

The Procedure of Regulated Agent in Air Cargo Security as Per European Union Standards

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Abstract

The research objectives were 1) to compare the regulated agent for third country regulated agent standard for air cargo shipped into the European Union territory and the Civil Aviation Authority of Thailand (CAAT) regulations No. 33 section 2 and 2) to propose the procedure of regulated agent in air cargo security complying with EU standards. This research used a qualitative research method by collecting data from related documents about third-country regulated agent standards for air cargo shipped into EU territory and the CAAT regulations No.33 section 2, including in-depth interviews from 6 persons who are involved in air cargo security operations; and 2 persons who are issuing policies, regulations and supervising regulated agent operators of air cargo security regulations. The findings showed 1) the third country regulated agent for air cargo shipped into EU territory as per the CAAT regulations No.33 section 2, and 2) the researchers had proposed the procedure of regulated agent in air cargo security under EU standards, consisting of 4 steps: 1) preparation 2) preparing and documents submitted to authority 3) aviation authority inspection and 4) regulated agent endorsement, which is a certified of the regulated agent in air cargo security.

Keywords: Procedure, Regulated agent, Air cargo security, European Union standards, Civil aviation authority of Thailand

Background and significance of the research

Air freight is a famous mode of transport among business operations worldwide, acting as a major artery connecting production factors worldwide as it is a faster mode of transport and safer than other modes of transport.

The essential goals for Thailand's 4.0 Strategic Plan (2017 - 2036) are to develop and enhance the industrial economy using technology and advanced innovation, which is concerned with the policy of the development of special economic corridor zone which are enabling the industrial entrepreneurs to advanced technology and innovations in their

operations (Super Cluster) to make competitive advantages and to develop sustainable domestic transport systems through the logistics system. (The National Economic and Social Commission, 2017) Business organizations must adjust their business models according to Thailand's 4.0 policy. This is the adaptation to the effective operation of organizations and convenience for government authorities. To enter the digital society is constantly changing rapidly, including dealing with unpredictable situations in the future.

Import and export processes are a significant economic activity that connects the supply chain from suppliers to the end users. Importers and exporters often use the services of freight forwarders or cargo agents (Department of Business Development Ministry of Commerce, 2013), which act on behalf of the importers and exporters for every process, whether space arrangement to the airline, moving cargo and performing customs formalities until the cargo reaches the hand of the end-user or last customers. In order to make convenient, faster business operation. Therefore, agent or freight forwarders have more interesting nowadays.

Freight forwarders or cargo agents focused on air cargo security, which has established a regulated agent third country in the European Union standards (RA3). There are practical guidelines in the European Union regulations (European Union, 2020) to be standardized, like those who will transport air cargo into the EU territory but located outside the EU territory. On the other hand, freight forwarders or cargo agents must be certified as a regulated agents by the European Union or have been screened for secured cargo by a person certified as an air freight forwarder from the European Union (Air Cargo Carrier for Third Country - ACC 3) (Jantrik, 2018).

Logistics problems arise in business operations as 1) delays in the transportation process caused by the sender or regulated agent must provide air cargo report through the customs system. However, the information technology system still needs integration information between freight forwarders and customs departments and inflexible rules, regulations, and procedures. Although the government pushed single- window systems. 2) Higher operating costs, fuel costs, transport disruptions, and exchange rate fluctuations. Moreover, 3) Value-Added Tax costs (VAT) that regulated agents must bear, which other countries do not have to bear. The primary limitations are 4) Discontinuity of government policy from frequent government changes and the sincerity to seriously develop, which indicates that the successful development of the country's air freight needs to be within reach. However, it is necessary to consider solving logistics problems in the supply chain seriously. Otherwise, the problem will hinder the development of air cargo (Aiyasanon, 2016).

As per the research on the development of air cargo security procedures in Thailand (Chaiwuth, 2020), 1 of 4 development of the air cargo security process in Thailand necessitates the improvement of regulated agent operating procedures and, according to the article on air cargo security and Thailand's readiness (Jantrik, 2018), air freight is rapidly increasing in volume, causing of congestion at airports, tools or equipment are used inadequate facilities. It is impossible to exchange product information

entirely in digital format between countries, an obstacle to digitization to connect the whole supply chain, which the above research made the researcher interested in the procedure of regulated agents in air cargo security as per European Union standards that will support, promote, develop and enhance Thailand regulated agent to meet global standards which effectively respond to and support rapid change.

Literature review

Steen (2011, as cited in Chaiwuth, 2020) proposed International Civil Aviation Organization (ICAO) collaborate with other international organizations to lead the improving approach to the security of the global air freight supply chain by offering guidelines for safe air cargo operations to consider the national air cargo security plan as follows:

- 1) ICAO must define the air cargo security supply chain to facilitate international coordination. This includes regulated agents and known consignors.
- 2) Every safe air freight supply chain system must comply with the standards in Annex 17 for Aviation Security of ICAO.
- 3) The inspection and registration of reliable air cargo operators shall be carried out by regulatory authorities or recognized independent agents.

Steve Lawson (2013) mentioned that the ICAO Air Freight Security and Inspection had established a framework for air cargo safety, and standards for security appeared in Annex 17 by the state aviation authority. Appropriate security controls must be checked, establish a secure supply chain procurement process, including the authorization of a regulated agent or known consignor. Inspections are carried out to ensure that cargo carried on commercial passenger aircraft is protected from unlawful interference, and has been confirmed by a regulated agent who has audited or other security controls and has a risk assessment conducted by a government agent.

