

# THE INFLUENCE OF CARGO AND POSTAL SECURITY ON FLIGHT SECURITY AT KALIMARAU BERAU AIRPORT

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## ABSTRACT

Kalimarau Airport is an airport located in Teluk Bayur, Berau City, East Kalimantan. This airport has a Domestic Terminal, VIP Terminal, International Terminal and Cargo Terminal. At the Kalimarau Airport cargo terminal, problems were found due to the lack of security facilities and human resources as per the Regulation of the Minister of Transportation of the Republic of Indonesia Number: PM 53 of 2017 article 43, such as the lack of AVSEC (Aviation Security) personnel and the unavailability of several security facilities and equipment in the form of wtmd at the Kalimarau Berau Airport Cargo Terminal. To find out whether there is an influence between cargo and postal security on flight security at Kalimarau Berau Airport, it is necessary to collect data using a quantitative descriptive method by collecting data from a questionnaire with a sample of 35 respondents. Furthermore, data processing was carried out by conducting validity and reliability tests on 35 respondents and simple linear regression tests. There are results in this study that cargo and postal security has a significant influence on flight security at Kalimarau Berau Airport, with the results of the influence of security on flight security of 81.7%. Several things that need to be optimized in the security inspection procedure of the Kalimarau Airport Cargo Terminal are the need to add CCTV at 6 points.

**Keywords:** Cargo Terminal, Security, Safety, Airport.

## INTRODUCTION

The development of transportation modes, especially air transportation, is now increasingly rapid and important to meet the increasing needs of humans. Air transportation is the main choice because it offers better speed, comfort, and security than other modes of transportation. To support an effective air transportation system, various airports have been established throughout Indonesia, functioning as centers for aviation industry activities. One of the important roles of airports is to provide airport services that guarantee security, order, efficiency, and comfort in flight operations, as well as support other business activities related to aviation.

Class 1 Kalimarau Airport in Berau, East Kalimantan, is one of the airports that has various terminals, including a cargo terminal. The cargo terminal at this airport plays a crucial role in sending and receiving domestic and international air cargo. According to Law Number 1 of 2009 and Regulation of the Minister of

Transportation No. 53 of 2017, airports are required to have appropriate security systems and human resources to ensure the security and smoothness of the cargo process. However, there are still shortcomings in the security facilities and personnel at the Kalimarau cargo terminal, which need to be improved to comply with the established standards.

Some problems at the Kalimarau cargo terminal include the lack of security facilities such as metal detectors and CCTV, as well as the inadequate number of security personnel. For example, the Aviation Security (Avsec) personnel on duty do not meet the minimum requirements stipulated in the Regulation of the Minister of Transportation No. 53 of 2017. In addition, there are deficiencies in cargo handling such as live animals that have not been equipped with quarantine certificates from the fisheries service and the transportation of goods that do not comply with applicable packaging standards.

These deficiencies pose security risks that need to be addressed immediately.

The researcher sees an urgency to improve security facilities and human resources at the Kalimantan Airport cargo terminal to comply with the procedures set by the regulations. The cargo terminal has a direct connection to the airside area, so it requires strict supervision to prevent unwanted incidents. Optimizing facilities and personnel at the Kalimantan cargo terminal will not only improve flight security, but also support the smooth operation of the airport as a whole, given the important role of cargo in the aviation industry.

Based on this background, this study will focus on "The Effect of Cargo and Postal Security on Aviation Security at Kalimantan Berau Airport". This study is expected to provide a clear picture of the relationship between cargo security and aviation security, as well as recommendations for improvements that need to be made at Kalimantan Airport. Thus, this study can contribute to improving aviation security standards in Indonesia, especially through better management at the airport's cargo terminal.

The formulation of the problem in this study focuses on two main aspects, namely how to improve security at the Class 1 Kalimantan Airport Cargo Terminal and the identification of elements that need to be improved in the security. Security at the cargo terminal is very important because it is directly related to flight safety and the smooth operation of the airport. Existing security problems, such as the lack of standard facilities and the lack of qualified personnel, pose risks that must be addressed immediately. Therefore, this study aims to formulate strategic steps that can be implemented to improve security at the cargo terminal.

The limitations of the problem in this study are determined so that the focus of the analysis remains in accordance with the context raised, namely improving security at the cargo terminal in accordance with the Regulation of the Minister of Transportation No. 53 of 2017. This study is limited to two main aspects: first, analysis of security facilities that do not meet standards, such as metal detectors and CCTV; second, analysis of human resources that do not meet the required number and qualifications. By limiting this problem, researchers can conduct a more in-depth and focused analysis, resulting in concrete and applicable recommendations for improvement.

