



INDUSTRIAL INSIGHTS REPORT (ISSUE 02/2021)

SECTORS COVERED:

1. MANUFACTURER OF INDUSTRIAL CHEMICALS PRODUCTS
2. MANUFACTURER OF PLASTICS PRODUCTS
3. MANUFACTURER OF RUBBER PRODUCTS

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What's Inside?

HRD Corp Industrial Insights Report aims to share the latest training related updates and insights for various industries in Malaysia. This report will be crucial for HRD Corp and other associated stakeholders in our effort to learn from present issues and work towards improving the nation's human capital development. This report highlights the general industry outlook, training trends under HRD Corp, and employers' qualitative feedback. It also covers the importance of the industry, training overview, industry demographics, related skill areas, and academic qualifications for the current workforce as well as challenges associated with training and their ensuing impact.

Instead of taking the traditional social science research approach, this report adopted an action research approach inspired by the Kurt Lewin Process, with the aspiration of inducing changes within HRD Corp, to better meet the changing needs of registered employers. Using HRD Corp's internal data as well as qualitative feedback from selected employers, insights and recommendations will be provided for our reader's enlightenment.

Nevertheless, it should be noted that since the content of this report is confined to the context of the selected HRD Corp subsectors and our registered employers, there is limitation on the extent of how the content can be generalised to the wider industry.

MANUFACTURER OF INDUSTRIAL CHEMICALS & OTHER CHEMICAL PRODUCTS



MANUFACTURER OF INDUSTRIAL CHEMICALS & OTHER CHEMICAL PRODUCTS

DEFINITION

This division includes the transformation of organic and inorganic raw materials by a chemical process and the formation of products. It distinguishes the production of basic chemicals that constitute the first industry group from the production of intermediate and end products produced by further processing of basic chemicals that make up the remaining industry classes.

Source: Malaysia Standard Industrial Classification (MSIC), 2008

INDUSTRY OUTLOOK

Significant Chemicals Player within the ASEAN Region

Malaysia is one of the largest producers and exporters of petrochemicals in the ASEAN region, championed by the national oil company – Petroliaam Nasional Bhd (“Petronas”) which stewards the country’s production and management of its oil and gas reserves.

In the first quarter of 2020, there was a decrease in demand in this industry due to the COVID-19 pandemic. Nonetheless, in the second half of 2020, there was a surge in global demand for manufactured goods, making up for the deprivation experienced following global lockdowns in Q2. This led to a sudden container box shortage from Q3, which likely curtailed deep-sea polymer shipments to Asia from the United States and the Middle East. In addition, demand for plastics for face masks, disinfectants, personal protective equipment, takeaway food and online shopping packages, caused demand for petrochemical in 2020 to be higher than we had expected at the start of the COVID-19 pandemic.

















Source: CGS, CIMB Research, 2020

REGISTERED MANUFACTURER OF INDUSTRIAL CHEMICALS & OTHER CHEMICAL PRODUCTS UNDER HRD CORP

Source: HRD Corp Data as of December 2020

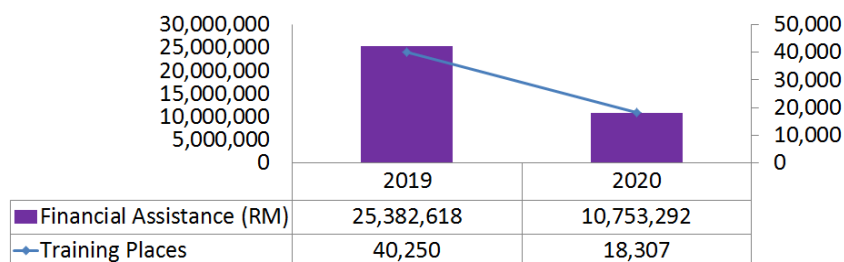


NUMBER OF HRD CORP REGISTERED EMPLOYERS ACCORDING TO STATES IN 2020

 Selangor 368 (41.6%)	 Johor 150 (16.9%)	 Penang 78 (8.8%)	 N.Sembilan 49 (5.5%)	 Perak 48 (5.4%)	 Kedah 46 (5.2%)	 KL 37 (4.2%)	 Pahang 27 (3.1%)
 Sarawak 24 (2.7%)	 Sabah 20 (2.3%)	 Melaka 16 (1.8%)	 Kelantan 9 (1.0%)	 Terengganu 9 (1.0%)	 Labuan 2 (0.2%)	 Perlis 2 (0.2%)	 Putrajaya 0 (0.0%)

Out of 876 total establishments, 41.6% were located at the Central region followed by Johor (16.9%) and Penang (8.8%).

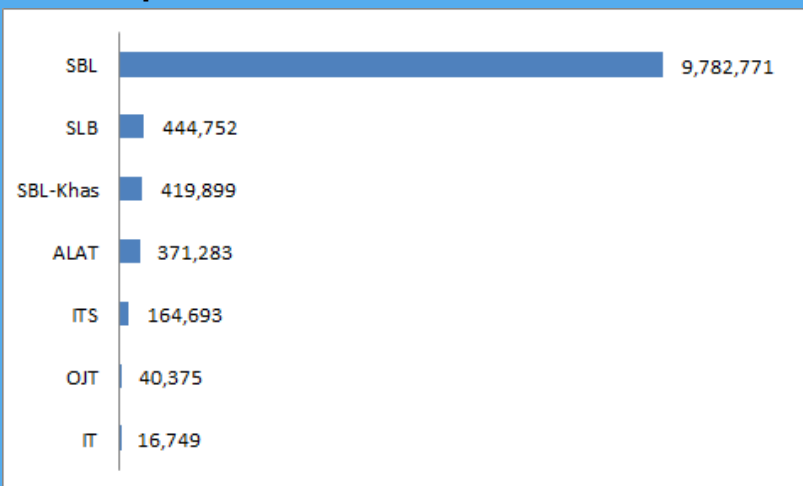
TRAINING OVERVIEW



The training places for Manufacturer Chemicals and Other Chemical products industry had declined by 54% compared to 2019 due to the implementation Movement Control Order (MCO) which restricted the delivery of face-to-face training.

