

## Strategy Selection In The Implementation Of Pt Kereta Commuter Indonesia's Security Management System In The Greater Jakarta Area

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### Abstract

The purpose of this study is to describe a general description of the conditions of Security Management System (SMS) implementation in the PT KCI Greater Jakarta area, examine indicators that can affect the implementation of SMS at PT KCI Greater Jakarta area, and formulate a priority scale strategy for SMS at PT KCI Greater Jakarta area during the COVID-19 pandemic. The researcher uses Analytical Hierarchy Process (AHP) method by including six indicators of field certification, employee skills training, reporting & administration, archive documentation, and performance evaluation as the selection of indicators that affect implementation, and three alternative selection strategies, namely training competencies, documentation & records, and controls & processes. The results showed that the most influential indicators were the Documentation Archive 0.331, Reporting & Administration 0.223, and Operational Control 0.203, while the appropriate alternative strategies to determine steps in implementing SMS during the covid-19 pandemic were Documentation & Records 0.594 and control and process 0.262. The results imply that to achieve the successful implementation of the SMS program at PT KCI, a document filing system and good operational control are needed in each security unit.

### Article info

Article history:

Received 25 January 2022

Received in revised form 26 March 2022

Accepted 29 March 2022

Available online 31 March 2022

**Keywords:** Security Management, Analytical Hierarchy Process, Transportation Management, Commuter Train, Indonesia

Ridwan, M., et.al. (2022). Strategy Selection in the Implementation of PT Kereta Commuter Indonesia's Security Management System in The Greater Jakarta Area. *Journal Ilmiah Manajemen dan Bisnis*, 8 (1), 138-148

## INTRODUCTION

The transportation sector is a sector that is very vital for the interests of the state, both from an economic point of view and from a social, political, government, defense, and security perspective. The transportation sector is utilized by the majority of the population, especially those living in urban areas. In the Greater Jakarta area (Jakarta, Bogor, Depok, Tangerang, and Bekasi), transportation users in 2019 have reached almost one million people (BPS, 2019).

PT Kereta Commuter Indonesia (PT KCI) is a mass transportation provider company. PT KCI has several KRL users per day, reaching more than one million passengers served at 80 stations spread across the Greater Jakarta area and the Banten and Cikarang areas having more than 900 KRL series

that operate in a day trip. The high number of KRL users shows that the KRL mode of transportation is still a reliable transportation choice for the community in the mobility of daily activities. Besides that, PT KCI is a mass transportation service company with strategic or vital objects directly related to many people's needs.

Based on data from the report on security and order disturbances (Kamtib) of PT KCI, especially the Greater Jakarta area during the 2019-2020 period, there have been 556 cases of security and order disturbances, with the highest cases being cases of theft/pickpocketing, bullying, throwing, sexual harassment, traffickers/beggars, and vandalism.

In addition, related to the passenger's safety and security on the train, PT KCI also has 5 (five) Building Assets in the Greater Jakarta area, namely 1 (one) Head Office, 3 (three) KRL Depots, and 1 (one) maintenance place. Sennewald & Baillie (2011) stated that companies or organizations' obligation, especially in the security system, is to provide roles and protection for company assets, equipment, reputation, and employees. Therefore, PT KCI is required to implement a security management system (SMS). Cahyono (2011) argued that security system management is necessary and must exist in company management's development and operational activities to prevent various forms of security disturbances.

In August 2019, PT KCI started the initial stages of establishing a security management system. The implementation of this SMS is carried out based on government and company policies. Because the implementation of this SMS is only in the early stages, a strategy is still needed to determine the selection of a priority scale to achieve the company's goals and objectives. Cabric (2015) found that companies that implement a security management system can explore and advance the company's competence for the better, of course, by identifying, understanding, evaluating, anticipating forms of risk from threats, and designing strategies in their implementation. Without a good strategic plan to implement SMS, companies or organizations will undoubtedly experience difficulties in facing future challenges related to the security and safety of companies and the increasingly complex transportation user community (Sennewald & Baillie, 2011).

