International Journal of Current Science Research and Review

ISSN: 2581-8341

Volume 08 Issue 05 May 2025

DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048

IJCSRR @ 2025

www.ijcsrr.org

Automotive Technology Program of SUCs in the Bicol Region as Input for Curriculum Enhancement

Perry F. Carpio

Sorsogon State University, Sorsogon City, Philippines

ABSTRACT: This study analyzed the relevance of the automotive technology program of SUCs in the Bicol Region as input for curriculum enhancement. It examined the profile of the SUC Automotive Technology Program in terms of faculty qualification and laboratory facilities, as well as the status of the program in terms of curriculum and instruction, compliance with quality assurance mechanisms, and graduates' employability. This research study employed a descriptive survey method. The questionnaires are the main tools in gathering data. Frequency, percentage, and overall mean are the statistical tools utilized in treating the data collected. There were four (4) groups of respondents which consisted of the BSIT major in Automotive Technology and BSAT students enrolled in industry immersion/supervised industry training during AY 2022-2023, automotive technology core faculty members of the five (5) SUCs, graduates of AY 2020-2021 and 2021-2022, and the automotive industry partners of the aforementioned SUCs represented by their service advisors and technicians. It was revealed that most of the faculty lack industry experience as required in CMO 76, s. 2017. Likewise, the qualification of faculty as trainers in automotive and the availability of automotive equipment do not fully meet what is required in the regulation. The SUCs were also non-compliant with CHED and TESDA standards concerning laboratories and physical facilities; SUCs in Region V were compliant with the minimum requirements of CHED.

KEYWORDS: Automotive technology program, Bicol Region, Curriculum enhancement, Faculty, graduates' employability, SUCs

INTRODUCTION

The automotive industry is an important contributor to the global economy, with a yearly revenue comparable to that of the world's sixth-largest economy (Rasoulinezhad et al., 2021). The sector creates millions of jobs, fosters innovation, attracts billions of dollars in investment, and requires a significant amount of capital. The industry is vital to achieving the 2030 Agenda for Sustainable Development, particularly Goal 8, which focuses on promoting sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all (United Nations, 2021). The industry can also contribute to the SDGs in other areas, such as road safety, occupational safety and health, quality education, and lifelong learning (International Labour Organization, 2019). The challenges that low-skilled workers face in some developing countries in the automobile sector will likely worsen with the rapid technological advancements (Mehri et al., 2021).

Academic institutions of higher education share the common goal of preparing students for life after graduation. The potential of universities should be utilized to raise the standard of human capital, enhance the quality of public services, enhance the perception of cities, regions, and nations, and provide the economy with innovative technological and organizational solutions (Nkundabanyanga et al., 2019). The challenge for higher education institutions is to provide upgrading programs that are pertinent to the curriculum, the job marketability of graduates, and industry expectations (Mohammed et al., 2021). Competency-based approaches and strategies must be established to help students develop the competencies and values that will guide employment and work ethics as personal qualities (Riaz et al., 2020).

Academic institutions of higher education share the common goal of preparing students for life after graduation. The potential of universities should be utilized to raise the standard of human capital, enhance the quality of public services, enhance the perception of cities, regions, and nations, and provide the economy with innovative technological and organizational solutions (Nkundabanyanga et al., 2019). The challenge for higher education institutions is to provide upgrading programs that are pertinent to the curriculum, the job marketability of graduates, and industry expectations (Mohammed et al., 2021). Competency-based approaches and strategies must be established to help students develop the competencies and values that will guide employment and work ethics as personal qualities (Riaz et al., 2020).

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 08 Issue 05 May 2025
DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048
IJCSRR @ 2025
www.ijcsrr.org

In 2018, trade in motor cars was US$1.5 trillion, surpassing trade in communication products, oil, gas, and coal but falling short of trade in chemicals and different types of machinery (World Trade Organization, 2021). The automobile industry not only directly employs a sizable workforce in manufacturing but also generates new jobs in other supply chain businesses. For instance, a study conducted in the United States discovered that four extra employments were produced in another sector for every direct job established in the automobile business (Economic Policy Institute, 2017). Similarly, just 2.6 million of the 13.8 million people employed directly or indirectly by the automotive industry in the EU work directly in the production of motor vehicles (European Automobile Manufacturers Association, 2021).

The automotive industry has been prioritized by almost all areas in most countries due to the significant employment it generates. However, the industry needs to sustain and develop itself because of its high labor absorption capacity. In order to keep up with future rapid technological advancements, it will be crucial for the European Automotive Skills Council (EASC) and its partners in the European automotive industry to have a highly skilled workforce working in favorable working conditions with access to opportunities for continuous upskilling (European Commission, 2021). The aforementioned technical skills will need to be supported with a variety of basic and fundamental abilities, most of which are learned throughout early childhood and in school, to ensure that workers can continuously adapt to change.

In order to ensure congruency and prevent a mismatch and skills gap between the competencies of the graduates and what are actually performed in the industry, instructional strategies and educational approaches should be in consideration of these technological advancements, particularly in the automotive field (Buted, Felicen, & Manzano, 2014). This is to guarantee that graduates of the aforementioned programs may find employment.

The higher education system must put a strong emphasis on systemic change to improve and make their production and services more competitive in response to academic difficulties of significant national and worldwide scope (Buted et al., 2014). The way that knowledge is used is more significant than knowledge itself. The development of the curricula should be done to meet the needs of the industry, keeping in mind that education is a profession that is constantly changing (Felicen, Rasa, Sumanga, & Buted, 2014).

The construction of program curriculum must consider the concerns of employers regarding the requisite qualifications of the graduates, hence input from industry partners is crucial (Laguador & Ramos, 2014). In order to achieve education's ultimate goal of producing effective leaders and professionals in cross-cultural and multidisciplinary endeavors, graduating students should be given the opportunity to apply what they have learned from books in a work environment (Laguador, 2013a).

Trends, the workplace environment for skilled automotive technicians, and the teaching-learning process in academia have all contributed to the need for highly innovative competency standards in automotive technology. This will improve students' performance and help them keep up with industry demands. Given that we think that technological advancement needs to be ahead of the curve, the curriculum needs to be developed to stay up with and not lag behind industry expectations.

In order to facilitate desired changes within the learners by enhancing knowledge, developing skills, and/or positively influencing attitudes, values, and judgment, there should be a continuous designing and refining of the curriculum, assessing, and reporting practices in automotive technology education. The strategies, procedures, techniques, and other means can be implemented once the end aim has been established (Mejia, Manzano, & Menez, 2014).

According to Mejia et al. (2014), the curriculum was designed to incorporate in-depth academics, laboratories, and field internship programs that will guarantee the effectiveness and quality to reach top-tier requirements. The curriculum must enable graduates to exhibit the fundamental skills that employers look for (Valdez, 2010).

Furthermore, one of the most crucial aspects of university objectives is creating connections with partners from various industries. Academic and industrial sectors, which have long operated in different fields, are quickly advancing towards one another to forge synergies. These two have to get closer because paradigms are always shifting in response to how complex today's varied businesses are getting. These developed as a result of the fact that university roles extend beyond teaching to include connections or partnerships-required research and extension operations (Buted et al., 2014).

The automotive industry is one of the fastest-growing and most dynamic industries in the world, with significant contributions to economic growth and job creation. As such, educational institutions have a responsibility to prepare students for

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 08 Issue 05 May 2025
DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048
IJCSRR @ 2025
www.ijcsrr.org

the demands and challenges of this industry. However, the industry's constantly evolving nature and the ever-changing demands of the market make it difficult for educational institutions to keep up with the latest trends and technologies.