HRD CORP LEVY SCHEMES

Financial Assistance Approved (RM) According to HRD Corp Schemes in 2020



LEGEND

ALAT: Purchase of Training Equipment & Setting Up Training Room Scheme
IT: Information Technology & Computer Aided Training
ITS: Industrial Training Scheme
OJT: On-the-Job Training
SBL: Skim Bantuan Latihan
SBL-Khas: Skim Bantuan Latihan Khas
SLB: Skim Latihan Bersama

The chart reveals that SBL was the most popular scheme among employers in the industry. Since the government implemented the MCO, many employers chose to purchase training equipment and set up training room for their staff, which made the ALAT scheme one of the next favoured schemes by the employers after SLB and SBL Khas schemes.

OVERALL COURSE FEES (RM)

Highest Cost

Penjaga Jentera Elektrik BO Separuh Masa	17,000
To Train New Mixer	8,400
Loading Master Certificate for Oil, Gas and Petrochemicals	7,637

Medium Cost

Statistical Process Control (SPC)	300
Scheduled Wastes Spill Prevention, Control and Recovery Measures	300
Authorised Gas Tester and Entry Supervisor for Confined Space Refresher	300

Lowest Cost

E-Training Development Management System	50
Forklift Training	50
Industrial Automation Control	50

Primarily, technical courses with long training hours costed the most in Manufacturers of Chemicals industry. These courses include high performance materials needed for chemical applications, which consequently lead to practical practices.

SKILL AREAS

TRAINING PLACES



Safety & Health
(6,744)



Quality & Productivity
(2,978)



Management / Strategic Management
(1,118)



Human Resources
(743)



Audit or Tax
(683)

FINANCIAL ASSISTANCE (RM)



Safety & Health
(3,463,044)



Quality & Productivity
(1,262,808)



Management / Strategic Management
(603,681)



Engineering
(572,014)



Maintenance / System & Control
(538,801)

Safety and Health became the most sought skills in 2020. In the manufacturing industry, there are certain mandatory skills for workers at certain levels. They are also required to complete particular trainings before performing their jobs.

EMPLOYERS FEEDBACK ON TRAINING NEEDS

MASCO

TECHNICAL SKILL

NON-TECHNICAL SKILL

Skilled Workers

- Chemical Exposure Knowledge
- Project Management
- Production Efficiency
- Engineering Skills
- Mechanical Maintenance

- Project Management
- Communication
- Negotiation
- Leadership

Semi-Skilled Workers

- Forklift Operating Skill
- Chemical Knowledge
- Mechanical Skill
- Customer Service
- Electrical Skill

- Leadership
- Communication
- Customer Service
- Emotional Intelligence
- Support Skill

Low-Skilled Workers

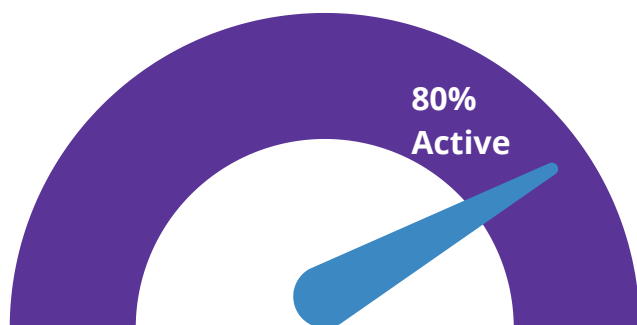
- Work Safety Knowledge
- Time Management Skill
- Cleaning Skill
- Purchasing Skill

- Communication
- Flexibility & Adaptability
- Time Management

Source: HRD Corp Training Needs Survey 2019

Working in the Manufacturing industry is often associated with exposure to chemical hazard. Therefore, subjection to the chemical knowledge for skilled and semi-skilled employees is highly required for them to identify potential exposure, demonstrate compliance and verify adequate control of substances.

VIEW ON UTILISATION OF HRD CORP LEVY (OPINION-BASED)



Source: HRD Corp Training Needs Survey 2019

Reasons for Active Usage (80%)

