

# **DEVELOPMENT STRATEGY OF HUMAN RESOURCE COMPETENCY IN ANIMAL TRANSPORTATION SHIP KM CAMARA NUSANTARA**

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# Background

KM Camara Nusantara as cattle ship transport in Indonesia



Time: 1.5 month → 1 week

Cost: Rp 1.500.000 → 1.100.000

Cut the *supplychain*: 13 → 4 point

*Weightloss*: 22% → 5%



# BACKGROUND

Human Resources  
KM Camara Nusantara

- Crew
- Veteriner
- **Kleder**



Kleder

- Less educated
- Low Competence
- 1:15 cattles



Human Resources  
MV Ocean Ute

- Certified
- High education
- 1:111 cattles



Low competencies affecting low  
HR performance

- The reaseacrh focus:

"What is the strategy for optimizing human resources in Camara cattle ship so as to improve the efficiency of animal transport system?"

HR Development is needed so the knowledges, skills, and abilities could be optimized (Saydam 2000).

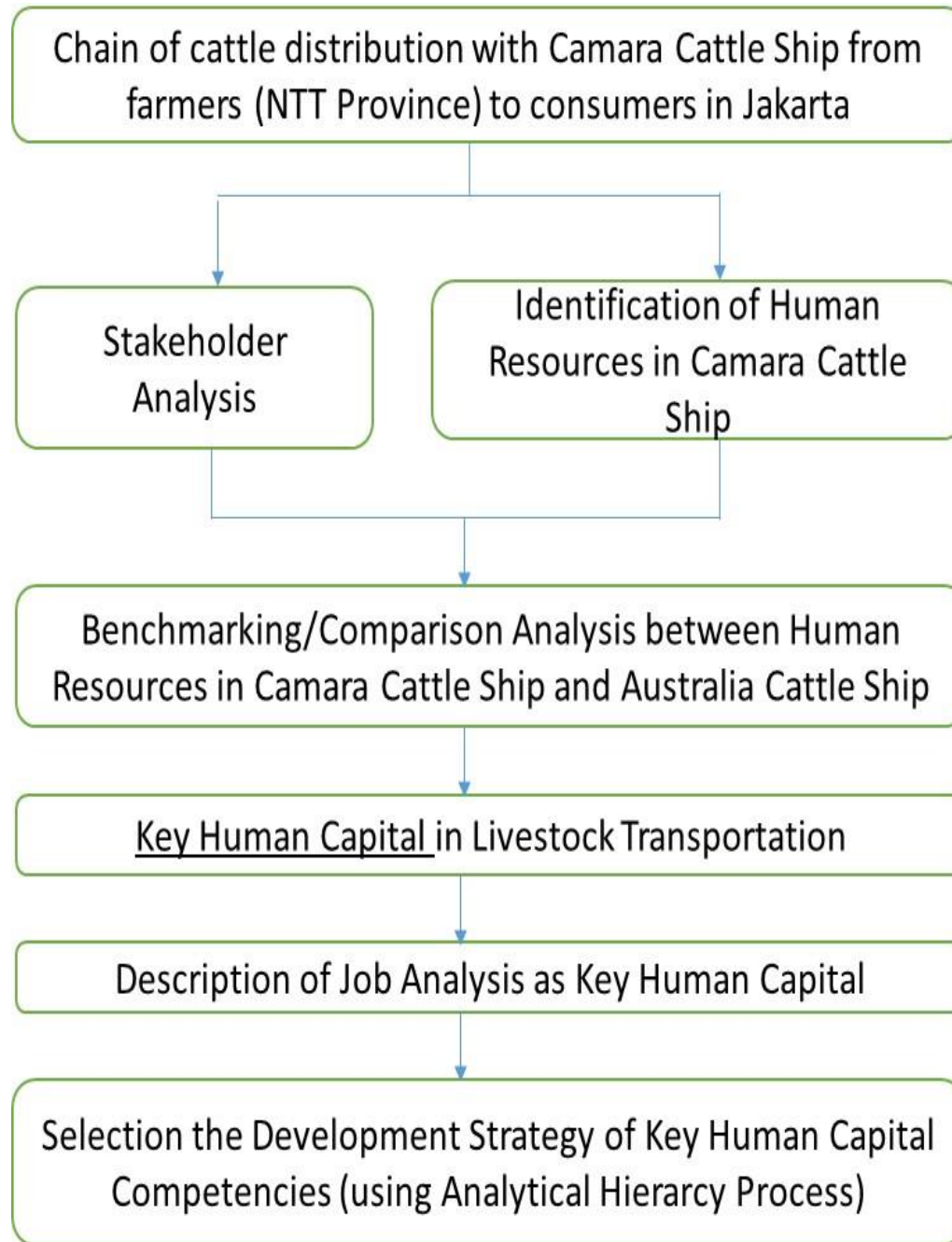


# Research Objectives

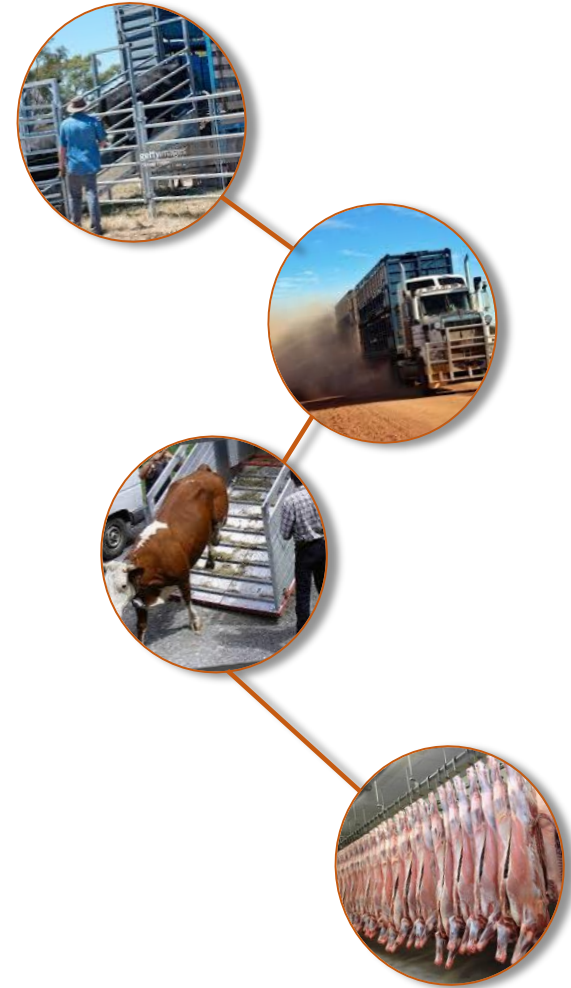
**The research Objectives are :**

- a. Analyze human resource issues on Camara cattle ship
- b. Comparison Analyze the practice of Human Resources (HR) on imported cattle ships that can be applied on the Camara cattle ship
- c. Formulate a strategic plan in the form of competency standards that must be made and completed so as to achieve optimization of human resources in Camara vessels that have an impact on improving the efficiency of livestock transportation system.





# Framework





# Research Metodology

## **1. Analyze human resource issues on Camara cattle ship**

- a. *Primary Stakeholder*
- b. *Key Stakeholder*
- c. *Secondary Stakeholder*

## **2. Analyzing the comparative results of HR practices between Australian import vessels with Camara cattle ship**

- a. Data collection
- b. Observations and documentation
- c. Analysis techniques

## **3. Formulate a strategic**

Using Analytical Hierarchy Process (AHP) to find the most appropriate strategy and delivering Human Resources competency required by key human capital in animal transportation ship KM Camara Nusantara

