

Effectiveness of the Safety Campaign Program in the Soekarno-Hatta Airport Flight Operational Safety Area

Nurhayu Mairani, Harits Hijrah Wicaksana

Universitas Esa Unggul, Indonesia

Email: nurhayumairani@gmail.com, harits@esaunggul.ac.id

ABSTRACT

Aviation safety is a critical aspect that must be maintained in airport operations. One of the efforts made is through a safety campaign program to increase public awareness of the policy prohibiting activities that interfere with the Aviation Operational Safety Area (KKOP) at Soekarno-Hatta Airport. This study aims to analyze the effectiveness of the safety campaign program in supporting the policy by identifying challenges and formulating recommendations for improvement. The study uses a qualitative approach with interviews, observations, and document analysis methods. The analysis was carried out based on the effectiveness theory from Siagian, Steers, and Sutrisno, which includes aspects of successful goal achievement, integration with stakeholders, adaptation to challenges, community satisfaction, and program productivity. The results show that the safety campaign program has had a positive impact, such as increasing public awareness and supporting regulations. However, obstacles remain, such as limited resources, low community participation, and suboptimal coordination between stakeholders. Therefore, increased collaboration among related parties, optimization of digital technology in campaigns, and periodic evaluations are necessary to ensure the effectiveness of the program in supporting flight safety at Soekarno-Hatta Airport.

KEYWORDS

effectiveness, safety campaign, aviation safety, KKOP.



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INTRODUCTION

Safety in the world of aviation is a key aspect that cannot be compromised; therefore, compliance and its optimal application are a must (Shappell & Wiegmann, 2013). Based on Law Number 1 of 2009 concerning Aviation, every airline is required to compile, implement, evaluate, and improve the safety management system periodically by referring to the national aviation safety program (Indonesia, 2009). This regulation is aligned with international aviation safety standards set by the International Civil Aviation Organization (ICAO) (ICAO, 2020). In this context, aviation safety is defined as a condition in which safety standards are met in the use of airspace, aircraft, airports, air transportation, flight navigation, and other supporting facilities (Goh & Ang, 2018). Implementing

a robust safety management system is essential to mitigating risks in aviation operations (Harris & Rausch, 2016). Furthermore, airlines are increasingly adopting safety culture as a means of fostering a proactive approach to safety within their organizations (Barrett & Richman, 2021). Ultimately, safety management systems contribute significantly to reducing accidents and enhancing the overall safety of air transportation (Liu et al., 2019).

To achieve optimal flight safety, various supporting factors are needed, not limited to aircraft conditions (Şenol, 2020). One important aspect of aviation safety is the liberation of the *Flight Operational Safety Area (KKOP)* from obstacles. Article 210 of Law Number 1 of 2009 emphasizes that every individual is prohibited from entering certain points at the airport, creating obstacles, or carrying out other activities that can threaten flight safety unless permission is obtained from the airport authority. In addition, Article 229 point e grants the Airport Authority the authority to regulate, control, and supervise the use of *KKOP* and the airport's area of interest.

The implementation of *KKOP* is very important to ensure the safety of flight operations. The *KKOP* not only regulates the height of buildings and vegetation around airports but is also guided by international regulations set by the International Civil Aviation Organization (ICAO) in Annex 14 on Aerodromes. This provision aligns with Law Number 1 of 2009, which emphasizes that the management of *KKOP* is an obligation that must be fulfilled.

This paper discusses the problem from three perspectives: empirical, theoretical, and normative. Empirically, disturbances such as kites, hot air balloons, lasers, and bird attacks still often occur at Soekarno-Hatta Airport. Theoretically, the population density around the airport is a main factor causing this phenomenon, since kite flying activities are difficult to control. The risks include the possibility of an aircraft colliding with a kite or its strings being sucked into the aircraft engine, causing damage to aircraft components and operational disruptions (Shalihah, 2020).

