AJVAH
e-ISSN: 2735-1165
DOI: https://doi.org/10.53797/ajvah.v5i1.7.2024

Effectiveness of Atvet Towards Employment Rates, Wages Rates and Mastery of Practical Skills of Alumni Students from Kolej Vokasional Teluk Intan

Daud, Amirul Hamzah [1], Ismail, Zalina[1*], Abdul Mutalib, Asilah[1] & Che Man, Shaibatul' Islamiah[2]

[1]Department of Agricultural Science, Faculty of Technical and Vocational, Universiti Pendidikan Sultan Idris, 35900 Tanjong Malim, Perak, MALAYSIA

[2]Centre of Studies for Landscape Architecture, Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA, UiTM Puncak Alam, 42300 Puncak Alam, Selangor, MALAYSIA

*Corresponding author email: zalina.ismail@ftv.upsi.edu.my

Received 13 February 2024; Accepted 15 May 2020; Available online 11 June 2024

Abstract: Agricultural Technical and Vocational Education Training (ATVET) is a program focusing on agriculture skills development. ATVET program is to create skilled workers for the agricultural industry. However, problems occur when employers provide job possibilities to graduates who don't meet all requirements, particularly those related to practical abilities. In fact, graduate employees have deficiencies in every position they are given, which contributes to salary-related problems and the effectiveness of the program is questioned. Therefore, this research aims to study the effectiveness of ATVET for alumni students of Kolej Vokasional Teluk Intan (KVTI) regarding employment rates, wages rates and mastery of practical skills. This research employed a quantitative research approach. A structured questionnaire was used as the main instrument and data collection was collected through surveys using online surveys to reach the target respondent. The targeted respondents of this study are three different batches of ATVET alumni of KVTI, a total of 58 of whom answered the given questionnaire. Several analyses are employed in this study such as frequency, descriptive, mean score and standard deviation. The results of the research data obtained independent variables, namely the employment rate obtained the mean and standard deviation (M= 3.9433, SD=.56319). Wage Rates obtained the mean and standard deviation (M= 3.7701, SD=.74720) and mastery of practical skills obtained the mean and standard deviation (M=4.0394, SD=.54170). In a conclusion, this study will provide useful information to uplift the ATVET program and be able to be a well-known program to serve industry-ready graduates in future.

Keywords: Effectiveness of ATVET, employment, wages, alumni, practical

1. Introduction

ATVET is focusing on occupational based on industrial practices. The goal is to produce highly skilled workers in the specialized agriculture sector. ATVET is based on established employment standards and focuses on practical components, psychomotor skills, and exposure to industry-based training. Jones (2013) stated that there are advantages of ATVET in developing countries which are the relative cost usually the programs under ATVET are typically less expensive than attending a conventional higher education school, both due to the programmers' comparatively short duration and the instructors' less stringent educational prerequisites. Jones (2013) also stated that there is also has disadvantage of ATVET which is a lack of continuity with ATVET systems because, in terms of technology, pedagogy, and direct ties to labor markets, these sectors have typically not advanced as swiftly as other areas. Despite these

*Corresponding author: zalina.ismail@ftv.upsi.edu.my

disadvantages, there are also opportunities which are that ATVET has a fantastic opportunity to play a crucial role in preparing people for a wide range of agriculture-related vocations given the current emphasis on value chains to agricultural and rural development (Jones, 2013). Then, there is also a chance for ATVET to make use of existing infrastructure thanks to the growing linkages across various educational levels and types to reduce overhead costs.

1.1 Employment Rates Status and Problems among ATVET students

Richards (2021) stated that employers in the private and non-government sectors, as well as many development initiatives supported by national governments and development partners, frequently lament that graduates lack the abilities needed to do their jobs effectively. When potential employers in the agricultural industry are polled about the talents they are looking for in candidates, they frequently mention the need for soft skills like teamwork and communication as well as practical (technical and ICT) and entrepreneurial skills.