The purpose of this study is to provide a clear picture of the steps that need to be taken to improve security at the Class 1 Kalimantan Airport Cargo Terminal. This study also aims to identify what security elements need to be improved, both in terms of facilities and human resources. By knowing the things that need to be improved, it is hoped that the results of this study can be a reference for airport managers in improving security at the cargo terminal, so as to reduce risks and increase overall operational efficiency.

The benefits of this study are not only for the author, but also for the company managing Class 1 Kalimantan Airport. For the author, this study is a means

to improve insight, analytical skills, and scientific writing skills. Meanwhile, for the company, the results of this study are expected to provide valuable input in efforts to improve services and facilities at the cargo terminal. By implementing the recommendations generated from this study, the company can strengthen the security system, increase user satisfaction, and support the smoothness and safety of flight operations at Kalimantan Airport.

## LITERATURE REVIEW

### Security Check

Security checks are defined as the use of a technology or other approach to identify or detect forbidden materials that can be utilized to perform criminal activities, as per PM 51 of 2020 concerning National Aviation Security. Every operating airport must establish a Standard Operating Procedure (SOP) for the inspection of passengers, aircraft personnel, baggage, and individuals in order to comply with national and international regulations pertaining to the inspection of these groups of people on domestic and international flights. Article 334 paragraph 2 of Law No. 1 of 2009 governing aviation specifies that the security inspections mentioned in paragraph (1) are performed by qualified individuals in the aviation security area.

### Airport

As to the July 2004 edition of Annex 14, Vol 1 Aerodrome Design and Operations, the definition of an aerodrome is described as a specified area on land or water, which includes any building, facilities, and equipment meant to be utilized entirely or partially for the arrival, departure, and surface movement of aircraft. (ICAO, 2004) translates to: An airport is a space on land or in the sea, including any structures, facilities, and machinery, that is mostly or exclusively utilized for aircraft arrival, departure, and ground operations. East Kalimantan's Kalimantan Berau Airport is one of Indonesia's airports.

### Cargo Terminal

The terminal buildings used for the loading and unloading of air cargo are known as goods (cargo) terminal buildings. The airport handles the air cargo. The weight and amount of cargo the airport handles at peak times affects its area. These facilities include public parking lots, operating buildings, warehouses, administrative offices, and spaces for parking airplanes. The twelve standard facilities listed above are categorized according to the airport's capabilities and are operated accordingly (Directorate General of Air Transportation Regulation, 2005).

### Human Resources

Human resources, or HR, refers to the potential that each individual has to fulfill in their role as a social being. Or, put another way, human resources are an individual's capacity for thought and physical strength. They also act in ways that are influenced by their surroundings and genetics and are driven by a desire to satisfy their needs. The only resources with reason, emotions, abilities, knowledge, and creativity are human resources. As an example, consider each person's

responsibility to their environment, which is inextricably linked to their own development-oriented mindset and capacity to promote environmental advancement while concurrently enhancing societal well-being in a sustainable way. Human resources' primary purpose is to boost output in order to help the company meet its objectives and become more competitive.

#### **Aviation Security Officer**

The role of an AVSEC (Aviation Security) is to safeguard airplane crews, passengers, ground staff, members of the public, and airport authorities from illegal activity while also ensuring the safety and security of flights. AVSEC licensed professionals are thought to possess the abilities necessary to perform their tasks as aviation security personnel. This is not like the security guard industry as a whole. Going through this phase is not necessary to become a security guard.

#### **Safety Equipment**

Security equipment is an important component used to support the security of a system, including at airports. This equipment includes various tools such as walkthrough metal detectors, x-ray security scanners, bomb detectors, and liquid detectors, all of which must have high specifications. This equipment is a basic requirement for airport security officers to ensure the safety and security of all processes at the airport. One of the most commonly used security equipment is CCTV, which functions to monitor and record activities in the supervised area.

CCTV, or Closed Circuit Television, is a digital video camera used to monitor and transmit video signals to a monitor screen. According to Aji, P. B. (2018), CCTV plays an important role in monitoring the security of a place and recording criminal activity or other important events. CCTV is often installed in public areas such as airports, banks, and hotels, as well as in other places that require strict supervision. With the ability to record events continuously, CCTV can be used as evidence in criminal investigations or as an aid in emergency situations.