# Results and Analysis

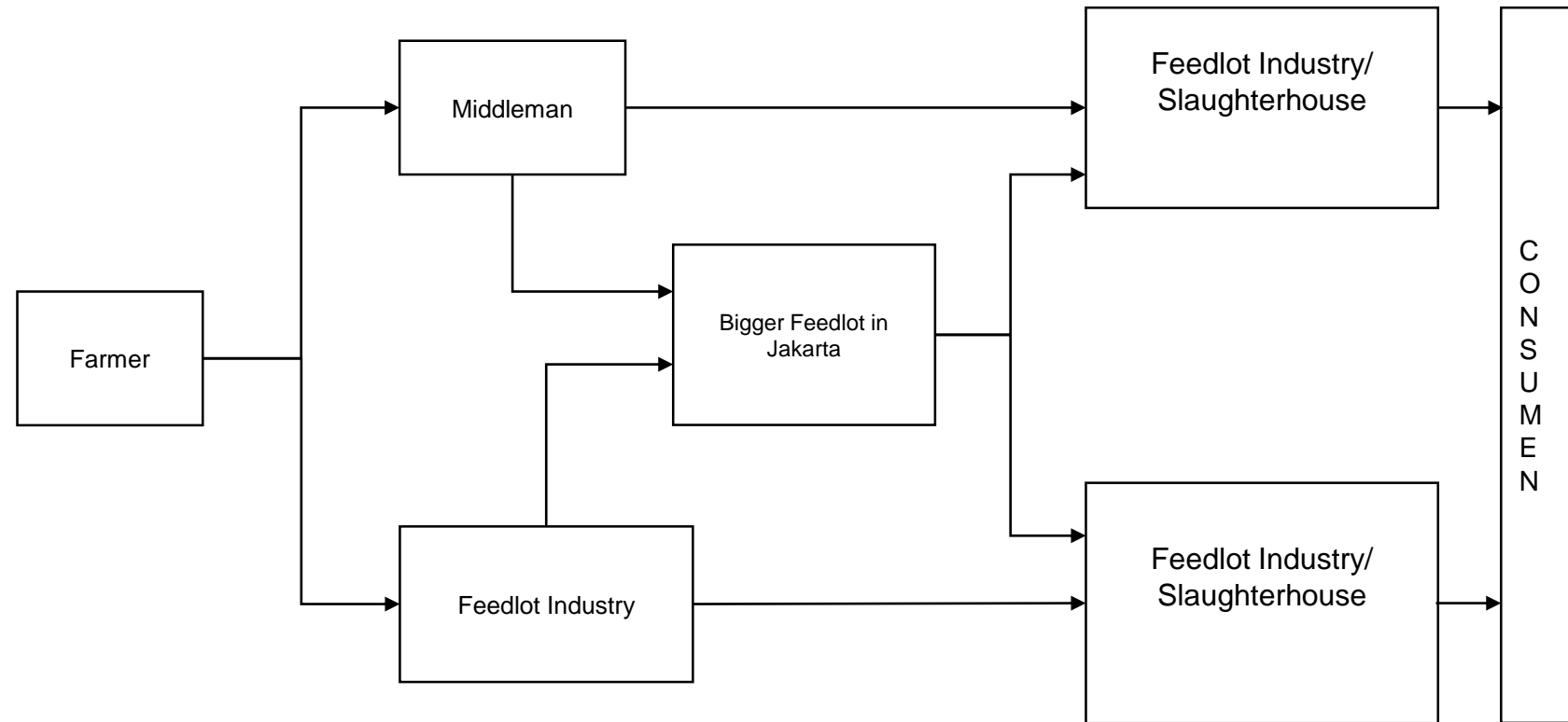


Figure 1 Model of cattle distribution from NTT Province to consumers in Jakarta

# Results and Analysis

Characteristics of kleder

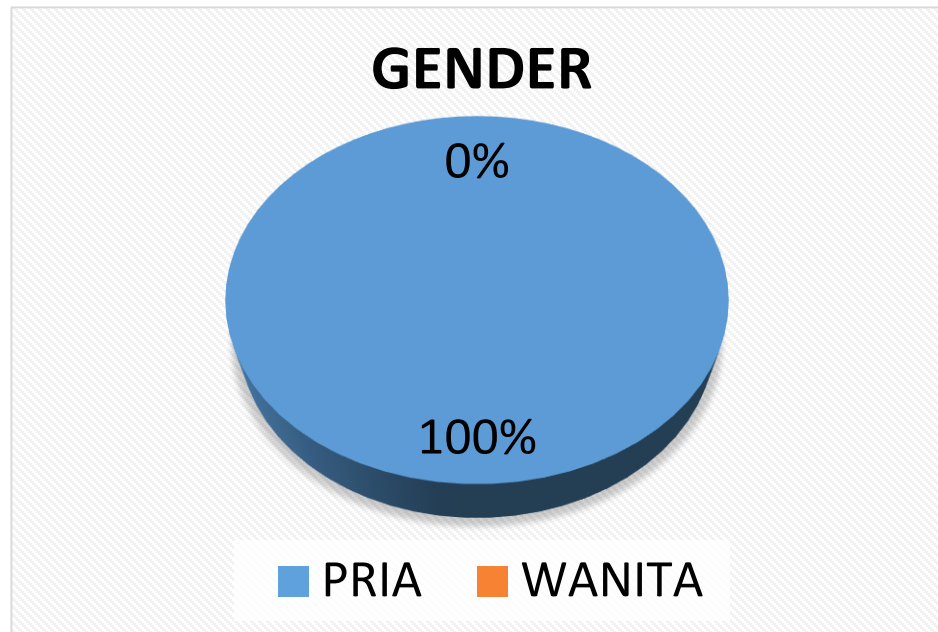


Diagram 1 Characteristics of kleder by Gender