1.2 Wage Rates

One of the most significant elements in determining someone's choice of employment is frequently their salary. Qualifications, skills, experience, job level, industry, and location all contribute to pay level. It is also reliant on the nation, governed by pertinent laws like the minimum wage (Rosilah & Zukarnain, 2019). Unrealistic pay and graduate unemployment are directly related. Since there is a greater demand than there is supply, companies largely determine the salary. Some businesses are taking advantage of this circumstance by providing low salaries (Juliana, Navaz & Geetha, 2020).

1.3 Lack of Basic Practical Skills

The suitability of the agricultural basic skills taught at the agricultural technical and vocational school for the preparation of entering the field such as the knowledge of plant care, the use of hand tools during practical work, and the observance of safety rules during practical work. It was also mentioned that there are some abilities that students lack the ability to grasp, such as using tools and equipment in the agricultural field (Buntat & Zahari, 2010).

1.4 The Effectiveness of Agriculture Technical and Vocational Education Training (ATVET)

According to Adekunle (2019), the ATVET context provides information about some aspects of the society and economy in which the ATVET system functions, as these aspects, are likely to influence the performance of TVET in any society. Edziwa & Blignaut (2022), argued that ATVET is a process that prepares people for future fruitful employment. According to Jones, 2013 & Walker & Hofste (2016), ATVET is the study of technology and related agriculture sciences, as well as the acquisition of practical skills relating to occupation in various sectors of economic and social life, which are all part of the education or training process, which includes both formal (school-based programs) and non-formal (non-school-based programs) (organized classes outside the school system).

There is the effectiveness of ATVET which is accessibility to diverse populations. Populations that are unable to access the formal education system can be reached with ATVET programmes. This is crucial for women and underrepresented groups, especially in rural parts of many nations where elementary education levels are lower than in urban areas (Jones, 2013). As a result, it has been possible to create educational resources in conjunction with certain ATVET institutions that are pertinent to the job market. Young people in rural regions and smallholder farmers are the target demographics for the ensuing training and continuing education possibilities. Next, the effectiveness of ATVET is there is a strong linkage between institutions and industries. A collaboration between skill-training facilities and businesses enables students to be affiliated with businesses. As a component of the process of developing pre-employment skills, placements include job training.

Furthermore, 3 to 6 months of industry training is required of all technical undergraduates in Malaysian universities and polytechnics. Therefore, cooperation from the industry in providing TVET graduates with job training is essential to guarantee their employability.

2. Conceptual Framework

Figure 1 shows the conceptual framework of this study with the independent variables and dependent variables. The independent variables are variables measured in this study are employment rates status and problem among ATVET students, wage rates and lack of basic practical skills in the study. Employment rates status and problem among ATVET students explains about the status and the problem of the employment rate that occurs among art students which involves

the problem of getting the desired job. Wage rates explains about the elements that determine a person's salary and also the unreasonable demand for a salary by a graduate. Lack of basic practical skills explain about the lack of students in doing practical work and showing the lack of facilities as the cause. The dependent variable is the Effectiveness of Agriculture Technical and Vocational Education Training (ATVET) which are explain more clearly about ATVET and the advantages of having ATVET to society and the country. The conceptual framework illustrates the relationship between the independent variables and dependent variables.

