ECONOMIC SECTORS	TOP DIGITAL LEARNING COURSES ENROLED
MANUFACTURING	Disprz subscription - StarECADEMY
	OpenSesame e-Learning Programme
	Info Tech HRMS
	Food Handler
	LinkedIn Learning
SERVICES	LinkedIn Learning
	Coursera Business Learning
	Food Handler
	Info Tech HRMS
	Introduction to Ethics in Banking
MINING & QUARRYING	PCSB Permit to Work (PTW)
	Oil and Gas Safety Passport
	Technical Report Writing
	Dangerous Goods Awareness
	Hearing Conversation

ECONOMIC SECTORS	TOP DIGITAL LEARNING COURSES ENROLED
AGRICULTURE, FORESTRY & FISHING	LinkedIn Learning
	40th GENP Management Conference
	ICOP NOISE 2019 : Hearing Conversation Administrator Roles and Responsibilities
	MIA Webinar Series : Building Impactful Presentaiton Deck Slides for Accountancy Professionals
	Basic Instructor Course for Plantation Healthcare Professionals
CONSTRUCTION	LinkedIn Learning
	Info Tech HRMS
	Future of Work - Intensive
	CyberSecure
	TAXPOD Masterclass 2.0

Positioned fourth among all the key economic sectors for the enrolment of training providers in digital platforms, the Services sector recorded a 0.79 score index for 2023. Based on Illustration 16, the distribution of training participation within the Services sector across different types of digital training platforms indicates that Remote Online Training (in-house) is the most popular choice, followed by e-learning and Remote Online Training (public).

Conversely, Hybrid and Mobile e-learning platforms recorded lower numbers of training participation. Consistent with the Manufacturing sector, there is a clear preference for Remote Online Training conducted in-house. This indicates the convenience and control that organisations can have in managing their training programmes internally. E-learning, while slightly less popular than in-house remote training, still holds a significant number of training participation, underscoring its effectiveness and accessibility. On the other hand, the limited availability of training participation in Hybrid and Mobile e-learning platforms suggests either a lower demand for these modes of training or potential challenges in implementation.

Digital training in the Agriculture, Forestry and Fishing sector has experienced several trends in recent years, driven by technological advancements and the growing need for innovative solutions in farming practices (index score 0.65). E-learning by the Agriculture, Forestry and Fishing industry was slightly less popular than public remote training, but still recorded a significant number of enrolments, underscoring its effectiveness and accessibility. It is worth noting that most courses enrolled in e-learning mode are generic courses. On the other hand, the limited availability of training participation in hybrid suggests that employees may prefer the convenience and flexibility of a public format which suits their industry culture or cost factor. Hybrid training programmes on the other hand, can be more expensive than public or e-learning programmes, as they require both in-person and online components.

The usage of digital training platforms in the farming sector is aligned with some of the technological-related training enroled into by the industry, such as Virtual Reality (VR) and Augmented Reality (AR). VR and AR technologies are being used to simulate real-life farming scenarios and provide immersive training experiences. Virtual farm simulations allow learners to practice operating farm equipment, managing crops, and solving agricultural challenges in a risk-free environment. AR applications overlay digital information onto the physical world, enabling farmers to access real-time data and guidance while working in the field. Furthermore, the adoption of data analytics and farm management software has transformed the way farmers manage their operations. Digital training programmes focusing on data analysis, farm planning, and decision-making help farmers leverage data-driven insights to optimise crop yields, reduce input costs, and improve overall farm profitability. Training in farm management software allows farmers to streamline workflows, track inventory, monitor crop health, and implement precision agriculture techniques effectively.

In a nutshell, digital platforms play a pivotal role in delivering comprehensive and effective training programmes. By leveraging technologies such as virtual simulations, augmented reality, and interactive modules, the sector ensures its workforce is equipped with the latest skills and knowledge to take the industry to the next level.

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A BRIEF OVERVIEW

The section header consists of a decorative graphic of a bar chart with 15 vertical bars of varying heights, followed by the text 'A BRIEF OVERVIEW' in a bold, black, all-caps, sans-serif font.

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The logo for XNTI features a stylized 'X' composed of two overlapping diagonal bars, one in blue and one in orange. To the right of the 'X' is the text 'NTI' in a bold, black, sans-serif font.

XNTI