

Research Article

Risk Management in the Handling of Human Remains in Cargo at PT Dharma Bandar Mandala Soekarno Hatta

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Abstract.

This study aimed to analyze the risk management process for the special cargo of human remains. This qualitative study using a case study was conducted in a Freight Forwarding Companies in Indonesia. The data were obtained from observations, relevant documents and interviews. The result revealed the strategies used for risk management of transferring human remains in the company, including identifying the possible risks and preparing the actions. The company determined that the potential problems are the incompleteness of documents, unavailability of flight schedule, unresponsive cargo agent, coffin damage, and pick up of the coffin by the deceased's family. To handle these risks, the company confirmed that the family or the related party had completed the documents, managed to send the human remains to the family or responsible parties soon, contacted the family to pick the human remains up immediately, apologized to the customers if there were any mishaps and gave sanctions to the irresponsible crews.

Keywords: Risk Management, Special Cargo, Human Remains,, Special Cargo Services

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1. Introduction

Delivery remains through air cargo must comply with the regulations and must be equipped documents. One of the regulations is the confidentiality, telling that other passengers do not know the whereabouts of the remains brought in by the Airline. (Transmulia, 2021). In addition to that, it is further stated that most of airlines providing public offer services for human remains have their own policy and regulation (Abeyratne, 2012). This means that freight forwarding companies must be paying attention on the rule/ policy in managing the cargo, including Human remains.

Lined up with the aforementioned statements, one of issues deliberated is how to do risk management to the special cargo, especially human remains. This matter is in line with Abeyratne's (2012) that a company must have appropriate management in

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tackling some possible issues; such as, in shipping process, staff's quality in services, and others for this very sensitive cargo. In other words, the cargo risk management for human remains must be put as the priority to consider.

As response to the issue above, Risk management referring to ISO 31000 is an alternative to employ. This International standard involves so many stages in conducting risk management; involving, identification, risk assessment, risk analysis and risk control. ISO 31000 also discusses the possibility of occurrence and adverse conditions that may be encountered, as well as the negative impact of the accident on airport operations, especially operations and technical facilities. Afterwards, that condition will be evaluated by the adequacy of risk control that is owned by the companies. In the procedure of delivery of the remains must be handled properly so that the need of logistic services with special cargo. This is in line with the requirements of the funeral tradition of Indonesia and the wishes of the heirs (Susanti, 2015). By doing so, Service providers of logistics special cargo will be more aware of the problems and difficulties that will occur in the field, so it takes an act of anticipation and mitigation before the problems and difficulties that happen.

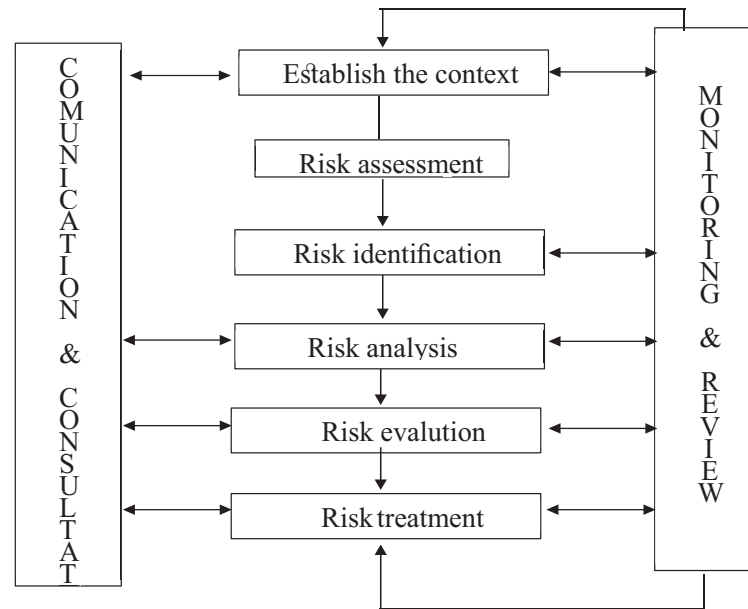
Previous related studies have been undertaken. Some of them focused on issues handled by cargo company (Rizaldy et al, 2020), risk management in cargo damage in export operation (Tseng, Ding & Li, 2012), and the safety and security of risk management of human remains (Abeyratne, 2012). This report reflects that the studies concerning the portrait of management risk for special cargo; that is, human remains, is still limited to find. On the other side, analyzing the risk management for handling human remains is necessary to undertake. Thus, this study is aimed at investigating the process of management risk conducted by a freight forwarding company in Indonesia.