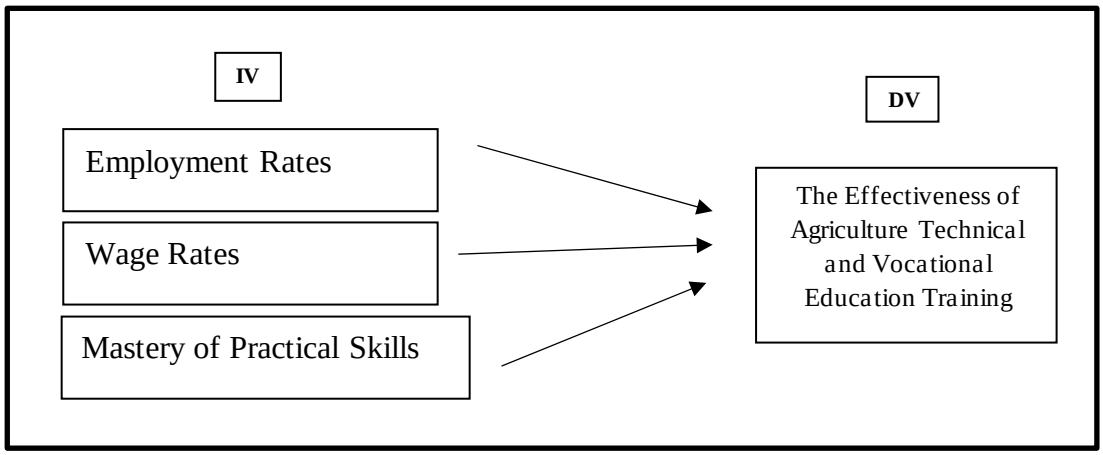

Fig. 1: Conceptual Framework of the Study

3. Methods

To achieve the purpose of the research, the quantitative design was chosen because its use is more practical, and it is done in a short period and involves a large number of responses. The targeted study population was alumni from Kolej Vokasional Teluk Intan from batch 2019 until 2021. The populations for this study are alumni students from the agriculture course from Kolej Vokasional Teluk Intan consisting of 60 respondents. Therefore, the sample size is 52 respondents as suggested by Krejcie & Morgan, (1970). The research instrument used was a questionnaire form disclosed online because according to (Othman & Misman, 2010) simple questionnaire instrument to get cooperation from respondents as well as the advantages of using this questionnaire is a quick way to obtain feedback from respondents, saving time and expense as well as, respondents more willing to provide feedback on the aspects studied.. This questionnaire contains 4 parts, to measure the understanding of alumni students about the effectiveness of ATVET which includes parts A, demographic respondent, part B, employment rates, part C, wage rates and part D, mastery of practical skills. In addition, this questionnaire uses a 5-point Likert scale range, which is from 1 (strongly disagree) to 5 (strongly agree). Likert scale seeks information to understand the subject's attitude by combining individual responses to a series of designed opinion questions to relate the relevant aspects. The pilot study was conducted to ensure that the questionnaire was constructed in accordance with the objectives of the study (Hashim & Ghani, 2020). To determine the number of respondents for the pilot study, Browne's (1995) rule was used where the sample for the pilot study was a minimum of 30 people. Therefore, a total of 30 sets of questionnaires were distributed around the alumni students from Kolej Vokasional Teluk Intan at random. Pilot studies with values of 0.7 and above have high reliability of the questionnaire as a research instrument (Nunnally, 1978). Statistical Package for Social Science (SPSS) version 23.0 software was used to determining the frequency, percentage, mean and standard deviation and percentages of this study. Cronbach's analyzes were performed to obtain validity and reliability.

4. Results

4.1 Demographic characteristics

Table 1 shows the profile of respond. The results of the graduate year of data analysis obtained show the frequency 19 respondents, which is 32.8%, who graduated from 2015 to 2017. The frequency of 20 respondents which is 34.5% was graduated in the year 2018 to 2019, 14 respondents which is 24.1% was graduated in the year 2020 to 2021. While the remaining 5 respondents which is 8.6% graduated in 2022. The number of males has a total frequency of 36 people which