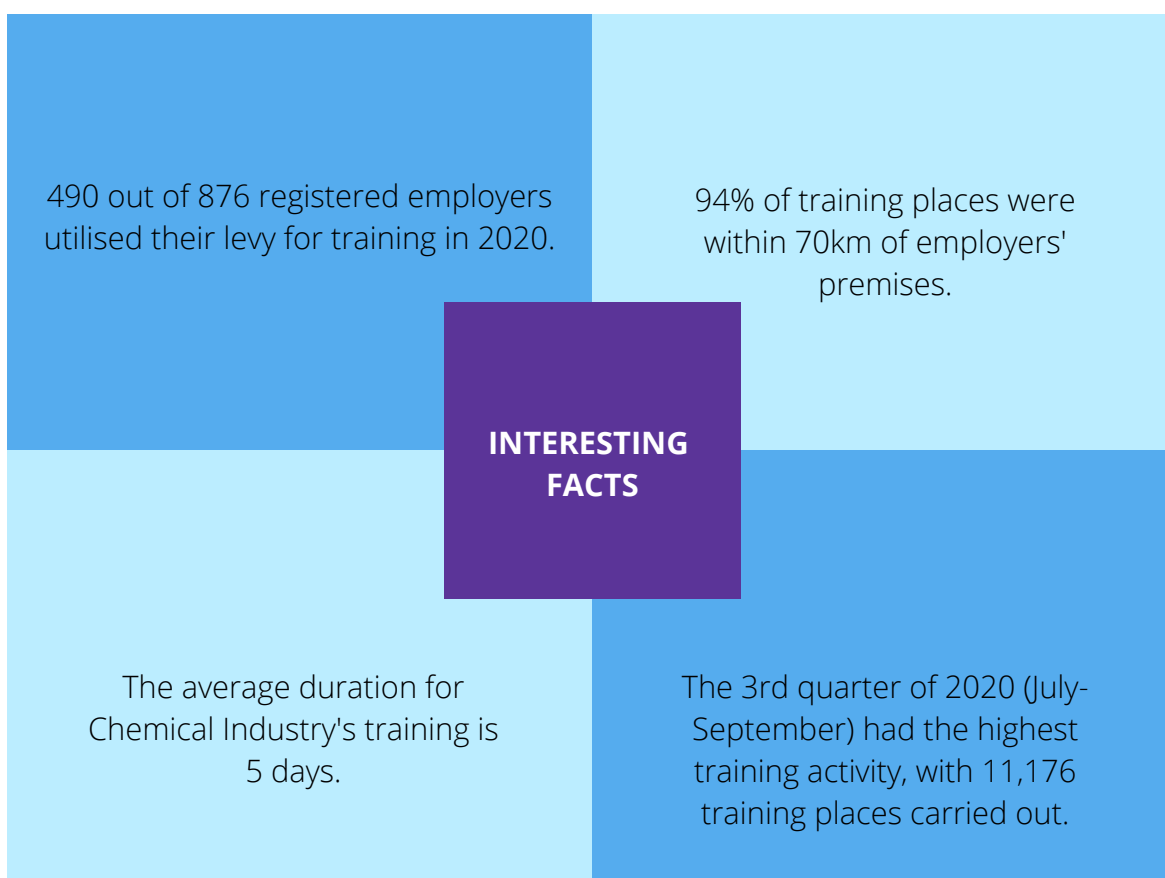
- Proactively developing/training employees
- Suitable training programmes offered
- Frequent public training for lab staff
- Good cooperation from staff

Reasons for Less Active Usage (20%)

- Accumulating the amount for big ticket items

80% of employers surveyed, stated that they are eager to utilise the levy, as they are proactively developing their employees to meet current technological needs. However, based on HRD Corp's data, only 54% of levy was disbursed in this industry. The discrepancy between the survey response and actual levy utilisation indicates there is still much room for improvement.

As 91% of the companies are SMEs, some of them accumulated their levy to focus primarily on technical trainings, which meant higher costs for staff development.



02

MANUFACTURER OF PLASTICS PRODUCTS



MANUFACTURER OF PLASTICS PRODUCTS

DEFINITION

This group includes the processing of new or spent (i.e. recycled) plastics resins into intermediate or final products, using such processes as compression moulding, extrusion moulding, injection moulding, blow moulding and casting. For most of these, the production process is such that a wide variety of products can be made.

Source: Malaysia Standard Industrial Classification (MSIC), 2008

INDUSTRY OUTLOOK

Increasing Demand from the Packaging Industry

Malaysia's plastics market was valued at USD3.24 million (RM13.76 million) in 2020 and the market is projected to register a Compound Annual Growth Rate (CAGR) of around 3% during the forecast period (2021-2026). This industry is less impacted by COVID-19 as the plastics industry is a supporting industry to essential sectors that include Electrical & Electronics (E&E), Medical Supply and the Food & Beverage (F&B) sectors.

Therefore, there is increasing demand for Packaging Industry. Packaging accounts for the largest application segment in the Malaysian plastics market. The prime reasons for the growing application of plastics in the packaging segment include better wear and chemical resistance, ease of molding, recyclability, puncture resistance, and high mechanical strength.

Sources:

















1. Industry Outlook and the New Norm for 2021, Malaysian Plastics Manufacturers Association (MPMA)
2. Malaysia Plastics Market - Growth, Trends, COVID-19 Impact, and Forecasts (2021 - 2026)