Zhao et al. (2018) studied the safety assessment model for transporting dangerous goods by airlines. They found that the safety of the air transport by dangerous goods was directly related to human health and environmental pollution. In order to evaluate the safety and efficiency of dangerous goods transportation of airlines, the pilot, institutions, and regulations were prepared for evaluation, equipment/facilities, operation, emergency, and training, and the evaluation method is a combination of each factor priority process. Factors related to truck drivers will affect compliance with the regulations on accepting dangerous goods and adequate facilities. In addition, the proposed model is stable and reliable as per the condition of equipment or facilities.

Sheng Teng Huang (2019) published an article stating that the service quality of international shipping companies should be improved. Explore business options that help improve customer service. Freight forwarders usually act as freight forwarders, providing shippers or cargo owners with logistics services. They also cooperate closely with shipping companies, airlines, and other service providers, and the nature of business investment is low. However, when looking at the service providers, they encountered

business obstacles. Large customers are often manufacturers or medium-sized traders, providing high-quality services, and customer satisfaction is a top priority in business processes. In order to meet the needs of key customers in East Asia, such as Japan, South Korea, and Taiwan, a high-quality service model has been implemented, and alternative solutions for business operations have been explored, revealing the direction of quality improvement. Customers' key requirements are lower agent fees, timely response, and technical measurement to manage customer relationships as one-stop service for data systems and networks.

Research objectives

1) To compare the regulated agent for a third country standard for air cargo shipped into the European Union (EU) area and the Civil Aviation Authority of Thailand (CAAT) Regulations No. 33 Section 2.

2) To propose the procedure of regulated agents in air cargo security complying with EU standards.

Research methodology

This research employed a qualitative research method with the following research procedures:

1) The legislative concepts and principles related to air cargo regulated agents of secondary literature that the researchers studied about international civil aviation security rules, third- country regulated agent standard for air freight to the EU and the Civil Aviation Authority of Thailand regulations No. 33 section 2, government policies that support being a logistics center by studied regulations, rules, articles, research papers, journals, thesis, academic documents, literature consistent with research objectives to create a conceptual framework for this research.

2) The research instruments are secondary literature and structured interview to analyze, synthesize, and compare data. Summarize and describe based on data analysis and propose relevant topics according to research objectives.

3) Tooling and examination of research instruments used by studying various data and documents to cover the objectives of this research brought to the implementation of the structural design of the in-depth interview form, bringing the tools to consult with an advisor for check and correct according to suggestions. The researcher brought the in-depth interview form for the experts to check and improve. Then the researcher used the revised in-depth interview form to collect the data by interviewing key informants.

4) Data collection was obtained from a secondary literature review and in-depth interviews, which the researcher took data from in-depth interviews with 8 key informants for 2 groups group 1 were 4 key informants as accreditation-regulated agents and 1 key informant as a regulated postal agent, and 1 key informant specialists in air cargo security and group 2 was 2 key informants as relevant officials of the Civil Aviation Authority of Thailand. The researcher collected data by taking voice recordings during the interview,

and taking notes were used to analyze, synthesize and compare the research results according to the research objectives.

5) For data protection, the researchers needed permission from key informants before voice recording or taking notes during in-depth interviews. In this regard, the information used for discussion or publication will only be published as an overview in the academic presentation. It will not have any negative impact on key informants. The researchers will not disclose their real names in consideration of the confidentiality of key informants. However, to protect privacy, we used aliases or other text symbols to replace the actual name of key informant.

6) Data analysis and conclusion of the research, the researcher used the data collected from primary sources to confirmed data that analyzed from secondary sources as parallel data analysis. The content was divided into topics and categories to summarize the research results and present reports based on document data analysis to propose regulated agents' procedures in air cargo security under European Union standards.

Research results and discussion

The researcher was able to summarize the results of the data analysis on the procedure of regulated agents in air cargo security as per European Union standards from the in-depth interview with key informants, which can summarize research results and classify as per objectives as follows:

1. To compare the regulated agent for third country regulated agent standard for air cargo shipped into the European Union territory and the Civil Aviation Authority of Thailand (CAAT) regulations No. 33 section 2 by comparing the contents. The researcher conducted a comparative research and analysis of the content of the rules order, standards, and requirements related to the process model of the regulated agent in air cargo security as per the European Union (EU) and the Civil Aviation Authority of Thailand (CAAT).

1) Qualifications for a regulated agent include qualifications for an organization seeking regulated agent certification and qualifications for personnel acting in a regulated security area. The specifics are as follows;

1.1 Organization qualifications for applying a regulated agent certification as EU standards according to CAAT regulations. However, in the inconsistent part, the CAAT regulation defined the scope of enforcement of the regulated agent regulations; that is, the EU regulations stipulate that freight forwarding agents must process shipments based in a third country outside the European Union, but CAAT only determined the regulated agent location within the Kingdom of Thailand.

1.2 The qualifications of personnel working in a security-controlled area focusing on recruitment and training of the EU- regulated agent standards and the CAAT regulations were consistent.