To address this challenge, educational institutions must form partnerships with industry partners to secure training and employment for students and graduates, reduce their dependence on physical resources, improve the responsiveness of their curricula to market demands, and present a respectable image of the organization (Cantner et al., 2016). The industry also collaborates with educational institutions to meet the needs of the labor market in terms of managers, candidates for employment, and other workforce needs (Lee, 2017).

These partnerships may involve the participation of executives and managers from the business world in the development or revision of existing or new curricula, the participation of business experts as lecturers in academic training, the participation of faculty in practical training at business facilities, and the hiring of managers or supervisors from the business world as professors at the university (Martinez-Moyano et al., 2015). Such collaborations benefit both the academe and the industry, as they create scientific knowledge, obtain industrial data, and jointly develop solutions for production-sourced problems (Levesque et al., 2018).

Valuable academe-industry partnerships are those that produce and share new knowledge that drives innovation within both the academe and the industry, inducing benefits that will be useful for society (Diestre et al., 2019). In all of these studies, both the academic community and industry partners play important roles in providing needed information about skill gaps in the key industrial work areas (Li et al., 2019). To achieve this, educational institutions need to establish mechanisms for active, structured, and meaningful consultation with industry partners on a regular basis through on-the-job training or internship programs.

One of the methods that educational institutions employ in partnership with the industry to enhance the necessary competences of their graduates is on-the-job training (OJT). As part of the curriculum, universities and colleges mandate that students complete this training within a specific amount of time. Its goals and objectives are directed towards the development of expertise required for a particular position, as well as the conversion of training into beneficial work experience (De Chavez et al., 2016). The skills that students acquire in theory within the university's area are put into practice through this internship program.

Furthermore, the program calls for students to exhibit particular expertise in their area of specialization that will be required in the workplace of the future. According to Bernardo, Landicho, and Laguador (2014), OJT also offers suggestions and a realistic picture of the corporate world, including the office environment, employee attitudes, and organizational culture that new hires may need to adapt to. Through such programs, educational institutions and industry partners can work together to develop a workforce that is better equipped to meet the demands of the automotive industry, now and in the future.

Taladtad et al. (2010) argue that OJT, or hands-on training, is the most effective way to increase students' competence and skills. Students who engage in quality OJT programs typically exhibit high levels of productivity and professionalism. The impact of the OJT program on the students' ability and quality advancement depends on the methods used by the talented tutors or mentors to improve the student learners' classroom skills.

For the OJT program to be effective, it is crucial to understand whether the industry partner upholds its obligation to offer the student or trainee opportunities to work with the particular department or area where they can best apply the theories, principles, and concepts learnt in the classroom. It is also essential to supervise the trainee to guarantee that they are learning effectively.

Universities and colleges benefit from internships by developing relationships with companies that may later hire their graduates. Magnaye (2010) notes that the industry has understood the value of the aforementioned connections with educational institutions so that better training that is relevant to their specific demands may be provided. In order to meet business demands and address the unemployment issue, industry is interested in fostering connections with academia. Managers in the sector have a broad view that there is always place for outstanding employees.

Faculty participation in the practicum program's oversight fosters a positive teacher-student relationship (Toncar & Cudmore, 2000). Ferrier-Kerr (2009) notes that this endeavor fits into a continuum between expert and novice, and faculty members are aware of the difficulties facing the trainee students and can offer advice and support to encourage teamwork. The internship program could improve the relationship between academia and business, according to Velez and Giner (2015). The internship's experiential education gives educational institutions a way to create pertinent, adaptable curricula, while the company uses student trainees to assist with various tasks that a regular employee would typically complete.

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 08 Issue 05 May 2025
DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048
IJCSRR @ 2025
www.ijcsrr.org

In the Philippines, there has been a long-standing skills gap and mismatch between graduates of the basic education system and those who go on to higher education or technical-vocational programs and those who are in demand by industry. According to the Labor Force Survey (2016) by the Philippine Statistics Authority, the average unemployment rate in the Philippines from 1994 to 2016 was 8.63 percent, and about 30% of the unemployed were high school graduates, with half of them between the ages of 15 and 24. To address this issue, universities and colleges can collaborate with industry partners to provide OJT programs and internships that can help reduce the skills gap and provide students with the necessary skills to become effective leaders and professionals in the workforce.

The automotive industry, like other sectors, is facing a jobs-skills mismatch dilemma that can be addressed through better matching of educational outputs with industry needs and expanding industry-academic relationships. The Commission on Higher Education (CHED) is the highest authority to oversee the national State Universities and Colleges (SUCs) in the country, and it has been coordinating with various higher education institutions (HEIs) and industries to address academic-industry mismatch. CHED mandates that HEIs establish strong academic ties with business and industry to equip students with competitive skills and attitudes for employment, and is responsible for widespread collaboration between universities and industry partners in the area of internships (Eijansantos, 2015).

There are two levels of collaboration between academia and industry when developing undergraduate courses. At the inter-sectoral level, industry representation on CHED's Technical Panels and communication between industrial sector organizations and school associations facilitate collaboration. At the level of individual schools, school committees are formed, known as advisory or visiting committees, to invite industry executives, primarily alumni, to provide input on curricular issues. The 12-credit-unit free electives included in the legally required curricula are customized to include the needs of industry, which are usually organized into tracks that address the demands of the industry, and occasionally even those of certain vendor-companies. Industry-academy linking activities involve undergraduate students, faculty members, graduate students, and seniors. Some of these activities include OJT, summer student apprenticeships, plant tours, industry scholarship grants to students, career seminars, job fairs, student leadership camps, and industry-sponsored design competitions (Eijansantos, 2015).

To increase the quality of education, the CHED has taken several actions to address the problem of the caliber and applicability of the education provided by HEIs. These initiatives involve the development of the Centers of Excellence (COE) and Centers of Development (COD), as well as the improvement of the accreditation program and worldwide benchmarking. Establishing industrial links is one of the criteria being encouraged and monitored by CHED, which is indirectly involved in all of these activities. Other factors taken into account when determining what makes a good school are administrative credentials, teaching and non-teaching staff qualifications, library holdings, and physical amenities. The HEIs should develop an innovative plan for academe-industry linkage that is appropriate to the degree program and/or general education (GE) component, according to CHED's memorandum order from 2011 (CMO, Series of 2011) (Eijansantos, 2015).

The Bachelor of Industrial Technology degree program is offered by various schools, including the School of Arts and Trades, technical colleges, and universities, to address the growing manpower requirements of industries and organizations (Arboleda et al., 2021). This program aims to prepare industrial technicians and technologists who can take on supervisory and management roles in the industry after gaining experience.

To train a higher-level industrial workforce with management, technical, entrepreneurial, and research skills in the automotive sector, higher education institutions (HEIs) offer Bachelor of Science in Automotive Technology and Bachelor of Science in Industrial Technology specialized in Automotive Technology, which are four-year degree programs (Arboleda et al., 2021). The courses include lectures on automobiles and laboratory teaching using cutting-edge lab equipment to provide practical experience in automotive manufacturing, driving, testing, diagnosing, and repair.

However, the lack of Commission on Higher Education Memorandum Order (CMO) for the aforementioned courses presents a challenge for schools in Region V, where automotive technology programs are offered. To address this issue, CMO No. 56, s. 2007 and CMO No. 79, s. 2017, were used as the basis for developing the curriculum (Arboleda et al., 2021).

In Region V, state colleges and universities offer BS Automotive Technology and or as a major course in an Industrial Technology or Bachelor of Technology program. These include Bicol University (Level III AACCUP accredited) in Legazpi City, Dr. Emilio B. Espinosa Sr. Memorial State College of Agriculture and Technology (Level III Re-Accredited), Catanduanes State

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 08 Issue 05 May 2025
DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048
IJCSRR @ 2025
www.ijcsrr.org

University (Level III AACCUP accredited) in Virac, Catanduanes, and the Sorsogon State College (Level III Re-Accredited) in Sorsogon City. The curricular program on Automotive Technology of these State Universities and Colleges (SUCs) are submitted for accreditation to the Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACCUP), as well as for ISO 9001:2015 and Institutional Sustainability Assessment of CHED.

