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THE ROLE OF DIGITAL COMMUNICATION AND COORDINATION ON LOGISTIC PERFORMANCE IN THE COVID-19 PANDEMIC ERA (Case Study at Soekarno-Hatta Airport)

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Abstract: Airport is a public facility that provides air transportation for people and goods in domestic and international scope. Coordination supported by digital communication plays an important role in improving logistics performance during the Covid-19 Pandemic at Soekarno-Hatta Airport. Using a quantitative method approach with stratified random sampling technique. This study involved Police and Non-Police members who were assigned at Soekarno-Hatta Airport in the task force with a total of 2.000 officers from the Police, Military, Immigration, Customs, Avsec and Airport Authority elements. The results of this study indicate that the synergy of Police and Non-Police has improved logistics performance in accelerating logistics distribution during the Covid-19 Pandemic.
Keywords: *Digital Communication, Coordination, Logistic Performance, Covid-19*

1. Introduction

Covid-19 is an infectious disease caused by a novel Coronavirus. The name Covid-19 is an abbreviation of "Corona" (CO), "Virus" (VI), and "Disease" (D), first identified in 2019. This virus primarily attacks the respiratory system, affecting the lungs. The severity of Covid-19 varies, with most individuals testing positive experiencing mild symptoms such as fever, fatigue, body aches, dry cough, congestion, and even diarrhea.

Upon the report of Covid-19 cases entering Indonesia on March 2, 2020, it was recognized as a pandemic. In response, President Joko Widodo declared a state of emergency on April 13, 2020, as stated in Presidential Decree Number 12 of 2020. This declaration was related to the categorization of Covid-19 as a non-natural disaster. Non-natural disasters refer to events or a series of occurrences that are not of natural origin, including technological failures, issues related to modernization, epidemics, and disease outbreaks. Lesmini et al (2022) stated that the handling of the Covid-19 Pandemic in Indonesia has resulted in the need for health logistics shipments, namely vaccines, which must be carried out to support the government's program in dealing with the Covid-19 Pandemic.

Living alongside Covid-19 has narrowed activities in communication and coordination, thus reducing a person's effectiveness. Especially when someone is in public transportation. Ricardianto et al (2021) stated that the problems in handling Covid-19 in Indonesia in relation to public transportation are; (1) There is still a significant increase in Covid-19 cases; (2) The community is still not disciplined in following government advice to work or study at home, even traveling without adequate health equipment; (3) The number of people traveling from the

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capital to the regions increased from the usual day, even though some transportation operators limited their operations; and (4) The policies that have been issued by the government do not yet have an operational design for transportation in the field, meaning it applies in what circumstances and by whom the policy is implemented.

Violetta et al (2022) stated that one of the public transportation often used by the community to carry out mobility quickly is air transportation. Air transportation is a modern and fast transport tool that uses aircraft equipped with sophisticated navigation and communication tools and is used as a transport tool and space as its path. In carrying out its activities, aircraft require an area on land and/or waters to be used for landing and takeoff, passenger up and down, loading and unloading goods, and a place for intra and intermodal transportation transfers called Airports. So it can be said that the Airport is a public facility that provides air transportation for people and goods in the domestic and international scope.

Soekarno-Hatta Airport is the busiest airport in the world, so it has a high potential to carry Covid-19. To protect the people who use transportation, the government implements health protocols, so prospective passengers at the airport are advised to arrive a few hours before departure to anticipate congestion during health checks, so that health protocols can run optimally (Intan, 2022).

We have to follow some non-negotiable administrative rules and conditions to comply with the health protocols during the Covid-19 Pandemic. This is the only way we can limit the spread of the Covid-19 Pandemic, where the Community also has a responsibility to prevent the transmission of the disease. They have to work with the aviation security, such as going through risk-based screening for symptoms of infection at airports. Other measures that can be taken include isolating or quarantining sick passengers and using passenger facilities and other travel records to trace and reduce the spread of disease by identifying and quarantining individuals who are potentially exposed to infectious diseases during flight. An and Midhat (2021) stated that airlines also support health protocols such as closing certain flight routes and modifying aircraft cabins, which were mostly used for carrying passengers, are now also used for carrying cargo.

In addition, as one of the public areas and busy public transportation, the security and comfort of airports in Indonesia, especially Soekarno-Hatta Airport, have also become the responsibility of the Police to provide public services that are in line with social dynamics. This is also in line with the statement from Cole and Parston (2006) regarding public services that state that our understanding of public service is broad, including all organizations that provide services to the public, funded either partially or fully by taxpayers. This includes government agencies, non-profit organizations, and private sector companies that deliver services traditionally provided by the government. The classification of a service as a public service is largely dependent on political decisions made by government authorities.

Elsamra (2017) research, titled "How Digital Communications Impact Passenger Facilitation at Hub Airports with Particular Emphasis on Transfer Passengers", aimed to understand the influence of digital communication as a crucial part of effective coordination in operational activities at Dubai International Airport. The study found that digital communication plays a

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significant role in enhancing work effectiveness at the airport. The research also examined the importance of timely information sharing and consistency in the communication process, as well as the airport's or airline's ability to manage operational activities. The study used simple random sampling with 100 respondents who were transiting at Dubai International Airport. The results showed that digital communication positively influences coordination in operational activities at Dubai International Airport.