2) The steps in the regulated agent certification process are: (1) regulated agent certify authority; (2) regulated agent approval; (3) documentary evidence for

regulated agent, certification; (4) the regulated agent certification period; (5) certification renewal; (6) the suspension of the regulated agent certificate; and (7) the revocation of the regulated agent certificate. Here are the specifics.

2.1 Regulated agent certify authority is an organization that certifies the regulated agent which must have authority in air cargo security as per EU standards and CAAT regulations.

2.2 Regulated agent approval was inconsistent across the EU standards with CAAT regulations are listed below:

- The European Union defined the declaration of commitments - regulated agent as a commitment regulated agents must keep at the European Union. The person in charge of security or the regulated agent's representative must sign the commitment. The EU Aviation Safety Examiner needs to keep the signed declaration.

- The Civil Aviation Authority of Thailand mandates that a regulated agent create a contingency plan for handling threats and when an incident involving goods and mail occurs, including how to report threats or such an event. However, the European Union mandates that only when an incident occurs with goods the plan must include how to report threats.

2.3 Documentary evidence for regulated agent certification written documentation attesting to the regulated agent regulation inconsistent with The CAAT regulations, and the EU certification documents standards do not agree on everything. The specifics are listed below.

- The European Union must submit documents that include: 1. Checklists used by the EU Aviation Security Audit Organization to evaluate security levels; 2. A security program that addresses hiring and training; and 3. A declaration of obligations (Implementing Regulation (EU) 2015/1998) signed by the audited entity.

- Civil Aviation Authority of Thailand Documents other than those required by the European Union must be submitted, including 1. A request for a license rather than a regulated agent regulated postal agent or a certificate request form; 2. A backup plan that aligns with the National Civil Aviation Security Plan (NCASP); 3. A copy of the ID card or passport of the current competent legal representative who is authorized to sign documents; 4. Information on the number of employees and their experience levels; 5. Details on the security measures for luggage, goods, mail, and other items handled by air transport.

2.4 The regulated agent certification period is inconsistent with CAAT regulations and the EU Standards as EU Regulatory Representative Certificate is valid for 3 years, while the Civil Aviation Authority of Thailand's Representation Certificate is valid for 5 years.

2.5 Certification renewal inconsistencies between EU standards and CAAT regulations, including:

- The European Union, no additional audit schedules are mandated by the EU aviation authority if the service provider encourages the requirements in accordance with the recognized security schemes.

- The Civil Aviation Authority of Thailand defined that a regulated agent must apply with supporting documentation before the expiration not less than 90 days and of not during the regulated agent certificate suspension or the regulated agent certificate has been revoked for less than one year.

2.6 The regulated agent certificate suspension as EU and the Civil Aviation Authority of Thailand is consistent; the regulated agent's certificate from the competent authority will be suspended for air cargo security if they stop operating or do not follow the rules which are unsecured cargo for air transportation.

2.7 The regulated agent certificate revocation EU Standards inconsistent with CAAT regulations, which is, states that the certificate for a regulated agent must be revoked if the regulated agent license is suspended more than twice in two years.

2. To propose the procedure of regulated agents in air cargo security under EU standards.

Based on in-depth interviews with key informants about the procedure of regulated agents in air cargo security as per European Union standards, the following 8 key informants can summarize the results of the analysis below:

1. Based on general information gathered from key informants, it was discovered that the 8 key informants in the interview were divided into 2 groups group 1 for 5 key informants as regulated agent organization and 1 key informant for expertise in air cargo security, and 1 regulated postal agent, and group 2 for 2 the Civil Aviation Authority of Thailand officers who are in charge for inspection the processes of regulated agents in air cargo security involved in issuing policies, establish requirements, and supervising regulated agent processes of an air cargo security.

2. The following is the conclusion of the analysis of opinions on the procedure of regulated agents in air cargo security under European Union standards in the context of the organization by using 6 questions as following:

Question 1: What are the barriers or limitations while you applied for certification as a regulated agent and regulated postal agent according to the Civil Aviation Authority of Thailand regulations No. 33? Moreover, how do you solve those problems?

Question 2: What are the barriers or limitations after you have been certified as a regulated agent and regulated postal agent? Furthermore, how do you have methods or guidelines to solve those problems?

Question 3: What obstacles or restrictions do you think the regulated agent in Thailand will develop into a third- country regulated agent operating with EU standards?

Question 4: Why do you want to be a third- country regulated agent (If so, have you prepared for certification? Have you ever tried applying for certification? What help do you need?)

Question 5: What things should be developed in the certification process as a regulated agent and regulated postal agent? In order to raise the level to be a third country regulated agent as per the European Union standards.

Question 6: Do you think that if Thailand has a regulated agent checklist in place, it can be both a regulated agent in Thailand and third country regulated agent working in EU standards at the same time? What format should the checklist look like?

Group 1 Comments on the process model of a regulated agent, the expertise of air cargo security and regulated postal agent, and experts in air cargo security in air cargo, as shown in table 1.

