

# How The Role of Organizational Culture and Human Resources Competency on The Effectiveness of Services Surveillance in the Indonesian Civil Aviation Authority During Covid19 Pandemic?

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## ABSTRACT

This study aims to solve and anticipate the ineffectiveness problem of air navigation services surveillance in the Indonesia Civil Aviation Authority through quantitative methods, associative/relationship problem formulation, and the approach of a double paradigm with two dependent variables suspected as the most dominant factor influencing the variable human resources competency and organizational culture.

Research data is obtained from 108 (one hundred and eight) respondents consisting of structural and staff officers drawn at random (stratified random sampling) based on sample size in the Kretjie Table  $\alpha$  significance level of 5% from the population of 147 (one hundred and forty- seven) personnel of Indonesia Civil Aviation Authority through the questionnaire which the instruments are developed by the dimensions and indicators.

Hypothesis testing is done by using statistical product-moment correlation, double correlation, single regression, and double regression with results as follows: (1) There is a positive and significant impact of human resources competency on the effectiveness of air navigation surveillance, (2) There is a positive and significant impact of organizational culture on the effectiveness of air navigation surveillance, and (3)

There is a positive and significant impact of human resources competency and organizational culture on the effectiveness of air navigation surveillance.

Based on the result mentioned above, it is concluded that the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority can be improved through the improvement of human resources competency and organizational culture.

**KEYWORDS:** Human Resources Competency, Organizational Culture, Effectiveness of Air Navigation Surveillance, Civil Aviation Authority.

## I. INTRODUCTION

Indonesia is an archipelagic country consisting of 17,504 islands spread over an area of 3,977 miles between the Indian Ocean and the Pacific Ocean, with a land area of 1,922,570 km<sup>2</sup> and a water area of 3,257,483 km<sup>2</sup>. To solve geographical problems and support facilities in facilitating the movement of development in Indonesia, an effective and efficient national transportation system is needed. The transportation system in question consists of land, sea, and air transportation.

According to Achmad (2017); Asbari et al.(2020) and Astuti et al.( 2020) Currently, air transportation is the fastest mode of transportation that can connect various regions in Indonesia. By Republic Indonesia Law No. 1 of 2009, Aviation is carried out with the aim of (a) Realizing an orderly, regular, safe, safe, comfortable flight at a reasonable price, and avoiding unfair business

competition practices; (b) Streamlining the flow of people and/or goods by air by prioritizing and protecting air transportation in the context of facilitating national economic activities; (c) Fostering aerospace spirit; (d) Uphold the sovereignty of the state; (e) Creating competitiveness by developing technology and national air transportation industry; (f) Support, mobilize, and encourage the achievement of national development goals; (g) Strengthening the unity and integrity of the nation in the context of realizing the Archipelago Insight; and (h) Improving national resilience; and strengthen international relations.

According to Ibrahim et al. (2017);Indiyati et al. (2021);Osibanjo et al. (2013);Putra et al. (2020) One of the important elements in supporting the achievement of orderly, orderly, safe, safe, and comfortable air transportation is a reliable air

navigation service. Air Navigation Services include air traffic services, air telecommunications services, aeronautical information services, aviation meteorological information services and search and rescue information services. According to Republic Indonesia Law no. 1 of 2009, Articles 278 and 279, air traffic services consist of air traffic control service, flight information service, air traffic advisory service, and alerting service. Which objectives are to (a) prevent collisions between aircraft in the air; (b) Prevent the occurrence of collisions between aircraft or aircraft with obstacles in the maneuvering area; (c) Streamlining and maintain the regular flow of air traffic; (d) Provide advice and information useful for flight safety and efficiency; and (e) Provide notification to relevant organizations for search and rescue services.

Air traffic services, Air Telecommunication Services, and Aeronautical Information Services in Indonesia are currently held by Indonesia AIRNAV. Meanwhile, Aviation Meteorological Information Services and Search and Rescue Services are organized by the Aviation Meteorological Agency and the National SAR Agency. The Directorate General of Civil Aviation is an institution, which is in charge of carrying out a supervisory function, in the sense of monitoring and evaluating, the implementation of policies in the field of aviation traffic services.