Normatively, aviation safety is regulated in various regulations, including Article 210 of Law Number 1 of 2009, which prohibits activities that endanger flights in *KKOP* without the permission of the airport authority. Additionally, Tangerang City Regional Regulation Number 7 of 2004 prohibits kite flights within a radius of 9–18 kilometers from the airport with an altitude exceeding 100 meters. Chapter III Article 4 of this regulation emphasizes that responsibility for socialization and education regarding the regulation lies with local governments, airport operators, and related agencies.

If this problem is not addressed immediately, the *effectiveness* of e-government implementation can be disrupted, public trust may decrease, and the government's goal of creating better governance can be hampered (Suhendro et al.,

2024). Reality shows that non-compliance with aviation safety regulations still occurs due to a lack of public understanding of the risks involved.

The Focus Group Discussion (FGD) method can be used to identify challenges and formulate solutions. In this study, FGD is utilized to collect data through interactions among informants or respondents in a discussion group to obtain information or solve problems (Rustanto & Akhmad, 2021). Through the FGD, stakeholders share their views, evaluate the *effectiveness* of campaigns carried out, and develop more appropriate strategies to increase public awareness of aviation safety.

Air Traffic Control (ATC) officers perform their duties following standard operating procedures (SOPs). When pilots report the presence of kites near the airport, procedures include warning other pilots, especially those landing in the affected areas. Airport officers also conduct patrols and socialization efforts in collaboration with the Region I Airport Authority Office, AirNav Indonesia, and Angkasa Pura II (Kurniawan Putra, n.d.).

Various safety problems still occur at Soekarno-Hatta Airport, including bird attacks, kite flights, hot air balloon releases, laser beam use, and increased drone usage by the community. Public awareness of aviation safety remains relatively low, partly due to the lack of understanding that their residences lie within the *Aviation Operational Safety Area (KKOP)*. Therefore, this study aims to evaluate the *effectiveness* of safety campaigns and find solutions to public disruptions of flight operations around airports.

The phenomenon concerning the *effectiveness* of the *safety campaign program* at the Soekarno-Hatta Airport *KKOP* faces a main challenge: community activities that contravene aviation safety regulations, such as using laser beams, drones, and flying kites. These activities risk aviation safety, regulated by international conventions and national laws. Aviation safety is a top priority requiring active involvement from all stakeholders, including the Airport Authority, AirNav Indonesia, local governments, and the community. Through effective coordination and optimal implementation of *safety campaign programs*, efforts to increase awareness and supervision at *KKOP* can reduce potential risks and ensure flight safety, supporting smooth airport operations under applicable standards (Aspects Law Safety Penerbangan, n.d.).

One primary challenge is the low level of public compliance with regulations. Many individuals do not understand or realize the impact of their activities on flight safety, resulting in risky behaviors such as burning garbage, raising livestock, or activities attracting birds. Moreover, communication and education effectiveness in safety campaigns remains a challenge despite program implementation. Flight safety information is often inadequately conveyed due to

ineffective communication media, language barriers, or lack of participatory approaches.

Another challenge involves wildlife strikes, primarily collisions between birds and aircraft. While most incidents do not severely affect flight operations, some cause delays or aircraft damage requiring technical checks (Ntampakis et al., 2023). The campaign's *effectiveness* also depends on how well it influences people's attitudes and behaviors.

Suboptimal coordination among airport authorities and stakeholders—local governments, schools, communities—also hinders safety campaign *effectiveness*. Poor coordination limits the campaign's reach, especially to difficult-to-access groups requiring specialized education. Inconsistent law enforcement of *KKOP* safety violations further impedes the campaign's impact. Without firm, equitable sanctions, motivation to cease dangerous activities diminishes.

Social and economic factors further complicate issues, as some risky activities relate to local livelihoods, such as livestock and agriculture. Hence, safety campaigns must offer not only prohibitive measures but also solutions accommodating the community's economic and welfare interests, facilitating public compliance.