1.1. Literature Review

This part elaborates the related theoretical foundation; consisting of, risk management guidelines, special cargo, human remains, and regulations of a sample airport (ANGKASA PURA).

1.2. Risk Management Principles-Guidelines

In doing risk management, a company is expected to do the following principles and guidelines.



Source : AS/NZS ISO 31000: 2009 Risk Management-Principles and Guidelines

Figure 1

From the figure above, it is clear to say that the principles in risk management including communication, consultation, monitoring and review. Specifically, the stages in risk management involve establishing the context, doing risk assessment, conducting risk identification and analysis, evaluating the risk, and taking actions as the risk treatment. In other words, all phases are done by also fulfilling those four principles.

Regarding this, Risk management with international standard refers to ISO 31000. This standard describes the framework of the implementation of risk management starting from risk identification, risk analysis and risk assessment. Key steps in this process is manifested in the risk assessment and risk management. George Abisay, 2014). According to Herman (2010), risk Management is an effort in identifying, analyzing, and controlling risk in every activity of the company to obtain effectiveness and higher efficiency. (see Herman, 2010).

Put differently, risk assessment and risk treatment are the key points to be obligatory attained in performing risk management.

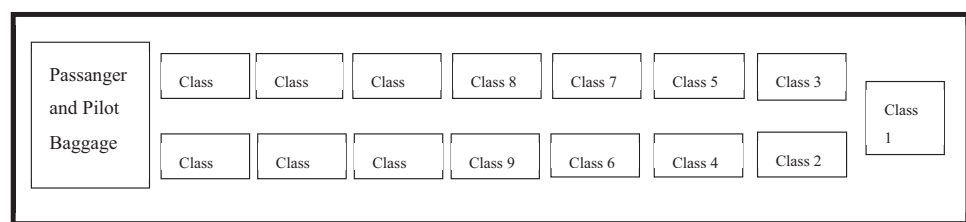
1.3. Special Cargo

Special cargo are goods that require special handling that is different from the cargo or goods in general, ranging from the goods are received, stored, processed until the goods arrived at the destination, movement of cargo from port to another port area.(Saruchera, 2020). Peculiarly, this cargo requires a supporting document that is more specific as follows.

1. Cargo Manifest : a Document that contains a list of cargo to be sent.
2. Airway Bill : a transport Document such as Airway Bills and Bills of Lading. Waybill can be in the form of House Bills or Master of Bills.
3. PIBK/PEBK, the PIB/PEB : customs Document used for the notification of the implementation of the export can take the form of written or electronic information
4. Packing List : Document that contains the details of the specifications of export goods in accordance with the invoice. This was made by exporters or companies that do packaging directly against such goods, (Mahyuddin & Hidayat, 2019).
5. Invoice : a Document that serves as a proof that the transaction or billing, created by the exporter to the importer. Invoice must include the following elements: number & date of invoice, name of goods, the price per unit of goods & total price, name & address of the exporter, name & address of the importer, as well as a description of the payment account if necessary. It is also important that the invoice was created using the letterhead of the company exporters.
6. And/or health certificate from the country of origin as well as the letter of permission expenditure : a Document issued by the Department of Agriculture contains the information about the animals or plants to be transported.

Moreover, handling special cargo that must be considered are among others. The product should be put in place that do not move and away from objects that can cause a fire, after which the product is placed in the aircraft by regulation or order as follows, product first class 1 with the materials/objects that is easy to explode, then goods class 2 flammable Objects (compressed deep refrigeration), then the material/liquid class 3 if exposed to friction, flammable (flammable liquids, alcohol liquid), then the item class 4 goods powder form flammable/contact with air (carbon dioxide), Then there's the product material/goods volatile category 5 if inhaled by humans/animals will make sleepy/unconscious, then the product category 6 materials/items contain toxins that are very harmful when exposed to the food (pesticides, fertilizers), then the material/goods

of Class 7, which contains radioactivity/helium and mercury, then the material/goods of Class 8, which contains rust/salt, And material/cargo category 9 if any way of loading will affect the compass plane (iron cylinder large), then the author will explain placement of perishable goods in a plane, category 10 fruit and vegetable, then the 11 categories of goods meat/products seafood, then category 12 bodies of the human, then the category of 13 donor human organs, then the category of 14 fish/turtle life, and the last category of 15 animal life. (Hartanto, 2016).