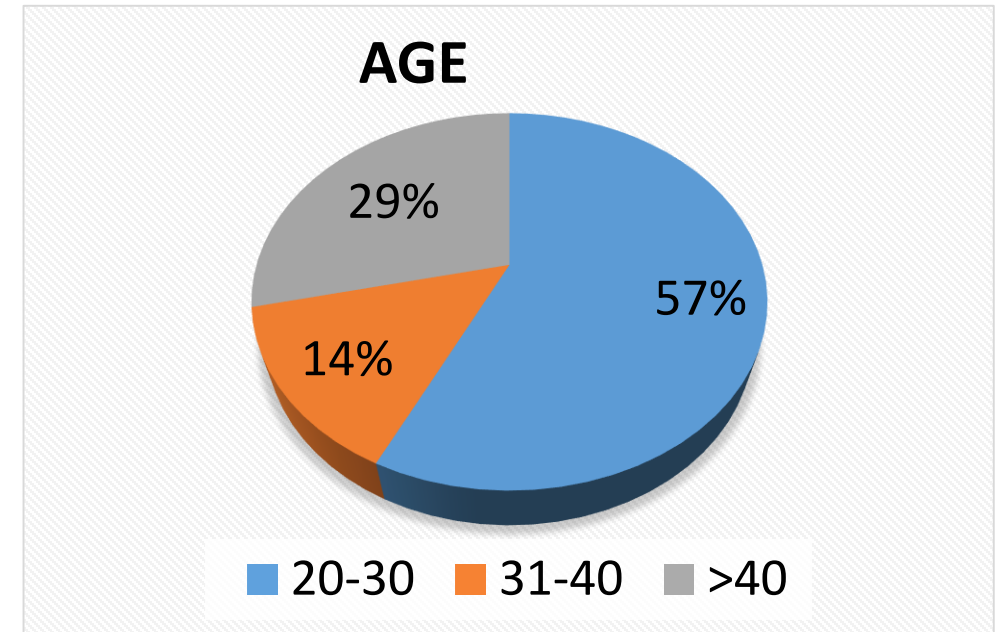


Diagram 2 Characteristics of Kleder based on age

# Results and Analysis

Characteristics of kleder

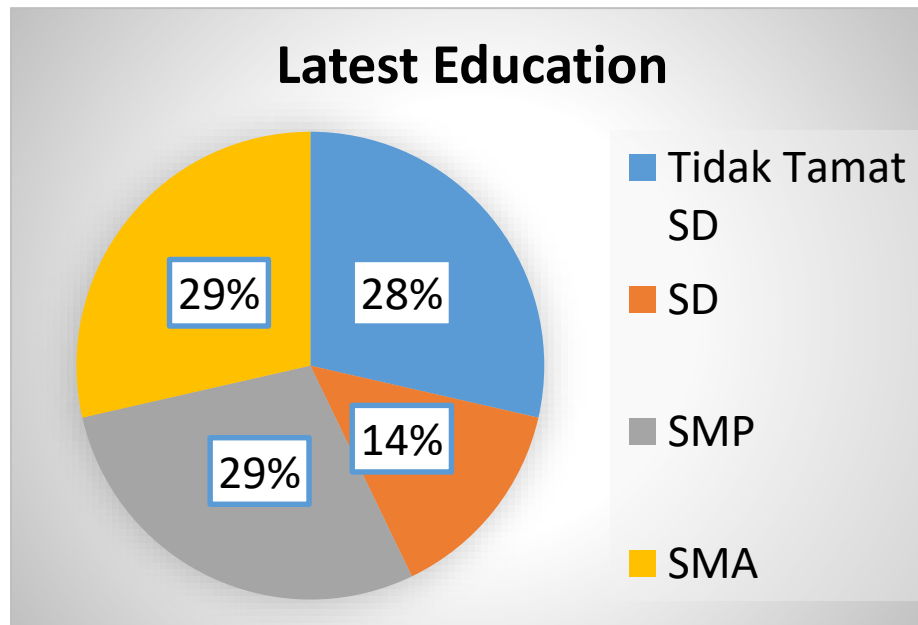


Diagram 3 Characteristics of kleder by Latest education

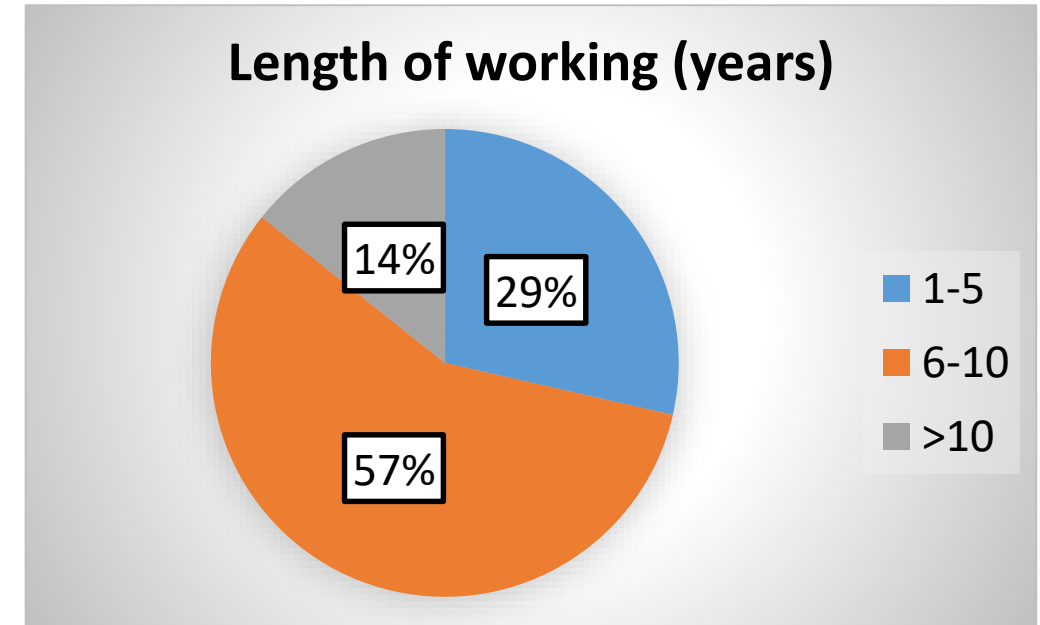


Diagram 4 Characteristics of kleder by Length of Working

# Results and Analysis

## Stakeholder Analysis

Based on the results of the importance and influence of stakeholders. The results of stakeholder analysis are classified using a matrix according to Reed et al. (2009) can be seen in Figure 2.