Subsequently, a study conducted by Putri et al. (2019), titled "The Effect Fatigue Levels of Air Traffic Control (ATC) on Work Effectiveness in Soekarno-Hatta International Airport", aimed to examine the impact of air traffic control officers' fatigue levels on work effectiveness at Soekarno Hatta International Airport. This research hoped to contribute to aviation safety by investigating the fatigue levels of air traffic control officers in Indonesia, thereby aiding relevant units in improving work effectiveness. The study used a quantitative method measured using a Likert scale from 1 to 5 and analyzed using simple regression analysis. The questionnaire was filled out by 53 air traffic control officers. The independent variable in this study was the level of fatigue, and the dependent variable was work effectiveness. The results showed that the fatigue level significantly affects the work effectiveness of air traffic control officers. The questionnaire results showed that the average value of the fatigue level variable received a moderate response, meaning the fatigue level of air traffic control officers is not good. The results obtained for the work effectiveness variable showed that employees who are too tired to work can cause fatal errors. The study results showed that the fatigue level of air traffic control officers significantly affects work effectiveness.

Based on the previous studies explained above, it can be seen that until now, there has been no research examining the relationship between the variables of digital communication influence and coordination in improving logistics performance, especially members of the Indonesian National Police at Soekarno-Hatta Airport during the Covid-19 pandemic.

The main problem in this study is how to enhance the logistics performance of Police and Non-Police members who work at Soekarno-Hatta Airport. This is the main variable that is affected by the quality of coordination and digital communication as independent variables.

This study will analyze the two variables on the formation of logistics performance, namely:

a. Is there an influence of digital communication on logistics performance?
b. Is there an influence of coordination on logistics performance?
c. Is there an influence of digital communication on coordination?
d. Is there an influence of digital communication on logistics performance mediated by coordination?

2. Literature Review

2.1 Covid-19

Covid-19 is a disease caused by a coronavirus. The name “Covid-19” stands for “Corona Virus Disease 2019”. This disease was first identified in 2019 and was initially called the 2019 novel coronavirus or 2019-nCoV. This virus is related to the virus that causes severe acute respiratory syndrome (SARS) and some common cold viruses (UNICEF, 2020).

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Covid-19 is a large family of viruses that can cause infections of the respiratory tract with mild, moderate or severe symptoms. This disease is zoonotic or transmitted between animals and humans. This virus was first detected in the Chinese city of Wuhan in November 2019. Coronavirus can spread rapidly and cause a widespread pneumonia outbreak globally. Covid-19 has been declared a global pandemic by WHO since March 12, 2020.

2.2 Digital Communication

Currently, this form of communication has developed into a concept that does not require someone to meet face to face. This concept supports the development of digital technology. Developments in the field of digital communication technology have given birth to various types of communication media, ranging from very complicated space and military communications to mobile phones which are used in everyday life, whether for business, coordinating, or just asking someone for news. friends in social life.

According to Anisti (2020), digital communication is communication in the form of signals that are converted into messages or texts containing meaning, which are delivered using digital media and supported by network technology. Digital communication can be made possible because of the existence of digital-based hardware and software as a link that humans use in communication activities.

According to Ku & Chen (2016), many airports have implemented digital communications to provide convenience to service users, such as applications on smartphones that provide information regarding flight schedules, parking availability, lists of restaurants and shopping places, weather forecasts, and coordination between personnel. airport security. The use of digital communications has also facilitated the implementation of biometric identification and verification of service users. This has automatically improved health protocols within the airport and reduced the airport's vulnerability to the risk of terrorist attacks or other criminal activities.

2.3 Coordination

Handoko (2016) describes coordination as the process of harmonizing an organization's vision and mission to achieve a specific goal effectively and efficiently. According to Brech (2010), coordination involves balancing and mobilizing a group by assigning appropriate tasks to each member. Terry (2019) defines coordination as the alignment that guides the proper execution of activities to create harmony and integrated efforts within an organization. Most coordination studies seek to recognize various coordination methods and determine their suitable application in different situations.

Abdurrahman (2003) outlines five fundamental principles that serve as indicators of coordination. These principles include: (1) Efficiency Principle: This implies that the better the process, the fewer resources are utilized, or the more efficiently they are used; (2) One Direction Principle: This suggests that in work execution, there should be no conflicting orders. It is essential to establish a clear flow of authority and responsibility among employees to prevent errors; (3) Participation Principle: Organizations should engage the

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community in various processes, such as identifying problems and potentials, making decisions on alternative solutions, implementing actions to address issues, and evaluating resulting changes; (4) Accuracy Principle: This principle emphasizes that measurement results should closely resemble or align with actual data or numbers; (5) Strategic Coordination Principle: Organizations that have not defined their position within the organization may be susceptible to criticism from other parts. These principles serve as a guideline for effective coordination within an organization.