Table 1 Comments on the procedure of regulated agents in air cargo security by European Union standards

Q No.	Personnel						Equipment						Place						Investment						Training						Management							
	RA	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	
Q 1	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓	✗		
Q 2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Q 3	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓	✗	✗	✗	✗	✗	✓	✗	✓	✓	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	
Q 4	✓	✓	✗	✗	✗	✗	✓	✓	✓	✗	✗	✓	✓	✗	✗	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✗	✗	✗	✗	✗	
Q 5	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓
Q 6	✓	✓	✗	✗	✓	✗	✗	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Comment	✓	✓	✓	✓	✗	✗	✓	✗	✗	✗	✗	✓	✗	✗	✗	✗	✓	✗	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
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Source: Suppharangsan (2022)

The results of an analysis of Group 1 key informant data concerning the process model of the regulated agent in air cargo security in accordance with EU standards are shown in Figure 1. It is divided into six sections as follows:

1. Personnel: The researcher was able to summarize the key points from the key informant interviews with Group 1 as follows:

The problems and obstacles in the implementation of the regulated agent on personnel discovered that personnel working in air cargo security have knowledge, skills, and expertise but bad experience with the requirements of operating a regulated agent,

whether during the agent's application for regulated agent certification or after the agent has been certified as a regulated agent. It took much work to find qualified personnel with security qualifications and knowledge; getting employees ready to work was time-consuming and costly. Few employees know security. Notably, the personnel who performed the work still need to be made aware of its significance, unsecured sign, and the responsibility of air cargo security causes neglect or slackness in work. This may pose a risk of harm, threat, and insecurity to goods in the regulated agent area.

The agent must develop knowledge and a correct understanding of the worker's requirements, and changing operational processes to solve personnel issues. The agent should issue a security bulletin with more information for working personnel and encourage all working personnel to attend recurrent training. To raise employee awareness of air cargo security, management must set a good example or prototype operations. This allows personnel to work correctly and the cargo to be more secure, and it also helps reduce conflicts in operations. Cargo security activities should be developed as part of certifying regulated agents and regulated postal agents to advance the level of a third- country regulated agent with EU standards requiring the CAAT personnel be registered as independent EU inspectors. They must also be familiar with the regulated agent, the third country, and EU standards. Personnel working for the regulated agent must always be knowledgeable, skilled, understanding, and aware of air cargo security. In the case of regulated postal agents, the agent needed help in adapting to the mix of operations between shipping and postal systems after being certified as a regulated postal agent. Furthermore the agent solved the problem by training personnel in transporting goods and postage, and creating a correct understanding of the operation.

2. Equipment: The researcher was able to summarize the key points from the key informant interviews with Group 1 as follows:

During the implementation of the regulated agent on the security operation devices, the regulating agents used security equipment and tools do not meet the requirements of the CAAT regulations. There needed to be more personnel to carry out security operations. After the air cargo entrepreneurs applied for regulated agent certification, it was improved the equipment and tools used in air cargo security for a long time caused equipment damage and defective, which required constant maintenance and repair by expert technicians who have specific knowledge of that equipment, have a high cost of operation, and complicated finding replacement parts.

To address equipment issues, the agent must provide modern equipment and tools for air cargo security to support a higher cargo volume. The frequency of equipment maintenance is increased regularly, as is the unit that creates manuals and maintains the proper equipment for employees. By comparing prices and the after-sales service of security equipment dealers, the agent considers the future situation and cost-effectiveness of investment.

The regulated agent should provide modern equipment with European Union-compliant air cargo security equipment and tools.

It was discovered that regulated postal agents had to prepare to purchase Explosive Trace Detection (ETD), a detection device that can detect small explosives. The amount of invisible “trace” is sampled for detection. Drug detection devices there work similarly to ETDs are also used. If an X-ray machine is insufficient (unclassifiable) for inspection, information technology (IT) or artificial intelligence (AI) systems are provided to assist in the analysis of error reduction. The regulated postal agent is ready and meets the standards of the regulated agent of the third country of the European Union (RA 3).

3. Location: The researcher was able to summarize the key points from the key informant interviews with Group 1 as follows:

Problem and location barriers - it was discovered that the regulated agent warehouses must be the ground-air boundary. This could mean unsafe actions, harassment, or even more terrorism. The search area needed to be more sufficient to provide air cargo security services, resulting in warehouse congestion. There was a problem or damage with the airport's warehouse, and the remaining contract period for operating as a regulated agent in the airport.

The risk assessment and improving the air cargo security operations service area to reduce risk as much as possible is the solution to the location problem. When the airport warehouse has a problem, the regulated agent brings technology to assist in air cargo security, considering the renewal contract with the airport and future investment. The regulated agent makes preliminary repairs while waiting at the airport to repair the damaged warehouse.

Activities that should be developed in certifying regulated agents and regulated postal agents to order to be upgraded to become a regulated agent in the third country with EU standards about location, The regulated agent must have regular maintenance and take care of the facility to be ready for always providing services, including area management under the requirements of the regulated agent, the third country with EU standards.

There was no location issue or obstacle for the regulated postal agent. because they used the initially certified area and were ready to compliant a regulated postal agent with the European Union standard.

4. Investment: The researcher was able to summarize the key points from the key informant interviews with Group 1 as follows:

The investment was discovered to be a result from the operation of the air cargo security system, including personnel, equipment, locations, training, and management, which were relatively expensive due to the uncertainty of renewing the business contract with the airport. Therefore, freight forwarders do not certify a regulated agent, instead opting to use a regulated agent subcontractor.

