QUICK LMI

LABOR MARKET INTELLIGENCE REPORT

AUTOMOTIVE

As of August 2020

Technical Education and Skills Development Authority (TESDA)

BACKGROUND

- Automotive sales in the Philippines in the last 5 years have generally been in an upward trend. It decreased only between 2017 and 2018, but sales slightly increased between 2018 and 2019.

Type	2015	2016	2017	2018	2019
Passenger Vehicles (Cars)	118,760	138,278	153,247	115,563	124,328
Commercial Vehicles (Vans, SUVs, MPVs, pick-ups, crossovers, trucks, and buses)	181,949	217,477	303,231	275,868	277,889
TOTAL	**300,709**	**355,755**	**456,478**	**391,431**	**402,217**

Source: Marklines

- Below is the data of the related industries from the 2017 Annual Survey of Philippine Business and Industry (ASPBI) in the Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles.

Industry Description	Number of Establishments	Total Employment	Average Annual Compensation per Employee
Sale of motor vehicles	1,060	35,463	200,880
Maintenance and repair of motor vehicles	2,020	15,015	115,875
Sale of motor vehicle parts and accessories	3,340	27,630	149,521

- Below is the data of the related industries from the 2017 Annual Survey of Philippine Business and Industry (ASPBI) in the Manufacturing Sector.

Industry Description	Number of Establishments	Total Employment
Manufacture of motor vehicles	46	7,127
Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers	39	1,113
Manufacture of parts and accessories for motor vehicles	137	82,035
Manufacture of transport equipment, n.e.c.	59	8,804

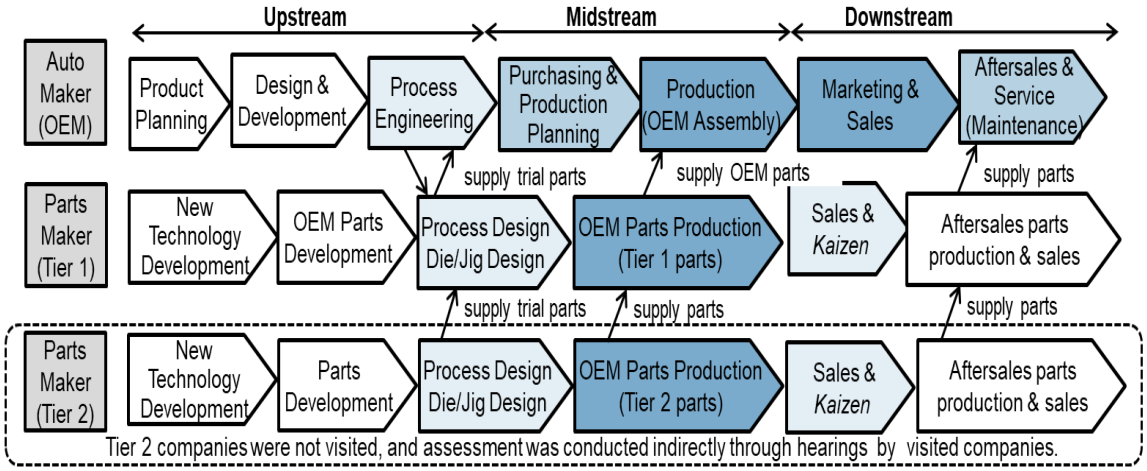
BACKGROUND

- The growing trend in automotive sales is something that the Philippines can capitalize as an opportunity to increase its manufacturing capability, and thereby increase the Philippines' participation in the automotive global value chain. For this anticipated growth, there will be demand for additional people at all skill levels, starting from workers, technicians, engineers, and managers.

- Kia Philippines President Manny Aligada estimates that car sales in the Philippines will "normalize" by November this year, which means that car sales volume will be at 35,000 units per month in November and December 2020, and that the "best case" scenario is 275,000 units of car sales.[1]

- The COVID-19 pandemic has allowed car manufacturers to innovate in reaching customers through the use of digital tools in their dealerships. An example is Toyota Motor Philippines (TMP) which introduced digital tools for service maintenance booking and an online car showroom. Honda Cars Philippines also plans to launch an online dealership platform.[2]

Current Value Chain of the Philippine Automotive Industry



Note: Dark-blue colored functions are VC functions conducted, in the Philippines. Pale-blue colored ones are also conducted but with a limited scale and weak linkage inside the country. Other white parts are not conducted in the Philippines

Source: Assessment by JICA Experts, based on interview (company visit survey)

[1] https://visor.ph/industry/kia-ph-puts-timeline-on-local-automotive-industrys-recovery/
[2] https://www.bworldonline.com/car-sales-plunge-during-lockdown/

BACKGROUND

- HUMAN RESOURCE REQUIREMENTS

  - In the DTI-BOI and Japan International Cooperation Agency (JICA) Value Chain Analysis of the Philippine Automotive Industry, as well as the recent training needs assessment conducted by the De La Salle University for the DTI-BOI and JICA Industrial Human Resource Development Project, the following are the preferred experience/exposure of workers in the automotive and auto parts companies:

