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The Importance of Aviation Vocational Education in Indonesia

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ABSTRACT

This study aims to analyze the importance of aviation vocational education in Indonesia. This type of research is Research and Development (R & D) with a 4D model. However, this research is only limited to the define stage. This research was conducted in September-October 2021 with the research instrument in the form of a questionnaire. The population taken in this study are all workers in all aviation institutions in Indonesia. From the entire population, a sample of 88 people was then taken. Sampling using purposive sampling technique. The results of the questionnaire data (questionnaire) were processed using the SPSS application to test the validity and reliability and using excel to obtain the percentage and category of each statement item listed in the questionnaire. The results of this study indicate that aviation vocational education in Indonesia is important.

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1. INTRODUCTION

Vocational education is education that produces work-ready graduates who have skills according to the needs of the world of work (Wardina et al., 2019). There are also those who define vocational education as an educational program designed for students to acquire specific knowledge, skills and competencies for certain jobs (Bacca et al., 2015). From the various definitions of vocational education, essentially vocational education aims to prepare graduates to enter the world of work (Samani, 2018). The benefits of vocational qualifications are highest when vocational education takes a prominent position in a country's education system, most clearly in the form of a dual system in which school and work are combined (Forster et al., 2016). At its current stage, vocational education is becoming the most important area of social policy and is no longer a subject of interest just for teaching the community (Pugacheva et al., 2016). The organization of vocational education through the integration of science and industry determines its position as a rather complex multicomponent process that is dialectically interconnected with the regional labor market (Kamasheva et al., 2016). Vocational education builds 8 Graduate Competencies, namely: Communication Skills, Critical and Creative Thinking, Information/Digital Literacy, Inquiry/Reasoning Skills, Interpersonal Skills, Multicultural/Multilingual

Literacy, Problem Solving, and Technological Skills (Winangun, 2017). The form of the implementation of vocational education is the Diploma 1, Diploma 2, Diploma 3, and Diploma 4 Programs, Applied Bachelors (S.Tr), Applied Masters (M.Tr), and Applied Doctorate (D.Tr). Vocational Colleges collaborate a lot with industry because a lot of practice is needed in the industry, or better known as a dual system or dual system (Sukoco et al., 2019). However, the vocational education that will be examined in this research is devoted to the vocational education of the transportation human resource development agency.

PM number 64 of 2011 article 1 paragraph 1 states that Aviation Technicians are personnel who are given full duties, responsibilities, authorities and rights by the authorized official to carry out the duties/activities of operating, maintaining and repairing security, safety and flight service facilities. One of the flight technicians includes traffic guides, PKP-PK personnel and other personnel.

Air traffic has a controller simulator, which is software that simulates air traffic conditions, starting from the plane in pre-flight until landing (Usada, 2014). In addition there are also air traffic guides. Air traffic controllers are officers who must report all conditions or conditions that endanger the flight, so that the reporting of these hazards can be analyzed immediately (Adristy et al., 2020). All aircraft activities and movements are required to receive information, instructions and clearance from air traffic guides so as to achieve flight safety objectives. Air traffic controllers have 5 service objectives with the term five objectives of Air Traffic Services where one of the objectives of air traffic control services is to prevent collisions between aircraft (Ridayanti et al., 2017).

Airport management is very important and plays a role in increasing economic growth, because every time there is a movement of aircraft traffic coming and going to or from an airport, both from within and outside the country. Today's airports have a role as a front input of an air transportation value chain, requiring a safe, effective and efficient management of goods and people management according to internationally accepted standards. Therefore, it is necessary to have a general policy that is able to guarantee the realization of an efficient, effective and reliable airport management system (Setiani, 2015). Airport management or maintenance can be carried out in the following ways; 1) Maintenance, is an activity that is carried out intentionally (consciously) on a facility by adhering to a certain systematic with the aim that the facility can function, operate smoothly, safely, effectively and efficiently. Perfunctory but work that needs planning, financing and sincerity. 2) Daily maintenance (routine maintenance) is maintenance that is carried out every day or every machine/equipment/facility is operated or used. 3) Periodic maintenance is maintenance that is carried out periodically according to a programmed schedule. Maintenance weekly (weekly), monthly (monthly) and yearly (yearly) (Lukiana, 2015).