is 62.1% while there are 22 respondents who are female which is a percentage of 37.9%. There are 53 respondents who are Muslim (91.4%). The rest are respondents with a small frequency, which is Buddhism (3 respondents which is 5.2%), while two respondents who are Hindu. Most respondents are Malay, with a total frequency of 53 respondents, which is 91.4%. The rest are the Chinese with a total frequency of 3 respondents while the Indian race with a frequency of 2 respondents, with a percentage of 3.3%. Most of the respondents are bachelor's with a total of 41 respondents which is 70.7%. The rest is 16 respondents 27.6% which married while 1.7% for the status of been married. The level of education of the respondents is mostly a diploma with a total of 28 respondents which is 48.3%. The rest are bachelor's degrees with a total of 25 respondents which is 43.1% while master's degrees are with a total of 5 respondents which is a percentage of 8.6%. Most respondents have a salary in the range of 1500 to 2500 is 33 respondents which is 56.9%. Then, respondents with a salary range in the range of 2500 to 3500 is 17 respondents which is 29.3%. While the rest are with a salary range of 3500 to 5000 which is 8 respondents (13.8%) around 3500 to 5000. Most of the respondents are with a salary range in the range of 1500 to 2500.

Table 1: Respondents' profile

Characteristic	Frequency	Percentage
Graduate Year		
2015-2017	19	32.8
2018-2019	20	34.5
2020-2021	14	24.1
2022	5	8.6
Gender		
Male	36	62.1
Female	22	37.9
Religion		
Islam	53	91.4
Buddha	3	5.2
Hindu	2	3.4
Race		
Malay	53	91.4
Chinese	3	5.2
Indian	2	3.4
Status		
Bachelor	41	70.7
Married	16	27.6
Been Married	1	1.7
Level of Education		
Diploma	28	48.3
Bachelor's Degrees	25	43.1
Bachelor's Master	5	8.6
Wage Rates		
1500-2500	33	56.9
2500-3500	17	29.3
3500-5000	8	13.8

4.2 Employment Rates

Based on Table 2, the results showed a data analysis for the employment rate of alumni students to measure the effectiveness of ATVET. Almost the entire distribution of respondents' answers in the questionnaire that has been conducted shows a high mean score in the range of 3.81 and 4.03. The result of the study shows that item no.1 "Do you work in the field or related to agriculture?" record the mean and standard deviation of M=3.81and SD=1.115. For item no.2 “Do you agree that there are many job opportunities in the agricultural sector?” record mean and standard deviation (M=3.98, SD=.868) and item no.3 “Do you agree that the percentage of unemployment is getting lower among alumni students specializing in agriculture?” record the mean and standard deviation (M=3.90, SD=.742). Item no.4 “Does the factor of interest in the field of agriculture cause alumni students to choose a job in that field?” record mean and standard deviation (M=4.00, SD=.816). Then, item no.5 “Do you have the desire to be a successful employer or entrepreneur in the field of agriculture?” record the mean and standard deviation (M=3.93, SD=.876) and item no.6 “Do you have a desire to open your own business in the agricultural sector?” record the mean and standard deviation (M=4.03, SD=.878). Item no.7 “Do you have the intention or want to continue your studies in the field or related to agriculture?” record the mean and standard deviation (M= 3.95, SD=.867). Overall, the results of the analysis obtained a very good level with a mean and standard deviation (M= 3.9433, SD=.56319).

Table 2: Descriptive Analysis of Employment Rates to Measure the Effectiveness of ATVET

No	Item	Mean	Standard Deviation
1	Do you work in the field or related to agriculture?	3.81	1.115
2	Do you agree that there are many job opportunities in the agricultural sector?	3.98	.868
3	Do you agree that the percentage of unemployment is getting lower among alumni students specializing in agriculture?	3.90	.742
4	Does the factor of interest in the field of agriculture cause alumni students to choose a job in that field?	4.00	.816
5	Do you have the desire to be a successful employer or entrepreneur in the field of agriculture?	3.93	.876
6	Do you have a desire to open your own business in the agricultural sector?	4.03	.878
7	Do you have the intention or want to continue your studies in the field or related to agriculture?	3.95	.867
	Total	3.9433	.56319