REGISTERED MANUFACTURER OF PLASTICS PRODUCTS UNDER HRD CORP

Source: HRD Corp Data as of December 2020

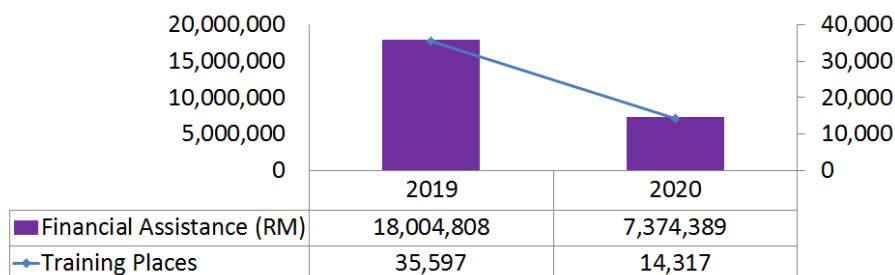


NUMBER OF HRD CORP REGISTERED EMPLOYERS ACCORDING TO STATES IN 2020

 Selangor	 Johor	 Penang	 Perak	 Kedah	 N.Sembilan	 Melaka	 KL
438 (33.5%)	311 (23.8%)	170 (13.0%)	118 (9.0%)	85 (6.5%)	45 (3.4%)	44 (3.4%)	37 (2.8%)
 Sarawak	 Sabah	 Pahang	 Terengganu	 Kelantan	 Perlis	 Labuan	 Putrajaya
22 (1.7%)	14 (1.1%)	10 (0.8%)	7 (0.5%)	5 (0.4%)	1 (0.1%)	0 (0.0%)	0 (0.0%)

70.3% of the companies are located in abundant industrial zones in states like Selangor, Johor and Penang.

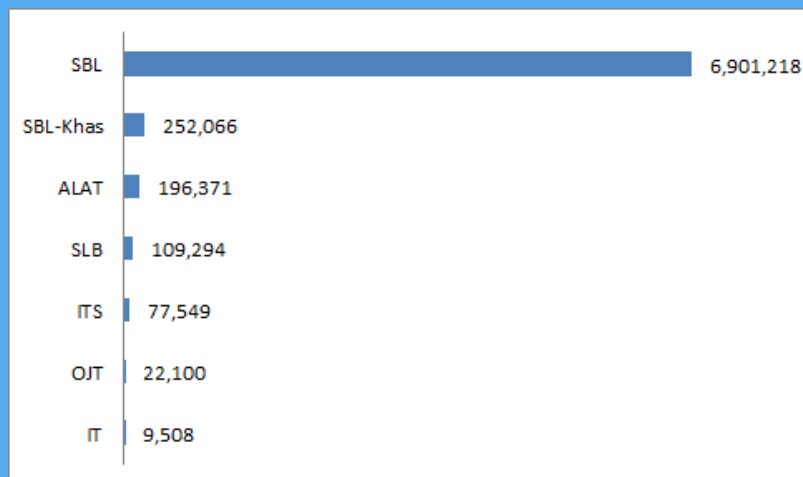
TRAINING OVERVIEW



The training trend of this industry had decreased by 60% in 2020 to 14,317, compared to 35,597 in the previous year. Most of the plastics manufacturing companies are facing unprecedented challenges in securing and maintaining agile supply chains due to the rise in demand for plastic products which impacted the staff development for year 2020.

HRD CORP LEVY SCHEMES

Financial Assistance Approved (RM) According to HRD Corp Schemes in 2020



LEGEND

ALAT: Purchase of Training Equipment & Setting Up Training Room Scheme
IT: Information Technology & Computer Aided Training
ITS: Industrial Training Scheme
OJT: On-the-Job Training
SBL: Skim Bantuan Latihan
SBL-Khas: Skim Bantuan Latihan Khas
SLB: Skim Latihan Bersama

As many offices had been forced to reduce the numbers of staff working in the office to comply with health and social distancing requirements, most of the companies opted to conduct online training under through SBL scheme.

OVERALL COURSE FEES (RM)

Highest Cost

IPC A610 Certification on Acceptability of Electronics Assemblies	12,593
Certified Coaching & Mentoring Professional (e-CCMP)	9,800
Certified Six Sigma Green Belt	5,512

Medium Cost

Safety & Health at Workplace	222
Microsoft Excel Intermediate	220
Chemical Management, Spill Drill & Clean Up	219

Lowest Cost

Fundamental First Aid & CPR	50
Authorised Entrant and Standby Person for Confined Space Refresher	50
Understanding & Implementing ISO 9001:2015 QMS	50

Professional certification courses in Plastics Manufacturing industry are mostly expensive, namely, "IPC A610 Certification on Acceptability of Electronics Assemblies".

SKILL AREAS

TRAINING PLACES



Safety & Health
(4,236)



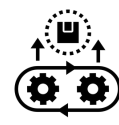
Quality & Productivity
(2,713)



Audit or Tax
(959)



Education / Training
(748)



Manufacturing or Production
(719)

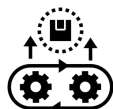
FINANCIAL ASSISTANCE (RM)



Safety & Health
(1,735,914)



Quality & productivity
(1,182,678)



Manufacturing / Production
(538,584)



Audit or Tax
(429,152)



Education or Training
(396,248)

Most of the Plastics companies in Malaysia indicated that Safety and Health training is one of the important training programmes for their employees. This is due to the various safety and health concerns that exist throughout the plastics industry, ranging from raw material manufacturing to plastic processing.

