Analysis Of The Aviation Security Officer's Role In Ensuring Aviation Security During The New Normal And Endemic

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Abstract— **At the end of 2019, the world was shaken by the emergence of a new virus, namely the coronavirus. The more people gather in confined spaces, the greater the risk of coronavirus transmission. Airports are places where many individuals from various countries and regions gather, posing the potential to spread viruses or infectious diseases. By implementing health protocols at airports, it is hoped that the spread of diseases can be controlled, providing passengers with confidence to travel safely by air. This research employs a qualitative method with data collection techniques through interviews, observations, and documentation. Additionally, quantitative methods involve univariate and bivariate analysis of data. Univariate analysis is presented in frequency distribution, while bivariate analysis uses an independent t-test with a confidence interval of 95% ($\alpha = 0.05$). The data analysis process includes data reduction, data presentation, and drawing conclusions. The results indicate that the average level of active service during the pandemic is higher compared to the endemic period. The increased implementation of flight activities may be attributed to the ongoing transmission of COVID-19. During the endemic era, new practices are observed at airports, including examinations aligned with Standard Operating Procedures (SOP). Additional checks and rules are imposed on prospective passengers and airport personnel, such as the mandatory use of masks and health document inspections for passengers undertaking travel.**

Keywords— *aviation security, Aviation, Covid-19, New Normal, Endemic*

I. INTRODUCTION

In the global community, including Indonesia, transportation infrastructure plays a crucial role in expanding the coverage of a region. The development of a country or region requires adequate transportation services because, without transportation as a means supporting passenger and cargo mobility, it is difficult to achieve satisfactory results in the economic development efforts of an area [1].

Considering that a significant portion of Indonesia's territory consists of archipelagic regions with vast water boundaries, the aviation sector plays a vital role in bridging one region to another, such as connecting remote islands [2].

To establish an effective air transportation system, airports are constructed throughout Indonesia. According to Law Number 1 of 2009 on Aviation, an airport is defined as a land and/or water area with specific boundaries used for aircraft landings and takeoffs, passenger embarkation and disembarkation, cargo loading and unloading, and intra and intermodal transportation transfers [3]. It is equipped with aviation safety and security facilities, as well as basic and other supporting facilities.

To support the security and safety of an airport, several requirements must be met by airport operators. One of these is the need for reliable human resources in terms of security and comfort [4]. In this regard, the Aviation Security (Avsec) unit, as the forefront in ensuring aviation security and safety, must carry out its duties seriously and diligently, adhering to aviation regulations, especially those related to passengers and cargo [5]. Aviation Security refers to aviation security personnel holding licenses or Certificates of Competency (SKTP) entrusted with tasks and responsibilities in aviation security [6]. Various studies have been conducted to measure the effectiveness of Avsec enforcement on security at airports [7]–[10].

During the Covid-19 pandemic, many challenges were faced by aviation companies, especially the Aviation Security unit, in conducting inspections to maintain the security and safety of prospective passengers, particularly in the new normal era, to prevent the further spread of the Covid-19 virus. The Covid-19 virus is a respiratory tract infection caused by severe acute respiratory syndrome

coronavirus 2 (SARS-CoV-2). This virus has a high mutation rate and can persist in both humans and animals. It is a zoonotic pathogen that can establish itself in both humans and animals, with a wide range of clinical presentations, from asymptomatic to severe symptoms, and even death [11]. The virus was first discovered in Wuhan, China, in late December 2019, and within a few months, it had spread to almost every country in the world, including Indonesia.

Over time, the decrease in cases resulting in the relaxation (new normal) of Covid-19 restrictions can be utilized as an opportune time for companies to be more flexible and adaptable to the current situation. This can encourage businesses and various small and medium enterprises (UKM) to develop different strategies in providing goods and services based on their respective business needs.