2.4 Logistic Performance

The Council of Supply Chain Management Professionals (2013) provides a definition of logistics as an integral part of supply chain management. It involves the strategic planning, execution, and supervision of the transportation and warehousing of products, information, and services, with the aim of achieving effectiveness and efficiency in meeting customer requirements as goods and services move from their origin to their final destination.

Christopher (2005) defines logistics as the strategic management of the procurement, movement, and storage of materials, spare parts, and finished products, along with the associated flow of information within an organization and its marketing channels. This strategic management aims to benefit the company in both the present and the future by optimizing order fulfillment in a cost-effective manner. This can be achieved by adhering to four key principles: (1) Responsiveness, focusing on prompt and accurate responses to customer requests; (2) Agility, reflecting the ability to adapt to market uncertainties and fluctuations; (3) Cost Efficiency, emphasizing the economical management of logistics processes; and (4) Asset Management, which entails the effective oversight of assets and resources utilized in the logistics process.

So, it can be concluded that logistics performance is to increase the competitiveness and profitability of a company or organization by optimally utilizing existing resources and anticipating changes in demand and market conditions.

3. Research Method

The research was conducted from September to October 2023. Sampling was done using proportionate random sampling, so each organizational unit became a sample in this study. This technique was used to select respondents at the organizational unit level who work at Soekarno-Hatta Airport, meaning anyone present when the questionnaire was distributed. This method is used when the population has heterogeneous and proportionally stratified members/elements. Thus, the perceptions of both police and non-police members regarding coordination, digital communication, and logistic performance can reflect the perceptions of both police and non-police members as demographic data in this study.

In accordance with the research focus, the population of this study is members of the Police and non-Police who work at Soekarno-Hatta Airport. A total of 6 organizations with a total membership of 2.000 people according to Table 1.

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Table 1. Number of Police and Non-Police Members at Soekarno-Hatta Airport

No.	Nama Organisasi	Jumlah Anggota
1	Police	550
2	Military	291
3	Immigration	203
4	Customs	202
5	Avsec	370
6	Airport Authority	384
Population total		**2.000**

Source: Angkasa Pura II, 2020

The research sampling technique used was based on the Slovin formula (Riduwan and Warisman, 2005), with the following formula:

$$n = \frac{N}{1 + Nd^2}$$

n = sampel; N = population.
d = precision value 95% or sig. = 0,05.

For instance, if the population size is 2.000 and the error rate that is desired is 5%, then the sample size that is used is:

$$n = \frac{2000}{1 + 2000.0{,}05^2} = 333{,}33$$

n = rounded up to person and raised to be 333

Next, after obtaining the number of samples from Slovin's calculations, the next step is to take samples from each organizational unit proportionally so that a sample is obtained that represents each organizational unit that has been determined. The number of samples for each unit for organizational units is presented below.

$$n = \frac{u}{N}$$

n = number of samples
N = population total
u = total number of units

The number of research samples for each Organizational Unit is as follows:

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Table 2. Research Population and Sample

No.	Organization Name	Number of Members	Calculation	Number of Samples
1	Police	550	333 : 2000 x 550 =	92
2	Military	291	333 : 2000 x 291 =	48
3	Immigration	203	333 : 2000 x 203 =	34
4	Customs	202	333 : 2000 x 202 =	34
5	Avsec	370	333 : 2000 x 370 =	62
6	Airport Authority	384	333 : 2000 x 384 =	64
Population total		**2.000**		**333**

Source: Angkasa Pura II, 2020

Based on the calculations in Table 2, the number of research respondents is 333 people.

This research aims to examine the hypothesis that digital communication has a direct correlation with logistics performance. Additionally, it seeks to determine whether coordination is directly related to logistics performance. The study also investigates the direct connection between digital communication and coordination. Moreover, it investigates whether there is an indirect influence of digital communication on logistics performance, wherein coordination serves as a mediator.

The framework is depicted through the statistical technique of Structural Equation Modelling (SEM) based on Partial Least Square (PLS) and uses Smart PLS Software (see Figure 1). SEM is a field in statistical studies that can test a series of relatively difficult relationships simultaneously with the aim of testing the relationship between research variables in a model, both between indicators and constructs or relationships between constructs in research. PLS is a model of SEM structural equations that are component or variance based. According to Ghozali (2012), PLS is a fairly strong analysis method because it is not based on many assumptions. Data in PLS does not have to be normally distributed multivariate (indicators with category, ordinal, interval to ratio scales can be used in the same model) and the sample used in the study does not have to be large. The reason for using PLS in this study is: (1) PLS can be used to estimate path models; (2) PLS can be used for models consisting of many latent variables; (3) PLS can be used when data distribution is very skewed or not spread over its average value; (4) Data used in PLS analysis does not have to be normally distributed multivariate; (5) Samples used in PLS analysis do not have to be large; and (6) Model specification in PLS does not have much effect on parameter estimation because it focuses more on data with limited estimation procedures. Hypothesis:

H_1: Digital communication has a significant effect on logistics performance.