Aviation security and safety facilities are mandatory for airport operators, one of which is Aviation Accident Aid and Fire Fighting (PKP-PK) services (Nugraha et al., 2020). Based on the decision letter from the Director General of Civil Aviation Number: KP. 420 of 2011 concerning Technical and Operational Standards Requirements for Civil Aviation Safety Regulations Part 139 (Manual of Standard CASR Part 139) Volume IV Aviation Accident Relief and Fire Fighting Services (PKP-PK), every airport is obliged to provide and provide PKP-PK services in accordance with airport category for the required PKP-PK. To meet the airport category for the required PKP-PK, it is necessary to have PKP-PK facilities that meet the requirements of technical and operational standards for PKP-PK services (Lukiana, 2015). Aviation accident assistance and fire fighting (PKP-PK) is a unit part of emergency response at airports which has facilities, namely PKP-PK operational equipment, PKP-PK vehicles and personnel provided at each airport to provide flight accident assistance and fire fighting. The duties and functions of the PKP-PK unit at the airport are to provide PKP-PK services to save the life and property of an aircraft that has an incident or accident at the airport and its surroundings as well as to prevent, control, extinguish fires, protect people and goods that are in danger of fire at airport facilities (Nugraha et al., 2020). The PKP-PK service has three main tasks, namely Operation, Maintenance, and Training (Shidiq & Azizah, 2019).

Aviation security is an important factor in the growth and sustainable development of the global aviation industry. Given that by 2030 international passenger traffic will almost double the value of 6 billion people compared to 2016, and air cargo traffic volumes are expected to more than double to 125 million tonnes (Glukhov et al., 2017). Aviation security assurance in civil aviation is one of the most important components in the process of government regulation in national aviation activities (Blagorazumov et al., 2018). Current aviation security systems identify indicators of fraudulent behaviour to assess aviation risk, but lack a solid psychological basis or empirical validation (Ormerod & Dando, 2015).

From the description above, the problem arises whether vocational education in the field of aviation in Indonesia is important? Based on these problems, the researchers will conduct an analysis of the importance of vocational education in the field of aviation in Indonesia.

2. METHODS

This type of research is Research and Development (R & D) with a 4D model. The 4D model steps can be seen in the following figure.

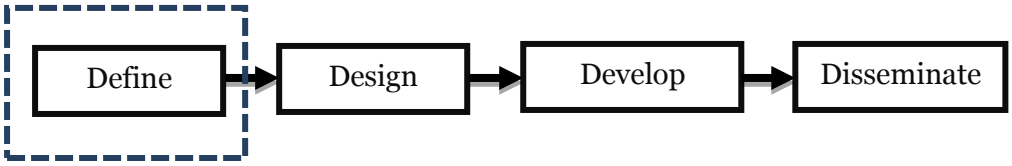

Figure 1. 4DModel Steps

However, this research is only limited to the define stage. This research was conducted in September-October 2021. The population taken in this study were all workers at all aviation institutions in Indonesia. From the entire population, a sample of 88 people was then taken. Sampling using purposive sampling technique. The data collection technique used a non-test technique in the form of filling out a questionnaire. The instrument used in this study is a questionnaire sheet using a modified Likert scale with 4 answer options, namely Strongly Agree, Agree, Disagree, and Strongly Disagree. The questionnaire was tested for validity and reliability with the following conditions:

Valid : if greater than value (>) $r_{hitung}\ r_{tabel}\ r_{hitung}\ r_{tabel}$

Not Vakid : if less than value (<) $r_{hitung}\ r_{tabel}\ r_{hitung}\ r_{tabel}$

Reliable if Cronbach's alpha value > 0.60

Not reliable if Cronbach's alpha value < 0.60

(Budiwibowo & Nurhalim, 2016).

Analysis of the results of the questionnaire was carried out quantitatively using the following formula.

$$p = \frac{n}{N} \times 100\%$$

Where P is the percentage of the results of the questionnaire analysis, n is the total score of the assessment, and N is the maximum possible score. For the Likert scale, the score interpretation model can be seen in table 1.