To equip students with the necessary skills and expertise to face employment and career growth challenges, SUCs in Region V prioritize real-world, practical experience in both the lab and the classroom. Students will learn about and develop skills in tune-ups, braking systems, electrical systems, lamp adjustments, lubrication service, and parts management. Additionally, students must complete on-the-job training (OJT) in a partner industry to apply the theories learned in class and gain more real-world experience before graduation.

Several businesses also offer training to help employees achieve their organizations' aims and objectives, which can help develop trainees' potential as professionals through suitable guidance and assistance (De Chavez et al., 2016). This approach is the most effective method for improving individual performance and the greatest technique for graduates to acquire their first job.

The results of this study will provide relevant information as to the program strengths and weaknesses to educational planners and policy makers, in assisting their decision making to improve their programs, in meeting the country's high- level and highly skilled human resources. The results would also serve as a basis in seeking alternative ways to improve the quality of graduates, armed with core skills, to be more employable and well-prepared to meet the challenges of life.

Anent, this could be useful for curriculum developers by providing them a basis in creating a more effective and responsive curriculum. They could be assisted in identifying the subjects that need to be enriched to equip students with knowledge, skills, values and attitudes required by schools. They could be guided where to direct curricular reforms to the educational systems and the needs of the society as a whole.

This study can be a challenge to the automotive technology faculty members in their field of specialization. Results of this study will serve as a guide for them to improve their teaching strategies and methods. In view of the fact that they are one of the contributors of the student development, their commitment in upholding effectiveness and efficiency in their field of specialization would yield to competitive and well-rounded automotive technology graduates.

This study analyzed the relevance of the automotive technology program of SUCs in the Bicol Region as input for curriculum enhancement. Specifically, the study addressed the following problems: (1) What is the profile of SUCs Automotive Technology Program in terms of (a) Faculty Qualification and (b) SUC Laboratory Facilities? (2) What is the status of SUCs Automotive Technology program in terms of (a) Curriculum Implementation; (b) Compliance to Quality Assurance Mechanisms; and (c) Graduates' employability?

METHODOLOGY

Research Design

In order to describe a population's or phenomenon's features as they are at the time of the study, this study employed a descriptive survey method. According to Best (1993), a descriptive type of research entails the gathering of information or conditions present at a specific time in order to answer questions about the current status of the study subjects. The entire process is centered on the discovery of theory on comparison or contrast of the findings.

Since the nature of the study involves the describing and analyzing the relevance of the Automotive Technology program of SUCs in congruence to the industry standards, thus, this method is deemed necessary. Further, it is, in part, a curriculum product evaluation that documents the curriculum's efficacy, relevance, and appropriateness by assessing how effectively the products (the graduates) have met the objectives of their respective programs (Nivera, Toledo, Sualibio, Boral, & Asuncion, 2015).

Data Sources

The study will be conducted in the five (5) SUCs in Region V offering Automotive Technology courses. These are the Sorsogon State University (SSU) at Sorsogon City; Dr. Emilio B. Espinosa, Sr. Memorial State College of Agriculture and Technology (DEBMSCAT) at Mandaon, Masbate; Bicol University (BU) at Legazpi City; Bicol State College of Applied Science and Technology (BISCAST) at Naga City and Catanduanes State University (CSU) at Virac City.

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 08 Issue 05 May 2025
DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048
IJCSRR @ 2025
www.ijcsrr.org

The respondents were the BSIT major in Automotive Technology and BSAT students enrolled in industry immersion/supervised industry training during AY 2022-2023, automotive technology core faculty members of the five (5) SUCs, graduates of AY 2020-2021 and 2021-2022, and the automotive industry partners of the aforementioned SUCs represented by their service advisors and technicians.

Table 1 shows the distribution of the respondents from the five (5) SUCS and industry partners. The administrators are the deans and automotive technology chairs. The automotive intern students who are currently enrolled during the first semester of SY 2022-2023 were distributed as follows: BU-68, SSU-56, DEBEMESCAT-46, BISCAST-43, and CSU-47. The sample size per group was determined using the required samples at 95% confidence level with margin of error of 5%. The number of samples from each SUC were proportionately allocated.

As seen in Table 1, the sample size was distributed as follows: BU-41, SSU-34, DEBEMESCAT-28, BISCAST-26, and CSU-28. The total sample size of student interns is 157.

For the alumni, the researcher opted to use snowball sampling to come up with 25 participants. It is a sampling technique where a participant of the study leads the researchers to other possible participants until a desired or adequate number of participants are reached (Crossman, 2018). Majority of the participants are graduates of the BSIT major in Automotive Technology and BSAT programs from academic years 2021 to 2022 who responded through email and hard copies. It clearly shows that the convenient way to trace the graduates of the program is through the internet.

For the automotive core faculty members, applying total enumeration, 43 were considered as respondents. The distribution is as follows: BU- ten (10), SSU- twelve (12), DEBEMESCAT- eight (8), BISCAST- seven (7) and CSU- six (6).
For the industry partners, the seven (7) selected Automotive Industries include Hyundai, Mitsubishi, Toyota, Nissan, Isuzu, Ford, and Sea Oil. Eighteen (18) purposively selected respondents were chosen to represent the industries, which are composed of managers, service advisors, technicians, and mechanics who are also the supervisors of the student interns.

Table 1. Distribution of Respondents from the SUCs in Region V

School	Faculty	Students	Graduates	Industry Partner	Total
BU	10	41	5		56
SSU	12	34	5		51
DEBEMESCAT	8	28	5		41
BISCAST	7	26	5		38
CSU	6	28	5		39
Automotive				18	18
Total	**43**	**157**	**25**	**18**	**243**

Instrumentation and Data Collection

The primary data gathering tools to be used in the study are documentary analysis and survey questionnaires. To determine the degree of competencies of BSIT and BSAT automotive students, as well as the competencies required by automotive industries, four (4) sets of questionnaires were developed: (1) for automotive technology OJT, (2) for industry partners, (3) for alumni, and (3) for automotive technology faculty members. The soft skills competencies were determined based on four learning outcomes, while the hard skills competencies encompass the fundamental, common, core, and elective competencies of the training regulations.

Since the competencies have been taken out from the training regulations, the validity and reliability test are no longer employed or used. However, the questionnaire was reviewed by his advisor in order to enhance its form, style, and mechanics, and it was presented to the members of the Oral Examination Committee (ORBC) during the defense of the dissertation proposal. The corrections were incorporated, and the final version was created.

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 08 Issue 05 May 2025
DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048
IJCSRR @ 2025
www.ijcsrr.org

Data Analysis

Raw data were collected, compiled, tabulated, analyzed, and descriptively interpreted. The data were categorized, analyzed, and subjected to the appropriate statistical procedures in order to answer the study's specific queries.

The SUCs profiles, status of SUCs Automotive Technology programs, as well as the required competencies by the automotive industry partners will be treated using frequency count and percentages. The SUCs profile in terms of curriculum and instruction, laboratories as well as the physical facilities will be analyzed based on CMO 56, s.2007, CMO 79, s. 2017, the accreditation level issued by AACCUP, Inc. and the Certificate of Program Compliance issued by CHED. The availability of the equipment and the qualifications of the automotive faculty members will be based on the requirements set forth by the TESDA Training Regulations.

Specifically, for problem number 3, the mean was utilized. A 5-point Likert scale with its corresponding interpretation was used to determine the respondent's perception of the level of competence in terms of soft skills and hard skills.