H_2: Coordination has a significant effect on logistics performance.

H_3: Digital communication has a significant effect on coordination.

H_4: Digital communication has a significant effect on logistics performance mediated by coordination.

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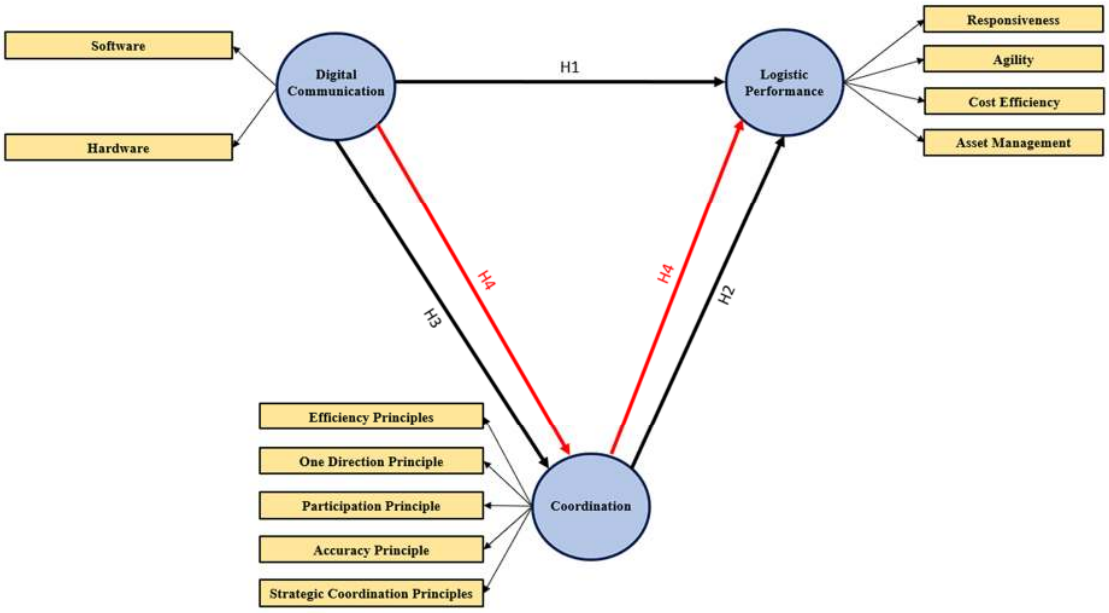
Image 1. Conceptual Framework



4. Results and Discussion

Descriptive analysis aims to find out a general picture of respondents' answers regarding research variables and their dimensions. The variables (including dimensions and variables) in this research include coordination, digital communication, and logistics performance (see Table 3).

Table 3. Variables – Dimensions - Indicators

Digital Communication	
A.	**Software (1-5)**
1.	The communication that was established went well
2.	Communication network support facilitates the operation of service information systems
3.	There is almost never any communication network disruption
4.	Digital communication networks greatly facilitate the work handling process
5.	The service information system database has been authorized and it is ensured that there is no data leak
B.	**Hardware (6-9)**
6.	The service information system has been operated using appropriate hardware specifications

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7.	Workers have good knowledge regarding the use of hardware / digital media in existing information systems
8.	The hardware/digital media used makes the operation of existing information systems easier
9.	Workers are given training on operations, procedures, authority & problem handling on the hardware/digital media used
Coordination	
A.	**Efficiency Principles (1-4)**
1.	In my opinion, the maintenance of public facilities has been managed efficiently
2.	The use of communication media in the organization where I work is managed efficiently
3.	In my opinion, the performance of the organization where I work uses the principle of efficiency
4.	In my opinion, the measurement of working time in the organization where I work is managed efficiently
B.	**One Direction Principles (5-7)**
5.	In my opinion, coordination between departments is carried out, regardless of whether there is information or not
6.	In my opinion, the level of discipline in coordination results influences organizational performance
7.	In my opinion, the flow of information is always based on procedures
C.	**Participation Principles (8-11)**
8.	The organization is transparent in providing information to the public
9.	Fulfilling public expectations for bureaucratic responsiveness
10.	Carrying out work, there is clarity in the responsibilities and authority of workers in reporting work
11.	The process of providing public services carried out by the organization is in accordance with administrative principles
D.	**Accuracy Principles (12-15)**
12.	I know what is expected of me in my job
13.	I understand the organization has policies that support employee initiative and creativity
14.	I know the existing workflow in each section according to their respective duties and authorities
15.	There is almost never any overlap in carrying out work processes between departments
E.	**Strategic Coordination Principles (16-19)**
16.	I have sufficient authority to make the decisions necessary to do my job
17.	I feel that the time it takes for Police & Non-Polri officers at Soekarno-Hatta Airport to resolve problems is very fast
18.	Management showed a fair amount of flexibility as we worked through the issues at hand