The investment solution is a regulated agent, which necessitates careful planning ahead of time and complies with Thai Civil Aviation Authority requirements. The agent must understand all departments' management and have an annual budget action plan and investment prioritization in each section. To reduce operating costs, the agent may consider hiring a subcontractor (outsourcing) or utilizing the services of another regulated agent

rather than requesting a regulated agent certification themselves. The airport will allow the agent to make investment decisions. A regulated agent certification should be considered based on the amount of product, the number of flights, and the number of importers-exporters of goods in the warehouse area who will request a regulated agent certification.

CAAT should consider lowering the cost of regulated agent certification, which is still relatively high and continues to be a problem and impediment for those seeking regulated agent certification for air cargo security under EU standards. If, on the other hand, the freight forwarder does not provide services or is unlikely to ship goods into the EU, the regulated agent, third country, EU standard may not be required.

The regulated agent has no immediate need for the third country with EU standards if the goods are not transported into the EU or if they must be transported into the EU; internationally regulated agents better choices because some Middle Eastern countries have already applied for RA3 prior to shipping into the EU or may need to be re-inspected before being flown into the EU.

5. Training: The researcher was able to summarize the key points from the key informant interviews with Group 1 as follows:

There were problems and training obstacles discovered. Personnel working in air cargo security must frequently undergo recurrent training, making it difficult to attend training and failing to attend training in all training topics as prescribed by the CAAT due to the high cost of some training topics.

Furthermore, due to the spread of COVID-19, the regulated agent could only arrange some training. The regulated agent has updated the training plan, which has solved the training problem. Moreover, arrange for complete personnel training in all warehouse-related departments and ongoing training by the agent. This includes considering the use of subcontractors (outsourcing) rather than creating their personnel. The regulated agent has also planned training to create more security teachers for the organization's human capital.

Regarding training, the regulated agent should provide their employees with more information and training about EU requirements and standards and the aviation authority to meet the regulated agent's needs. CAAT should increase the number of training institutes accredited by CAAT and develop or require regulated agents to train only those parts of national security schemes or the regulated agent security plan.

After being certified as a regulated postal agent, the regulated postal agent encountered problems and obstacles in training, specifically regulated postal agent training. However, the regulated agent solved the problem within the air cargo regulations by developing a course specific for regulated postal agents within the air freight regulations, including security instructors certified by CAAT.

6. Management: The researcher was able to summarize the key points from the key informant interviews with Group 1 as follows:

Problems and training barriers: When the agent applied for regulated agent certification, it was discovered that the exporters needed to understand the product search requirements and procedures. When a product cannot be X-rayed, the warehouse requests

permission to search for the goods, resulting in disagreements with export agents and operational delays. Security operations involve numerous moving parts, which causes the operation to fail. Furthermore, the exporter's agent observed that the terminal operator could provide screening service in the delivery of goods, causing the exporter's agent to overlook the necessity and importance of obtaining representation certification. They may change to use a regulated agent subcontractor instead.

The regulated agent must strictly enforce the rules and regulations to manage cargo security issues under ICAO Annex 17. CAAT is the regulator that must be understanding, knowledgeable, and necessary; being a regulated agent, known consignor, or it is part of the security chain, must adjust their methods by observing the behavior of people entering to warehouse rather than touching the person to prevent the spread of Coronavirus 2019, CAAT among others should create additional options in the cargo security certificate to reduce confusion when issuing documents.

The regulated postal agent found problems and obstacles in management; namely regulated postal agent is a state enterprise that has regulations / regulations according to the government sector. It can be complicated to perform some steps. It is causing and regulating postal agents at the Suvarnabhumi Post Center. It is a member of the Universal Postal Union (UPU) - , so it has basic regulations under the UPU standards. The operational and security of the UPU are already at a certain level.

Solution: Thailand Post as a regulated postal agent, must prepare and plan for at least two years (under the fiscal year). Instead, basic features are required under the supervision of Thai Post (RPA Outsource), which allows the operation process to be managed with greater flexibility and complies with the requirements of international standards for air transport and a regulated postal agent at Suvarnabhumi Airport Postal Center. Because the regulated postal agent is a member of the Universal Postal Union (UPU). The UPU's operational and security levels are already at a certain level.

In this regard, the control standard of a third country as per European Union (RA 3) standards is higher than the requirements of CAAT. As a result, it is an alternative standard that may or may not be required by relevant agencies. However, the state-regulated agent certification must be passed to obtain regulated agent certification in a third country with EU standards, the state-regulated agent certification.

Group 2 - Comments on the CAAT Regulations of a regulated agent process model in air cargo security under EU standards. The findings of the data analysis based on in-depth interviews with key informants are summarized below:

Information about the key informant in general - The analysis findings are summarized as follows: the two key informants were all personnel responsible for issuing policies, requirements, and oversight of the regulated agent's air cargo security procedures.

The following is a summary of interviews with relevant officials from Thailand's Civil Aviation Authority about the procedure of a regulated agent in air cargo security.

The Civil Aviation Authority of Thailand's role in becoming a regulated agent and regulated postal agent in air cargo security in accordance with the International Civil Aviation Organization's Annex 17 standards is to be the governing body for implementing the regulated agent by the ICAO Annex 17 standards. The role of governance begins with the creation of regulations. It complies with the law and has been inspected under the standards established by Thailand's Civil Aviation Authority, and a certificate or license is issued. The right or power to enforce the law (sanction) by issuing orders to cancel, suspend, or revoke various licenses, including actions that carry criminal penalties under the Air Navigation Act if the licensee fails to comply with the prescribed law or the Civil Aviation Authority of Thailand standards.