One of the aims of air navigation services surveillance is to ensure that the air navigation services provided are by the provisions stipulated by the Directorate General of Civil Aviation. In addition, surveillance is also a way to evaluate the procedures that have been established as guidelines for providing air navigation services. According to [Sunya et al. \(2017\)](#) and [Purwanto et](#)

[al.\(2020\)](#) To be able to achieve the objectives of surveillance, the institution responsible for the surveillance function must be an independent and competent institution with high integrity. Competence indicates the characteristics of knowledge and skills possessed or required by each personnel that enables them to perform their duties and responsibilities effectively and raise professional quality standards in their work. According to [Osibanjo et al. \(2013\)](#); [Putra et al. \(2020\)](#); [Sa'adah et al. \(2020\)](#) Competencies describe what personnel do in the workplace at various levels and detail the standards of each level, identifying the characteristics, knowledge, and skills required by personnel to enable them to carry out their duties and responsibilities effectively. Like an organization, the Indonesian Civil Aviation Authority is formed from people who have different characteristics and cultural backgrounds but have the same goal. So these various characteristics and cultures together form an organizational culture that affects activities within the organization as a whole.

Research objectives are:

- To determine the magnitude of the influence of human resources competency on the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority.
- To determine the magnitude of the influence of organizational culture on the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority.
- To determine the magnitude of the influence of human resources competency and organizational culture on the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority.

## II. METHODS

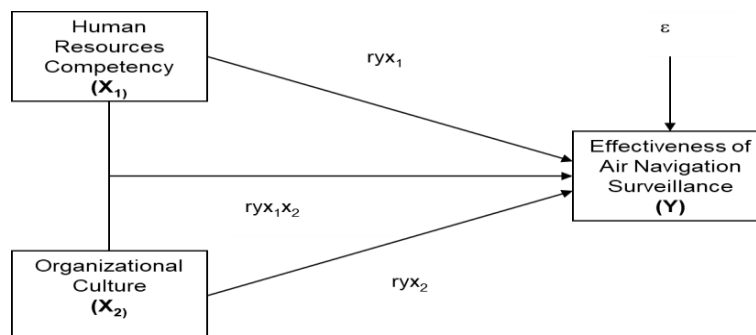


Figure 1 Research design

The variables determined in this study consisted of independent variables including human resources competency (variable  $X_1$ ), and organizational culture (variable  $X_2$ ), and the dependent variable was the effectiveness of air navigation surveillance (variable  $Y$ ). These variables will be translated into dimensions and indicators which will then be used as guidelines for compiling a data collection tool in the form of a questionnaire.

The hypothesis that the authors propose in this study are:

H1: It is suspected that there is a positive and significant impact of human resources competency on the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority.

H2: It is suspected that there is a positive and significant impact of organizational culture on the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority.

H3: It is suspected that there is a positive and significant impact of human resources competency and organizational culture on the effectiveness of air navigation surveillance of the Indonesian Civil Aviation Authority.

The population in this study were all personnel of the Indonesian Civil Aviation Authority, the Directorate General of Civil Aviation, totaling 147 (one hundred and forty-seven) people, while the sample of 108 (one hundred and eight) people was obtained using the Krecjie table.

### III. RESULT AND DISCUSSION

#### 1. The Influence of Human Resources Competency on the Effectiveness of Air Navigation Surveillance

Based on the results of research data processing through the t-test, obtained  $t_{\text{count}}$  of 29.095, while  $t_{\text{table}}$  with degrees of freedom (df)  $n_k-1$  or  $108-2-1 = 105$  at  $\frac{1}{2}\alpha(0.025)$  is 1.984 (taken for  $dk = 100$  because it is not available in the table for  $dk=108$ ). Thus the value of  $t_{\text{count}} (20.095) > t_{\text{table}} (1.984)$ . Thus, it is known that  $t_{\text{count}} > t_{\text{table}}$ , so that the hypothesis  $H_0$  is rejected and  $H_1$  is accepted, which means that human resources competency has a positive effect on the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority is proven.

Thus it can be stated that the competency of human resources has a positive influence on the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority. However, human resources competency is not the only factor that influences the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority, other factors influence it.

According to [Suprapti et al. \(2020\)](#); [Sunya et al. \(2017\)](#) to increase the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority, it can also be pursued by increasing other factors with innovative and constructive steps. However, from the results of the study, one of the things that can be taken to increase the effectiveness of the effectiveness in air navigation surveillance in the Indonesian Civil Aviation Authority is to increase the competency of human resources, given that these factors have been shown to have a positive effect.

#### 2. The Influence of Organizational Culture on the Effectiveness of Air Navigation Surveillance

Based on the results of research data processing through the t-test, obtained  $t_{\text{count}}$  of 15,753, while the  $t_{\text{table}}$  with degrees of freedom (df)  $n_k-1$  or  $108-2-1 = 105$  at  $\frac{1}{2}\alpha(0.025)$  is 1.984 (taken for  $dk = 100$  because it is not available in the table for  $dk=108$ ). By the value of  $t_{\text{count}} (20.095) > t_{\text{table}} (1.984)$ , it is known that  $t_{\text{count}} > t_{\text{table}}$ , so that the hypothesis  $H_0$  is rejected and  $H_1$  is accepted, which means that organizational culture has a positive effect on the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority is proven.