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19.	I feel that the organization takes initiative to develop all problems within the scope of work
Logistic Performance	
A.	**Responsiveness (1-5)**
1.	Speed in responding to every question and complaint from users
2.	Willingness to call back if there is a problem
3.	Respond well to user complaints regarding the services received
4.	The willingness and ability of employees to provide information about existing services to customers
5.	Resolve problems if there is a delay in the user's mode of transportation
B.	**Agility (6-9)**
6.	I have speed in reducing waiting time
7.	I speed in improving the level of customer service
8.	I actively share information and at the same time get ideas and input to learn and improve services
9.	I have speed in improving delivery reliability
C.	**Cost Efficiency (10-14)**
10.	Performance appraisal is aimed at enforcing certain behavior in achieving predetermined targets
11.	The existence of a cost accounting system that is in accordance with the organizational structure
12.	There is an evaluation of the implementation of programs and activities
13.	There is an evaluation of the economy, efficiency and effectiveness whether it is in accordance with the targets set
14.	Every deviation must be analyzed
D.	**Asset Management (15-18)**
15.	The asset data collection process has been carried out in accordance with established procedures
16.	The asset inventory has been codified/labeled according to type
17.	The asset monitoring process has been carried out in accordance with applicable regulations
18.	If the process of monitoring and controlling assets is implemented well, it will be able to increase the optimality of the asset value

This research includes descriptive analysis of the research variables and their dimensions, as well as data categorization and respondent analysis. The descriptive analysis results are based on the respondents' answers to the questionnaire that was distributed. The answers were then grouped into three categories: high, medium, and low according to the interval limits (see Table 4).

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Table 4. Interval Boundary Category

Category	Interval Limits
High	X ≥ Mean (M) + Standard Deviation (SD)
Medium	M - SD ≤ Mean (M) + Standard Deviation (SD)
Low	X < Mean (M) – Standard Deviation (SD)

Source: (Azwar, 2009)

4.1 Descriptive Analysis of Coordination Variables

Handoko (2016) defines coordination as a process of aligning the vision and mission of an organization to achieve a certain goal effectively and efficiently. Brech (2010) defines coordination as balancing and activating a group by providing suitable work to everyone. Terry (2019) states coordination as an alignment that directs proper implementation to produce harmonization and integrated action within an organization. The primary focus of many coordination studies is to recognize various coordination mechanisms and determine their appropriate application in specific circumstances.

The scale used in this research is a Likert Scale with a score range of 1 to 5. The Coordination variable has a total of 19 statement items. Information obtained from this descriptive analysis includes “minimum value”, “maximum value”, “average value” (mean) and “standard deviation”.

The minimum score for the Coordination variable is 2.05 and the maximum score is 5. The coordination variable has an average value of 4.220 with a standard deviation of 0.573. From the results of these calculations, the score limits for the coordination category can be obtained in Table 5.

Table 5. Coordination Categorization

Category	Interval Limits	Frequency	Percentage
Low	X<3,647	46	13,9%
Medium	3,647<X<4,793	243	73%
High	X>4,793	43	13,1%
Total		**333**	**100%**

Source: Data after processing, 2023

Based on Table 4, it can be concluded that most respondents gave an assessment in the medium category.

4.2 Descriptive Analysis of Digital Communication Variables

According to Anisti (2020), digital communication is communication in the form of signals that are converted into messages or texts containing meaning, which are delivered using digital media and supported by network technology. Digital communication can be

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made possible because of digital-based hardware and software as a link that humans use in activities.

The scale used in this research is a Likert Scale with a score range of 1 to 5. The Digital Communication variable has a total of 9 statement items. Information obtained from this descriptive analysis includes “minimum value”, “maximum value”, "average value” (mean) and “standard deviation”.

The minimum score on the Digital Communication variable is 1.70 and the maximum score is 5. The digital communication variable has an average value of 4.108 with a standard deviation of 0.533. From the results of these calculations, the score limits for the Digital Communication category can be obtained in Table 5.

Table 5. Categorization of Digital Communications

Category	Interval Limits	Frequency	Percentage
Low	X<3,575	5	1,5%
Medium	3,575<X<4,641	325	97,7%
High	X>4,641	3	0,8%
Total		333	100%

Source: Data after processing, 2023

Based on Table 5, it can be concluded that many respondents gave an assessment in the medium category.

4.3 *Descriptive Analysis of Logistics Performance Variables*

Christopher (2005) defines logistics as the strategic management of the procurement, movement, and storage of materials, spare parts, and finished products, along with the associated flow of information within an organization and its marketing channels. This strategic management aims to benefit the company in both the present and the future by optimizing order fulfillment in a cost-effective manner. This can be achieved by adhering to four key principles: (1) Responsiveness, focusing on prompt and accurate responses to customer requests; (2) Agility, reflecting the ability to adapt to market uncertainties and fluctuations; (3) Cost Efficiency, emphasizing the economical management of logistics processes; and (4) Asset Management, which entails the effective oversight of assets and resources utilized in the logistics process.