Overall, these challenges indicate that the *effectiveness* of safety campaign programs around Soekarno-Hatta Airport requires improvement through strategic approaches involving all stakeholders. Effective safety campaigns should foster enduring safety culture rather than temporary compliance, ensuring flight operation safety at *KKOP*. This study aims to analyze the *effectiveness* of the *safety campaign program* in supporting policies prohibiting activities that interfere with aviation safety, as well as the roles and policies of stakeholders in supporting the program.

RESEARCH METHOD

This study used a descriptive qualitative approach with a case study method to analyze the effectiveness of the *safety campaign program* in supporting the policy of prohibiting activities that interfere with aviation safety in the *Flight Operational Safety Area (KKOP)* of Soekarno-Hatta Airport. The focus of the research included prohibition policies, program effectiveness, and stakeholder roles. Data were collected through semi-structured interviews, observations, and literature studies, with purposively selected informants, including officials from the Airport Authority, AirNav Indonesia, Angkasa Pura II, and the surrounding community. The study was conducted at Soekarno-Hatta Airport, which is the busiest airport in Southeast Asia. Data validity testing was carried out through credibility and confirmability tests, while data analysis included data reduction, data presentation, and drawing conclusions. The results of the study showed that despite an increase in public awareness and compliance with aviation safety,

challenges related to budget management, campaign materials, and coordination between stakeholders still needed to be overcome to improve the effectiveness of aviation safety campaigns in *KKOP*.

RESEARCH RESULTS

Based on PM 41 of 2011, the Region I Airport Authority has the main responsibility to ensure the safety, security, smoothness, and regularity of flights through the regulation, control, and supervision of all aviation activities in its work area. This task includes the preparation of aviation policies in accordance with applicable regulations, operational control through monitoring and evaluation, and supervision of compliance with aviation safety and security regulations. In carrying out its duties, the Region I Airport Authority also coordinates with relevant agencies, such as AirNav Indonesia, airlines, and local governments, as well as providing administrative services and information to stakeholders.

Based on the Decree of the Minister of Transportation Number KM 14 of 2010, the Flight Operation Safety Area (*KKOP*) at Soekarno-Hatta International Airport is designated as a land, water, and airspace area designed to ensure flight safety. This area has various provisions that aim to protect aviation activities, including restrictions on building heights, prohibition of hot air balloon releases, use of lasers, and other activities that have the potential to endanger flight operations. The management and supervision of *KKOP* is the main responsibility of the Region I Airport Authority as a regulator, which is tasked with ensuring that all activities in this area are in accordance with applicable regulations. *KKOP* also plays an important element in ensuring flight operational safety, as stated by Praptiningsih Nunuk (2020), that this area is an absolute guarantee to support flight safety.

This study aims to evaluate the effectiveness of the safety campaign program carried out at the Soekarno-Hatta Airport *KKOP*. This program is designed to increase public awareness, encourage compliance with aviation safety policies, and create a safe environment for flight operations. Through an analysis focused on three main perspectives—efficiency in the use of resources, integration of activities with safety objectives, and achievement of goals and community responses—this research aims to provide a comprehensive picture of program management.

The research data was obtained through pilot reports to Air Traffic Control (ATC) which serves as the main source of information regarding potential threats and risky activities around *KKOP*. In addition, interviews were conducted with Navigation Inspectors, Airport Inspectors, and other key parties, such as AirNav Indonesia (JATSC), Angkasa Pura II, government officials, and local communities. Direct observation of the implementation of safety campaigns, including social media analysis of the Region I Airport Authority, AirNav Indonesia (JATSC), and Angkasa Pura II, complemented the research approach.

The results of this research are expected to provide in-depth insight into the success and obstacles of the safety campaign program in *KKOP*. These findings will be the basis for developing more effective strategic recommendations in increasing public awareness and compliance with aviation safety policies, as well as supporting the sustainability of safe flight operations at Soekarno-Hatta Airport.