Thailand currently does not have enough regulated agents to meet the demand for air cargo security due to the continuous growth of air transport even in an epidemic situation; most regulated agents are based in Bangkok, and most provincial airports do not have a regulated agent, which the Civil Aviation Authority of Thailand uses to check air cargo security standards through airlines. The guidelines in support of the Civil Aviation Authority of Thailand are intended to accelerate the need for warehouses or cargo transportation operators to become regulated agents under the supervision of the Civil Aviation Authority of Thailand. The Air Navigation Act states that only one shall manage the security of air cargo if unless they have obtained a regulated agent certificate.

The Civil Aviation Authority of Thailand, the agent in charge of law enforcement, has issued a guideline to increase the number of regulated agents in Thailand. Through legal proceedings, the government is attempting to push freight operators to become more regulated agents by requiring them to comply with the requirements of the Civil Aviation Authority of Thailand. This could result in the operator's status as a regulated agent being reduced or the number of operators.

The Civil Aviation Authority of Thailand has never been pushed to become a transportation management certified third- country regulated agent per European Union standards, nor has it been pushed to pursue other certification standards because they are beyond the Authority's jurisdiction. Furthermore, because Thailand is a member of the International Civil Aviation Organization, the specified standards will be based on the ICAO standards. It is dependent on the operator's willingness. The Civil Aviation Authority of Thailand focuses on supervision, taking care of the standard part following the Civil Aviation Authority of Thailand requirements. Annex 17 ICAO standards only govern it.

A regulated agent should learn about security standards to become a regulated agent in the a third country under EU standards. Each side is described in detail below:

- Personnel working in security must be familiar with the International Civil Aviation Organization's minimum standards (Minimum Standard) or guidelines based on EU standards.

- For the cargo security equipment, a regulated agent should provide tools and equipment to provide security to be ready as per European Union requirements to provide a standardized inspection and obtain a RA 3 certificate.

- The aspect of location that is the service facility must be prepared for air cargo security, while the acquired third-country regulated agent is an organization-strengthening component.

- The investment is that the regulated agent will be upgraded to a third-country regulated agent by EU standards. Operators must have enough funds to implement adequate security measures.

- Training should be studied and conducted per EU requirements as a regulated agent.

- For the management, Thailand- regulated agent standards are impossible to make conformation to European Union standards cause of Thailand's sovereignty, which must be based on International Civil Aviation Organization standards because Thailand is a member of the International Civil Aviation Organization. Entrepreneurs who have been certified as a regulated agent in a third country and wish to be certified as a regulated agents in Thailand must submit documentary evidence in accordance with the Civil Aviation Authority of Thailand's process of applying for certification as a regulated agent in Thailand. Check various plans, inspect the site, and issue certificates per Thailand's process. There will, however, be no comparison of third-country regulated agent standards.

The researcher proposes a four-step regulated agent certification process for air cargo security following European Union standards.

Step 1: Preparation is the process of preparing for regulated agent certification by contacting for advice, consulting, coordinating with relevant agencies, and preparing documents. The regulated agent certification meets European Union standards and the requirements of Thailand's Civil Aviation Authority to begin the application process for regulated agent certification.

Step 2 : Coordination and Document Submission (Documentary Submit) is submitting safety documents related to the regulated agent certification in air cargo security to the regulatory authority.

Step 3: Verification from the agent that provides certification (Inspection) is the process of verifying the regulated agent; at this stage, the freight forwarder must be inspected by the inspector agent and Independent Exam EU or International Civil Aviation Authority in terms of documents related to the regulated agent's air cargo security process, such as the agent's security plan, training plan, emergency response plan, an inspection of personnel working equipment and tools used in air cargo security, regulated agent certification, air cargo security training, and air cargo security process management.

Step 4: Regulated Agent (Endorsement) Certification - This is the final step in the air cargo security- regulated agent process. Suppose any defects are discovered or what needs to be corrected; In that case, the inspection agent certifies the freight forwarder as a regulated agent after reviewing documents, personnel, equipment, facility, training, and management. When a freight forwarding operator requests regulated agent certification, the auditing authority will notify them so that the defect can be corrected for a specified period

and when the freight forwarding operator has successfully corrected the defect. The freight forwarder is then certified as a regulated agent by the inspection agent.

As shown in Figure 1, such a process can be summarized as a model of the regulated agent certification process in air cargo security per EU standards.