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Table 6. Categorization of Logistics Performance

Category	Interval Limits	Frequency	Percentage
Low	X<3,610	69	20,8%
Medium	3,610<X<4,90	240	72%
High	X>4,90	24	7,2%
Total		333	100%

Source: Data after processing, 2023

Based on Table 6, it can be concluded that many respondents gave an assessment in the medium category.

4.4 *Hypothesis test*

Hypothesis testing includes partial influence significance tests and simultaneous influence significance tests. All these tests are used to test the research hypothesis.

The significance test is used to test the influence of the independent variable on the dependent variable. The hypothesis used in this test is as follows:

Ho: The dependent variable is not significantly affected by the independent variable
Ha: The independent variable significantly influences the dependent variable.

The test results show whether the independent variable has a significant effect on the dependent variable based on the significance value. If the significance value is >5%, then Ho is rejected and it means that the independent variable has a significant effect on the dependent variable. If the significance value is <5%, then Ho is not rejected or accepted and it means that the independent variable has no effect on the dependent variable.

The test results also show the direction of the relationship between the independent variable and the dependent variable. The direction of this relationship can be seen from the original sample value of each relationship. If the original sample value is positive, then the relationship between the independent variable and the dependent variable is positive/in the same direction. If the original sample value is negative, then the relationship between the independent variable and the dependent variable is negative/in the opposite direction.

Complete results of hypothesis testing with a significance level of 5% using Smart PLS can be seen in Image 2 and Table 7.

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Image 2. Results of Testing the Research Hypotheses

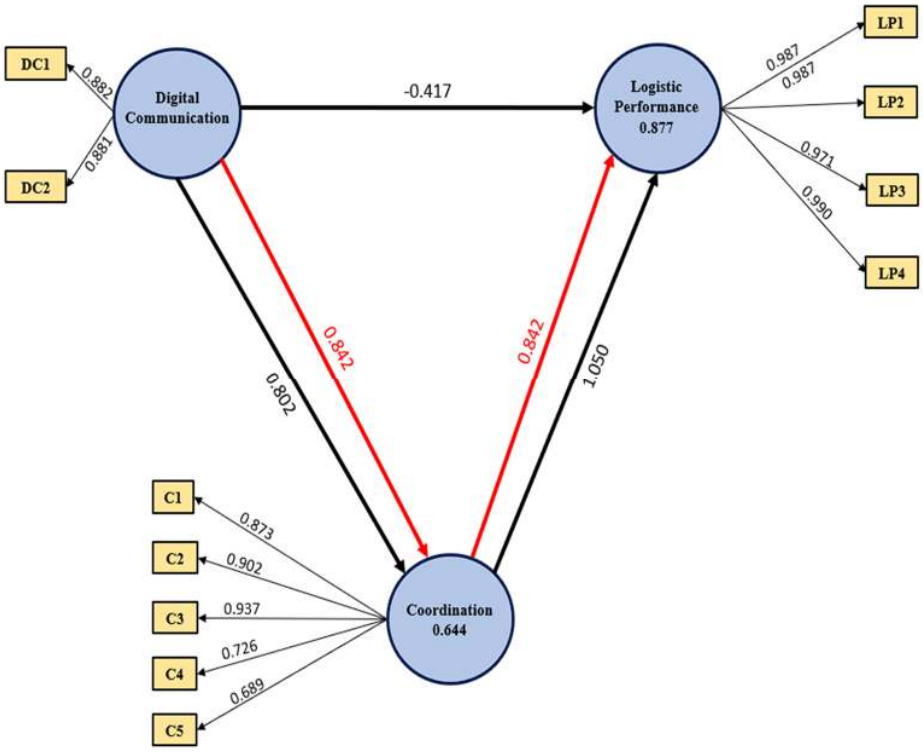

Table 7. Results of Testing the Research Hypotheses

No	Results of Testing the Research Hypotheses	Original Sampel (O)	T Statistics (|O/STDEV|)	P Values	Info
1	Communication Digital → Logistic Performance	-0.147	3.486	0.001	Accepted
2	Communication Digital → Coordination	0.802	26.595	0.000	Accepted
3	Coordination → Logistic Performance	1.050	31.170	0.000	Accepted
4	Communication Digital → Coordination → Logistic Performance	0,842	18,704	0,000	Accepted

Source: Data after processing, 2023

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The analysis results show the following outcomes:

a. Testing the Hypothesis of the Effect of Digital Communication Variables on Logistics Performance Variables

$H0_1$: $\alpha = 0$ → The digital communication variable does not have a positive influence on the logistics performance variable.

Ha_1: $\alpha \neq 0$ → The digital communication variables have a positive influence on logistics performance variables.

The p-value of the third hypothesis is 0.001 (<0.05) and the t-statistic value is 3.486 (>1.96). The original sample has a positive value of 0.147, which means that the relationship between the digital communication variable and the logistics performance variable is positive or in the same direction. These results indicate that if the digital communication variable increases by 0.147, the logistics performance variable will also increase by 0.147. Therefore, it can be concluded that $H0_3$ is rejected and Ha_3 is accepted, which means that the digital communication variable has a positive effect on the logistics performance variable. Therefore, based on the questionnaire distributed to respondents, this is in line with the reality at Soekarno-Hatta Airport.

b. Testing the Hypothesis of the Effect of Digital Communication Variables on Coordination Variables

$H0_2$: $\alpha = 0$ → The digital communication variable does not have a positive influence on the coordination variable.