EMPLOYERS FEEDBACK ON TRAINING NEEDS

MASCO

TECHNICAL SKILL

NON-TECHNICAL SKILL

Skilled Workers

- Injection Moulding Technology
- Programming
- Lean Management
- Data Analysis
- Mechanical

- Time Management
- Leadership
- Managerial
- Marketing and Branding

Semi-Skilled Workers

- Supervisory
- Quality Control
- Analysis
- Microsoft Office
- Machine Operation

- Problem Solving
- Time Management
- Communication
- Selling and Marketing
- Report Writing

Low-Skilled Workers

- Handling Store
- Safety and Health
- Driving
- Time Management
- Machine Operation

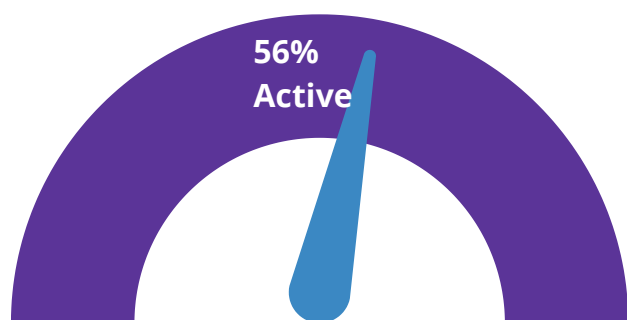
- Worklife Balance
- Communication
- Safety and Health
- Time Management

Source: HRD Corp Training Needs Survey 2019

The survey revealed that most of the companies in Plastics Manufacturing preferred advanced technology training for their skilled workers like programming and data analysis. This is in response to 98% of firms in Plastics Manufacturing that are still using basic processes. This could indicate that most firms are hamstrung by the lack of talent to move into more advanced technologies.

(Source: IndSF Report - Plastics Products).

VIEW ON UTILISATION OF HRD CORP LEVY (OPINION-BASED)



Source: HRD Corp Training Needs Survey 2019

Reasons for Active Usage (56%)

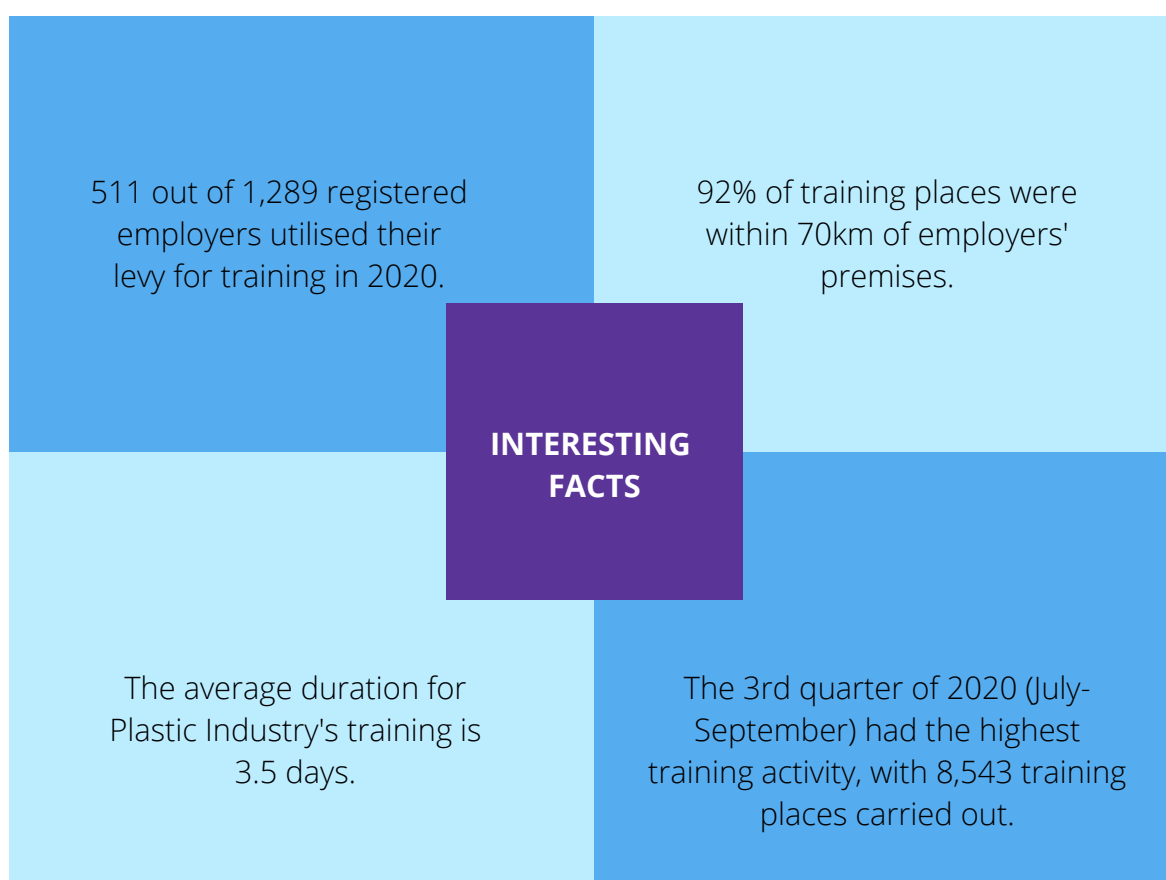
- Technological changes
- To increase staff competency
- To maximise levy disbursement

Reasons for Less Active Usage (44%)

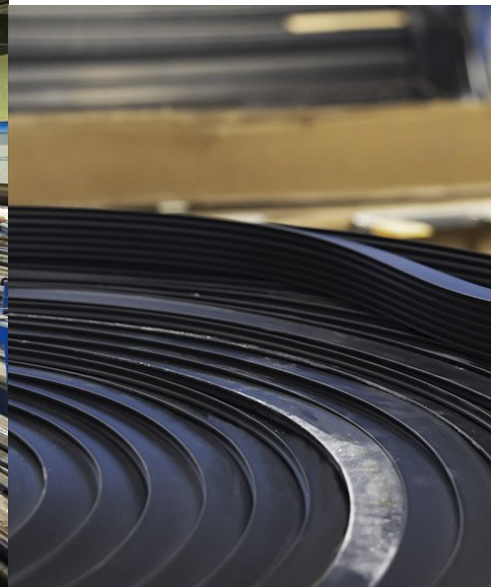
- New employers
- Difficulty in claim process
- Unclear of grant application's procedure

Based on HRD Corp's actual data, 56% of levy was utilised by Plastics Manufacturing employers. They are generally receptive towards utilising the levy as they would like to ensure staff competency by upgrading their skills and knowledge in this critical field. Furthermore, employers also highlighted they would like to utilise levy fully and prevent wastage.