Table 1. Likert Scale Interpretation

Percentage (%)	Category
0% - 25%	Strongly Disagree
26% - 50%	Do not agree
51% - 75%	Agree
76% - 100%	Strongly agree

(Hayati et al., 2015)

The results of the questionnaire data (questionnaire) were processed using the SPSS application to test the validity and reliability and using excel to obtain the percentage and category of each statement item listed in the questionnaire.

3. FINDINGS AND DISCUSSION

This study aims to analyze the importance of aviation vocational education in Indonesia. Data were obtained from the results of filling out a questionnaire by 88 respondents with professions such as ASN, Head of Bureau, Supporting Technician, Auditor, Lecturer, Aviation Technician, Engineer, Aviation Navigation Inspector, Laboratory Officer, PTT, CNS Technician, Asst. Health, Safety & Environment Manager, Airnav Electrical Technician, Senior Officer, Retired from the Ministry of Transportation, Head of Finance, General Affairs and Cooperation, Engineering Manager, Advanced Aviation Technician, Airport Inspector, Cargo staff, Acting Head of Licensing and Rating Section, Flight Instructor/Head. UPPM, PPM, Head of Library, Junior atc, BUMN Employees, Telecommunication Technician, Head of UPBU Namniwel Office, Head of UPBU Mali Alor Office, PPNPN Mali Alor Airport Operator Unit, Junior Avsec Officer, NON PNS AVSEC Unit, Sanitation, Senior Avsec, PKP-PK Officer, and Project implementation unit. The respondents came from several areas including Hang Nadim Batam, Silampari, Bandung-Husein S, Aminuddin Amir Luwuk Syukur Airport, Soekarno Hatta Airport, Makassar, Papua, Pelalawan, Medan Aviation Polytechnic, Palembang, Head Office AP2, Yogyakarta International Airport, Jakarta Ap2, Radin Inten II Airport Lampung, Airnav Yogyakarta, Pontianak, Tarakan, Nunukan, Otband 1 jakarta, PPSDMAP, Airport smb2 plm, Poltekbang Surabaya, CKG, Directorate of Aviation Navigation, Banyuwangi, Sentani, Depati Amir Airport Pangkalpinang, AA Bere Tallo-Atambua-NTT, Bajawa Unit, Bali, MATSC, Budiarto, Merauke, Maluku, UPBU Rendani Manokwari-West Papua, Kualanamu, Sorong, Ngurah Rai, Airnav Denpasar, Syamsudinnoor, Airnav Berau, and Kalimarau. Sanitation, Senior Avsec, PKP-PK Officer, and Project implementation unit. The respondents came from several areas including Hang Nadim Batam, Silampari, Bandung-Husein S, Aminuddin Amir Luwuk Syukur Airport, Soekarno Hatta Airport, Makassar, Papua, Pelalawan, Medan Aviation Polytechnic, Palembang, Head Office AP2, Yogyakarta International Airport, Jakarta Ap2, Radin Inten II Airport Lampung, Airnav Yogyakarta, Pontianak, Tarakan, Nunukan, Otband 1 jakarta, PPSDMAP, Airport smb2 plm, Poltekbang Surabaya, CKG, Directorate of Aviation Navigation, Banyuwangi, Sentani, Depati Amir Airport Pangkalpinang, AA Bere Tallo-Atambua-NTT, Bajawa Unit, Bali, MATSC, Budiarto, Merauke, Maluku, UPBU Rendani Manokwari-West Papua, Kualanamu, Sorong, Ngurah Rai, Airnav Denpasar, Syamsudinnoor, Airnav Berau, and Kalimarau. Sanitation, Senior Avsec, PKP-PK Officer, and Project implementation unit. The respondents came from several areas including Hang Nadim Batam, Silampari, Bandung-Husein S, Aminuddin Amir Luwuk Syukur Airport, Soekarno Hatta Airport, Makassar, Papua, Pelalawan, Medan Aviation Polytechnic, Palembang, Head Office AP2, Yogyakarta International Airport, Jakarta Ap2, Radin Inten II Airport Lampung, Airnav Yogyakarta, Pontianak, Tarakan, Nunukan, Otband 1 jakarta, PPSDMAP, Airport smb2 plm, Poltekbang Surabaya, CKG, Directorate of Aviation Navigation, Banyuwangi, Sentani, Depati Amir Airport Pangkalpinang, AA Bere Tallo-Atambua-NTT, Bajawa Unit, Bali, MATSC, Budiarto, Merauke, Maluku, UPBU Rendani Manokwari-West Papua, Kualanamu, Sorong, Ngurah Rai, Airnav Denpasar, Syamsudinnoor, Airnav Berau, and Kalimarau. and Project implementation units. The respondents came from several areas including Hang Nadim Batam, Silampari, Bandung - Husein S, Aminuddin Amir Luwuk Syukur Airport, Soekarno Hatta Airport, Makassar, Papua, Pelalawan, Medan Aviation Polytechnic, Palembang, Head Office AP2, Yogyakarta International Airport, Jakarta Ap2, Radin Inten II Airport Lampung, Airnav Yogyakarta, Pontianak, Tarakan, Nunukan, Otband 1 jakarta, PPSDMAP, Airport smb2 plm, Poltekbang Surabaya, CKG, Directorate of Aviation Navigation, Banyuwangi, Sentani, Depati Amir Airport Pangkalpinang, AA Bere Tallo-Atambua-NTT, Bajawa Unit, Bali, MATSC, Budiarto, Merauke, Maluku, UPBU Rendani Manokwari-West Papua, Kualanamu, Sorong, Ngurah Rai, Airnav Denpasar, Syamsudinnoor, Airnav Berau, and Kalimarau. and Project implementation units. The respondents came from several areas including Hang Nadim Batam,