Ha_2: $\alpha \neq 0$ → The digital communication variable has a positive influence on the coordination variable.

The third hypothesis has a very low p-value of 0.000 (<0.05) and a very high t-statistic value of 26.595 (>1.96). The original sample has a positive value of 0.802, which indicates that the relationship between the coordination variable and the logistics performance variable is positive or in the same direction. These results imply that if the coordination variable increases by 0.802, the logistics performance variable will also increase by 0.802. Therefore, it can be concluded that $H0_3$ is rejected and Ha_3 is accepted, which means that the coordination variable has a positive effect on the logistics performance variable. Therefore, based on the questionnaire distributed to respondents, this is in line with the reality at Soekarno-Hatta Airport.

c. Testing the Hypothesis of the Effect of Coordination Variables on Logistics Performance Variables

$H0_3$: $\alpha = 0$ → The coordination variable does not have a positive influence on the logistics performance variable

Ha_3: $\alpha \neq 0$ → The coordination variable has a positive influence on the logistics performance variable.

The p-value of the third hypothesis is very low at 0.000 (<0.05) and the t-statistic value

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is very high at 31.170 (>1.96). The original sample has a positive value of 1.050, which shows that the relationship between the coordination variable and the logistics performance variable is positive or in the same direction. These results indicate that if the coordination variable increases by 1.050, the coordination variable will also increase by 1.050. Therefore, it can be concluded that $H0_3$ is rejected and Ha3 is accepted, which means that the coordination variable has a positive effect on the logistics performance variable.

The Coordination Variable in this research acts as an intervening variable. The following are the results of the coordination variable mediation test in mediating the influence of digital communication variables on logistics performance. Therefore, based on the questionnaire distributed to respondents, this is in line with the reality at Soekarno-Hatta Airport.

d. Testing the Hypothesis of the Effect on Logistics Performance Through Coordination

The mediation test of the coordination variable shows that it mediates the effect of digital communication on logistics performance. The p-value of this effect is very low at 0.000 (<0.05) and the t-statistic value is very high at 18.704 (>1.96). The original sample has a positive value of 0.842, which indicates that the effect of digital communication on logistics performance through coordination is positive or in the same direction. These results imply that if the digital communication variable increases by 0.846, the logistics performance variable through the coordination variable will also increase by 0.842. Therefore, it can be concluded that the coordination variable can mediate the effect of digital communication on logistics performance. Therefore, based on the questionnaire distributed to respondents, this is in line with the reality at Soekarno-Hatta Airport.

5. Conclusion

The purpose of this research is to find out the perceptions of the respondents and the direct effects of digital communication on logistics performance, coordination on logistics performance, digital communication on coordination, and the indirect effects of digital communication on logistics performance mediated by coordination. The conclusion of this research is:

a. Digital communication has a positive and significant influence on logistics performance. In this research, it was found that digital communications have reduced the vulnerability of airports to the risk of terrorist attacks or other criminal activities and improved health protocols.
b. Coordination has a positive and significant influence on logistics performance. In this research, it was found that the coordination variable to achieve logistics performance requires a group with harmonization, togetherness and harmony that are interrelated with each other.
c. Coordination has a positive and significant influence on logistics performance. In this

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research, it was found that the coordination variable to achieve logistics performance requires a group with harmonization, togetherness and harmony that are interrelated with each other.

d. Digital communication mediated by coordination has a positive and significant influence on logistics performance. In this research, it was found that communication and coordination have increased the efficiency and effectiveness of logistics processes in terms of planning, organizing, supervising, and controlling the flow of goods and information.

6. Implications

In realizing logistics performance, especially during logistics distribution during the Covid-19 pandemic, systematic efforts are needed in terms of capacity, mindset, and work culture in accordance with responsibilities. Changes in mindset and work behavior are also a force for fostering communication and coordination that can serve the public better.

The collaboration of various elements of government, academics, private sector, media, and non-governmental organizations (Pentahelix Collaboration) provides a golden opportunity that has been proven to be effective. Airports as a public facility can benefit from regional government grant assistance, corporate social responsibility from private companies, and academic participation through the *Tri Dharma Perguruan Tinggi* (The University's Three Main Responsibilities of Education, Research, and Community Service) to obtain training, coaching, seminars, etc. related to the capacity building needs that are usually required at airports. This is related to the participation of these multi-elements.

7. Research Limitations

This research has limitations that can be taken into consideration for further research. This research used 333 respondents from Police and non-Police members at Soekarno-Hatta Airport, so that for further research the number of respondents can be increased. Logistics performance variables only include dimensions of responsiveness, agility, cost efficiency and asset management. So, it would be better if in further research other dimensions could be developed or added.