Some employers did point out that they are less active in utilising levy because they are new employers and some of them are not particularly familiar with the grant application process. To help new employers with this issue, HRD Corp has introduced the "Onboarding session" that discusses how to pay and claim levy for various training and development programmes.



MANUFACTURER OF RUBBER PRODUCTS



MANUFACTURER OF RUBBER PRODUCTS

DEFINITION

This group includes the manufacturer of rubber products including rubber tyres and tubes; retreading and rebuilding of rubber tyres and other rubber products.

Source: Malaysia Standard Industrial Classification (MSIC), 2008

INDUSTRY OUTLOOK

Exceptional Growth Due to COVID-19

The pandemic has caused more positive impact on the Malaysian rubber products sector where the total exports exceeded RM40 billion for the first time with an export revenue of RM40.96 billion in 2020, an increase of 75.6% from 2019. The strong performance in exports was contributed by the spike in exports of latex goods which posted a year-on-year growth of 95.3% in 2020.

The latex goods sector comprises mainly medical devices such as gloves and catheters. The sector made up 90% of the total rubber products exports in 2020, increased from 81% recorded in 2019. The increase was driven by the high demand from the medical and health sectors worldwide in an effort to curb the spread of the COVID-19 pandemic. Rubber gloves alone made up 86% of the country's rubber product exports. Exports revenue from the rubber gloves industry reached RM35.3 billion, doubled from the exports in 2019 (an increase of 103%). Globally, Malaysia has been supplying more than 60% of the world demand for rubber gloves and the Malaysian Rubber Council (MRC) estimates the share to expand to 68% in 2020.

















Source: Malaysia's Rubber Products Hit New High in 2020 by Malaysian Rubber Council

REGISTERED MANUFACTURER OF RUBBER PRODUCTS UNDER HRD CORP

Source: HRD Corp Data as of December 2020

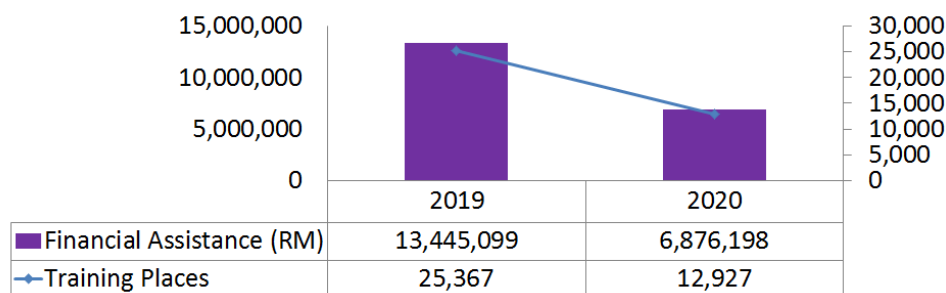


NUMBER OF HRD CORP REGISTERED EMPLOYERS ACCORDING TO STATES IN 2020

 Selangor 169 (35.8%)	 Johor 68 (14.4%)	 Perak 60 (12.7%)	 Kedah 49 (10.4%)	 Penang 38 (8.1%)	 N. Sembilan 28 (5.9%)	 Melaka 17 (3.6%)	 KL 12 (2.5%)
 Sabah 9 (1.9%)	 Pahang 7 (1.5%)	 Kelantan 6 (1.3%)	 Sarawak 5 (1.1%)	 Perlis 3 (0.6%)	 Terengganu 1 (0.2%)	 Labuan 0 (0.0%)	 Putrajaya 0 (0.0%)

The Manufacturer of Rubber Products industry utilised up to 59% of the levy collected in which the highest distribution of employers are located in Selangor with 35.8%.

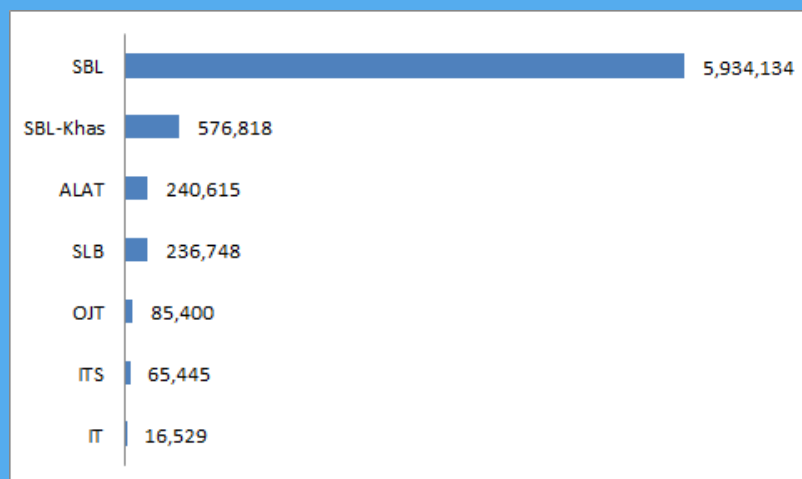
TRAINING OVERVIEW



The training contribution from the Malaysia Rubber industry has reduced by 49% due to a surge in demand for medical gloves production worldwide. This resulted in a decline in human capital development for this industry as employers focused on putting their employees to work instead of attending training.