Efficiency in the use of resources (according to Siagian)

Resource efficiency means ensuring that aviation safety campaign budgets, manpower, and materials are optimally designed and managed to generate a significant impact on increasing aviation safety awareness. With good efficiency, organizations not only avoid waste, but are also able to provide maximum results in supporting aviation safety policies.

Optimal budget management is a crucial element in the success of the safety campaign program, because the budget is used for needs such as the preparation of materials, human resource training, and the implementation of activities in the field. However, the obstacles faced are inadequate allocation of funds and lack of coordination between work units, which leads to ineffective budget management. Real-time budget monitoring technology and collaboration with stakeholders such as the Airport Authority, AirNav Indonesia, Angkasa Pura II, and the Tangerang City Regional Government can help overcome this. Campaign materials that are still less innovative, with conventional delivery methods, are also an obstacle. To improve understanding, it is necessary to have an approach tailored to different target groups, as well as the use of modern technologies such as short videos, infographics, and interactive digital media. Additionally, involving local communities as campaign agents can increase the relevance of the message. In terms of human resources, the main challenge is the lack of skills in the use of digital technologies and devices. To overcome this, technology-based training and a reward system are needed for teams that innovate in campaigns, to increase the effectiveness and motivation of the workforce in running the program.

Table 1. Research Results Based on Siagian Theory

Aspect of Effectiveness (Siagian)	Interview Results	Analysis
Program Impact	The biggest impact of the safety campaign program is the issuance of Regional Regulations that support public order and aviation safety.	The impact of the program has made a significant contribution to aviation safety, especially with the strengthening of local regulations that support the supervision and countermeasures of activities that threaten aviation safety.
Resource Management	The evaluation of resource management shows that the budget and campaign materials are good enough, but human resources and budgets need to be improved.	Resource management is not optimal, especially in terms of budget distribution and personnel management that needs to be improved. The addition of resources for the implementation of campaigns in various media will greatly increase reach.
Program Constraints	The main obstacles in the implementation of the program are budget limitations and uneven resource management,	The main obstacle faced is the problem of limited budget, which has an impact on the reach and continuity of the program. Better budgeting is needed to ensure the sustainability and effectiveness of the program.

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Aspect of Effectiveness (Siagian)	Interview Results	Analysis
	which can affect the effectiveness of the program.	
Solutions to Bottlenecks	Solutions to these barriers include increased stakeholder collaboration, the use of technology, and the implementation of more intensive and coordinated campaigns.	The proposed solutions to overcome obstacles are strengthening collaboration with stakeholders, utilizing technology to facilitate the implementation of campaigns, and increasing the intensity of campaigns on the ground to increase awareness.
Risk Management	Increased risk management of potential hazards such as birds, kites, and lasers has been seen even though community behavior is still a challenge.	There has been an improvement in risk management, but more efforts are needed to educate the public about the dangers that are not fully understood. Educational activities and campaigns are still urgently needed to overcome this.
Program Innovation and Effectiveness	There is an innovation plan from Angkasa Pura 2 to make aviation safety advertisements on social media.	Innovation through the use of social media can expand the scope of safety campaign programs and increase the effectiveness of disseminating aviation safety information. The use of digital technology is the key to increasing the impact of the program.
Quality of Campaign Materials	Campaign materials have been relevant and effective, in accordance with the rules and technological advances.	The quality of campaign materials has met the need to educate the public. However, periodic evaluations of the material need to be carried out to ensure that the material remains relevant and easy to understand.
Operational Constraints	The main obstacle is the lack of resources and public awareness, as well as the difficulty of enforcing rules in the field.	Enforcement of rules in the field is still a big challenge, especially because public awareness is not optimal. More training and socialization are needed to increase the active participation of the community in supporting the program.
Technology and Information Systems	Technology can support safety campaigns by enabling faster data collection, incident analysis, and notification of potential hazards.	The use of technology in data collection and hazard-related notifications can increase responsiveness and accelerate the process of mitigating potential hazards. The development of information systems can also improve coordination between agencies.