Source *Baggage map Flowchart in Airplane (Hartanto,2016)*

Figure 2

1.4. HUMAN REMAINS

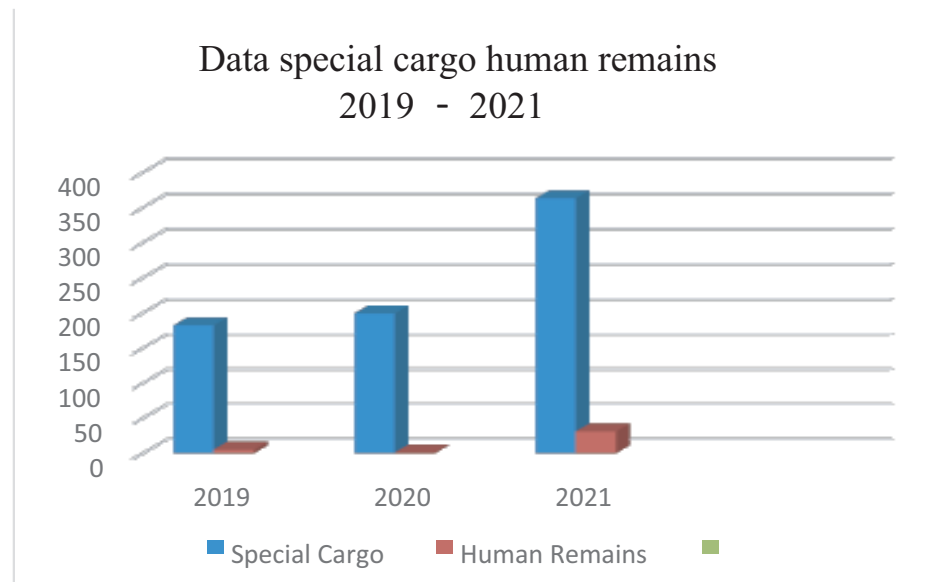
Human remains are transported through the air can be form of body (remains), embalmed or not preserved, and must use a rigid coffin of lead or zinc, or has been cremated (in the form of ash). (Susanti, 2015). Human remains that have not been embalmed inside the coffin, usually has special requirements. This transportation method may be different by any other state or country and destination country may not allow the export or import for human remains.(Mac, 2019).

1.5. SOP PT DBM

Each cargo cadaver (human remains) are cremated or not, must be provided with a death certificate from the doctor, if the death certificate from the doctor contains a remains were died because of a dangerous disease and can be transmitted treated as dangerous goods inspectious substances and must follow the procedures dangerous goods regulation and the provisions of the airline.

REGULATION OF ANGKASA PURA AIRPORT (SOEKARNO-HATTA)

service bodies are to facilitate the transport of the bodies from the International Airport Soekarno-Hatta international airport to the final location and handling to a



Source : DBM 2019-2021

Figure 3: Data Special Cargo of Human Remains.

high standard. Service bodies at Soekarno Hatta facilitated the following services: Ambulance/hearse, lounge/waiting room which is convenient for the introduction and pickup, coffin room/space with the funeral while, document management integrated, repacking, and the coffin when necessary. This service is expected to increase the order and security.

IATA

Requirements for air transport aircraft operators typically allow the transport of human remains as cargo on aircraft, (cargo-aircraft or in the cargo section of a passenger aircraft). Cremated remains may be shipped as cargo or may be carried by passengers. Requirements and recommendations are set out in the TACT Rules, TACT 2.3.3 and the Airport Handling Manual AHM 333 on the transport of human remains. Human Remains Procedure (HUM), except cremated, must be packed in a hermetically sealed inner containment which may be constructed of a flexible material or may be a rigid coffin of lead or zinc. (International Air Transport Association, 2011). The inner containment must then be packed inside a wooden or metal coffin. The wooden or metal coffin may be protected from damage by an outer packing and covered by a canvas or tarpaulin so that the nature of the contents is not apparent. Cremated remains must be shipped in funeral urns which are efficiently cushioned by suitable packaging, against breakage.(Agreement et al., 2020).

2. METHODS

As has been mentioned before, this study is an endeavor to investigate the risk management of human remains in one freight forwarding company. To achieve this purpose, a qualitative research in form of case study was done. The data were conducted through multiple data collection; observation, interview, and document analysis. Observation was conducted to get the portrait of how risk management of human remains is run. During the observation, the relevant documents in the company were also utilized. The documents are those which have relation to the shipment process of the human remains (via WhatsApp chat). To strengthen the data, interview to two officials was also carried out. The choice of these research instruments is parallel to Lofland’s (1984) that the main source of data in qualitative research are words and actions, possibly added by additional data such as documents and others.