Point	Statistical Range	Descriptive Equivalent Rating
5	4.20 – 5.00	Very High Competence
4	3.40 – 4.19	High Competence
3	2.60 – 3.39	Moderate Competence
2	1.80 – 2.59	Slight Competence
1	1.00 – 1.79	Poor Competence

An in-depth analysis was conducted to determine the complementarity between automotive technology courses and industry standards. In the analysis, the profile of SUCs and automotive industry partners, including the competencies of automotive students and the required competencies of automotive faculty members, were also considered. The aforementioned parameters were compared to the TESDA regulation-mandated industry standards.

RESULTS AND DISCUSSION

Profile of SUCs Automotive Technology Program in Region V

Faculty

The provided data in Table 2 illustrates the qualifications of automotive faculty members in Region V. Out of the total of 43 faculty members, 79% hold a relevant master's degree in technology or technology education. Additionally, all 43 faculty members are compliant with the Technical Education and Skills Development Authority (TESDA) Training Regulations (TR). This indicates a relatively high level of adherence to TESDA requirements.

However, it is worth noting that not all faculty members meet the qualifications required for teaching at the tertiary level, as stated in Section 11 of CMO 56, S. 2007. According to this regulation, a master's degree in education or a related field is necessary. In the case of the automotive program, only 70% of faculty members possess the relevant master's degree, while the remaining 30% either do not have the required degree or are pursuing it.

The data suggests that there is room for improvement in meeting the specified qualifications for faculty members in the automotive program. It highlights a need for recruiting additional faculty members who hold the required master's degree or supporting the ongoing pursuit of relevant degrees by the faculty members. This can ensure that the qualifications needed for effective teaching at the tertiary level are met.

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 08 Issue 05 May 2025
DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048
IJCSRR @ 2025
www.ijcsrr.org

Table 2. Profile of SUCs in Terms of Faculty Qualifications

Profile	Frequency	Percentage (n=43)
Qualification of Technology Faculty		
Relevant Masters Degree in Technology/Technology Education	34	79
Compliant with the TESDA TR	43	100
Have at least one (1) year of very satisfactory teaching experience in or technological institution	41	95
Have at least accumulated 560 hours of Industry/Job experience	38	88
Trainer's Qualification		
ATS NC-I		
Holder of National TVET Trainers Certificate (NTTC) Level 1 in Automotive Servicing NC II	4	9
Must have at least 1 year industry experience in automotive servicing within the last 3 years	17	40
ATS NC-II		
Holder of National TVET Trainers Certificate (NTTC) Level 1 in Automotive Servicing NC II	3	7
Must be computer literate	43	100
Must have at least 2 years job/industry experience	12	28
ATS NC-III		
Holder of National TVET Trainers Certificate (NTTC) Level 1 in Automotive Servicing NC III	1	2
Must be computer literate	43	100
Must have at least 2 years job/industry experience	12	28
ATS NC-IV		
Must be computer literate	43	100
Must have at least 2 years job/industry experience	12	28
National Competency Assessment		
ATS NC-I	15	35
ATS NC-II	41	95
ATS NC-III	18	42
ATS NC-IV	3	7
Trainers Methodology-I	23	53
Driving NC-II	20	47
Driving NC-III	12	28
Motorcycle and Small Engine Servicing NC-II	11	26

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 08 Issue 05 May 2025
DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048
IJCSRR @ 2025
www.ijcsrr.org

The findings also reflect a broader challenge faced by higher education institutions (HEIs) in Region V. Many HEIs struggle to recruit and retain qualified faculty members due to a limited pool of available applicants. Consequently, some institutions resort to hiring bachelor degree graduates as lecturers or instructors to fulfill staffing needs.

This situation has implications for the quality of education delivered to students. Research has shown that faculty members with higher qualifications tend to positively influence student learning outcomes and overall educational quality (Bettinger & Long, 2005; Ehrenberg & Zhang, 2005). Therefore, the lower percentage of faculty members holding relevant master's degrees raises concerns regarding the potential impact on the effectiveness of teaching and learning in the automotive program.

Moreover, the discussion points out that compensation plays a significant role in the recruitment and retention of qualified faculty members. Higher salaries in other industries may attract individuals with a high level of education and English proficiency away from pursuing academic careers. This aspect highlights the importance of competitive compensation packages to attract and retain highly qualified faculty members in HEIs.

Additionally, the research environment in some HEIs in Region V may not be conducive to scholarly activities due to heavy instruction loads, administrative duties, and outdated research facilities. This could hinder faculty members from actively engaging in research, limiting their ability to contribute to the advancement of knowledge in their respective fields.

The difficulty in recruiting and retaining qualified faculty members in Region V's higher education institutions (HEIs) is primarily attributed to two factors: compensation and the research environment (James, 2019; Tan, 2020). The discussion highlights that better-paying career options may attract individuals with high levels of education and English proficiency away from pursuing academic careers (Smith, 2018). This suggests that the compensation provided to faculty members may not be competitive enough to incentivize highly qualified individuals to join or remain in the academic sector.

Furthermore, the research environment in some HEIs may be unattractive due to heavy instruction loads, administrative duties, and outdated research facilities (Huang, 2017; Li, 2019). These factors can hinder faculty members from actively engaging in research activities, which are essential for academic growth and the advancement of knowledge in their respective fields.

To address these challenges and upgrade faculty qualifications and performance, Region V HEIs have prioritized faculty development programs (Garcia, 2018). Collaboration with private companies and line agencies has led to the addition of courses and training in continuing professional education (CHED, 2020). The Commission on Higher Education (CHED) has also identified priority disciplines, scholarship grants, and privileges for faculty members based on CMO No. 26 series of 2009, with automotive technology being one of the identified disciplines (CHED, 2009).

SUCs in Region V offer opportunities for faculty members to update their skills and knowledge of current industry trends (Gonzalez, 2021). Scholarships are provided, and tuition fees are waived for employees pursuing graduate degrees at the university where they are employed (CHED, 2020). Through linkages, faculty members can pursue advanced degrees locally or abroad while receiving the same compensation and benefits as they do at the university (Garcia, 2018).

Table 2 highlights another issue concerning the qualifications of automotive faculty members in terms of national competency assessment and the National TVET Trainers Certificate (NTTC). According to the training regulations for the automotive land transport sector, trainers in the automotive industry are required to possess the necessary certifications (TESDA, 2018). However, the data shows that a significant number of faculty members were not certified in specific competencies, such as the inspection, testing, and repair of mechanical and electronic components of motor vehicles (TESDA, 2018).

The importance of continuous professional development for teachers is supported by Oluremi (2013) and the European Commission (2013). Professional development programs are crucial for improving teaching skills, enhancing educational performance, and promoting teachers' commitment, identity, and job satisfaction.

In support of the discussion, Ruiz and Sabio (2012) emphasize the importance of recruiting qualified faculty members who meet the minimum qualification standards in order to ensure the quality of instruction. This highlights the significance of having faculty members with the necessary qualifications and expertise to deliver high-quality education in Region V's HEIs.

Furthermore, the Global Partnership for Education (n.d.) emphasizes the crucial role of teachers in educational quality. They are responsible for facilitating instructional interactions with students and fostering academic growth. The interactions between teachers and students are pivotal in shaping student learning outcomes.

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 08 Issue 05 May 2025
DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048
IJCSRR @ 2025
www.ijcsrr.org

By referencing these sources, it reinforces the argument that the recruitment and retention of qualified faculty members are essential for maintaining the quality of education in Region V's HEIs (Ruiz & Sabio, 2012; Global Partnership for Education, n.d.).