Silampari, Bandung-Husein S, Aminuddin Amir Luwuk Syukur Airport, Soekarno Hatta Airport, Makassar, Papua, Pelalawan, Medan Aviation Polytechnic, Palembang, Head Office AP2, Yogyakarta International Airport, Jakarta Ap2, Radin Inten II Airport Lampung, Airnav Yogyakarta, Pontianak, Tarakan, Nunukan, Otband 1 jakarta, PPSDMAP, Airport smb2 plm, Poltekbang Surabaya, CKG, Directorate of Aviation Navigation, Banyuwangi, Sentani, Depati Amir Airport Pangkalpinang, AA Bere Tallo-Atambua-NTT, Bajawa Unit, Bali, MATSC, Budiarto, Merauke, Maluku, UPBU Rendani Manokwari-West Papua, Kualanamu, Sorong, Ngurah Rai, Airnav Denpasar, Syamsudinnoor, Airnav Berau, and Kalimarau.

Before infurther analysis, the questionnaire used was tested for validity and reliability first. Based on the validity test of the 18 items contained in the questionnaire, it was found that all items were valid, with a t-count value greater than t-table, namely 0.2096. Further details can be seen in the following table:

Table 2. Case Processing Summary

		N	%
Cases	Valid	88	100.0
	Excluded	0	0.0
	Total	88	100.0

From the table above, it is known that there are 88 respondents who answered the statement (N) were valid. There is no data excluded (Exclude). A total of 88 data (N) were processed or 100% of the data were processed.

For the results of the calculation of data reliability can be seen in the following table:

Table 3. Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.951	.950	18

The Reliability Statistics table shows the results of data reliability calculations with 18 statement items using the Cronbach alpha method, a score of 0.951 is obtained. The value obtained is greater than 0.60, then according to the rules of determining reliability, the questionnaire used in this study is said to be reliable.

The percentage of answers for each item can be seen in the following table:

Table 4. Percentage of Results of Filling Out Questionnaire

No	Statement	Percentage
1	Education is one of the important factors in influencing the progress of a nation.	97.44%
2	Vocational Education is an education that prepares experts and skilled in their fields.	96.30%
3	Vocational education in the field of aviation is a field that produces experts and skilled in the field of aviation, one of which is the field of expertise of aviation technicians.	96.87%
4	The availability of skilled and skilled Aviation Technicians will be very much needed in the world of work, especially in the aviation sector to ensure quality	97.15%