Mirror Detector is a tool used to check the underside of a vehicle, such as under a car, which is usually difficult to reach by direct vision. This tool is shaped like a stick with a convex glass on the end, which reflects light to provide a better view of the area under the car. Some modern mirror detectors are equipped with cameras connected to a monitor screen, allowing security officers to examine the area under the vehicle in more detail and accurately. This tool is very important for detecting potential threats that may be hidden under the vehicle.

X-Ray Security Equipment is a device designed to detect dangerous items such as weapons, explosives, and illegal drugs. This tool uses X-rays to scan objects and display images on a monitor, with different colors based on the type of material being detected. For example, organic materials are shown in orange, while inorganic materials are shown in green. The X-Ray system consists of several main components, including an X-ray generator, an L-shaped detector, an image processing

system, a control table, a conveyor system, and a computer system to manage the software and store the resulting images.

Walkthrough Metal Detector is a security door equipped with a metal detector, capable of detecting metal throughout a person's body from head to toe. This system is very accurate and can adjust the sensitivity of the sensor as needed. These devices are often used in airports and other public places to detect weapons or dangerous items carried by visitors. With the ability to detect metal in multiple zones, walkthrough metal detectors provide an extra layer of security that is much needed in areas that require close surveillance.

Hand Held Metal Detectors are handheld metal detectors used by security officers to manually check a person's belongings. These devices are used in various entry locations, such as large malls, airports, and public places that are crowded with visitors. Hand held metal detectors allow officers to detect the presence of weapons or other dangerous items quickly and effectively. They are an integral part of security protocols in places with high human traffic, providing additional protection against potential threats.

#### **Applicable regulation**

Minister of Transportation Regulation Number PM 53 of 2017 regulates the security of cargo and mail at airports, including personnel, facilities, and equipment that must be met by Air Transportation Business Entities, Foreign Air Transportation Companies, and Airport Operator Units. The personnel required include Senior Avsec, Junior Avsec, Basic Avsec, personnel licensed with Dangerous Goods type A, licensed aviation security facility personnel, and a person in charge of aviation security quality control. The facilities and equipment that must be owned include X-ray machines, explosive detectors, handheld metal detectors, walkthrough metal detectors, x-ray testing equipment and metal detectors, mirror detectors, physical barriers with a minimum height of 2.44 meters, CCTV at six strategic points, and dangerous goods handling facilities.

Minister of Transportation Regulation Number PM 9 of 2024 regulates the obligations of various parties, such as Airport Operator Units, Airport Operator Entities, and Air Transportation Business Entities, in carrying out efforts to secure cargo and mail. These efforts include the responsibility for securing, receiving, security checks, loading onto land transportation, controlling the security of land transportation to the airport, and handing over and loading cargo onto aircraft. In addition, securing high-risk cargo and handling of transfer cargo are also regulated in accordance with the National Aviation Security Program, ensuring that all cargo and mail security procedures are carried out to established standards.

#### **METHODOLOGY**

Research methods consist of two main terms: method and research. Method comes from the Greek word *methodos*, which means way or path, and refers to a systematic scientific approach to understanding the subject or object of research. Research, according to the

Great Dictionary of the Indonesian Language (KBBI), is the activity of collecting, processing, analyzing, and presenting data systematically and objectively to solve problems or test hypotheses. This definition is also recognized by Narbuko and Achmadi (2007), who state that research involves searching, recording, formulating, and analyzing data to produce reports that can be scientifically accounted for.

Quantitative research methods, as explained by Sugiyono (2017), are based on the philosophy of positivism and are used to research certain populations or samples. Sampling techniques are usually carried out randomly, with data collection using research instruments and quantitative or statistical data analysis to test hypotheses. In this context, research methods must be rational, empirical, and systematic, allowing researchers to obtain valid data and in accordance with conditions in the field, as well as presenting facts that can support problem analysis effectively and efficiently.

### **Research Design**

Creating a research strategy or design should be done before any actual study is conducted. The way a researcher approaches problem-solving is known as their design (Margono, 2010). The research design is crucial to the process of doing research since it will help us stay disciplined and organized.

### **Research Variables**

According to Sugiyono (2009), a variable is anything that is determined by researchers to be studied and analyzed in order to obtain the necessary information, which is then used to draw conclusions. There are two main types of variables in research, namely independent variables and dependent variables. The independent variable, also known as the stimulus or predictor variable, is a variable that is suspected of causing the emergence of the dependent variable. The independent variable is manipulated, observed, and measured to determine its relationship with other variables. An example in this study is aviation security facilities as the independent variable (X).