    - Math Skills
    - Applied mechanics
    - Processing Technology and QCD
    - knowledge and skills related to drawings and welding
    - Know how to operate a machine
    - Know how to interpret technical drawings.
    - Basic Knowledge how to use caliper and measuring instruments (knows how to read them)
    - Basic machine operation (CNC lathe machine)
    - For machinists and quality control inspectors: 1-2 years of experience with the use of machines
    - For production operator: knows how to operate machine (particularly in press forming and vacuum forming)
    - Drawing, CAD knowledge, technical drafting, computer literate (excel, word, powerpoint, oral and written communication
    - Work experience in 8D Methodologies and 5 Core Tools. The traditional five core tools are listed in their order of use when designing products or processes: Advanced Product Quality Planning (APQP); Failure Mode and Effects Analysis (FMEA); Measurement Systems Analysis (MSA); Statistical Process Control (SPC); and Product Part Approval Process (PPAP)

BACKGROUND

- EMERGING QUALIFICATIONS
    - Based on the findings of the Training Needs Assessment of Automotive and auto parts companies in Region IV-A, the following are the identified emerging skills/qualifications:
        - skills to improve Quality, Cost, Delivery, Safety, Environment, and Productivity;
        - Awkward Process Identification and Tell-Tale Skills
        - A 32 Station Carousel with 48 mold Capacity
        - Robotic arms machine that is part of the molding of seats
        - Robotic die casting
        - CNC Lathe machining
        - finishing painting
        - Programmable Logic Controller (PLC Programming)
        - Industrial computer control system that continuously monitors the state of input devices.
        - Pneumatic Skills for design of pneumatics
        - Electromatics basic automation
        - Robotic buffing

TVET CAPACITY

- TRAINING REGULATIONS
  - There are 37 TRs under Automotive Sector as of December 2019:

1. Automotive Body Painting/Finishing NC II
2. Auto Engine Rebuilding NC II
3. Automotive Body Repairing NC II
4. Motorcycle/Small Engine Servicing NC II
5. Automotive Body Painting/Finishing NC I
6. Automotive Body Painting/Finishing NC III
7. Foundry Pattern Making NC II
8. Foundry Melting/Casting NC II
9. Foundry Molding NC II
10. Automotive Mechanical Assembly NC II
11. Automotive Electrical Assembly NC II
12. Plastic Machine Operation NC II
13. Laboratory and Metrology/Calibration Services NC II
14. Process Inspection NC II
15. Painting Machine Operation NC II
16. Tinsmithing (Automotive Manufacturing) NC II
17. Foundry Melting/Casting NC III
18. Foundry Molding NC III
19. Foundry Pattern Making NC III
20. Automotive Electrical Assembly NC III
21. Automotive Mechanical Assembly NC III
22. Heat Treatment NC II
23. Plastic Machine Operation NC III
24. Process Inspection NC III
25. Automotive Wiring Harness Assembly NC II
26. Laboratory and Metrology/Calibration Services NC III
27. Moldmaking NC II
28. Metal Stamping NC II
29. Forging NC II
30. Forging NC III
31. Driving NC II
32. Driving (Passenger Bus/Straight Truck) NC III
33. Driving (Articulated Vehicle) NC III
34. Automotive Servicing NC I
35. Automotive Servicing NC II
36. Automotive Servicing NC III
37. Automotive Servicing NC IV

TVET CAPACITY

- ENROLLMENT AND GRADUATES: 2019 – 2020

Qualifications	2019						2020 (January - June)					
	Enrollment			Graduates			Enrollment			Graduates		
	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
Automotive Body Painting/Finishing NC I	0	14	14	0	14	14						
Automotive Body Painting/Finishing NC II	0	34	34	0	34	34						
Automotive Body Repairing NC II	0	13	13	0	13	13						
Automotive Electrical Assembly NC II	11	64	75	8	42	50						
Automotive Servicing NC I	911	18,226	19,137	627	14,320	14,947	122	1,792	1,914	271	3,284	3,555
Automotive Servicing NC II	607	12,434	13,041	463	10,908	11,371	8	381	389	48	679	727
Automotive Servicing NC III	7	194	201	10	193	203	1	37	38	3	30	33
Automotive Servicing NC IV	4	63	67	16	161	177						
Automotive Wiring Harness Assembly NC II	1,220	1,142	2,362	1,303	1,473	2,776	48	36	84	53	54	107
Driving (Articulated Vehicle) NC III	0	117	117									
Driving (Passenger Bus/Straight Truck) NC III	129	1,256	1,385					16	16	6	59	65
Driving NC II	8,269	26,406	34,675	7,108	23,295	30,403	889	2,505	3,394	1,315	3,832	5,147
Motorcycle/Small Engine Servicing NC II	168	2,302	2,470	87	1,451	1,538	2	219	221	21	308	329
Total	**11,326**	**62,265**	**73,591**	**9,622**	**51,904**	**61,526**	1,070	4,986	6,056	1,717	8,246	9,963