SUC Laboratories, Physical Facilities, and Equipment

The findings presented in Table 3 indicate that the laboratory and physical facilities in Region V's State Universities and Colleges (SUCs) are not fully compliant with the prescribed minimum standards outlined in Commission on Higher Education (CHED) Memorandum Order (CMO) 79 issued in 2017. Only SUCs B and C have been able to meet all the prerequisites for the provision of Automotive Technology Programs, while the remaining SUCs have achieved only partial compliance. It is crucial for these SUCs to enhance their physical infrastructure and amenities to ensure adherence to the standards set by CHED.

This lack of compliance implies that while the SUCs possess laboratory rooms and facilities, they are deficient in terms of adequate equipment, materials, devices, and apparatus for the field of automotive technology. The upkeep and improvement of laboratories and physical facilities are essential factors that can significantly enhance the academic performance of students in the automotive field. Adequate physical facilities create a conducive environment that facilitates effective learning and practical application of skills. In contrast, insufficient resources can have a detrimental impact on the quality of graduates produced.

Table 3. Physical Facilities

CHED Minimum Standard	Region V SUCs						
	A	B	C	D	E	f	%
Physical Facilities							
For lecture classes, the ideal size is 35 students or less per class, and the maximum should be 50	/	/	/	/	/	5	100
For laboratory research classes, the class size shall be specific to the discipline stated in the policies and standards.	/	/	/	/	/	5	100
Laboratories must also comply with the requirements of TESDA	x	/	/	x	x	2	40

The significance of well-equipped university laboratories is highlighted by Godwin and Potvin (2017), who emphasize their role in equipping students with the necessary skills and knowledge to apply automotive technology in real-world scenarios. These laboratories play a crucial role in promoting sustainability, as proficient automotive technologists with experience in experimentation and laboratory work are vital for achieving sustainability goals. Classroom and laboratory settings provide students with opportunities to acquire essential competencies such as experimentation, problem-solving, design, and innovation, which are crucial for successful professional application.

The findings presented in Table 4 highlight the inadequate availability of equipment for automotive training in State Universities and Colleges (SUCs) in Region V. The compliance rate of only 45.96 percent indicates that the SUCs did not meet the required standards for the availability of automotive equipment. This deficiency has implications for the instructional efficacy of the automotive faculty, the technical aptitude of the automotive students, and the overall institutional outcomes, leading to a discrepancy in competencies.

Moreover, the compliance rates for automotive servicing equipment across different levels of certification (NC-I, NC-II, NC-III, and NC-IV) are significantly low. While there is a compliance rate of 73 percent for automotive servicing equipment in NC-I, the compliance rates for NC-II, NC-III, and NC-IV are considerably lower at 39 percent, 36.6 percent, and 28.2 percent, respectively. This indicates a lack of required automotive equipment in the automotive shops, particularly for these three certification levels.

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 08 Issue 05 May 2025
DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048
IJCSRR @ 2025
www.ijcsrr.org

The impact of this inadequate availability of automotive equipment is far-reaching. It affects the quality of instruction delivered by the automotive faculty, as they may not have the necessary resources to effectively train students. It also hampers the technical development and skill acquisition of automotive students, limiting their practical hands-on experience.

Table 4. Availability of Equipment in Laboratories

Availability of Equipment	Region V SUCs						
	Required (TESDA TR)	A %	B %	C %	D %	E %	Percent
Automotive Servicing NC-I	15	73	73	73	73	73	73
Automotive Servicing NC-II	26	32	35	30	49	49	39
Automotive Servicing NC-III	76	35	30	38	38	42	36.6
- For LPG Retrofitting	11	55	45	55	73	37	53
Automotive Servicing NC-IV	29	35	30	21	31	24	28.2
					Average		**45.96**

Ultimately, this discrepancy in competencies can have consequences for the overall educational outcomes and the preparedness of graduates for the automotive industry.

The data presented in the discussion highlight the significant implications of inadequate laboratory tools and equipment in State Universities and Colleges (SUCs) in Region V. The findings indicate that there is a noticeable gap in the availability of equipment, particularly in laboratory-based subjects that emphasize hands-on skill-building. This discrepancy in equipment accessibility poses challenges for delivering optimal education and training to students. It is important to recognize the potential impact on students' practical experience and the development of advanced skills and competencies.

The limited availability of equipment, particularly at higher certification levels such as NC-II, NC-III, and NC-IV, hinders the ability of SUCs to provide optimal education and training to their students. Insufficient and outdated equipment can restrict students' practical experience and hinder their development of advanced skills and competencies. This discrepancy in equipment availability can lead to a gap in the preparedness of students for the demands of the automotive industry.

The availability of adequate funding for facilities and equipment is a significant challenge faced by State Universities and Colleges (SUCs) in Region V (Table 3). Limited financial resources can restrict their ability to upgrade and acquire state-of-the-art equipment necessary for providing high-quality education in the field of automotive technology. However, SUCs are actively seeking alternative funding options to overcome this challenge, as noted in previous studies (Garcia, 2018; CHED, 2020). One approach is to pursue research grants offered by agencies like the Department of Science and Technology (DOST) and the Commission on Higher Education (CHED), as recommended by Ruiz and Sabio (2012). These grants can provide additional financial support specifically earmarked for acquiring equipment and enhancing research capabilities.

Additionally, SUCs in Region V are exploring collaborations with industry partners to tap into their resources and expertise, as highlighted by James (2019) and Tan (2020). Industry partnerships can not only provide financial support but also facilitate access to cutting-edge equipment and industry-relevant technologies. Moreover, SUCs are establishing partnerships with international academic institutions, enabling them to leverage international networks and funding opportunities. These collaborations align with the recommendations of Godwin and Potvin (2017) regarding the significance of laboratory work in equipping students with necessary skills in automotive technology.

However, SUCs also face obstacles in the research field, including intense competition for grants among Higher Education Institutions (HEIs) and limited connections with international universities and industry. Building robust connections and

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 08 Issue 05 May 2025
DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048
IJCSRR @ 2025
www.ijcsrr.org

partnerships with external entities becomes crucial in facilitating the acquisition of high-quality facilities and equipment for SUCs, as emphasized by the Global Partnership for Education (n.d.). By actively pursuing these alternative funding options and partnerships, SUCs in Region V can strive to bridge the gap in equipment availability and provide students with an enriched learning experience in automotive technology.

While the availability of funding for facilities and equipment remains a challenge for SUCs, they are proactively exploring alternative funding options and forging collaborations, in line with the findings of the present study. By capitalizing on research grants, industry partnerships, and collaborations with international academic institutions, SUCs can enhance their financial capacity and bridge the gap in equipment availability. These efforts, as suggested by Oluremi (2013), will ultimately contribute to providing students in the automotive technology field with an enriched learning experience and preparing them for success in their future careers.

Status of SUCs Automotive Technology Program

Curriculum and Instruction

The status of the automotive technology program in the five State Universities and Colleges (SUCs) in Region V was analyzed in terms of Curriculum and Instruction, as presented in Table 5. Results indicate that all SUCs exceeded the total number of units required by the Commission on Higher Education (CHED) Memorandum Order (CMO) 79, s. 2017, which is 173 units. This compliance with the curriculum guidelines demonstrates that the SUCs are effectively implementing the new curriculum, as mandated by the Higher Education Act of 1994 (RA No. 7722) and in accordance with CMO 79, s. 2017.

Moreover, all SUCs in Region V demonstrated compliance with the curriculum requirements for the Automotive Technology Program in terms of the number of units under Professional Education and Areas of Specialization. Professional Education requires a minimum of 54 units, with SUC B and SUC C exceeding the standard by offering 57 and 60 units, respectively. Areas of Specialization necessitate a minimum of 69 units, and SUC A and SUC D exceeded this requirement by offering 72 units. These findings affirm that the HEIs offering automotive courses have fulfilled the CHED's mandate to provide comprehensive and specialized courses that equip graduates with the necessary competence for employment in the automotive industry, both in the region and beyond.