4.3 Wage Rates

Based on Table 3, the results showed the data analysis for the wage rates of alumni students to measure the effectiveness of ATVET. Almost the entire distribution of respondents' answers in the questionnaire that has been conducted shows a high mean score in the range of 3.66 and 3.88. The result of the study shows the item no.1 “Is the salary you get now reasonable for the work you do?” record the mean and standard deviation (M=3.81, SD=.963). For item no.2 “Are you satisfied with your current salary?” record mean and standard deviation (M=3.84, SD=.951) and item no.3 “Are you satisfied with the salary given if compared to the practical skills you have mastered?” record the mean and standard deviation (M=3.72, SD=.874). Item no.4 “Your salary can now afford to cover your life.” record mean and standard deviation (M=3.66, SD=.828). Then, item no.5 “Part of your current salary can be saved after being used to buy household necessities.” record the mean and standard deviation (M=3.71, SD=.973) and item no.6 “You have made savings through

the salary you earn." record the mean and standard deviation (M=3.88, SD=.839). Overall, the results of the analysis obtained a very good level with a mean and standard deviation (M=3.7701, SD=.74720).

Table: 3 Descriptive Analysis of Wage Rates to Measure the Effectiveness of ATVET

No	Item	Mean	Standard Deviation
1	Is the salary you get now reasonable for the work you do?	3.81	.963
2	Are you satisfied with your current salary?	3.84	.951
3	Are you satisfied with the salary given if compared to the practical skills you have mastered?	3.72	.874
4	Your salary can now afford to cover your life.	3.66	.828
5	Part of your current salary can be saved after being used to buy household necessities.	3.71	.973
6	You have made savings through the salary you earn.	3.88	.839
	Total	**3.7701**	**.74720**

4.4. Mastery of Practical Skills

Based on Table 4, the results showed the data analysis for the mastery of practical skills of alumni students to measure the effectiveness of ATVET. Almost the entire distribution of respondents' answers in the questionnaire that has been conducted shows a high mean score in the range of 3.88 and 4.16. The result of the study shows that the item no.1 "Did you master basic practical skills while studying before this?" record the mean and standard deviation (M=4.16, SD=.854). For item no.2 "You are confident in the practical skills you have acquired in the field of agriculture after completing your studies" record mean and standard deviation (M=4.07, SD=.769) and item no.3 "Are you often given tasks by employers that only require your practical skills alone?" record the mean and standard deviation (M=3.88, SD=.818). Item no.4 "Your practical skills are of great help to the company you work for now" record mean and standard deviation (M=3.98, SD=.713). Then, item no.5 "You master all basic practical skills while studying." record the mean and standard deviation (M=4.05, SD=.686) and item no.6 "It is easy for you to understand all the practical skills taught" record the mean and standard deviation (M=4.07, SD=.697). Item 7 "The theory learned helps a lot during practical classes" record the mean and standard deviation (M=4.07, SD=.697). Overall, the results of the analysis obtained a very good level with the mean and standard deviation (M= 4.0394, SD=.54170).

Table 4: Descriptive Analysis of Mastery of Practical Skills to Measure the Effectiveness of ATVET

No	Item	Mean	Standard Deviation
1	Did you master basic practical skills while studying before this?	4.16	.854
2	You are confident in the practical skills you have acquired in the field of agriculture after completing your studies.	4.07	.769
3	Are you often given tasks by employers that only require your practical skills alone?	3.88	.818
4	Your practical skills are of great help to the company you work for now.	3.98	.713

5	You master all basic practical skills while studying.	4.05	.686
6	It is easy for you to understand all the practical skills taught.	4.07	.697
7	The theory learned helps a lot during practical classes.	4.07	.697
	Total	**4.0394**	**.54170**