Since the Corona Virus Disease 2019 (Covid-19) pandemic that hit Indonesia in March 2020, various policies in Indonesia have also changed. Therefore, all sectors are also required to maintain and regulate new habit patterns for the community to be more disciplined for awareness of health protocols that have been established and made by the government. In addition, as a form of effort to prevent and transmit Covid-19 in the community (Perkumiene et al., 2021), of course, government policies in the transportation sector have also changed. In response to this pandemic situation, PT KCI also made changes in implementing its management system, especially in the security sector. The risk of transmission of Covid-19 virus infection, especially in the railway sector, is substantial and needs to be watched. Therefore, the role of company management in the security sector needs to be increased so that it becomes a particular concern to maintain the continuity of the company's operations for

exemplary service to the community and following the recommendations. Health protocols are recommended and implemented by the government.

Although the public transportation management system has received considerable attention, very few studies specifically discuss security management. In addition, the existing research related to security management is still limited to literature studies (such as Cabric, 2015 and Cahyono, 2011). Therefore, more comprehensive research is needed regarding public transportation security management to develop better security management.

With the limitations of the existing literature, this study examines the security management system at PT KCI in the Greater Jakarta area. This study contributes to the literature on at least 2 points. First, this study empirically analyzes the security management system in the transportation sector. Second, the results of this study are also expected to formulate an effective strategy for implementing the security management system during the Covid-19 pandemic in the transportation sector, particularly at PT KCI.

## **LITERATURE REVIEW**

The security management system in the transportation sector is an important and vital aspect to support the economy and improve the quality of life for its users and society in general (Hillsborough, 2012). According to (Barrick Security, 2014), security management systems enable companies to organize and manage security and respond to security challenges that occur during the company's operations. Security management systems guide how to manage threats and disruptions to organizations to achieve a safe, productive, and efficient organization and provide the necessary layers of protection to control all existing risks (Maritime Transportation System, 2005). The systems begin with planning, implementing, and controlling the activities and work efforts of members/employees of an organization through using organizational resources to achieve a predetermined goal. The management theory used in this study is modern management under the relationship with the existing work procedures in the police. This theory discusses from top to bottom level or top management to workers and focuses on the human element (role) to improve overall performance.

Regulation of the Chief of Police of the Republic of Indonesia Number 24 (2007) defines that there are 16 (sixteen) elements contained in the standards and application of security management systems in organizations, companies, and government agencies/institutions, consisting of among others: 1). Commitment Maintenance and Building; 2). Fulfillment of Aspects of Security Act; 3). Security Risk Management; 4). Goals and Goals; 5). Planning and Program; 6). Security Training, Awareness, and Competence; 7). Consultation, Communication, and Participation; 8). Control of Documents and Records; 9). Emergency Management; 10). Process and Infrastructure Control; 11). Performance Monitoring and Measurement; 12). Reporting, Correcting and Preventing Nonconformities; 13). Data Collection and Use; 14). Audit; 15). Management Review; 16). Continuous Improvement.

## METHODOLOGY

We use quantitative and qualitative methods to analyze the priority of implementing a security management system at PT KCI. We use the Analytical Hierarchy Process (AHP) for quantitative method analysis. Meanwhile, for qualitative analysis, we deduce from the results of in-depth interviews with respondents.

The notion of AHP itself is a comprehensive and beneficial method and can integrate qualitative and quantitative factors in the decision-making process. The AHP method is a multi-criteria decision making with the support of a methodology that has been recognized and accepted as a priority which in theory can provide different answers to decision-making problems and rank alternative solutions (Kazibudzki, 2013). We run the AHP method using Expert Choice 11 application.

The AHP method, developed by Thomas L. Saaty, is a framework for making effective decisions on complex problems by simplifying and accelerating the decision-making process by solving the problem into its parts, arranging parts or variables in a hierarchical arrangement, assigning a numerical value to subjective judgments about the importance of each variable and synthesizing various variables. These steps determine which variable has the highest priority and could influence the outcome in that situation.

In solving problems using the AHP method, there are several basic principles of the AHP method that must be understood, namely as follows (Saaty, 1994):

1. Decomposition (principle of compiling a hierarchy).
2. Synthesis of Priority (preparation and determination of priorities).
3. Logical Consistency (principle of logical consistency).

The decomposition principle hierarchically describes the problem and then breaks the problem into separate elements. The AHP method breaks down these elements until it is impossible to do further solving to obtain several levels to provide more accurate results.

We measure the consistency in the AHP model in two stages. First, we measure the consistency of each comparison matrix and then measure the consistency of the entire hierarchy.