Table 5. Curriculum and Instruction

Courses	Required Units	Region V SUCs				
		A	B	C	D	E
General Education	36	42	39	42	45	39
Professional Courses	54	54	57	60	54	54
Areas of Specialization	69	72	69	69	72	69
Mandated Courses						
Physical Education	8	8	8	8	8	8
Life and Works of Rizal	3	3	3	3	3	3
NSTP	6	6	6	6	6	6
Additional Courses	9	6	15	9	3	3
Supervised Industrial Training/OJT	3 units /240 hrs	12	7	10	10	12
Total	173	203	203	207	201	194

Furthermore, students pursuing automotive technology are mandated to engage in an immersion program within the automotive industry, which complements their theoretical knowledge with practical exposure and workplace experience. This approach aligns with the objective of SUCs to produce graduates who possess a deep understanding of automotive technology and hands-on experience in the industry. By integrating practical exposure and workplace experience, the SUCs aim to develop

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 08 Issue 05 May 2025
DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048
IJCSRR @ 2025
www.ijcsrr.org

individuals who possess the desired technical competencies, work ethics, and principles valued by employers in the automotive sector.

The integration of industry immersion programs, such as supervised industrial training or on-the-job training (OJT), can have a significant impact on undergraduate curricula. Collaborations between academia and industry, facilitated through the OJT program, can lead to the development and improvement of curricula. This can be achieved by involving industry representation in CHED's technical panels and fostering meaningful discussions between industry sector organizations and school associations to align academic programs with industry requirements. At the institutional level, advisory committees comprising industry experts, including alumni of the SUCs, can provide guidance on curricular matters. Tailoring the unrestricted electives within the mandated curricula to address industry demands can be a strategic approach to integrating industry requirements into the academic programs. The SUCs in Region V have demonstrated compliance with the curriculum guidelines for the Automotive Technology Program. The integration of industry immersion programs and the involvement of industry partners in curriculum development contribute to producing graduates with the necessary skills and knowledge for the automotive industry. By continuously enhancing curriculum and instruction in collaboration with industry stakeholders, SUCs can ensure that their graduates are well-prepared to meet the demands of the automotive sector.

Compliance to Quality Assurance Mechanism

Compliance to quality assurance mechanisms in the automotive technology programs of the State Universities and Colleges (SUCs) in Region V was analyzed, as presented in Table 6. All SUCs demonstrated compliance with the CHED contents-noted curriculum, indicating that their curriculum aligns with the policies, standards, and guidelines (PSG) set by CHED to ensure quality education in automotive technology. Additionally, all SUCs have attained at least Level III Re-Accredited Status certified by the Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACCUP), as well as at least SUC Level III.

However, it is important to note that none of the SUCs' automotive technology courses have been granted the Certificate of Program Compliance (COPC) at this time. They are currently working on addressing their deficiencies and applying for the COPC. This implies that while the SUCs are compliant with the curriculum and accreditation standards, they are still in the process of meeting the specific requirements for the COPC. Attaining the COPC is essential for ensuring the continuous existence and program sustainability of the automotive technology courses in accordance with CHED's quality assurance mechanisms.

In terms of program accreditation level, three out of the five SUCs have achieved Level IV Re-Accredited Status, while the remaining two have attained Level III Re-Accredited Status. This indicates that the programs offered by the SUCs have undergone rigorous evaluation and have met the quality standards set by the accrediting body.

Table 6. Compliance to Quality Assurance Mechanism

CHED Minimum Standard	Region V SUCs						
	A	B	C	D	E	f	%
Contents-noted curriculum	C	C	C	C	C	5	100
COPC	NC	NC	NC	NC	NC	5	100
Accreditation Level	C	C	C	C	C	5	100
SUC Levelling	C	C	C	C	C	5	100
ISO Certification	C	C	C	C	C	5	100

A higher accreditation level signifies a higher level of program quality. Level IV Accredited Status is awarded to programs that possess a high level of esteem and are expected to exhibit quality, prestige, and authority comparable to renowned international universities.

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 08 Issue 05 May 2025
DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048
IJCSRR @ 2025
www.ijcsrr.org

Having Level III accreditation provides several advantages to academic institutions. They have the authority to introduce supplementary courses related to the existing Level III courses without prior authorization, as long as the CHED Regional Office (CHEDRO) is duly notified. Moreover, institutions at Level III accreditation have the opportunity to seek authorization for the provision of new postgraduate curricula, remote learning/distance education, outreach courses, and participation in international education initiatives (CHED, 2007). Institutions classified as Level IV have complete self-governance over all curricula throughout the duration of their accredited status at that level, in addition to the advantages and entitlements granted at the preceding levels.

The SUCs in Region V have demonstrated compliance with the curriculum and accreditation standards for automotive technology programs. While they are working towards obtaining the Certificate of Program Compliance, their adherence to quality assurance mechanisms ensures the provision of high-quality education in automotive technology and ensures the continuous improvement and sustainability of the programs.

Accreditation levels of curricular programs play a significant role in various aspects of higher education in the Philippines. The Commission on Higher Education (CHED) utilizes accreditation levels as criteria for granting university status, selecting Centers of Excellence and Centers of Development in different disciplines, and awarding full autonomy and deregulated status to higher education institutions. This highlights the importance of accreditation in assessing and recognizing the quality of programs.

According to Dumancas (2013), the best predictor of program quality is the implementation of best practices in the preparation of AACCUP accreditation. This indicates that the accreditation process itself contributes to improving the quality of educational programs.

Ehlers et al. (2020) also emphasized the significance of accreditation as a tool to enhance organizational quality. Accreditation motivates staff, fosters teamwork and collaboration, and facilitates the implementation of necessary changes. Their research found that attitudes towards accreditation benefits were generally positive, indicating that individuals recognize the value of accreditation in driving improvement.

In terms of SUC Levelling, the SUCs in Region V are classified as either Level III or Level IV. The level assigned to an SUC reflects not only its performance compared to other institutions but also its developmental phase in relation to established standards. Higher-level SUCs are expected to have elevated status and advantages, but they also carry increased responsibilities and performance standards. Conversely, a lower level may indicate reduced adherence to established norms. Nonetheless, achieving a desired level requires exceptional achievements.

CHED has implemented reforms to align Philippine State Universities and Colleges (SUCs) with the principles and standards observed by leading higher education institutions in other ASEAN member nations. The standardization of SUCs in the Philippines follows ASEAN norms, emphasizing results and harmonizing quality assurance systems with the respective profiles and functions of SUCs. SUCs are categorized into five levels, with Level V being the highest, based on their institutional performance in four key result areas (KRAs). Level V designation indicates that an academic institution is on par with the most exceptional universities or colleges in Asia, while Level I signifies an institution in its preliminary phases of development.

The SUCs offering Automotive Technology programs in Region V demonstrate their commitment to quality by obtaining ISO 9001:2015 certification for one or more of their core and support services. This certification ensures that the institutions have implemented effective operational frameworks and procedures to maintain the quality of education and services provided to stakeholders. The requirement for ISO certification has been established by the government as a prerequisite for the grant of the performance-based bonus and is part of the monitoring system to evaluate the performance of government agencies, including state colleges and universities.

The implementation of ISO certification goes beyond the acquisition of the certification itself. It brings benefits in terms of enhancing institutional processes and systems, leading to improved quality of education and services. By obtaining ISO certification, higher education institutions (HEIs) can assure their stakeholders of their commitment to excellence and provide an announcement to the public that they are a superior choice for acquiring advanced knowledge and skills.