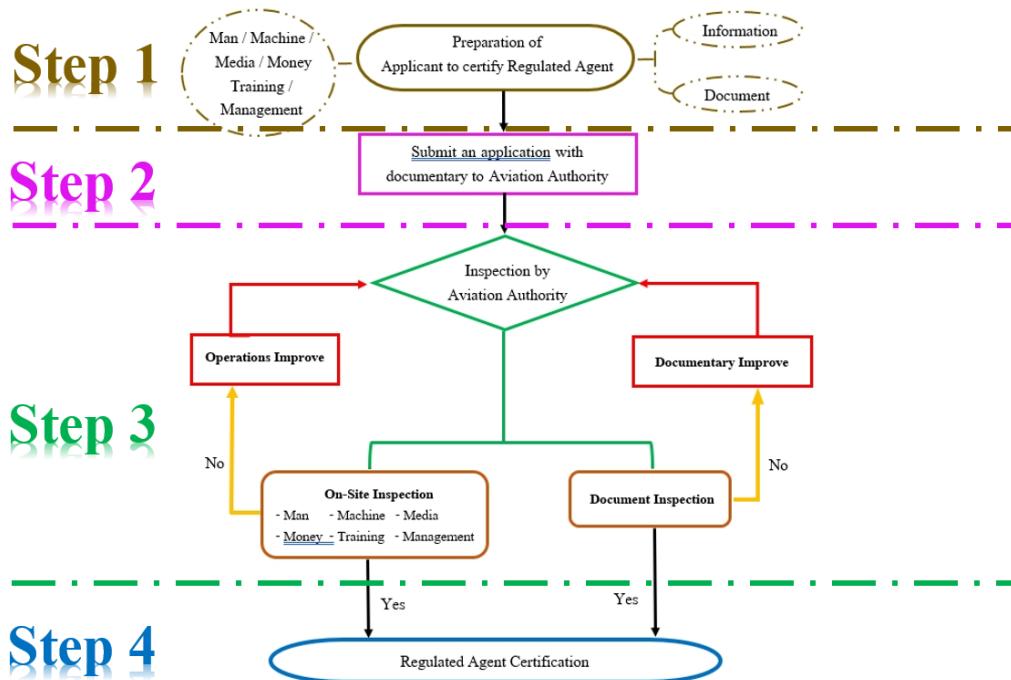


Figure 1 Model procedure of regulated agent in air cargo security as per European Union standards

Source: Suppharangsan (2022)

Conclusions

The following are the findings of the research on the process model for certifying the regulated agent in air cargo security under EU standards:

Objective 1: To compare the regulated agent for third- country standards for air cargo shipped into the European Union (EU) area and the Civil Aviation Authority of Thailand (CAAT) regulations No. 33 section 2.

The findings reveal that the EU standards consist of CAAT regulations because both standards are based on the same regulation from Annex 17 of the International Civil Aviation Organization's (ICAO) Chicago Convention 1944, consistent with the findings of an ICAO study. Chaiwuth (2020) conducted research on the developing air cargo security procedures in Thailand, stating that the ICAO places a high value on civil aviation security and encourages member countries to adopt safe supply chain process standards (Secure Supply Chain), which Thailand has developed a process for air cargo security to prevent unlawful interference and be consistent with international standards. Bartose (2018) discusses companies implementing a secure supply chain system. Internal

control processes include training and screening procedures and security filters. This improves air cargo efficiency and is consistent with the operations of the Polish regulated agent, according to Steen (2011, as cited in Chaiwuth, 2020), which mentions that freight forwarders adopt their security supply chain systems into air cargo operations that are consistent with annex 17 of ICAO to secure cargo operation to enhance operations by control internal quality, training, and screening for secured cargo.

Objective 2: To propose the procedure of regulated agents in air cargo security under EU standards.

According to key informant interviews about the procedure of a regulated agent in air cargo security per EU standards, freight forwarders can operate on a regulated agent in accordance with EU standards. Europe and office necessities Thailand's Civil Aviation Authority in its entirety, as well as its operators. After becoming a certified regulated agent, there are still problems and obstacles to overcome in six areas. 1) Personnel, 2) Equipment, 3) Location, 4) Investment, 5) Training, and 6) Management, in the following order:

1) Personnel – Personnel needed to gain skills, knowledge, experience, and awareness of their responsibility for air cargo security, resulting in neglect. Slackness in duty performance may result in the danger, threat, or insecurity of goods in the regulated agent's area. This could be due to human nature's resistance to change as Johnson, Kast, and Rosenzweig (1967) and the hierarchical theory of needs Maslow (1970:22-24) and air cargo security employees included the security standards requirements. This makes it difficult for regulated agents to recruit personnel, consistent with Chaiwuth's (2020) research, which found that personnel and training had lower potential than other components. A personnel selection procedure that does not consider the job's nature. Criminal background checks are being delayed. The rate of employee turnover is high. Employees in the organization are very essential, according to the research of Bodeerat (2015), because they are an important mechanism that makes other elements have good potential in the air cargo security system because the organization cannot operate without employees. When they encourage employees, the organization does the same. Personnel will have training as well as training plans for the security of each unit.

2) Equipment - The findings reveal that the equipment used in Thailand's regulated agent's air cargo security was a long- term used device. There was insufficient technology which required ongoing maintenance, which is relatively expensive. Replacement parts take much work to come by. Furthermore, technicians with specialized knowledge are required. As a result, the accuracy of the cargo search and the operation of air cargo security may be impacted. They must be more sufficient for use, resulting in work delivery delays, consistent with the study's findings. According to Maneechote (2017), "Guidelines for the Development of Future Army Security Standards," when modern technology is used to threaten, changes occur in both the public and private sectors. This complicates matters for security agencies. As a result, according to the study's findings, modern technology must be used in conjunction with traditional security

to improve security and stability. Sareepa and Trakoonmuthuta (2020) investigated the problems and barriers to the performance of the Pattani village security kit. They discovered that the village security kit. The available security equipment needed to be increased. As a result, the agent should support modern, standardized equipment for performing duties and enough equipment to meet the needs of security operations. Also, make sure to keep the equipment in good working order at all times.