The consistency index (CI) formula is as follows (Alonso & Lamata, 2006):

Note: 
$$CI = \frac{\lambda_{maks} - n}{n - 1}$$

$\lambda_{maks}$  = maximum *eigenvalue*

n = matrix size

CI = consistency index

To calculate the consistency ration (CR) formula is as follows:

$$CR = CI/RI$$

Note:

CI = Consistency index

RI = random index value

CR = Consistency ratio

If CI is zero, it means the matrix is consistent. The inconsistent limit is measured using a random generator value (R1). Based on calculations using 500 samples, if numerical considerations are taken randomly from a scale of 1/9, 1/8,.....,1,2.....,9, the average value of consistency for matrices with different sizes is obtained as shown in Table 1.

**Table 1.** Random Index Value (RI)

OM	1	2	3	4	5	6	7	8	9	10
RI	0	0	0,58	0,90	1,12	1,24	1,32	1,41	1,45	1,58

Source: Saaty (1994)

Note: OM = Matrix orde, RI = Random Index

In the second stage, we measure the consistency of the entire hierarchy. The formula is as follow:

Note:  $CRH = M/\bar{M}$

$M$  = CI level 2 + Weight priority level 2 \* C1 level 3

$\bar{M}$  = RI level 2 + Weight priority level 2 \* RI level 3

RI = Random Index

We can accept the results of the overall hierarchy assessment if it has a consistency ratio (CRH) of less than 10%. For this quantitative analysis, we use primary data collected through questionnaires. The sample in this study is 11 respondents. The samples in this study are experts in the transportation system and understand implementing SMS, as follows:

1. HSE and Security Division Vice President of PT KCI
2. Assets and Station Security Manager of PT KCI
3. Train Security Manager of PT KCI
4. Assets and Station Security Junior Manager of PT KCI
5. Train Security Junior Manager of PT KCI
4. Assets and Station Security Assistant Manager of PT KCI
5. Train Security Assistant Manager of PT KCI
8. Supervisor Security of PT KCI

#### 9. Junior Supervisor Security of PT KCI

#### 10. Staff Security of PT KCI

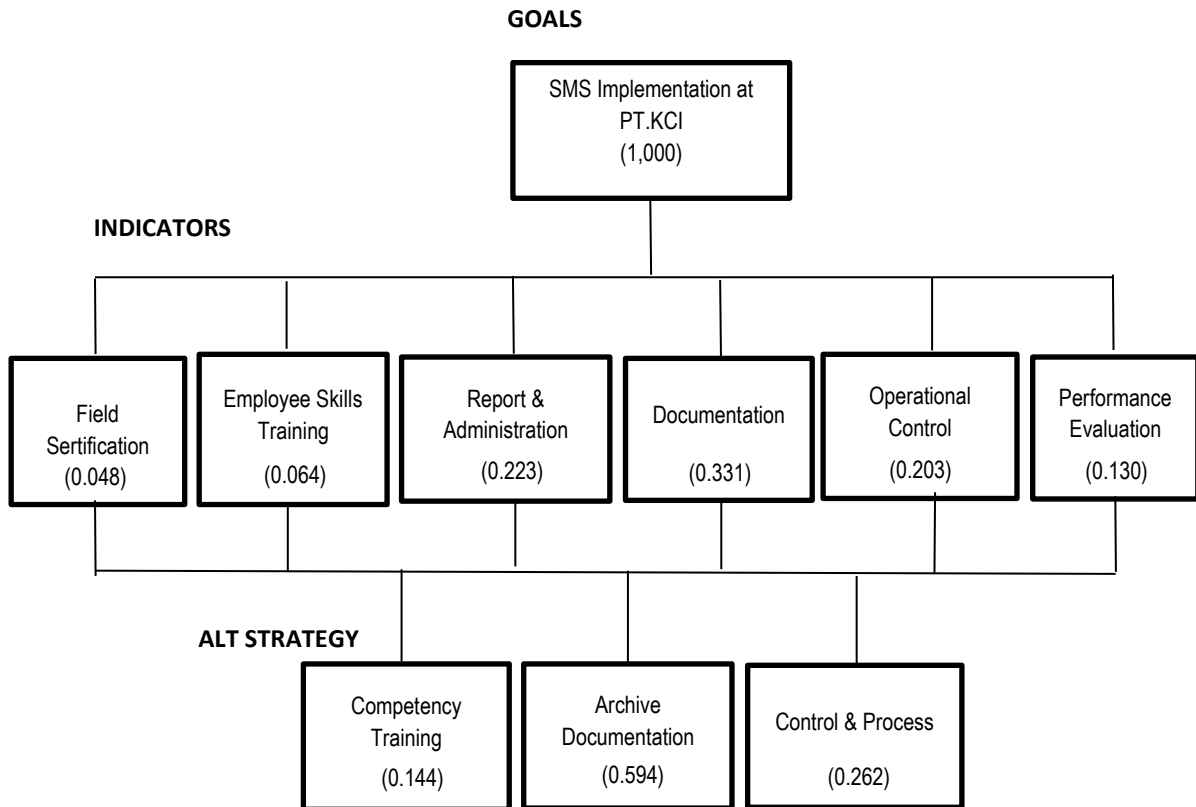
#### 11. External Officials / PT KCI Partners