The dependent variable, or dependent variable, is a variable that is influenced by the independent variable.

This variable is the output or response that appears as a result of the manipulation of the independent variable. In research, the dependent variable is observed to determine how the independent variable affects it, without being manipulated. For example, security at the cargo terminal is set as the dependent variable (Y) in this study, the results of which are predicted to be influenced by the independent variable, namely aviation security facilities.

Sugiyono (2013) also explains that the independent or free variable (X) is a variable that explains and influences other variables, such as the inspection procedures in this study. In contrast, the dependent or bound variable (Y) is explained and influenced by the independent variable, for example, security at the cargo terminal. The dependent variable is referred to as the output or criterion variable, the outcome of which is determined by the independent variable. In this study, the main focus is to analyze how inspection

procedures (variable X) affect security at the cargo terminal (variable Y).

### **Research Subject**

Population in research is defined as the entire object or subject with certain characteristics that are determined to be studied and analyzed, in order to obtain generally applicable conclusions. In this context, the population studied includes 10 cargo agents and 25 aviation security officers at Kalimantan Berau Airport. They were chosen because they have qualities and characteristics that are relevant to this study, in accordance with the definition of population expressed by S & Subekti (2011) and Sugiyono (2001). This study focuses on this group to understand and conclude various aspects related to security at the cargo terminal.

A sample is a portion of the population selected to represent the entire population, especially when the population is too large or there are limited resources. Sugiyono (2001) stated that the sample must be representative so that the research results can be applied to the entire population. In this study, the sample consisted of 35 respondents, which included 10 cargo agents and 25 aviation security officers at Kalimantan Berau Airport. The distribution of questionnaires was carried out to collect data from this sample, with the hope that the conclusions obtained can reflect the state of the population as a whole.

The object of this research focuses on aviation security personnel and security facilities at the cargo terminal of Kalimantan Berau Airport. Aviation security personnel and security facilities were chosen as the objects of research because they play an important role in maintaining security at the cargo terminal, which is a crucial aspect in airport operations. This study aims to analyze how these factors affect security and operational effectiveness at the cargo terminal, and how they can be improved to achieve higher security standards.

### **Data Collection Techniques and Research Instruments**

Data collection techniques in this study include observation, literature study, and questionnaires. Observation is a method of collecting data through direct observation, where researchers observe activities at the Kalimantan Berau Airport Cargo Terminal during the On The Job Training (OJT) period. Literature study was conducted to examine theories and references relevant to this study, helping researchers understand the context of the problem being studied. Questionnaires were used to collect data from respondents regarding the standardization of security facilities at the cargo terminal, which would help in obtaining information relevant to the objectives of the study.

The research instrument is a tool used to collect data systematically and accurately. In this study, the instruments used were documentation and questionnaires compiled based on the Likert scale. The Likert scale is used to measure respondents' attitudes, opinions, and perceptions regarding security standards at the cargo terminal. Respondents were asked to provide responses to a number of statements, with answers scored and

added up to obtain a total score, which was then interpreted as the respondent's position on the scale. The Likert scale used generally consists of 5 points, providing flexibility in assessing various levels of agreement or disagreement.

The questionnaire using a five-point Likert scale has the advantage of capturing neutral or undecided attitudes from respondents, according to Hertanto (2017). This allows researchers to obtain more concrete data, because respondents are not forced to choose between agreeing or disagreeing completely. With this instrument, the study is expected to provide a more comprehensive picture of the security standards at the Kalimantan Berau Airport Cargo Terminal, as well as its contribution to flight safety and security. The combination of observation, literature study, and questionnaires is expected to produce valid and relevant data.

#### **Data analysis**

Validity, reliability, and correlation tests were conducted using Microsoft Excel to ensure that the data obtained from the questionnaire were accurate and reliable. The validity test aims to determine the extent to which the questionnaire items can be said to be valid. This test uses the product moment correlation formula, where the calculated  $r$  value is compared to the number 0.5. If the calculated  $r$  value is greater than 0.5, then the questionnaire item is declared valid. Conversely, if the calculated  $r$  value is less than 0.5, the item is declared invalid, so it cannot be used further in data analysis.

Reliability testing is used to measure the consistency of respondents' answers to the questionnaire over time. A reliable instrument indicates that respondents provide stable and consistent answers. Reliability testing in this study was conducted using the Cronbach Alpha statistical test. A construct or variable is declared reliable if the Cronbach Alpha value is more than 0.60. If the value is less than 0.60, then the construct is considered unreliable, and it may be necessary to revise or replace items in the questionnaire to increase its reliability.