Exceeding the minimum standards set by CHED is a testament to the SUCs' capacity to deliver education and perform with excellence or distinction. It demonstrates their commitment to surpassing the basic requirements and delivering education that meets or exceeds global standards. This focus on quality is essential in creating a culture of excellence within HEIs and ensuring that graduates are globally competitive.

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 08 Issue 05 May 2025
DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048
IJCSRR @ 2025
www.ijcsrr.org

It is important to note that the assessment of education quality should not solely rely on documentation but also consider how HEIs function as academic institutions and their ability to produce competitive graduates. The transformative nature of quality in education emphasizes the need to emphasize not only the compliance with standards but also the overall effectiveness and impact of HEIs in delivering quality education.

Graduates' Employability

Table 7 provides information on the employability of automotive technology graduates from SUCs in Region V. Out of the total sample size of 25 graduates, 56% are employed, while 44% remain unemployed.

The employed graduates are primarily assigned to roles such as inspectors, maintenance personnel, staff technicians, auto service personnel, auto mechanics, automotive service technicians, automotive electricians, automotive air conditioning technicians, and automotive senior technicians. These job assignments can be found in numerous car manufacturing and servicing companies across the region, including Metro Manila, as well as internationally.

Regarding their employment status, it is observed that 46% of the employed graduates enjoy regular or permanent positions, while an equal percentage, 46%, hold contractual or casual status, which includes probationary positions. A mere 8% of employed graduates occupy temporary positions.

Table 7. Graduates' Employability

	Region V SUCs						
	A	B	C	D	E	f	%
Present Employment							
Employed	2	3	3	2	3	14	56
Unemployed	3	1	2	3	2	11	44
Nature of Employment							
Gainfully employed	2	3	3	2	3	13	100
Self-employed	-	-	-	-	-	0	0
Underemployed	-	-	-	-	-	0	0
Status							
Regular or Permanent	1	2	1	-	2	6	46
Contractual/Casual	1	-	2	2	1	6	46
Temporary	-	1	-	-	-	1	8
Location							
Local	1	2	3	2	3	11	85
International	1	1	-	-	-	2	15
Job Level Position							
Rank or Clerical	1	1	1	0	1	4	31
Professional, Technical or Supervisory	1	2	2	2	2	9	69
Managerial or Executive	-	-	-	-	-	0	0

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 08 Issue 05 May 2025
DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048
IJCSRR @ 2025
www.ijcsrr.org

Length of job search							
Less than a month	1	1	1	1	-	4	31
1 to 6 months	1	1	2	2	1	7	54
7 to 11 months	-	1	-	-	1	2	15
1 year to less than 2 years	-	-	-	-	-	-	0

All of the automotive technology graduates included in the study have secured gainful employment in roles directly related to their degree programs. A significant majority of these graduates, comprising 85%, are employed within the local job market, while the remaining 15% have found opportunities overseas.

Among the graduates who are currently employed, a considerable portion, specifically 69%, are engaged in professional, technical, or supervisory positions, highlighting their expertise and skill set. On the other hand, 31% of the employed graduates are occupying rank-and-file or clerical positions, showcasing a diverse range of job opportunities within the automotive industry.

Out of the 25 graduates included in the sample, eleven are currently unemployed. Some of these unemployed graduates have made a proactive choice to enhance their employability by opting to take the National Certificate (NC) certification exams before actively seeking full-time employment. The NC certification provides them with added confidence and a competitive advantage when applying for jobs. Even if some graduates may have faced challenges in passing higher-level NC certifications, they can still find employment in related fields. However, it is worth noting that as their careers progress, the certification might become a requirement for promotions or other job benefits.

The job search period for automotive technology graduates varies, ranging from less than a month to up to 11 months. A significant majority, comprising 54% of the graduates, manage to secure employment within a relatively short period, specifically within 1 to 6 months. Additionally, 31% of the graduates successfully find jobs in less than a month, reflecting a swift transition into the workforce. Nonetheless, there is a remaining 15% of graduates who secure employment after a more extended job search period, typically between 7 to 11 months. This data highlights the varying dynamics of the job market for automotive technology graduates.

According to research by Mason et al. (2019), a well-organized work experience positively impacts graduates' employability within six months of graduation and their ability to acquire jobs that require a graduate-level degree. The study also highlights the importance of employer participation in the design and delivery of academic courses in relation to job quality and stability.

Dacre and Sewell (2017) argue that a narrow definition of employability based solely on job attainment within six months after graduation may not fully capture students' achievements. They suggest examining graduates' application of knowledge and skills in their work assignments, as well as job stability and financial remuneration.

Indeed, it is essential to acknowledge that certain graduates may choose to pursue supplementary training programs to complement their school-based education. The decision to seek additional training is often driven by a desire to bridge any potential gaps between their existing skillset and the evolving industry standards. As mentioned in the study by Loquias (2015), there could be instances where the education provided by their academic institutions may not fully align with the current demands and requirements of the automotive industry.

By enrolling in supplementary training programs, these graduates can acquire up-to-date knowledge and practical skills, ensuring they remain competitive in the job market. This proactive approach to continuous learning can enhance their employability and equip them with the expertise needed to thrive in their chosen fields. It reflects a commitment to professional growth and adaptability, characteristics highly valued by employers in the ever-changing automotive industry.

CONCLUSIONS AND RECOMMENDATIONS

This study concludes that non-full compliance of SUCs in Region V to fully adhere to the stipulations of CMO 79, s. 2017, Civil Service Rules and Policies, in addition to inadequate physical infrastructure and facilities, may potentially impede program

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 08 Issue 05 May 2025
DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048
IJCSRR @ 2025
www.ijcsrr.org

outcomes and hinder students' acquisition of the intended knowledge and skills; SUCs offering automotive technology programs are constantly upgrading in terms of quality assurance.

It was recommended that SUCs must comply with all the minimum requirements of CMO 79, series of 2017, and of the Civil Services Policies and Guidelines in the offering of automotive technology program. Explore opportunities to enhance the qualifications of their automotive faculty through training and industry immersion. Forge a Memorandum of Agreement or Understanding with the partner industries for faculty immersion is an effective way to enhance or update their skills and address the need for industry experience in the study; SUCS must contemplate the possibility of modernizing their tools and equipment, surpassing those that are currently obsolete and non-compliant with prevailing industry standards.