Based on the results of interviews and analysis of the effectiveness of the safety campaign program carried out around Soekarno-Hatta Airport, it can be concluded that this program has had a significant impact on improving flight safety, especially with the issuance of Regional Regulations that support order and supervision in the area around the airport. However, resource management still requires attention, especially related to budgets and personnel management that need to be improved in order to reach a wider reach.

The main obstacles faced are limited budgets and uneven resource management, which affects the continuity of the program. Therefore, better budget planning and increased collaboration between stakeholders are needed. In addition, technology can be utilized more optimally to support aviation safety campaigns, including in data collection and incident analysis.

Although there have been improvements in risk management, more education and socialization are still needed to address people's behavior that is less aware of the dangers that can threaten aviation safety. With the solutions that have been proposed, such as increasing the use of technology and intensifying campaigns, it is hoped that this program can run more effectively and sustainably in the future.

Integration of Activities and Goals (According to Steers)

Refers to the extent to which all activities carried out in a program are designed, coordinated, and implemented in an integrated manner to support the achievement of the main objectives of the program. In the context of the safety campaign program, this integration means that all elements of activities from planning, implementation to evaluation must be aligned with the goal of improving aviation safety in the Aviation Operational Safety Area (KKOP). This integration includes several important aspects:

a. Collaboration Between Stakeholders

Cross-sector collaboration between the Region I Airport Authority Office, the Regional Government, Airnav Indonesia, Angkasa Pura II, and the community has shown positive progress in supporting the implementation of the safety campaign program. The active involvement of various parties reflects a shared awareness of the importance of maintaining aviation safety, especially in the Aviation Safety Zone (KKOP). However, even though the collaboration has gone well, some challenges are still found, especially related to the division of roles and responsibilities among stakeholders. The informant argued that the unclear division of tasks often triggered overlap or even negligence of tasks in the implementation of the program.

At the planning stage, a task division mechanism has been prepared to ensure that each party understands their respective roles. However, in its implementation in the field, there are often inconsistencies that have an impact on decreasing the effectiveness of coordination. One example is the weak supervision after campaign activities where community activities around KKOP have not been optimally monitored. This shows that good coordination at the planning stage is not enough, it is necessary to strengthen implementation and evaluation so that the program can run according to the objectives. Effective collaboration requires clarity in the division of roles and responsibilities of each party. Therefore, it is important to prepare an agreement document or the formation of a task force that details the tasks of each stakeholder, starting from the Airport Authority as the main driver, the local government as a regulatory supporter, to the community as the beneficiaries. The formation of this Task Force team will not only ensure that all parties understand their roles but also

serve as a formal guide in carrying out integrated activities. In addition, it is necessary to hold a regular coordination forum to discuss the progress and challenges faced during the implementation of the campaign. This forum can be a space for stakeholders to share information to solve operational issues and design joint solutions to improve the effectiveness of the program. With more structured coordination, synergy between various parties can be strengthened so that it can run more effectively and efficiently.

To increase supervision of community activities around KKOP, it is recommended to involve the community through a community-based approach. Programs such as "Aviation Safety Care Citizens" can be a strategic initiative to add layers of supervision. In this program, the community is not only the object of the campaign but also actively involved as a monitoring and education partner in their environment. These measures are expected to achieve a sense of shared ownership and responsibility in supporting aviation safety. With this implementation, cross-sector collaboration can be improved to be more effective and integrated. Strong synergy will ensure that the main goal of the safety campaign program, which is to improve flight safety at KKOP, can be achieved optimally.