Furthermore, for qualitative analysis, we conducted an in-depth and comprehensive (holistic) analysis to obtain an overview of the implementation of the security management system at the PT KCI. We conducted in-depth interviews with officials at PT KCI, namely the Vice President of the Security and Safety Unit of PT KCI, who has great authority in making decisions in the security and safety unit of PT KCI. Leaders must be able to make decisions in various existing situations by choosing the best among some alternative decisions they face. In addition, leaders must be able to explain the reasons for choosing an alternative decision in the most easily understood way to get support in its implementation. We also interviewed security experts in the transportation sector, namely the President Director of a security company partner of PT KCI.

## **RESULTS AND DISCUSSION**

### **Results**

The analysis using the AHP method shows that an assessment of the priority scale of SMS implementation at PT KCI was obtained in the form of indicator assessment, alternative strategy assessment, and element assessment of 3 (three) alternative selection strategies can be seen in the AHP level arrangement in Figure 1. The results of the analysis of the AHP method find that the Documentation Archive is the indicator with the highest priority value with a score of 0.331. The reporting & administration indicator and operational control scores are 0.223 and 0.203, respectively. In line with the assessment of indicators, the assessment results of alternative strategies also show that documentation and records have the highest score compared to other alternatives, which is 0.594. It is pretty reasonable considering the requirements for documentation archives are the main requirements in carrying out SMS implementation activities.



**Figure 1. Indicator and Alternative Strategy Priority in The Implementation of Security and Safety Management in PT. KCI**

***Analysis of Alternative Strategy Elements***

Based on the results of the element assessment of the alternative documentation and records strategy, it shows that the strategy in carrying out documentation and records activities in the security management system is best when recording is carried out regularly in a shorter period, namely monthly. The longer the recording period, the lower the score for alternative documentation and recording strategies (Table 2).

**Table 2. Element Strategy Score of Documentation and Record Strategy**

<b>Alternative Strategy</b>	<b>Element Strategy</b>	<b>Priority Score</b>
<b>Documentation &amp; Record</b>	<b>Report every 1 month</b>	0.581
	<b>Report every 3 month</b>	0.252
	<b>Report every semester</b>	0.114
	<b>Report every year</b>	0.055

*Source: raw data from March-May 2021, processed by author*

Based on the assessment results of the elements of the alternative Control and Process strategy in Table 3, the highest result is through the Protection activity with a score of 0.519, followed by evaluation, review, and monitoring activities with a score of 0.231, 0.164, and 0.087.

**Table 3.** Element Strategy Score of Controlling and Processing

Alternative Strategy	Element Strategy	Priority Score
Controlling and Processing	Protection	0.519
	Monitoring	0.087
	Review	0.164
	Evaluation	0.231

Source: raw data from March-May 2021, processed by author

Three elements in the competency training strategy that determine the assessment process consist of Alternative Competency Training Strategy, Documentation & Records Strategy, and Control & Process Strategy. Based on the results of the assessment of alternative elements of strategies for competency training in Table 4 shows that the highest element of strategy in competency training is through coaching activities with a score of 0.444, while the minor result is through a workshop implementation strategy with a score of only 0.292 (see Table 4).

**Table 4.** Element Strategy Score of Competency Training

Alternative Strategy	Element Strategy	Priority Score
Competency Training	Coaching	0.444
	Education	0.292
	Workshop	0.067
	Certification	0.197

Source: raw data from March-May 2021, processed by author

**Analysis of Interview Results**

Slightly different from the assessment results using the AHP method, based on information obtained from in-depth interviews with selected resource persons, the priority indicator under current needs in implementing SMS is operational control. It is related to the following questions: *"In this covid-19 pandemic, what things should be a priority in implementing SMS at PT KCI?"*

Mr. Made Gerina Yasa, the head of the Security and Safety unit of PT KCI, stated, *"I think that during the covid-19 pandemic, control is the key to the success of operational implementation and has become a mandatory thing to run. In addition, we also have the concern to limiting the number of passenger quotas on the train and stations, following the government's rule. It is also a concern of PT KCI's security unit to take appropriate strategic steps so the SMS implementation could be in line with existing conditions"*.