	and service.	
5	Trust in the quality and services provided will affect the trust of users in general.	95.45%
6	Vocational education of the transportation human resource development agency is very helpful in getting qualified human resources to fill positions as airport electricians	94.03%
7	The vocational education of the transportation human resource development agency is very helpful in obtaining qualified human resources to fill positions as telecommunications and air navigation technicians	95.45%
8	The vocational education of the transportation human resource development agency is very helpful in getting qualified human resources to fill positions as foundation building technicians	94.88%
9	The vocational education of the transportation human resource development agency is very helpful in getting qualified human resources to fill positions as airport mechanics technicians	95.17%
10	Vocational education for the transportation human resource development agency is very important to ensure the availability of airport electricians	94.60%
11	The vocational education of the transportation human resource development agency is very important to ensure the availability of telecommunications and air navigation technicians	94.31%
12	The vocational education of the transportation human resource development agency is very important to ensure the availability of basic building technicians	93.75%
13	The vocational education of the transportation human resource development agency is very important to ensure the availability of airport mechanics technicians	92.61%
14	Vocational education of the transportation human resource development agency is very important to increase the competitiveness of aviation engineering cadets so that they continue to improve their skills.	94.88%
15	Vocational education of the transportation human resource development agency is very important to increase the competitiveness of air navigation and communication engineering cadets so that they continue to improve their skills.	94.88%
16	Vocational education of the transportation human resource development agency is very important to increase competitiveness among cadets in basic building techniques so that they continue to improve their skills.	93.75%
17	Vocational education of the transportation human resource development agency is very important to increase the competitiveness of airport mechanics engineering cadets so that they continue to improve their skills.	94.88%
18	Vocational education in the field of aviation specifically for aviation technicians must remain so that this sector will still be guaranteed and filled by skilled, skilled and trusted technicians.	95.45%

Or it can also be seen based on the following graph:

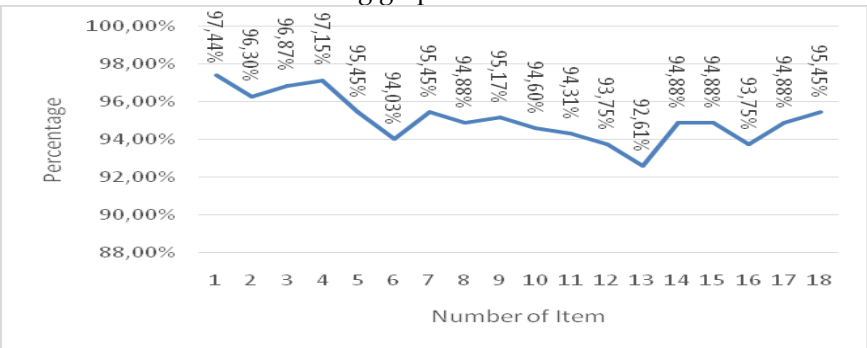

Figure 2. Graph of Percentage of Results of Filling out Questionnaire

From the graph above, it can be seen that all items get a percentage from the lowest, which is 92.61% and the highest, which is 97.44%. It shows that all items are in the 75%-100% range, which means that they fall into the category of strongly agree. All items made are items with positive criteria so that when the data analysis results are in the agree or strongly agree category it supports the hypothesis that Vocational Education in the Aviation Sector in Indonesia is Important.

Education is one of the important factors in influencing the progress of a nation. Vocational Education is an education that prepares experts and skilled in their fields. Vocational education in the field of aviation is a field of education that produces experts and skilled in the field of aviation, one of which is the field of expertise of aviation technicians. The availability of skilled and skilled Aviation Technicians will be very much needed in the world of work, especially in the aviation sector to ensure quality and service because trust in the quality and services provided will affect user confidence in general. The respondents who are people related to aviation responded that the vocational education of the transportation human resource development agency is very helpful in obtaining qualified human resources to fill positions as airport electrical technicians, telecommunications and air navigation technicians, runway building technicians, mechanics technicians airport technicians, airport electricians, telecommunications and air navigation technicians, runway building technicians, and airport mechanics technicians. Vocational education for the transportation human resource development agency is also very important to increase the competitiveness among cadets of aviation engineering, air communication and navigation techniques, runway building techniques, and airport mechanics techniques, so that they continue to improve their skills. Therefore, special expertise education in the field of aviation must remain so that the sector remains guaranteed and by skilled, skilled and trusted technicians.