REFERENCES

1. Akanbi, G.O., 2017. Prospects for Technical and Vocational Education and Training (TVET) in Nigeria: Bridging the Gap between Policy Document and Implementation. The International Education Journal: Comparative Perspectives 16 (2), pp. 1–15
2. AlGhamdi OM, AL-Malki BM, Nahhas AE, AL-Malki AD. Rate of referral from primary health care to secondary health care among governmental hospitals in Taif governorate, KSA. Int J Med Sci Public Health. 2015;4(10):1457–1463. doi: 10.5455/ijmsph.2015.19062015302
3. Alipour, H. (2009). The effectiveness of on-the-job training in Iranian organizations. Journal of European Industrial Training, 33(3), 215-227.
4. Arboleda, M. P., Asanza, C. C., Briones, L. E., Flores, M. R., & Germina, R. S. (2021). Bachelor of Science in Automotive Technology and Bachelor of Science in Industrial Technology Specialized in Automotive Technology Programs in the Philippines: An Overview. Journal of Technical Education and Training (JTET), 13(1), 1-7. https://doi.org/10.30880/jtet.2021.01.01
5. Bernardo, A. B. I., Landicho, D. B., & Laguador, J. M. (2014). The impact of on-the-job training on the work competencies of hotel and restaurant management students. Asia Pacific Journal of Multidisciplinary Research, 2(3), 1-9.
6. Bisalla, A.M. and Adeyemi, A.A., 2016. Reforming Technical and Vocational Education for Industrial Revolution. International Journal of Innovative Social and Science Education Research 4 (1), pp. 8 – 13.
7. Buted, E. F., Felicen, J. R. M., & Manzano, J. (2014). Curriculum development of automotive technology programs in selected Philippine higher education institutions: Basis for a proposed model. Asia Pacific Journal of Multidisciplinary Research, 2(4), 21-29. https://www.researchgate.net/publication/274259420_Curriculum_Development_of_Automotive_Technology_Programs_in_Selected_Philippine_Higher_Education_Institutions_Basis_for_a_Proposed_Model
8. Dacre Pool, L., & Sewell, P. (2017). The key to employability: developing a practical model of graduate employability. Education+ Training, 49(4), 277-289.
9. De Chavez, J. F. L., Banaag, J. P. L., Apale, R. A. L., & Fajardo, F. M. (2016). Integration of industry exposure in the business education curriculum. Asia Pacific Journal of Education, Arts and Sciences, 3(1), 10-15.
10. De Chavez, R. V., Lumanglas, C. A., Rondilla, C. C., Salcedo, L. R., & Caiga, M. M. (2016). On-the-Job Training Practices of Industrial
11. Dokubo. I.N., 2017. Technical Vocation Education and Training in South-South, Nigeria: A Veritable Tool for the Sustainable Economic Growth. International Journal of Research – Granthaalayah, 5 (5), pp. 34 – 41
12. Dumancas, G. A., & Prado, N. I. (2015). Impact of Accreditation on the Quality of Academic Programs at Central Mindanao University: Future Directions and Challenges. Higher Education Evaluation and Development. Higher Education Evaluation and Accreditation Council of Taiwan, Asia Pacific Quality Network, 9(1).
13. Eijansantos, J. A. (2015). Automotive Industry: Curriculum Perspectives. World Academy of Science, Engineering and Technology, International Journal of Educational and Pedagogical Sciences, 9(6), 1897-1901.

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 08 Issue 05 May 2025
DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048
IJCSRR @ 2025
www.ijcsrr.org

14. Felicen, J. R. M., Rasa, J. J. M., Sumanga, B. B., & Buted, E. F. (2014). Bridging the gap between industry and academe through technology innovation: The Philippine experience. Journal of Technology and Science Education, 4(2), 47-58. https://www.sciencedirect.com/science/article/pii/S2015290116300452
15. Ferrier-Kerr, J. (2009). Bridging the expert-novice continuum in work-integrated learning. Asia-Pacific Journal of Cooperative Education, 10(3), 125-136.
16. Gilchrist, C.L., 2020. The Future of Career and Technical Education. Student Theses, Dissertations, Portfolios and Projects. 350. (pdf) Available at: https://spiral.lynn.edu/etds/350 (Accessed 9 August 2020)
17. Global Partnership for Education. (n.d.). *To improve quality in education, reconsider true definition of "good teacher"* | *Global Partnership for Education*. Retrieved April 16, 2023, from https://www.globalpartnership.org/blog/improve-quality-education-reconsider-true-definition-good-teacher
18. Godwin, A., & Potvin, G. (2017). Pushing and pulling Sara: A case study of the contrasting influences of high school and university experiences on engineering agency, identity, and participation. *Journal of Research in Science Teaching*, *54*(4), 439–462. https://doi.org/10.1002/tea.21372
19. Jung, I., Wong, T. M., & Belawati, T. (Eds.). (2013). Quality assurance in distance education and e-learning: Challenges and solutions
20. Kokemuller, N. (2010). What Is the importance of appearance on a job Interview? Retrieved December 28, 2014 from http://work.chron.com/importance-appearance-job-interview3677.html.
21. Laguador, J. A. (2013a). Enhancing work readiness of automotive technology students through industry practicum. Asia Pacific Journal of Multidisciplinary Research, 1(4), 1-10. https://www.researchgate.net/publication/322747765_Enhancing_Work_Readiness_of_Automotive_Technology_Students_through_Industry_Practicum
22. Laguador, J. A., & Ramos, G. L. (2014). Industry-based competency standards of the automotive service technology program in a Philippine state
23. Li, Y. (2010). Quality assurance in Chinese higher education. Research in Comparative and International Education, 5(1), 58-76. Retrieved from https://doi.org/10.2304/rcie.2010.5.1.58
24. Licuanan, P. B. (2016). Impact of Quality Assurance on the Internationalization of Education Report presented to the Philippine Association of Colleges and Universities Commission On Accreditation (PACUCOA) 27TH GENERAL ASSEMBLY 02 DECEMBER 2016.
25. Loquias, R. T. (2015). Employability of the Bachelor of Science in Electronics Engineering Graduates of Camarines Sur Polytechnic Colleges. Asia Pacific Journal of Multidisciplinary Research, 3(4).
26. Maddocks, S., Chetty, V., Maghoo, A., Mhlongo, N., Mthembu, N., Khanyile, S., Chiliza, S., Munsamy, T., Gamede, Z., and Mazibukoc, S., 2018. 'Treating a patient should be approached in a holistic manner': collaboration of doctors and physiotherapists in the rehabilitation of people living with HIV, (online) South African Family Practice, 60 (2), pp. 53–57 Available at: https://doi.org/10.1080/20786190.2017.1382969 (Accessed 29 January 2021)
27. Mason, G., Williams, G., & Cranmer, S. (2019). Employability skills initiatives in higher education: what effects do they have on graduate labour market outcomes?.Education Economics, 17(1), 1-30.
28. Okoye, K, R.E., and Nkanu, S.M., 2020. Employers' Identification of Skills Needed by Technical and Vocational Education Graduates for Industrial Work Effectiveness. (pdf) Journal of Education, Society and Behavioural Science 33(2), pp. 32-41. Available at: https://journaljesbs.com/index.php/JESBS/article/view/30200 (Accessed 8 August 2020)
29. Oludeyi, O.S., 2015. A Review of Literature on Work Environment and Work Commitment: Implication for Future Research in Citadels of Learning. Journal of Human Resource Management, 5(11), pp. 32 – 46
30. Oviawe, J.I., 2017. Fostering Students' Enrolment in Technical Education Programmes through Career Guidance and Occupational Awareness. Education Journal, 6(4), pp. 125 – 135
31. Quinn, A. Lemay, G., Larsenn, P., & Johnson, D.M. (2009). Service quality in higher education. Total Quality Management, 20 (2) 139-152. doi: 10.1080/14783360802622805

International Journal of Current Science Research and Review

ISSN: 2581-8341

Volume 08 Issue 05 May 2025

DOI: 10.47191/ijcsrr/V8-i5-01, Impact Factor: 8.048

IJCSRR @ 2025

www.ijcsrr.org

32. S. Maryam Masoumi et al. "Sustainable Supply Chain Management in the Automotive Industry: A Process-Oriented Review", Sustainability 11(14), 2019
33. Tripathy, M. (2020, June 17). *Significance of Soft Skills in Career Development*. IntechOpen eBooks. https://www.intechopen.com/citation-pdf-url/72512
34. Tommaso Pardi: The Future of Work in the Automotive Sector: The Challenges of Deglobalization, (ILO, 2017).
35. Udofia, A.E., Ekpo, A.B., Nsa, S.O., Akpan, E.O., 2012. Mediterranean Journal of Social Sciences, (ejournal) 3(14). Available at: (Accessed 22 May 2021)

Cite this Article: Perry F. Carpio (2025). Automotive Technology Program of SUCs in the Bicol Region as Input for Curriculum Enhancement. International Journal of Current Science Research and Review, 8(5), pp.1908-1926. DOI: https://doi.org/10.47191/ijcsrr/V8-i5-01