The digital communication and coordination variables are still limited because they are not further deepened into the dimensions of these variables, so that they can be added for further research. Meanwhile, the research location is only Soekarno-Hatta Airport, for further research it can be developed to a wider scope because the current research only takes respondents from Soekarno-Hatta Airport, in the future it can take respondents from various airports.

The questionnaire that was given to the respondents had some limitations in answering the questions. The respondents might not answer honestly or they might answer based on what they hope for and not what is happening. This makes it hard for the research to explore other factors that might influence the results. This can also make the measurements that were used not reflect the real variables.

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Future research needs to select subjects and collect samples outside the scope of the Soekarno-Hatta Airport extension and needs to diversify the predictor variables.

References

Abdurrahman, Mulyono. (2003). *Pendidikan Bagi Anak Berkesulitan Belajar*. Jakarta: Rineka Cipta.

An, Charles., and Midhat, M. (2021). "Formulasi Strategi Bertahan PT Garuda Indonesia pada Masa Pandemi Covid-19 Tahun 2021". *Jurnal Manajemen Bisnis Transportasi & Logistik*, 7(3): 257–268.

Anisti. 2020. *Komunikasi Digital Oral Visual Virtual*. Yogyakarta: Anom Pustaka.

Azwar, Saifuddin. 2009. *Metode Penelitian*. Pustaka Pelajar. Yogyakarta.

Brech, E.F.L. (2010). *The Principle and Practice of Management*. New York: Longman Publishing.

Christopher, Martin. (2005). *Logistics and Supply Chain Management.* New York: Prentice Hall.

Cole, Martin, and Greg Parston. (2006). *Unlocking Public Value: New Model for Achieving High Performance in Public Service Organization*. Hoboken, New Jersey: Wiley & Sons.

Council of Supply Chain Management Professionals. (2013). Supply Chain Management: Terms and Glossary.

Elsamra, Rami. (2017). *How Digital Communications Impact Passenger Facilitation at Hub Airports With Particular Emphasis on Transfer Passengers*. (Thesis, Queensland University of Technology). https://eprints.qut.edu.au/114099/2/Rami_El_Samra_Thesis.pdf

Flew, Terry. (2019). "Digital Communication, The Crisis Of Trust, and The Post-Global". *Communication Research and Practice*, 5(1), 4–22.

Handoko, T. Hani. (2016). *Manajemen*. Edisi Kedua. Yogyakarta: BPFE.

Intan, C. I., Lois, L., Wahyuni, R. E., and Kholdun, A. I. (2022). The Effect of Facility and Quality of Service on Passenger Satisfaction at Terminal 3 Airport Soekarno Hatta on The Covid19 Pandemic". *Jurnal Manajemen Bisnis Transportasi & Logistik*, 8(2): 43–52.

ISSN: 2622-5778 (online)
Advances in Transportation and Logistics Research
http://proceedings.itltrisakti.ac.id/index.php/altr

Kementerian Kesehatan Republik Indonesia. (2020). *Pedoman Pencegahan dan Pengendalian Coronavirus Disesase (Covid-19)-Rev-5*. Jakarta: Kementerian Kesehatan Republik Indonesia.

Ku, E., and Chen, C. (2016). "Fitting Facilities to Self-Service Technology Usage: Evidence from Kiosks in Taiwan Airport". *Journal of Air Transport Management*, 32(1): 87–94.

Lesmini, Les., Rizaldy, W., and Firdaus, M. I. (2022). "Sosialisasi Penyelesaian Masalah Klaim Penanganan Medical Logistik (Vaksin) melalui Ground Handling Bandara Soekarno Hatta". *Jurnal Abdimas Transportasi & Logistik*, 2(2): 44–55.

Putri, Eka Damayanti., Nurmaida, H. A., Warsito, T., and Gultom, S. (2019). "The Effect Fatigue Levels of Air Traffic Control (ATC) on Work Effectiveness in Soekarno-Hatta International Airport". *Global Research on Sustainable Transport & Logistics,* 2(1), 46–50.

Ricardianto, P., Sihombing, S., Suryobuwono, A. A., Sholihah, S. A., and Saribanon, E. (2021). "Covid-19: Implikasi Transportasi Darat dan Logistik di Indonesia". *Jurnal Manajemen Transportasi & Logistik*, 8(2): 155–170.

Riduwan dan Warsiman. 2005. *Skala Pengukuran Variabel-Variabel Penelitian*. Bandung: Alfabeta.

UNICEF. (2020). *Covid-19 dan Anak-Anak di Indonesia Agenda Tindakan untuk Mengatasi Tantangan Sosial Ekonomi*. Jakarta: UNICEF.

Violetta, Lola., Suhaedi, E., and Sihombing, S. (2022). "Pengaruh Keselamatan Kesehatan Kerja dan Disiplin Kerja Terhadap Kinerja PT Gapura Angkasa Terminal 3 Bandara Soekarno-Hatta pada Masa Pandemi Tahun 2021". *Jurnal Manajemen Bisnis Transportasi & Logistik*, 8(1): 33–40.