b. Effective Message Delivery

Conveying messages is an important element in the success of the safety campaign program, especially in reaching the community around the Aviation Operational Safety Area (KKOP). Based on the findings of the study, the communication media used in the campaign, such as brochures, seminars, and social media, have succeeded in reaching the wider community. This media is appreciated because of its informative and relevant nature. However, the effectiveness of message delivery is still considered less than optimal, especially for people who are not used to formal media such as seminars. Many of them find it difficult to understand the message conveyed, so the message of safety is not absorbed optimally. One of the causes of less optimal message delivery is a less interactive approach to delivery. The communication media used today tends to be one-way and does not involve direct interaction that can strengthen public understanding. This is a challenge, especially to reach people with diverse educational and cultural backgrounds around KKOP. A more personalized and community-based approach is considered to help increase community engagement and make safety messages more relevant to local conditions. To overcome this problem, innovation in campaign media is needed. The use of multimedia such as animated videos, or infographics can be an interesting alternative, especially reaching the younger generation and a tech-savvy society. This interactive medium can convey the message of safety in a more engaging and easy-to-understand way. In addition, a community-based approach needs to be integrated in the campaign. Involving community leaders, such as village heads, religious leaders, or traditional leaders, as campaign agents can strengthen public trust in the message conveyed. The role of these local figures also helps to make the campaign message more relevant to local values and culture.

Another step that can be taken is to hold simulations and group discussions in the community. Through simulation, the public can directly feel the impact of

dangerous activities around the KKOP so that they better understand the importance of maintaining flight safety. The discussion forum is also a space for the public to submit questions and get explanations directly from the campaign implementers. This approach not only strengthens public understanding, but also encourages their active participation in supporting aviation safety. With a combination of innovative campaign media and community-based approaches, safety campaign programs can become more effective in conveying aviation safety messages. This strategy not only helps to reach a wider community but also ensures that the messages conveyed can be understood, accepted and implemented in the daily lives of the communities around the KKOP.

Table 2. Research Results Based on Steers' Theory

Aspect of Effectiveness (Steers)	Interview Results	Analysis
Success in Achieving Goals	The safety campaign program aims to increase public awareness of aviation safety.	The program has been running according to the goals, but there is a gap in achieving the goals completely. This includes expanding the reach of socialization and evaluating the results of the program in more depth.
Stakeholder Engagement	The activity was carried out by involving various stakeholders such as the community, urban villages, and the airport.	Stakeholder involvement went well. However, challenges remain in more efficient and in-depth coordination between stakeholders to optimize campaign influence.
Resource Availability	The program faces challenges such as a lack of community participation and policy changes related to aviation safety.	Lack of resources is a factor that needs to be improved. Adding human resources to programs and providing tools such as digital media can help overcome these challenges.
Human Resource Management	The program faces challenges in community engagement and policy change.	Human resources need to be managed better, especially in terms of training and counseling to those directly involved to increase the effectiveness of the program.
Performance Evaluation	Local residents and related parties gave positive feedback, but there are still those who do not understand this safety policy.	Evaluation of program performance needs to be carried out regularly, for example with surveys to measure the understanding and impact of counseling. This is essential for continuous improvement.
Adaptation to the Environment	The program faces challenges in terms of communication that needs to be more effective and the use of digital media to reach a wider audience.	A more adaptive approach is needed with technological developments and community needs. Digital media can be further maximized in aviation safety campaigns.

Based on the results of interviews and analysis of the effectiveness of the safety campaign program according to Steers' theory, this program has moved in

accordance with the set goal, namely to increase public awareness of aviation safety. However, there is still a gap in achieving the overall goals, especially related to the expansion of the outreach and more in-depth evaluation of the program's impact.

Stakeholder engagement is going well, although the challenge of more efficient coordination between parties still needs to be improved. Lack of resources, both in terms of community participation and human resources, is a significant obstacle. The addition of resources and the use of digital media is expected to overcome this obstacle. In addition, human resource management also needs to be improved, especially in terms of training and counseling to those directly involved in the program.

Program performance evaluations need to be carried out more regularly to measure the understanding and impact of aviation safety campaigns, so that continuous improvements can be made. Programs also need to be more adaptive to technological developments and community needs, by utilizing digital media to reach a wider audience.