HRD CORP LEVY SCHEMES

Financial Assistance Approved (RM) according to HRD Corp Schemes in 2020



LEGEND

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IT: Information Technology & Computer Aided Training
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The breakdown of approved Financial Assistance revealed that SBL was the most popular scheme, with more than 90% allocation. This is because, in-house training, is highly preferred among employers and it is claimable under the scheme.

OVERALL COURSE FEES (RM)

Highest Cost

Extrusion Head Operation	12,000
Tyre Building Operation	12,000
Mixing Masterbatch Operation (Rubber Compound)	8,000

Medium Cost

Employer - Employee in Industrial Relation Context	160
FMM Webinar on Compliance to Act 446 and Its Regulation	159
Safety and Health Conference 2019	150

Lowest Cost

Hearing Conservation Training	45
Effective Preventive and Predictive Maintenance	42
Abnormality Control and Management	40

Technical courses with longer duration that can support skilled and semi-skilled employees in managing their tasks are among the most expensive training courses for Rubber industry.

SKILL AREAS

TRAINING PLACES



Safety & Health
(3,136)



Quality & Productivity
(1,659)



Management / Strategic Management
(1,480)



Education / Training
(1,170)



Human Resources
(928)

FINANCIAL ASSISTANCE (RM)



Safety & Health
(1,595,243)



Quality & productivity
(814,518)



Management / Strategic Management
(631,417)



Human Resources
(452,034)



Education / Training
(444,294)

Exposure to Safety and Health skills in the Rubber Manufacturing industry is considerably very important due to the nature of the workplace that commonly involves a variety of chemicals used in the rubber-production process.

EMPLOYERS FEEDBACK ON TRAINING NEEDS

MASCO

TECHNICAL SKILL

NON-TECHNICAL SKILL

Skilled Workers	<ul style="list-style-type: none"> • Project Management • Risk Base Inspection • Project Design • Marketing • Surveyor 	<ul style="list-style-type: none"> • Quality Management • Emotional Intelligence • Leadership • Communication • Stress Management
Semi-Skilled Workers	<ul style="list-style-type: none"> • Purchasing • Production • Accounting • Supervisory • Analytical 	<ul style="list-style-type: none"> • Leadership • Supervisory • Driving • Problem Solving • Teambuilding
Low-Skilled Workers	<ul style="list-style-type: none"> • Production • Inventory Management • Microsoft Excel • Lab Analysis 	<ul style="list-style-type: none"> • Time Management • Safety and Health • Conceptual Thinking • Stress Management • Communication <p><i>Source: HRD Corp Training Needs Survey 2019</i></p>

Employers highlighted that Project Management and Project Design are the crucial skills needed by skilled workers to ensure that manufacturing processes run reliably and efficiently.

VIEW ON UTILISATION OF HRD CORP LEVY (OPINION-BASED)