The aviation industry in Indonesia has also experienced a similar situation. According to data from the Central Statistics Agency (BPS), the number of passenger movements, both domestic and international, drastically decreased from January to May [12]. This decline was due to large-scale social restrictions coinciding with the Idul Fitri holiday, during which there is typically a significant migration from cities to villages, known as "Mudik," contributing to the spread of the coronavirus. The imposition of Large-Scale Social Restrictions (PSBB) has significantly reduced the number of aviation service users to the lowest levels in the past two decades.
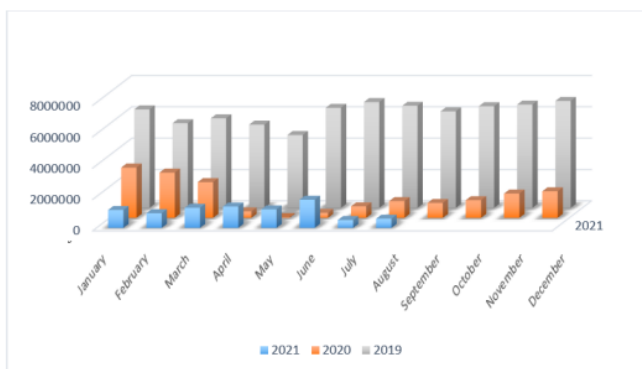

Fig 1. Data on Domestic and International Passenger Movements in Indonesia [13]

Figure 1 illustrates statistical data on the total number of passengers in Indonesia utilizing aviation services from January to October 2020. At the onset of the pandemic, declared by both the World Health Organization (WHO) and the Government of the Republic of Indonesia, there was a significant decline in aviation service users. However, after the completion of the first semester/second quarter of 2020, there was an increase in the number of aviation service users, showing gradual improvement.

Given this background, this research article aims to assess

the performance and service levels of check-in personnel during the Covid-19 pandemic and the endemic period. This evaluation specifically focuses on the company's execution of its work programs at XXXX International Airport, where several issues persist, including those in the check-in area. Adhering to the Standard Operating Procedures (SOP) for check-in services, as outlined in the Monthly Report on Airport Operation Landside & Terminal at XXXXXXXXX International Airport, will undoubtedly contribute to a positive perception of the airport's image.

II. METHODOLOGY

The analysis method employed to assess the role of Avsec officers in ensuring aviation security during the pandemic and the new normal is highly diverse. Various approaches are utilized, including quantitative methods involving statistical models and qualitative methods utilizing data from observations and interviews focusing on the role of Avsec officers. However, one of the most commonly utilized instruments for analyzing the role of Avsec officers is the qualitative model, specifically a cross-sectional design employed in this research.

The study's population comprises all passengers at XXXX Airport, with the research sample selected based on inclusive criteria covering all XXXX Airport passengers. Sample collection occurred over an equal number of days during both the pandemic and the endemic period, specifically 7 days. Data were collected through research instrument responses from passengers traveling during the early new normal period from June 5 to June 11, 2020, and during the endemic period from June 21 to June 27, 2023. The study's population is the observation time measured in days.

Day sampling involved selecting the total sample with complete reporting records through passenger interviews. The data used in this study include both primary and secondary data. Primary data consist of observational and interview results referring to the role of Avsec officers. Secondary data include Standard Operating Procedures (SOP) and other work regulations. Variables used in the analysis are guided by implementation aspects, namely communication, resources, and bureaucratic structure.

Data analysis is conducted through univariate and bivariate analyses. Univariate analysis is presented in frequency distribution. Bivariate analysis involves using an independent t-test with a confidence interval of 95% ($\alpha = 0.05$).

III. RESULT AND DISCUSSION

Observations were conducted during the endemic period from June 21 to June 27, 2023, by administering a double questionnaire simultaneously for 7 consecutive days. The results are presented in the following table.

TABLE 1. QUESTIONNAIRE RESULT

No	Variable	N	Endemic	Pandemic
1	Communication	7	338,6±213,1	1483,7±485,7
2	Resources	7	20,7±14,1	58,9±21,9
3	Bureaucratic structure	7	0,08±0,07	0,04±0,01

Based on the above table, the average active service is higher during the pandemic compared to the endemic period (338.6±213.1; 1483.7±485.7). SOP data on implementation related to resources have a higher average during the endemic application (20.7±14.1; 58.9±21.9), while the average bureaucratic structure is lower during the pandemic (0.04±0.01; 0.08±0.07). The research results indicate that the average implementation figure of flight activities during the endemic period was 338.56±213.09, while during the pandemic, it was 1483.74±485.6. This shows that the discipline of flight and passenger service activities has increased. The increase in flight activity implementation may be caused by the ongoing process of COVID-19 transmission. Based on research results from various countries, the incidence of COVID-19 continues to increase. According to the WHO report (2020) [14], the status of COVID-19 became a pandemic worldwide in 195 countries. According to research by Sheeren et al. (2020) [15], the incidence of COVID-19 has already affected 57 countries with a mortality rate of 2.9%. This is in line with the situation in Indonesia, which shows an ongoing increase in COVID-19 cases. This is what causes increased vigilance in the implementation of airport services during the pandemic.