It can be stated that organizational culture has a positive influence on the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority. However, this organizational culture is not the only factor that influences the effectiveness of the effectiveness in air navigation surveillance in the Indonesian Civil Aviation Authority, other factors influence it.

Therefore, to increase the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority, it can also be pursued by increasing other factors with innovative and constructive steps. However, from the results of

the study, one way to improve the effectiveness of air navigation surveillance is to improve organizational culture, given that these factors have been shown to have a positive effect.

### 3. The Influence of Human Resources Competency and Organizational Culture on the Effectiveness of Air Navigation Surveillance

Based on the results of data processing,  $F_{\text{count}}$  is 251.179, while  $F_{\text{table}}$  with degrees of freedom in the numerator 2 and the denominator 105 at  $\alpha(0.05)$  obtained  $F_{\text{table}}$  of 3.083. The  $F_{\text{count}} > F_{\text{table}}$  means that the hypothesis which states human resource competency and organizational culture has a positive effect on the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority is proven. This implies that the competency of human resources and organizational culture show a positive influence in increasing the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority. In addition, seen from the results of testing the coefficient of determination, it is proven that the level of diversity is 82.7%, which means that the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority is caused by the competency of human resources and organizational culture, while 17.3% is caused by other factors not researched. According to Achmad (2017); Ahmadi et al. (2020); Apfiasari et al. (2021); Emita et al. (2021); Sabuhari et al. (2020) the better the competency of human resources and organizational culture within the Indonesian Civil Aviation Authority, the more effective air navigation surveillance will be

## IV. CONCLUSION

After the significance test using the t-test statistic was obtained, the  $t_{\text{count}}$  was 20,095 and the  $t_{\text{table}}$  with degrees of freedom (df)  $nk-1$  or  $108-2-1 = 105$  at  $\frac{1}{2}\alpha(0.025)$  was 1.984 (taken for  $dk = 100$  because it was not available in the table for  $dk = 108$ ), then  $t_{\text{count}} (20,095) > t_{\text{table}} (1,984)$ . It can be concluded that there is a positive and significant effect of the competency of human resources on the effectiveness of air navigation surveillance. Increasing the competency of human resources can increase the effectiveness of air navigation

surveillance in the Indonesian Civil Aviation Authority.

From the significance test using the t-test statistic, the  $t_{\text{count}}$  is 15,753 and the  $t_{\text{table}}$  with degrees of freedom (df)  $nk-1$  or  $108-2-1=105$  at  $\frac{1}{2}\alpha(0.025)$

is 1.984 (taken for  $dk=100$  because it is not available in the table for  $dk = 108$ ), then  $t_{\text{count}} (15.753) > t_{\text{table}} (1.984)$ . It can be concluded that there is a positive and significant effect of organizational culture on the effectiveness of air navigation surveillance. Increasing organizational culture can increase the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority.

Based on the significance test using the F distribution, the  $F_{\text{count}}$  is 251.1789, while the critical value for the  $F_{\text{table}}$  with degrees of freedom for the numerator 2 and the denominator 105 at  $\alpha(0.05)$  obtains the  $F_{\text{table}}$  value of 3.083, then  $F_{\text{count}} (251.179) > F_{\text{table}} (3,083)$ . It can be concluded that there is a positive and significant effect of competency of human resources and organizational culture on the effectiveness of air navigation surveillance. Increasing the competency of human resources and organizational culture can increase the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority. The coefficient of determination obtained is 0.827, this shows that 82.7% of the diversity of variables on the effectiveness of air navigation surveillance in the Indonesian Civil Aviation Authority is caused by the diversity of competency of human resources and organizational culture, the remaining 17.3% is influenced by other factors.

Based on the foregoing, the following recommendations are: (1) The competency of human resources in the Indonesian Civil Aviation Authority needs to be improved by increasing the skills, knowledge, attitudes, and values of its personnel which will ultimately lead to the best performance. Ways to improve the competency of human resources include, among others, education and training, through on the job training mechanisms for inexperienced personnel carrying out supervisory duties, as well as through joint discussions regarding the implementation of air navigation surveillance; (2) The process of

internalizing organizational culture to the personnel of Indonesian Civil Aviation Authority needs to be improved by conducting discussions, outreach and role models for personnel in the work environment regarding how employees work, beliefs, attitudes, core values that are mutually accepted which then affect performance within the organization; and (3) It is necessary to increase the effectiveness in air navigation surveillance in the Indonesian Civil Aviation Authority by taking into account the competence of human resources and organizational culture.

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