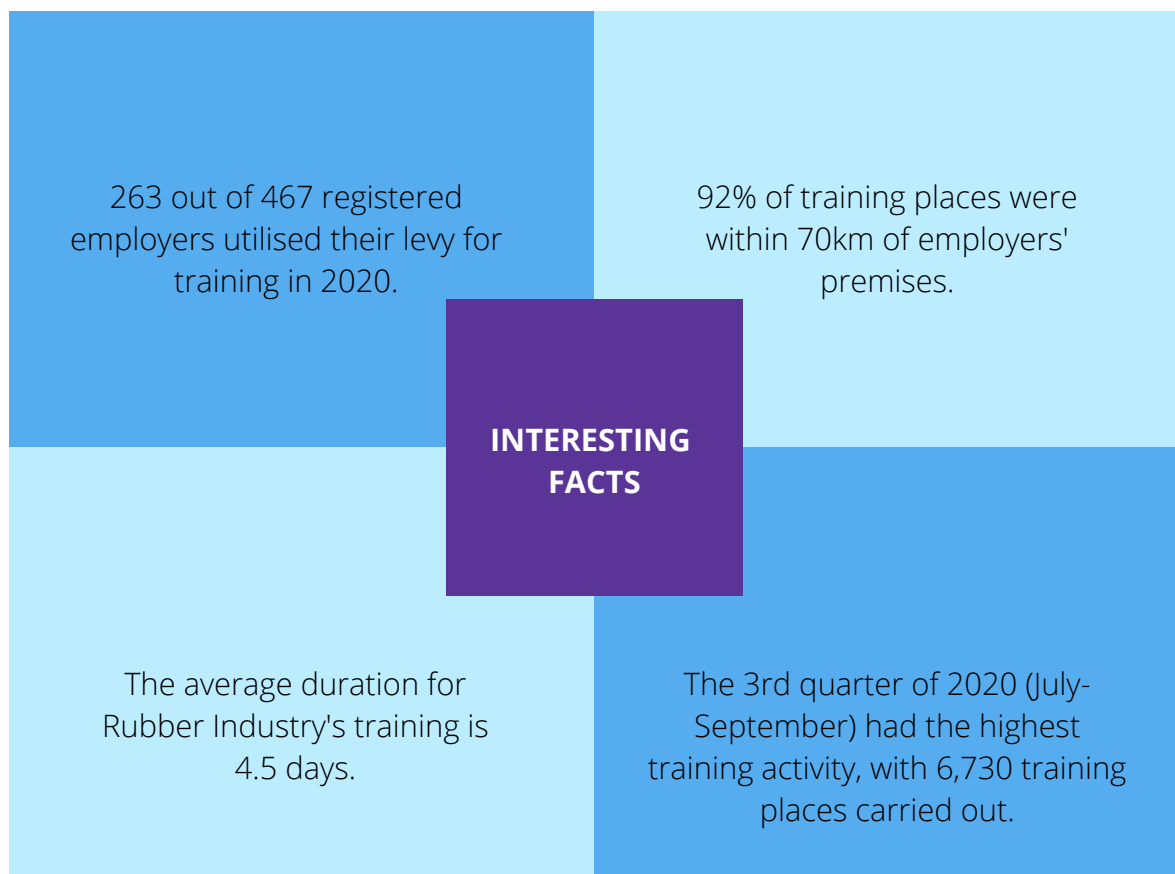


Reasons for Active Usage (100%)

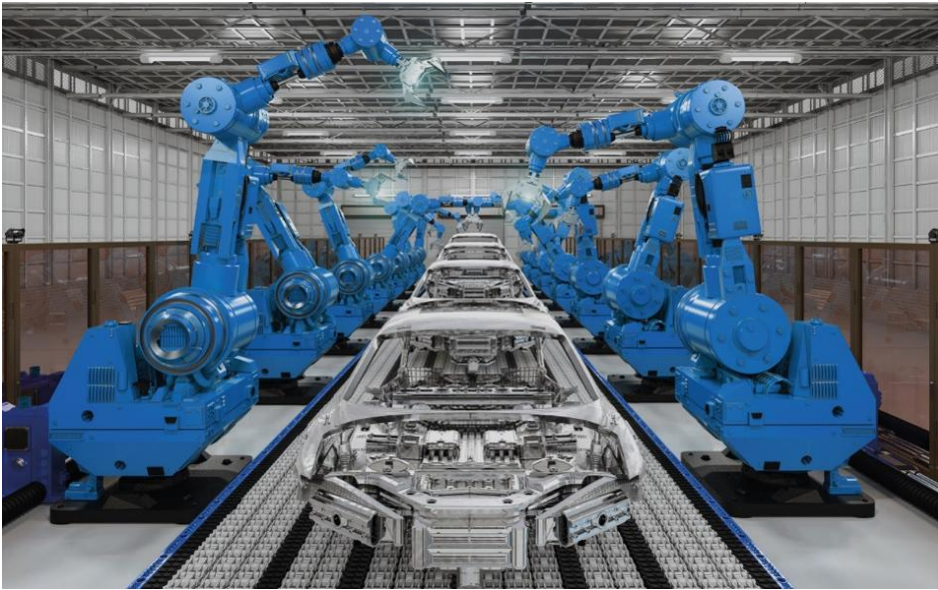
- To improve work efficiency
- To maximise levy disbursement

Source: HRD Corp Training Needs Survey 2019

100% of employers from the Rubber Products industry responded in the survey saying that they are actively utilising the levy as they would like to improve work efficiency. Current statistic however shows that only 59% of levy collected was disbursed in training. This is mainly due to a surge in demand for medical gloves production worldwide, which resulted in a decrease in human capital development for this industry.



SUMMARY



SUMMARY & COMPARISON

COMPARISON IN THE GROWTH NUMBER OF HRD CORP REGISTERED EMPLOYERS AND EMPLOYEES

	2019		2020
Chemical Industry	Employers : 812 Employees : 73,603	>	876 (+8%) 75,700 (+3%)
Plastic Industry	Employers : 1,219 Employees : 74,945	>	1,289 (+6%) 78,954 (+5%)
Rubber Industry	Employers : 455 Employees : 56,112	>	467 (+3%) 57,610 (+3%)

The statistics show that all three (3) subsectors have shown a steady increase in the number of HRD Corp registered employers, with more than 3% for each subsector in year 2020. As these industries are less impacted by the COVID-19 pandemic, employers demand more labour to ramp up production to meet demands. In terms of establishment size, these three (3) subsectors have lower representatives from large companies, with only 10% of employers that are considered large, compared to more than 90% in the Small and Medium Enterprises category.

In terms of levy utilisation rate, Manufacturer of Plastics is the most active subsector compared to the other two (2), Manufacturer of Chemicals and Rubber. Nonetheless, in terms of the number of training activities, all three (3) subsectors have dropped to about 40%, compared to the previous year. The scenario might be due to the Movement Control Order (MCO), which restricted employers from sending their employees for public training. On another note, these manufacturing companies were also facing manpower constraint due to the rise of demand for more chemicals, plastics and rubbers products which impacted staff development in 2020.

CHALLENGES IN TRAINING

Manpower constraint and higher workload remain to be the common challenge for all three respective subsectors in attending training as 90% of them are SMEs. Some employers also pointed out that they were newly registered employers and that came with unfamiliarity with the grant application process, which resulted in lower levy utilisation. To help new employers tackle this issue, HRD Corp has introduced "Onboarding session".

TOP SKILL AREAS

The statistics show that "Safety and Health" and "Quality and Productivity" are the most sought after skills within these three Manufacturing industries. In these industries, these two skills are inextricably linked. After all, when organisations put better care into maintaining their safety, quality, and productivity, they will be able to better serve their customers and protect their employees.



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