Based on environmental aspects, it can be seen from the host's behavior in preventing the spread of COVID-19, causing transmission to continue. Based on the results of previous research reviews by Chu et al. (2020) [16], physical distancing of one meter or more becomes a policy to reduce the transmission of COVID-19. Poor implementation of health protocols is one of the causes of the increased spread of COVID-19 in Indonesia. Health protocols that are often not followed include handwashing, touching the face, avoiding contact, wearing masks, and self-isolation. Efforts to break the chain of COVID-19 transmission become determining factors for the decrease or increase in COVID-19 cases.

In the provision of service services during the departure process, when passengers enter the restricted security area at the airport, security checks are carried out by aviation security personnel. In the security inspection of passengers and goods, every airport must have regulations regarding security and safety, which include several procedures that must be carried out. This is to ensure that services run smoothly. And with the existence of the Standard Operating Procedure (SOP), the implementation of inspections at the airport can be applied clearly and systematically.

Based on observations conducted by researchers, there are several inspection procedures by Avsec officers that passengers must go through, namely; 1) Inspection of the conformity of identity with passenger tickets or passenger travel documents. 2) Inspection of goods with X-Ray machines and passenger inspections passing through the Body Scanner then manual inspection using the Hand-Held Metal Detector at Security Check Point 1 (SCP1). 3) Inspection of conformity with the boarding pass of passengers who have checked-in with passenger identities and input into the system. 4) Inspection of goods with X-Ray machines and passengers passing through the Body Scanner then manual inspection using the Hand-Held Metal Detector at SCP 2. Dangerous Goods that still pass through SCP 1 will be re-examined at SCP 2, where the inspection is stricter. And if there are suspicious items, they must be physically inspected.

In the endemic era, there are new habits at every airport, where inspections are carried out in accordance with the Standard Operating Procedure (SOP). However, there are additional inspections and rules for prospective passengers and airport personnel such as passengers and airport personnel must wear masks and health document checks for prospective passengers traveling [17]. To support inspection procedures, there is something called the Safety Management System. Where this inspection is carried out with the aim of protecting aircraft personnel, passengers, and airport personnel as well as terminal facilities as vital objects of the airport from illegal actions.

The procedures carried out by Avsec officers during the new normal are basically the same as those carried out in normal conditions (before the pandemic). However, there are rules for preventing the spread of the Covid-19 virus, such as maintaining distance, wearing masks, using gloves for officers, washing hands, and others. There is also an examination of the health documents of passengers such as antigen letters, PCR letters, certificates for the first dose, second dose, and booster.

The importance of examining the health documents of every prospective passenger who will depart aims to prevent and maintain security in the airport area from the spread of Covid-19 [18]. Therefore, security in airport areas must always be considered. Regarding the security inspection of prospective passengers, Avsec officers must be more thorough in conducting inspections in accordance with existing procedures and in accordance with airport

regulations. Because during the Covid-19 pandemic, the role of Avsec officers is very important to maintain security in the airport area from the spread of the Covid-19 virus in the airport area.

Based on interviews with Avsec officers, if Avsec officers are not careful in checking the health documents of passengers, and the passenger successfully passes and enters the restricted security area without checking their health documents first, then the passenger will be asked to return by airline personnel to undergo checks at the health quarantine post. So that the passenger can reschedule their trip or get other policies from the airport authorities.

IV. CONCLUSION

The role of Avsec officers in the endemic era is basically the same in carrying out their duties as officers who ensure the security and safety of passengers from unlawful acts. However, during the pandemic, there are new policies to prevent the spread of the Covid-19 virus. Avsec officers pay more attention to the health of passengers and personnel to prevent the spread of the Covid-19 virus by taking preventive measures such as implementing the 5M health protocol (washing hands, wearing masks, maintaining distance, reducing crowds, reducing mobility), avoiding physical contact, disinfecting inspection tools, passengers, and their belongings.

As time goes on and Covid-19 cases decrease, the situation in this new normal era has returned to normal with health protocols becoming new habits for the community after the pandemic.

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