Achievement of Goals and Community Response (According to Sutrisno)

A perspective that assesses the extent to which the safety campaign program has succeeded in reaching the target community that has been determined and how the community responds to the program. This perspective not only looks at whether the program has reached the target group but also evaluates the changes that have occurred in society, such as increased awareness, behavior change, and the level of compliance with the socialized policies. In other words, this perspective assesses the success of a program not only from the output (such as the number of campaigns carried out or the number of people attended), but also from the outcome and its impact on the community. The focus is on ensuring that the program not only reaches its targets but is also able to create real change that supports sustainable aviation safety.

The safety campaign program in the Aviation Operational Safety Area (KKOP) shows an increase in public awareness of aviation safety, but this awareness is not evenly distributed in all areas around the KKOP. To increase the effectiveness of campaigns, expanding the reach with a community-based approach and involving local actors can help reach more communities. Despite the decline in violations, challenges in maintaining consistency of compliance remain, especially due to weak oversight and enforcement. The solutions include the use of real-time surveillance technology and educational sanctions enforcement, as well as involving the community in surveillance programs. Periodic evaluations through surveys and focus group discussions can help craft campaign materials that are more relevant to local characteristics, while scheduled repetition of messages will strengthen public understanding and build a sense of shared responsibility for aviation safety. With these steps, the safety campaign program can be more effective in creating a safe environment and supporting the sustainability of flight operations.

Table 3. Research Results Based on Sutrisno's Theory

Effectiveness Aspect (Sutrisno)		Interview Results	Analysis
Success Achieving Goals	in	The safety campaign program aims to increase public awareness of aviation safety.	The program has been in accordance with the set goals. To measure success more objectively, data or metrics are needed, such as public awareness surveys or participation levels in activities.
Integration		The activity was carried out by involving various stakeholders such as the community, urban villages, and the airport.	Coordination between parties is going well. However, it is necessary to pay attention to the challenges of communication between stakeholders that may affect public understanding. Assess the effectiveness of further communication.
Adaptation		The program faces challenges such as a lack of community participation and policy changes related to aviation safety.	Programs need to be more flexible and adaptive, especially in using digital media. Evaluate which digital platforms are effective to reach a wider audience.
Satisfaction		Local residents and related parties gave positive feedback, but there are still those who do not understand this safety policy.	Stakeholder satisfaction is quite good, but further evaluation is needed regarding their level of understanding. Follow-up surveys or interviews to explore more deeply the lack of understanding.
Productivity		The program has resulted in counseling, brochure distribution, and coordination with stakeholders.	The results of the program show good productivity. However, it is necessary to evaluate more deeply regarding the effectiveness of each campaign method, such as the number of people affordable or the impact of the brochure.

Based on the results of interviews and analysis of the effectiveness of the safety campaign program according to Sutrisno's theory (2007), this program has been running in accordance with the set goal, which is to increase public awareness of aviation safety. However, to measure success more objectively, additional data or metrics are needed, such as public awareness surveys or participation levels in activities.

Coordination between stakeholders is going well, but communication challenges between stakeholders need to be paid more attention to ensure an even understanding in the community. Programs also need to be more flexible and adaptive, especially in the use of digital media, to expand the reach and increase the effectiveness of campaigns.

Stakeholder satisfaction is quite good, although there is still a lack of understanding of aviation safety policies. Further evaluations need to be carried out

to dig deeper into people's understanding and increase their awareness. In addition, the productivity of the program is well seen through various results such as counseling and brochure distribution, but further evaluation of the effectiveness of each method used to reach a wider audience is needed.