Simple linear regression test is used to describe the relationship between independent variables and dependent variables in this study. This regression model helps researchers understand the extent to which independent variables affect dependent variables. By processing data using Microsoft Excel, researchers can determine the appropriate regression equation and interpret the results to draw relevant conclusions. This test is an important step in data analysis, ensuring that the relationships found between the variables are based on valid and reliable data, so that the research results can be trusted and applied accurately.

#### **RESEARCH RESULT**

**Current Condition** Currently, the Class I Kalimantan Berau Airport Cargo Terminal is managed by PT. Avia Jasa Mandiri, which currently does not accept dangerous goods because there are no airlines that handle the transportation. Security threats at the cargo terminal include the possibility of smuggling of prohibited goods

and terrorism, especially explosives. This is due to inconsistencies in control, inspection, and supervision in the cargo area, as well as the lack of adequate personnel and equipment, which have the potential to endanger flight security.

**Expected Condition** The expected condition is increased security assurance at the cargo terminal by increasing the number of competent personnel and adequate security facilities. This increase is expected to strengthen the internal supervision system and prevent security breaches. With the addition of personnel and equipment, it is hoped that security control will be more optimal, reducing the risk of violations that could endanger flights.

**Research Results During On The Job Training (OJT)**, it was found that the discipline and compliance of AVSEC personnel with SOPs were still weak, causing violations such as the entry of unauthorized persons and vehicles without inspection into the cargo area. The inspection process was only carried out on drivers, not vehicles, due to the lack of equipment. According to PM 51 of 2020, security in restricted areas has not been guaranteed due to the lack of avsec personnel, which has an impact on violations in the cargo area.

**Validity and Reliability Test** The validity test shows that all questionnaire items are valid, with a calculated  $R$  value greater than the  $R$  table. The reliability test shows a Cronbach Alpha value of more than 0.60, indicating that the questionnaire is reliable. A simple linear regression test shows that cargo and postal security have a significant effect on aviation security, with a  $p$ -value  $< 0.05$ . The regression coefficient of 1.101 indicates that increased cargo security is positively related to aviation security, with a contribution of 81.7%..

#### **DISCUSSION**

**Research Results** Primary data were obtained from a structured questionnaire using a Likert scale and calculated using Microsoft Excel. The results of the analysis showed that the inspection procedure had a significant effect on the security of the cargo terminal, with a correlation coefficient of 0.76, indicating a strong relationship between the variables. Secondary data were obtained through observation and literature study, which confirmed the results. This correlation analysis confirmed that the security procedure had a significant effect on the level of security at the cargo terminal.

**Problem Solving** Based on the results of the study, it is recommended to increase the number and competence of Avsec personnel at the Class I Kalimantan Berau Airport Cargo Terminal. In accordance with the Regulation of the Director General of Air Transportation, the number of personnel required is determined based on the annual cargo weight. With an average cargo weight of 865,185 kg, it is recommended to increase the number of personnel to three people so that security supervision is more effective. In addition, strict sanctions need to be applied to improve personnel discipline.

Addition of Security Equipment To improve security, it is necessary to add security equipment in accordance with KP 138 of 2018. The equipment required includes detectors for explosives, organic and non-organic materials, and metal or non-metal. Equipment that is not yet available such as mirror detectors and Walk Through Metal Detectors (WTMD) are very important to prevent smuggling and detect luggage. Mirror detectors will help check vehicles, while WTMDs function to detect luggage on people's clothes or bodies.

### CONCLUSIONS AND RECOMMENDATIONS

To improve the security of the cargo terminal, it is necessary to implement strict supervision procedures from the terminal entrance to the cargo loading process onto the aircraft by the Ground Handling. Improvements that must be made include increasing the number of AVSEC personnel and providing adequate security facilities, such as Mirror Detectors and Walk Through Metal Detectors, which are currently not available at Class I Kalimantan Airport. The results of the questionnaire from 35 respondents showed that indicator X1.1, which assesses the responsibility of AVSEC personnel in checking people and cargo, received high approval, indicating that respondents strongly agree with the important role of AVSEC personnel in securing cargo and postal terminals.