From its definition, vocational education is defined as higher education that supports the mastery of certain applied skills, including Diploma education programs which are equivalent to academic education programs. In the era of globalization, the younger generation is required to be able to master the skills and knowledge so as not to be crushed in global competition. Here the role of vocational education is very important to be able to build Indonesian human resources that are globally competitive because in the vocational program there will be more practical work than theory. According to the International Civil Aviation Organization (ICAO), by 2036 the aviation sector will need 620,000 new pilots, 125,000 new air traffic controllers, and 1.3 million aircraft maintenance personnel (International Civil Aviation Organization, 2018) in (Sudarmaji et al., 2021). In response to these data, the role of vocational education in the aerospace sector to determine an adequate level of absorption in newly industrialized countries is very large to foster absorption at the national level or certain organizations. The successful international transfer of technology, as well as the absorption of aerospace technology and knowledge into the receiving organization, largely depends on the type of policy adopted in education. From this it can be concluded that the importance of vocational education in the field of aviation in Indonesia.

4. CONCLUSION

Based on the results of the validity test, it was found that the research instrument used was valid as evidenced by all items having an r-count value greater than the r-table value. From the reliability test, the research instrument is also categorized as reliable as evidenced by the Cronbach Alpha value obtained is 0.951, which means it is greater than 0.6 so it is said to be reliable. Based on the results of the questionnaire data analysis, all items obtained a percentage from the lowest, namely 92.61% and the highest, namely 97.44%. It shows that all items are in the 75%-100% range, which means that they fall into the category of strongly agree. All items made are items with positive criteria so that when the data analysis results are in agree or strongly agree category it supports the hypothesis that Aviation Vocational Education in Indonesia is Important.

REFERENCES

Adristy, J. A., Adiliawijaya, R., & Endrawijaya, I. (2020). PENGARUH PENERAPAN SAFETY MANAGEMENT SYSTEM TERHADAP KUALITAS PELAYANAN PEMANDUAN LALU LINTAS UDARA DI PERUM LPPNPI KANTOR CABANG GORONTALO. Jurnal Ilmiah Aviasi, 13(3), 15–21.

Bacca, J., Baldiris, S., Fabregat, R., Kinshuk, & Graf, S. (2015). Mobile Augmented Reality in Vocational Education and Training. Procedia Computer Science, 75, 49–58. https://doi.org/10.1016/j.procs.2015.12.203

Blagorazumov, A., Chernikov, P., Glukhov, G., Karapetyan, A., Shapkin, V., & Elisov, L. (2018). THE BACKGROUND TO THE DEVELOPMENT OF THE INFORMATION SYSTEM FOR AVIATION SECURITY OVERSIGHT IN RUSSIA. International Journal of Civil Engineering and Technology (IJCIET), 9(11), 341–350. http://www.iaeme.com/IJCIET/index.asp341http://www.iaeme.com/ijciet/issues.asp?JType=IJCIET&VType=9&IType=10http://www.iaeme.com/IJCIET/issues.asp?JType=IJCIET&VType=9&IType=10http://www.iaeme.com/IJCIET/index.asp342

Budiwibowo, A. K., & Nurhalim, K. (2016). PENGARUH MOTIVASI BELAJAR TERHADAP PRESTASI BELAJAR WARGA BELAJAR KEJAR PAKET C. Journal of Nonformal Education, 2(2), 168–174.

Forster, A. G., Bol, T., & van de Werfhorst, H. G. (2016). Vocational education and employment over the life cycle. Sociological Science, 3, 473–494. https://doi.org/10.15195/v3.a21

Glukhov, G., Kirpichev, I., Nikonov, V., Maslennikova, G., & Konyaev, E. (2017). Creation of a state system for continuous monitoring of aviation security in compliance with the international requirements. International Journal of Civil Engineering and Technology, 8(11), 695–713.

Hayati, S., Budi, A. S., & Handoko, E. (2015). Pengembangan Media Pembelajaran Flipbook Fisika untuk Meningkatkan Hasil Belajar Peserta Didik. Prosiding Seminar Nasional Fisika (e-Jurnal) SNF2015, 4, 49–54.

Kamasheva, Y. L., Goloshumova, G. S., Goloshumov, A. Y., Kashina, S. G., Pugacheva, N. B., Bolshakova, Z. M., Tulkibaeva, N. N., & Timirov, F. F. (2016). Features of Vocational Education Management in the Region Yuliya. International Review of Management and Marketing, 6(2), 6–11.