Furthermore, the visualization of the research design is provided below.

The process
is repeating

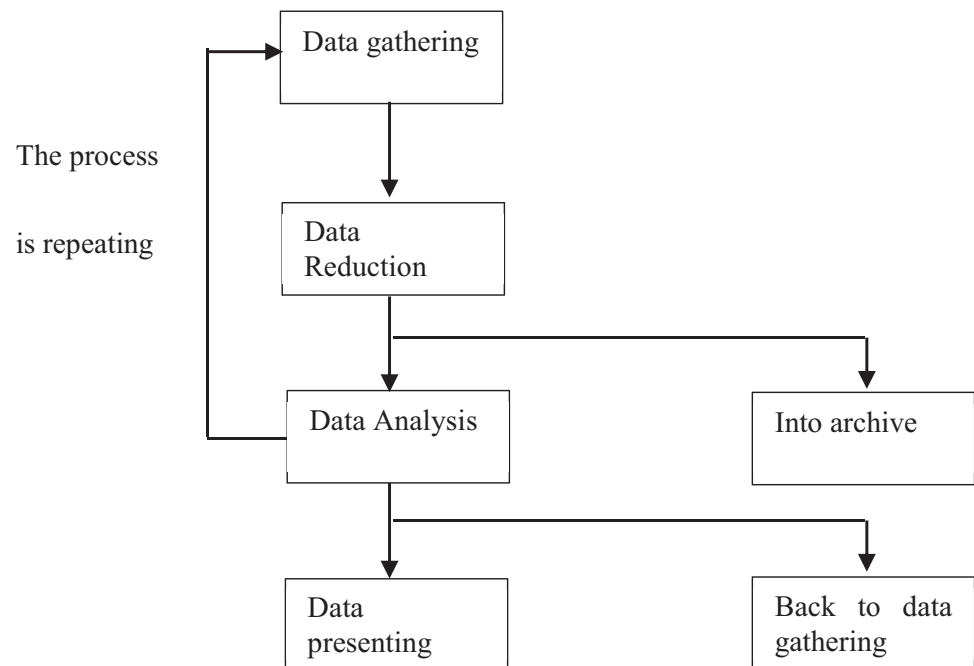
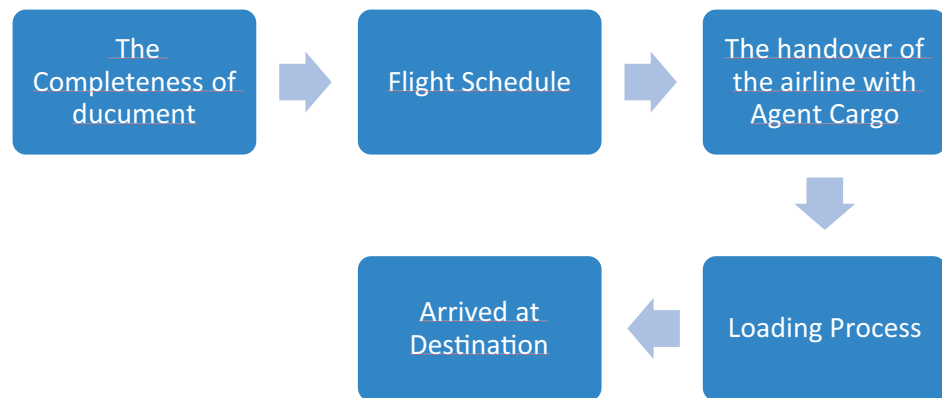


Figure 4: The Visualization of Research Designs.

3. Findings and Discussions

This part explicates the findings the result of this present study which is also confirmed by the related theories and previous studies' report.

As the findings, this company, starting to do the services of shipment of human remains in Soekarno Hatta Airport in 2003, had the operational procedures in handling the human remains as the special cargo as follows.



(Source : SOP DBM)

Figure 5: Stages in The Risk Management Process of Human Remains.

From the scheme above, it is presented that in spite of never getting the complaints on human remains as the special cargo, this corp managed the risk through five aforementioned stages. Specifically, based on the interview process, it is revealed that First, before The corpse in the Cargo Terminal of the airport Soekarno-Hatta international airport is brought by ambulance , the process in completing documents; such as, a death certificate from the hospital, the companion ticket, identity Card (KTP) bodies and companion, letter quarantine from the airport of origin must be achieved. If there is no companion, there is a special room in the cargo hold of the aircraft with a letter of the hospital informing that bodies have been given formalin. In addition to that, if an special case, such as Covid-19 Human remains, there must be completed by a letter to the officer-related wear hazmat or Personal Protection Equipment (PPE) during the handling process see (Guidance et al., 2020).