3) Location - The study's findings reveals that regulated agents operate in the airport's warehouse area, which is the area between the ground and the air the airport management. Furthermore, the space is limited in terms of both size and storage. The warehouse may need to help accommodate large quantities of products, causing congestion in front of the warehouse. If it has been used for a long time, it may have been damaged or deteriorated. This could be because the regulated agent operation requires fencing the area where air cargo security is controlled. A product inspection process is in place, and those who come in and out are strictly monitored. As a result, a warehouse area within the airport must be selected. This may result from the coronavirus disease 2019 epidemic and the uncertainty in the renewal of operating contracts with airports, causing regulated agents to be uncertain about investments in medical equipment. This is consistent with the findings of Rachamanee and Kaewploy (2021), who investigated the problems and solutions caused by The Sun Construction Co., Ltd.'s late delivery of work and discovered that no modern technology was used.

4) Investment - The study's findings revealed that investment is a result of the operation of various parts of the entire air cargo security system, such as personnel, equipment, facilities, training, and management, as well as fees for certifying a regulated agent, which may cause a slowdown in investment. This could be due to the uncertainty surrounding the airport's operating contract renewal. Moreover, the coronavirus disease epidemic in 2019 necessitates careful and thorough planning, implementation, and investment. Even if there is no profit, the company must invest in security. This is consistent with Robert's concept research (Reid Robert, 2005), which stated that the measures and defining practices. According to Sareerat et al. (2003), security should be supported based on the agent's level of importance, duties, responsibilities, and budget (2003). Management resources (management resources) include the four M's: man, money, materials, and method/management being an essential factors in ensuring that the organization's activities can continue.

5) Training - The research results revealed that regulated agents in Thailand are still only organize training on some all topics specified by the Civil Aviation Authority of Thailand. Existing courses are complex the training arrangements in each department. The number of training institutions needed to be increased to meet the needs of the training agencies. In addition, the number of people who can be security teachers is minimal and insufficient to meet the demand. This may be due to the pandemic situation of coronavirus disease 2019, causing the training to be completed but not completed in time. Remedial training is high-frequency and relatively expensive. Personnel cannot

attend the training at the venue, which is consistent with the research of Sareepa and Trakoonmuthuta (2020). Obstacles to the performance of the village security kit in the area of Pattani found that the agent had to prepare a security backup plan and practice emergency plans and should provide training on operational skills, knowledge, and understanding of the law and regulations to promote better operational efficiency. Steen (2011, as cited in Chaiwuth, 2020) discusses that as their freight company adopts security supply chain systems by training people with professional skills, experiences, and screening skill to create authenticity and enhance secured cargo operations.

6) Management - The research results revealed that the export agent needs to understand the requirements and procedures for retrieving goods, which can cause controversy and delays in operations. In addition, the export agent thinks the warehouse service provider still provides inspection for the export of goods to foreign countries, causing the export agent to be unaware and try for a regulated certification agent and have the option to use a regulated agent subcontractor instead. The cause from Thailand needs to be on the interpretation of the applicable law, which is consistent with the research of Chaiwuth (2020) mentions that the process of securing the whole system of Thailand is unclear and still needs to be completed. According to Steve Lawson (2013), freight forwarders need more stringent standards for secured cargo on board passenger aircraft than freighter aircraft. Chuenchomkun (2021) studied the management guidelines for the search coordination centre and rescue aircraft under an ambiguous security policy. It was found that the current maritime search and rescue operations in Thailand need a clear methodology and still have problems in many areas, such as protecting of the power of various departments and problems in communication between agencies. This is consistent with the research of Thangthong (2020), who conducted research on guidelines for improving the service efficiency of employees in the security business and said that process management is an essential factor in providing service to customers. The organization must design a procedure for customer service using an appropriate time and be able to create a reasonable wait.

Suggestion

The researcher studied a regulated agent process model for air cargo security per EU standards for this research, and the recommendations are as follows:

1. Cargo handling operators should apply for regulated agent certification under the requirements of the Civil Aviation Authority of Thailand or join the air cargo security chain to ensure the safety of Thailand's air cargo transportation and can comply with more acceptable international standards.

2. To provide employees involved with knowledge and understanding of the correct operations and ensure the security system is consistent, security departments create operational manuals and action plans to enforce, requiring operators and those in control of the security system to adhere to the same guidelines, and then the security department must perform follow-up (Monitor) according to the action regularly to know

the performance and encourage employees. These will then be incorporated into employee performance and work more efficiently.

3. Executives must provide serious support in order to provide effective management. The company's top management must determine the policy and issue written notices as a reference for operators to uphold and practice, provide a working group comprised of personnel from all departments, decide together, execute the writing of an operational manual by the requirements, and allow all operators to understand and operate in the same direction at all times.

4. Policy, regulated agent, and Thailand's Civil Aviation Authority. The information from this study can be used as a development guideline. Amend and modify existing requirements, measures, or regulations so that they can be applied in the organization's context increase the efficiency of air cargo security.

5. Requirements for regulated agent certification of the establishment, the research findings can be used for preparing to apply for regulated agent certification per Civil Aviation Authority of Thailand requirements and European Union standards.

6. The research findings will provide supporting information and promote the development of exports goods by regulated agents to the European Union, which can be carried out efficiently and quickly, thereby supporting the growth of the export agent business and positioning Thailand as a logistics hub.

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