Lukiana. (2015). Jurnal Perhubungan Udara Pemeliharaan Kendaraan PKP-PK di Bandar Udara Hang Nadim-Batam Maintenance of Fire Fighting Vehicle in Hang Nadim Airport Batam. Jurnal Perhubungan Udara, 41(2), 81–96.

Nugraha, W., Abdullah, A., Masitoh, F., Muslim, J. H., & Sutiyo, S. (2020). Pelatihan Recurrent Basic PKP-PK bagi Pegawai Badan Usaha Bandar Udara Hang Nadim-Batam. Darmabakti: Jurnal Inovasi Pengabdian Dalam Penerbangan, 1(1), 38–47. https://doi.org/10.52989/darmabakti.v1i1.11

Ormerod, T. C., & Dando, C. J. (2015). Finding a needle in a haystack: Toward a psychologically informed method for aviation security screening. Journal of Experimental Psychology: General, 144(1), 76–84. https://doi.org/10.1037/xge0000030

Pugacheva, N. B., Kirillova, T. V., Ovchinnikova, I. G., Kudyashev, N. K., Lunev, A. N., Pavlova, O. A., Kashina, S. G., & Valeyev, A. S. (2016). The mechanism of state-public management of vocational education in the region. International Review of Management and Marketing, 6(2), 6–11.

Ridayanti, P. P., Adiliawijaya, R., & Saulina, M. (2017). PENGARUH JUMLAH TRAFFIC TERHADAP SITUATION AWARENESS PERSONEL PEMANDU LALU LINTAS UDARA DI PERUM LPPNPI CABANG TANJUNGPINANG. Jurnal Ilmiah Aviasi, 32(9), 64–65. https://doi.org/10.7748/ns.32.9.64.s47

Samani, M. (2018). Vocational Education in the Era of Industry 4.0: An Indonesia Case. Advances in Social Science, Education and Humanities Research, 201, 45–47. https://doi.org/10.2991/aptekindo-18.2018.10

Setiani, B. (2015). Prinsip-Prinsip Manajemen Pengelolaan Bandar Udara. Jurnal Ilmiah WIDYA, 3(1), 25–35.

Shidiq, M. R. N. A., & Azizah, S. N. (2019). PENGARUH PELATIHAN DAN KETEPATAN PENEMPATAN KERJA TERHADAP KINERJA DENGAN MOTIVASI SEBAGAI VARIABEL INTERVENING (Studi Pada Karyawan PKP-PK PT. Angkasa Pura II Persero). Jurnal Ilmiah Mahasiswa Manajemen, Bisnis Dan Akuntansi (JIMMBA), 1(1), 9–24. https://doi.org/10.32639/jimmba.v1i1.398

Sudarmaji, H., Prasojo, G. L., Rubiono, G., & Arif, R. (2021). Pendidikan Vokasi Aviasi : Peluang dan Tantangan. Jurnal Aviasi Indonesia, 1(1), 1–6. http://ejournal.icpa-banyuwangi.ac.id/index.php/skyhawk/article/view/1

Sukoco, J. B., Kurniawati, N. I., Werdani, R. E., & Windriya, A. (2019). PEMAHAMAN PENDIDIKAN VOKASI DI JENJANG PENDIDIKAN TINGGI BAGI MASYARAKAT. JURNAL PENGABDIAN VOKASI, 01(01), 23–26.

Usada, E. (2014). Implementasi Logika Fuzzy Untuk Pilot Agent Dalam Simulator Pengendali Lalu Lintas Udara (ATC Simulator). Jurnal Informatika,Telekomunikasi Dan Elektronika, 6(1), 13–22. https://doi.org/10.20895/infotel.v6i1.66

Wardina, U. V., Jalinus, N., & Asnur, L. (2019). Kurikulum Pendidikan Vokasi Pada Era Revolusi Industri 4.0. Jurnal Pendidikan, 20(1), 82–90. https://doi.org/10.33830/jp.v20i1.843.2019

Winangun, K. (2017). Pendidikan Vokasi Sebagai Pondasi Bangsa Menghadapi Globalisasi. Jurnal Taman Vokasi Vol., 5(1), 72–78. https://doi.org/10.30738/jtvok.v5i1.1493