DISCUSSION

The safety campaign program in the Flight Operational Safety Area (KKOP) of Soekarno-Hatta Airport is designed to reduce the risks posed by dangerous activities, such as kite flying, the use of lasers, bird attacks, and the existence of hot air balloons. As a strategic area that includes landing zones, takeoffs, and accident-prone areas (Andius Dasa et al., 2009), the success of this program is highly dependent on effective risk management in the region. The analysis shows that although the program has had a positive impact in raising public awareness and reducing risky activities, there are several obstacles that need to be addressed to support the sustainability and effectiveness of the program.

In terms of resource use efficiency

Reports from pilots to Air Traffic Control (ATC) have become a critical element in detecting and dealing with safety threats. However, the high workload of ATC, especially during peak hours at Soekarno-Hatta Airport, is an obstacle that can affect the speed and accuracy of response to reports (Ruiwei Liu et al., 2023). To address this, technologies such as surveillance cameras (CCTV) can be leveraged to improve surveillance in KKOP areas, reduce pressure on ATCs, and ensure that reports can be followed up quickly and accurately. Optimizing these resources can also help improve the efficiency of surveillance in areas that are difficult for field officers to reach.

Dimensions of integration of activities and objectives

The success of this program is highly dependent on cooperation between various parties, including ATC, Airport Authority, Angkasa Pura II, Regional Government, and local communities. Although collaboration between parties has been established, there are still obstacles in the unstructured division of tasks, which can hinder the effectiveness of implementation in the field. The preparation of cooperation agreements such as the formation of a more detailed Task Force (Task Force) is needed to define the roles and responsibilities of each stakeholder, so that synergy between parties can run better. For example, pilot reports related to risky activities such as the presence of hot air balloons or bird attacks need to be handled in a coordinated manner to ensure prompt and appropriate mitigation measures (Jerry Budiman et al., 2013).

Perspective of changing people's attitudes

Aviation safety campaigns around the Flight Operational Safety Zone (KKOP) have succeeded in raising awareness among some people, as evidenced by the reduction of dangerous activities such as kite flying in the landing and take-off areas of aircraft. However, this awareness is not evenly distributed, especially in areas with limited access to information. To address this, a community-based approach needs to be implemented, involving local figures such as village chiefs or traditional leaders, who can convey the message of safety in a way that is more relevant and appropriate to the local culture. This approach is expected to strengthen

public participation in supporting aviation safety and disseminating information more effectively. The purpose of this activity is to increase public knowledge and awareness of the dangers of kite flying near the aviation area, as carried out by Ariyono Setiawan et al. (2021).

Evaluation dimension of beneficiaries

Revealing that although the community appreciates the existence of the safety campaign program, they want a more frequent campaign frequency and materials that are more relevant to local needs. The limited frequency of campaigns makes safety messages less effective in shaping behavior change consistently. Therefore, campaigns need to be carried out in a sustainable and scheduled manner to strengthen public understanding. In addition, campaign materials need to be adapted to the local context, for example by using regional languages, stories that are close to people's lives, or real examples of risky activities. Periodic evaluations involving the community through surveys or group discussions can provide insights into local needs and challenges (Ruiwei Liu et al., 2023), which will support the development of more effective campaign strategies in the future.

CONCLUSION

The conclusion of the study on the effectiveness of the safety campaign program in the Flight Operational Safety Area (KKOP) of Soekarno-Hatta Airport shows that despite progress in public awareness and compliance with aviation safety, there are still challenges related to resources, campaign materials, and coordination between stakeholders. Some of the obstacles found include inadequate budget allocation, less innovative campaign materials, and lack of effective supervision. Collaboration between various parties such as the Airport Authority, AirNav, and Local Governments has shown positive results, but the unclear division of roles is still a problem. For improvement, it is recommended to strengthen the use of the budget, increase collaboration between stakeholders, and improve the frequency and relevance of campaign materials. Additionally, the use of technology for surveillance and community-based approaches can amplify the success of campaigns. More scheduled and sustainable programs, by involving local figures in communication, will help improve community understanding and compliance. This research also encourages the development of a theory of the effectiveness of aviation safety campaigns and the linkage of digital media in changing people's behavior.

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