- ASSESSED AND CERTIFIED: 2019 – 2020

Qualifications	2019						2020 (January - June)					
	Assessed			Certified			Assessed			Certified		
	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
Automotive Body Painting/Finishing NC II	0	2	2	0	2	2						
Automotive Electrical Assembly NC II	11	64	75	11	64	75						
Automotive Servicing NC I	1,230	32,450	33,680	1,132	29,961	31,093	363	6,087	6,450	350	5,818	6,168
Automotive Servicing NC II	893	28,069	28,962	823	26,180	27,003	172	4,658	4,830	157	4,243	4,400
Automotive Servicing NC III	26	1,030	1,056	23	964	987	5	82	87	5	73	78
Automotive Servicing NC IV	99	592	691	90	471	561						
Automotive Wiring Harness Assembly NC II	216	235	451	216	230	446	26	31	57	26	31	57
Driving (Articulated Vehicle) NC III							4	400	404	4	393	397
Driving (Passenger Bus/Straight Truck) NC III							32	969	1,001	32	945	977
Driving NC II	9,627	44,198	53,825	8,962	42,291	51,253	2,103	9,349	11,452	1,964	8,911	10,875
Motorcycle/Small Engine Servicing NC II	182	4,069	4,251	170	3,663	3,833	42	807	849	41	752	793
Total	**12,284**	**110,709**	**122,993**	**11,427**	**103,826**	**115,253**	2,747	22,383	25,130	2,579	21,166	23,745

TVET CAPACITY

- REGISTERED PROGRAMS AND TVIs as of December 2019

Training Regulation	With Registered Programs	# of TVIs
Auto Engine Rebuilding NC II	1	1
Automotive Body Painting/Finishing NC I	2	2
Automotive Body Painting/Finishing NC II	3	3
Automotive Body Repairing NC II	1	1
Automotive Electrical Assembly NC II	3	2
Automotive Servicing NC I	298	280
Automotive Servicing NC II	338	320
Automotive Servicing NC III	11	10
Automotive Servicing NC IV	4	4
Automotive Wiring Harness Assembly NC II	3	3
Driving (Articulated Vehicle) NC III	6	6
Driving (Passenger Bus/Straight Truck) NC III	23	19
Driving NC II	402	395
Motorcycle/Small Engine Servicing NC II	66	57

TVET CAPACITY

- NTTC HOLDERS: CY 2019

Qualifications	Trainer (NTTC)
Auto Engine Rebuilding NC II	
Automotive Body Painting/Finishing NC I	
Automotive Body Painting/Finishing NC II	8
Automotive Body Painting/Finishing NC III	
Automotive Body Repairing NC II	4
Automotive Electrical Assembly NC II	5
Automotive Servicing NC I	
Automotive Servicing NC II	819
Automotive Servicing NC III	107
Automotive Servicing NC IV	49
Automotive Wiring Harness Assembly NC II	14
Driving (Articulated Vehicle) NC III	45
Driving (Passenger Bus/Straight Truck) NC III	159
Driving NC II	1,333
Driving NC III	17
Motorcycle/Small Engine Servicing NC II	357
Total	**2,917**

- COMPETENCY ASSESSORS (CA): CY 2019

Qualifications	Assessor
Auto Engine Rebuilding NC II	
Automotive Body Painting/Finishing NC I	1
Automotive Body Painting/Finishing NC II	3
Automotive Body Painting/Finishing NC III	1
Automotive Body Repairing NC II	1
Automotive Electrical Assembly NC II	3
Automotive Servicing NC I	370
Automotive Servicing NC II	397
Automotive Servicing NC III	22
Automotive Servicing NC IV	12
Automotive Wiring Harness Assembly NC II	5
Driving (Articulated Vehicle) NC III	31
Driving (Passenger Bus/Straight Truck) NC III	105
Driving NC II	523
Driving NC III	
Motorcycle/Small Engine Servicing NC II	132
Total	**1,606**

CONCLUSION AND RECOMMENDATIONS

- Of the 37 qualifications in the automotive and land transport sector, only 14 qualifications have registered programs. These are also the programs that have some form of utilization because these programs have enrollment and graduates, and that there are people who take assessment and are certified for these programs. Programs with the highest subscription are focused on servicing and driving.

- Data indicates that there are no registered programs on automotive manufacturing TRs. Likewise, the programs do not have assessors/. However, some of three programs are identified as necessary for the sector. TESDA should look into addressing the need to establish the infrastructure of these programs. One of the possible means of addressing it is the engagement of the enterprises in the conduct of the program as they have the capacity to implement those types of programs. The review of existing TR should also be done together with the industry to further validate the competencies covered in the standards.

- TESDA should consider the identified required competencies of the industry in the review, and even in the development of new training programs for the industry, especially for the qualifications identified as emerging qualifications.

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