After the document is complete, the company will find the schedule of the flight. Due to the limitation of human remains service, this company cooperates with Sriwijaya air since 2016 in the delivery of human remains in order to be controlled better. Then when the schedule has been established, then the family of the handover with the DBM, before

the body is placed in the cargo hold of the plane, the documents listed in the SLA (service level agreement) which contains such a checklist, such as the volume of corpses, the name, etc. Then if appropriate and passing the examination, the body was taken through the conveyer specifically for loading into the cargo plane. When the bodies arrived at the destination and, accepted by the family's body then the responsibility of the DBM was completed.

Below is the table showing the stages in risk management process of human remains, completed by the risk map

From those two tables, it is safe to say that in the action to handle the risk, the company implicitly puts communication as the key point. This result is consonant with Tseng et al (2013) that a freight forwarding company should take communication into account in the risk management process. More than that, the risk map as visualized in the table draws some findings. First, point 2 shows that the route and flight hours are not available. This phenomenon happens almost every time if left in a sustainable manner will result in a status level of risk is very high. The impact of delay if happens constantly, and we're afraid it will arise the problem of trust in using such services, then it must be considered. Second, In point 5, the family's body is lately picked up although it almost never happens, but the impact is quite large (state level high-very high). Therefore, The preventive action should be done. Unless, the HUM can be risky mixed with general cargo. Third, Impact of point 4 is the process of loading the HUM and the impact is high based on the risk map then if allowed to happen 1-2 times, then it will be the level of risk is very high, so care must be taken in handling. If a leak occurs in the coffin of the unknown, fear will happen to the conditions that no cargo is not a quick response at the level of risk is quite high, because remains contains gas, formaldehyde, and as well as the pressure difference at the top. The last, in Point 1, documents exchanged or incomplete and point 3 the agent of the cargo that is not a quick response at the level of the risk is quite high.

4. Conclusion

To conclude, as the risk management of the special cargo; that is, human remains, this company carried out five phases; involving, documentation completeness, the availability flight route and hours, cargo agents' readiness, safe loading process, and on-time picking up process. However, it is unavoidable that this company also experienced

TABLE 1: Risk identification.

Process	Risks can occur in the future	Scale	Impact	Action
The Completeness of document	Switched Documents or Incomplete Documents	Not Happened Yet (1)	Cancel and it would be lost opportunity to get potential customer. (4)	Tell to human remains family or the authority to complete the document and socializing the detail of services to potential customer.
Flight Schedule	Route and Flight Schedule unavailable	Almost Certain (5)	Delay (2)	Human Remains will delivered accordance the family or a responsible person of the remains.
The handover of the airline with Agent Cargo	Cargo Agent unresponsive	Not Happened Yet (1)	Shipment will be troubled, delay, remains not onboard. (3)	The responsible company contact to the family of remains and delivered an apology, do a briefing to employees and providing sanctions.
Loading process	Damage to the coffin.	Not Happened Yet (1)	Leakage (5)	Making irregularity report, the chronology of events and impact damage. Delay the delivery until the crate is in good condition
Arrived at Destination	Remains Family late to pick remains up.	Rare (2)	Build up the destination warehouse and could incur a surcharge cost of Warehouse services. Warehouse cargo there is no special place for the corpse, so the risk is mixed with general cargo. (4)	Branch agent contact immediately to remains fsmily for picking remains up at the local destination.

a variety of difficulties in dealing with his remains, from the identification of risk can be seen that the problem that often occurs is the difficulty in finding a schedule and routes that caused the airline available, family informed if things are going that right time to

TABLE 2: Risk Map.

5x5 Risk Analysis Matrix/Map			Impact				
			1	2	3	4	5
Description	Probability	Likelihood	Negligible	Minor	Moderate	Major	Catastrophic
Almost Certain	70%	5		2			
Likely	60%	4					
Possible	50%	3					
Unlikely	30%	2				5	
Rare	10%	1			3	1	4

TABLE 3

Description	Level	Level start from Status
Catastrophic	5	15
major	4	5
moderate	3	4
minor	2	2
negligible	1	1

get into the family, and other difficulties that may be experienced DBM in dealing with human remains that, based on the discussion above, there is a risk that is not expected to occur should be very concerned that points 2 routes and flight hours are not available, so that the control is not too difficult/more difficult than when it followed other points to note, so the risks are not going to highest level.

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