Furthermore, according to another point of view from an external party with the following questions: *"In connection with the Covid-19 pandemic, what should be the priority in implementing SMS at PT KCI?"*

Mr. Imam Fatoni Effendi, a security expert in the transportation sector as well as the President Director of PT Bima Bangun Sentana, said, *"In my opinion during the Covid-19 pandemic, PT KCI has faced many challenges. First, we need to ensure the consistency of limiting passenger volume, checking*

*passengers with body temperature, and then checking all KCI staff to wear masks. We also ensure there is insulation in the area outside the station, which can lead to the crowdedness of people. Therefore, the most appropriate priority during the COVID-19 pandemic in SMS implementation is the use of operational control followed by selecting alternative strategies, namely control & process ".*

## **Discussion**

To achieve success in implementing SMS at PT KCI, we need strategic steps to determine the priority scale for selecting indicators and alternative strategies and elements. (Arlian, 2015) states that it is necessary to take strategic steps to determine which option is better as a reference as a determining factor to find out the desired results. In addition, Ramly (2013) also stated that to achieve the best performance in the management system, we need strategic steps by knowing the indicators and criteria that affect implementation. Analysis using AHP in this study shows that the priority of implementing SMS at PT KCI includes documentation archives, reporting & administration, and operational control. Meanwhile, the experts at PT KCI emphasized the importance of operational control in implementing SMS at PT KCI, especially during this Covid-19 pandemic.

The results of this study are in line with research from Sennewald & Baillie (2011), which shows that the data plays a role in various aspects of the organization, starting from the budgeting process, recording incidents related to crime and security, risk analysis data, and monitoring and evaluation purposes. Furthermore, in an organization, the people who play a role in it can change, but a function will continue to be attached so that with good documents and administration, the organization's functions can continue to run. In implementing the SMS at PT KCI, companies must collect essential documents such as audit documents from the financial audit supervisory agency (BPK) and internal supervisory unit audits (SPI), company security reporting documents, and all documents related to security performance reporting activities. Shen et al. (2020) also found that operational control is indispensable and needed to improve public safety in public transportation as a form of prevention and control of the spread of COVID-19 disease. We need to conduct the operational control through strengthening personnel management, personal protection, environmental cleaning and disinfection, and health education through outreach activities. We also need to increase the security of transportation personnel by equipping officers with complete attributes such as masks, gloves, long sleeves. We must clean all of the officers' equipment using disinfectant liquid. Chung (2015) stated that effective operational control could minimize the economic impact of the COVID-19 pandemic at airports. Therefore, simplifying operational control is crucial as a strategic step to reduce the enormous economic impact on the transportation sector.

## CONCLUSION

Based on the study results, the condition of the implementation of the security management system (SMS) at PT KCI, especially in the Greater Jakarta area, is currently generally running well. The implementation of security management system includes security mapping activities by work area, division of security assignments, preparation of organizational structure, assignment of security implementation, and regulation of security activities during the Covid-19 pandemic. The results of the AHP show that there are 3 (three) indicators that have an important influence on the SMS implementation, namely Documentation Archives, Reporting & Administration, and Operational Control. Further, analysis results find that the right alternative strategy to determine the steps in the SMS implementation is Documentation & Notes. On the other hand, in-depth interviews' results show that control and processes also have a very important role, especially during the COVID-19 pandemic.

Based on the research results, we can propose at least three recommendations. First, PT KCI needs to provide a special storage repository (database) for documentation activities and forms of reporting to support the running of the SMS implementation process. Second, PT KCI also needs to form a special organizational unit that consists of several employees from different units and has a role or position that has an important influence on the unit. It is important to make the security process more effective and focus on company security issues. It is also on cooperative relationships in communicating more optimally, so that collaboration between company units in fulfilling the implementation of SMS implementation can be carried out for the company's achievement to realize the company's Mission & Vision. Third, for further research, it is recommended to use quantitative methods to find out and measure the level of success in implementing the security management system at PT KCI.

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