### ADVANCED RESEARCH

To solve the cargo terminal security problem, there are several important inputs. First, Aviation Security (AVSEC) personnel must carry out their duties in accordance with the established Standard Operating Procedure (SOP). In addition, additional training is needed for AVSEC personnel on how to effectively maintain cargo terminal security. Second, it is necessary to improve the AVSEC license to improve the quality of human resources at Class I Kalimantan Berau Airport. This improvement will help ensure that AVSEC personnel have adequate skills and knowledge to handle existing security challenges, thereby improving operational safety and security at the cargo terminal.

### REFERENCES

- [1] (Gunawan & Hasanah, 2019) Bungin, Burhan. (2007). *Penelitian Kualitatif: Komunikasi, Ekonomi, Kebijakan. Publik dan Ilmu Sosial lainnya*. Jakarta, Indonesia: Pustaka Grafika.
- [2] Jannah, K. A. M., Aiman, U., Hasda, S., Fadilla, Z., Ardiawan, T. M. K. N., & Sari, M. E. (2017). *Metodologi Penelitian Kuantitatif Metodologi Penelitian Kuantitatif*. In *Metodologi Penelitian Kuantitatif* (Issue May).
- [3] Gulo, W. (2002). *Metode Penelitian*. Jakarta, Indonesia: PT. Grasindo.
- [4] Husein Umar. (2007). *Metode Penelitian Untuk Skripsi Dan Tesis Bisnis*. Jakarta, Indonesia: PT. Raja Grafindo Persada.
- [5] Kasiram, Moh. (2008). *Metodologi Penelitian*. Malang, Indonesia: UIN-Malang Pers
- [6] Keputusan Direktur Jendral Perhubungan Udara Nomor : SKEP/100/XI1985 Tentang Peraturan Dan Tata Tertib Bandar Udara.
- [7] Kurnia, Ahmad. (2011). *Komunikasi Tidak Efektif*. Jawa Barat, Indonesia: Alfabeta.
- [8] Mardiasmo. (2011). *Perpajakan Edisi Revisi 2011*. Yogyakarta: Andi Offset.
- [9] Narbuko, Achmadi. (2007). *Metodologi Penelitian*. Jakarta, Indonesia: PT. Bumi Aksara.
- [10] Perhubungan, Kementerian. "Undang-Undang Nomor 1 Tahun 2009 tentang Penerbangan." (2009)
- [11] Nazir, Moh. (2014). *Metode Penelitian*. Bogor, Indonesia: Ghalia Indonesia. Nazir. 1988. *Metodologi Penelitian*. Jakarta, Indonesia: Ghalia Indonesia.
- [12] Ndraha, Ester (2019). Pengaruh Kemampuan Finansial Dan Keamanan Terhadap Minat Penggunaan Produk E-Money. *Jurnal Universitas HKBP Nonmensen*, 1-24.
- [13] Peraturan Direktur Jenderal Perhubungan Udara Nomor KP 262 tahun 2017 Tentang Standar Teknis dan Operasional Peraturan Keselamatan Penerbangan Sipil – Bagian 139 (Manual Of Standard CASR – Part 139) Volume I Bandar Udara (Aerodrome)
- [14] Peraturan Jenderal Perhubungan Udara Nomor KP 326 Tahun 2019 tentang Standar Teknis dan Operasional Peraturan Keselamatan Penerbangan Sipil – Bagian 139 (Manual Of Standard CASR – Part 139) Volume I Bandar Udara (Aerodrome).
- [15] Peraturan Menteri Perhubungan Nomor KM 29 tahun 2005 Tentang Pemberlakuan Standar Nasional Indonesia (SNI) 03-7047-2004 Mengenai Terminal Kargo Bandar Udara Sebagai Standar Wajib.
- [16] Pius Abdullah & Danu Prasetya, *Kamus Lengkap Bahasa Indonesia*, (Surabaya: Arloka ), h. 256 / *Kamus Besar Bahasa Indonesia* (2001:849)
- [17] Riduwan. (2010). *Skala Pengukuran Variabel-variabel Penelitian*. Bandung: Alfabeta.
- [18] Riduwan. (2010). *Skala Pengukuran Variabel-variabel Penelitian*. Bandung, Indonesia: Alfabeta.
- [19] Siagian, Sondang P. 2004. *Manajemen Strategik*, Bumi Aksara, Jakarta. Sugiyono. (2005). *Metode Penelitian Bisnis*. Bandung, Indonesia:
- [20] Sugiyono. (2013). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung, Indonesia: Alfabeta.

- [21] Widyastuti, D. D. (2021). Peran Agen Teregulasi (Regulated Agent) Dalam Mendukung Keamanan Kargo Udara. *Jurnal Mitra Manajemen*, 12(2),.