5. Discussion

In conclusion, the results of the research data that have been obtained show that ATVET is an effective program. This also shows that ATVET is capable of producing graduates who compete in the agricultural sector. The mean and standard deviation evaluation results clearly show mastery of practical skills as an aspect that has the highest mean value and standard deviation (M=4.0394, SD=.54170). This clearly shows mastery of practical skills is one of the most effective aspects to measure the effectiveness of ATVET among alumni students from Kolej Vokasional Teluk Intan (KVTI). The fact is that earning an academic certificate nowadays does not guarantee success in the workforce. Graduates must be ready to master a variety of skills and competencies in order to compete in a dynamic job world that demands multidisciplinary knowledge. When viewed in the context of doing tasks when dealing with actual problems in the industry or community, the performance value of skills and competencies is more pertinent. This statement is supported which is technical and vocational education from the initial viewpoint was focused on the workplace and sought to develop knowledge and abilities especially related to employment (Zaifah, Safarin & Yahya, 2014). According to Siran, Kasim & Alias (2019), agriculture graduates are highly marketable and satisfy employer needs. Graduates have high levels of knowledge, soft skills, and technical skills that are in line with the demands of the labour market. This shows that many graduates are skilled so employers will not rely on our skills alone. According to Zamira & Farah (2020), to ensure that graduates are prepared with the necessary skills to fulfil the expectations of the present, more demanding job market, the collaboration between educational institutions or training providers and the business needs to be reinforced. This statement is supported where the ability of the individual to apply his training in a lucrative job determines the value of vocational education. Through regular participation in practical workshop activities, students can develop practical skills. At every level of the work process, they should be permitted to frequently conduct independent practical exercises under the supervision of teachers (Odo, Adenle, & Okwori, 2012).

The employment rate section explains more clearly about the marketability of alumni students in the agricultural sector. The results of the study show that the second highest mean is employment rates (M= 3.9433, SD=.56319). Higher education institutions and industry have a close working relationship, and both are crucial in creating graduates who are employable. Most graduates are unable to comprehend the abilities or attributes required by specific companies, sectors, and areas due to a lack of experience, particularly in the workplace (Osman & Murdad, 2020). Although students are interested in the topic of agriculture, they lack sufficient understanding of the vocations that can be followed in it. Students now only believe that they will become farmers after studying agriculture. This is not the case because it can be observed that farmers can also be successful and develop into outstanding and well-known agricultural entrepreneurs (Sidek & Puad, 2018). When graduates who are succeed in finding employment in the increasingly competitive labour market, the marketability rate of graduates can be used as a gauge of the performance and quality of an educational institution (Zamira & Farah, 2020). According to Siran, Kasim & Alias (2019), the information from the study's findings revealed that agriculture graduates are highly marketable and satisfy employer needs. The study's results also demonstrate that graduates have high levels of knowledge, soft skills, and technical skills that are in line with the demands of the labour market. According to Ramli, Mustapha, & Abd Rahman (2018), students at agricultural vocational colleges need to be well-informed about agricultural jobs, enthusiastic in pursuing one, and equipped with highly employable skills if they are to develop human capital or quality workers. Lastly, the lowest mean among the others is wage rates with the mean and standard deviation (M= 3.7701, SD=.74720). This is because there have respondents that answered neutral or unsure and disagree with the question given. According to Tumin (2021), pay policies must be strengthened to secure the welfare of all employees. Aiming for living wages is paying workers enough money so they can afford to live respectably. According to Fayer (2014), wages in the agricultural industry are lower than or on par with salaries for employees in positions with similar responsibilities in other industries. The difference can be substantial in some instances. According

to Daniel (2015), despite the fact that we see lower compensation for agricultural employees, it's likely that living in a rural location has other advantages that help to explain why people choose to work in the sector despite the lower pay. According to Khazanah Research Institute (2019), plans call for a number of projects which are concentrated on creating graduates who are well-rounded enough to meet the demands of the job market. The establishment of skilled positions with competitive pay for the workforce, though, should also receive special attention. Graduate unemployment and unrealistic pay are closely related. Graduates' unreasonable compensation demands are the main reason employers reject applications, especially from candidates who don't seem qualified for the position (Juliana, Navaz & Geetha, 2020).

Acknowledgement
The authors would like to thank the Department of Agricultural Science of Faculty of Technical and Vocational (FTV) and Universiti Pendidikan Sultan Idris, Malaysia for the support and providing all the materials and facilities for this project.

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