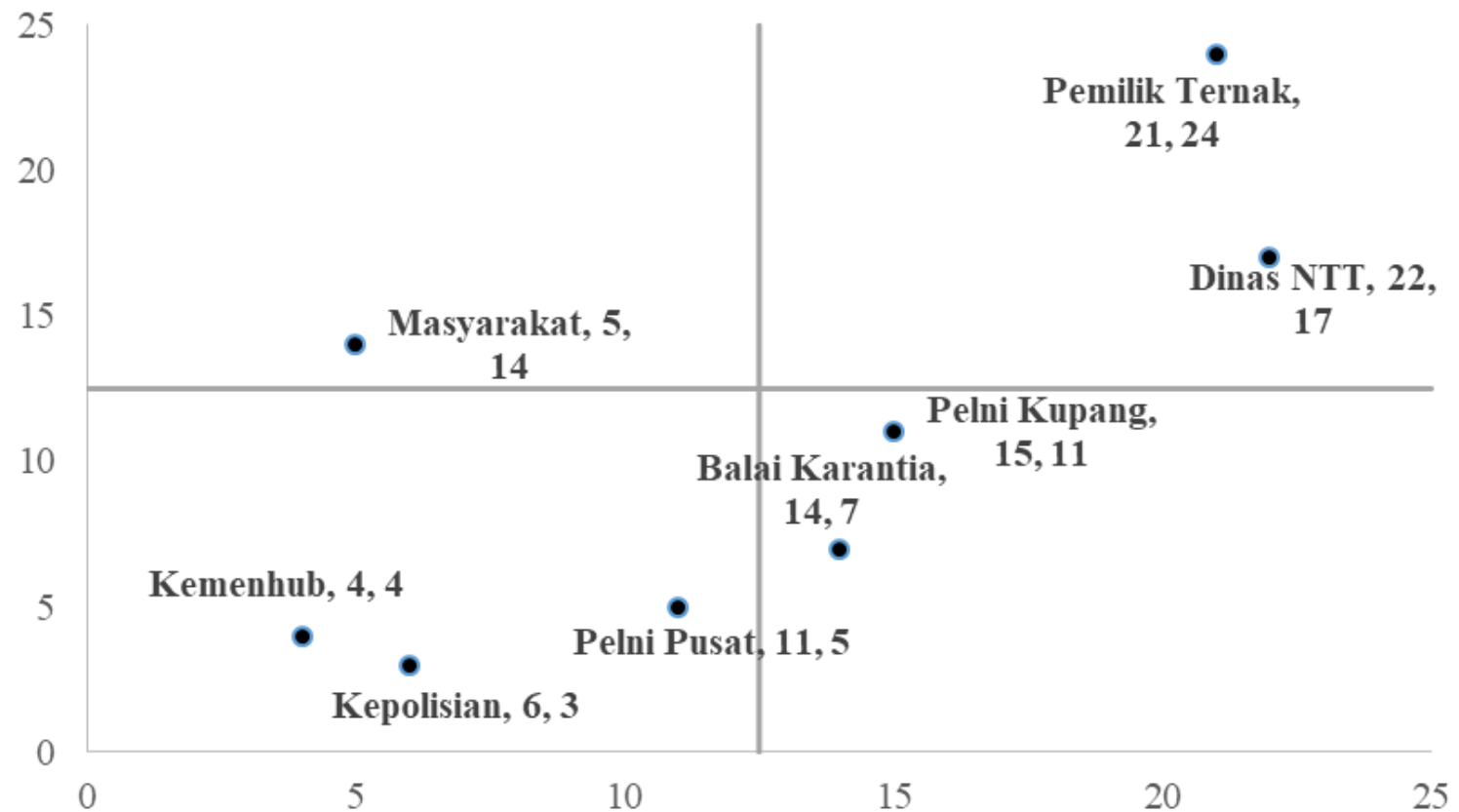


Figure 2 The stakeholder influence and interest matrix

# Results and Analysis

## Stakeholder Analysis

*Key player:*  
Livestock owner,  
NTT Province Animal Husbandry  
Service

Having a high influence and interest in stockman's competency development in the Camara Nusantara Livestock Ship

NTB Governor Regulation No. 78 of 2016 concerning Position, Organizational Structure, Duties and Functions as well as Work Procedures of the Livestock Service Office of NTT Province as regional government agencies that play a role in implementing government affairs in the field of livestock which are the regional authority of NTT

Livestock owners use kleder's services as their cattle nurses during transportation so the kleder is directly responsible to the livestock owners.



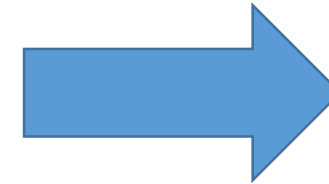
# Results and Analysis

## Comparative Analysis of Human Resources for Camara Nusantara Ships with Australian Livestock Ships

Australian Standards for the Export of Livestock (ASEL)



the World Organization for Animal Health  
(Office International des Epizooties: OIE)



Becoming Indonesia's  
reference in working on  
the Camara ship for  
domestic needs



# Results and Analysis

## Human Resource Competence and Responsibility on Australian Livestock Import Vessels

Competency assessment must consider knowledge, and the ability to apply that knowledge, in several fields, including:

- Responsibility
- sources of advice and assistance
- animal behavior
- general signs of disease and poor indicators of animal welfare
- related authorities and transportation regulations
- methods for handling animals
- methods of checking animals
- proper recording.



# Results and Analysis

## Human Resource Competence and Responsibility on Australian Livestock Import Vessels

Stakeholder	Responsibilities	Competencies
<b>The animal handlers</b>	humane handling and care of the animals, especially during loading and unloading	<ul style="list-style-type: none"><li>a) planning a journey, including appropriate space allowance, feed, water and ventilation requirements;</li><li>b) responsibilities for the welfare of animals during the journey, including loading and unloading;</li><li>c) sources of advice and assistance;</li><li>d) animal behaviour, general signs of disease, and indicators of poor animal welfare such as stress, pain and fatigue, and their alleviation;</li><li>e) assessment of fitness to travel; if fitness to travel is in doubt, the animal should be examined by a veterinarian;</li><li>f) relevant authorities and applicable transport regulations, and associated documentation requirements;</li><li>g) general disease prevention procedures, including cleaning and disinfection;</li><li>h) appropriate methods of animal handling during transport and associated activities such as assembling, loading and unloading;</li><li>i) methods of inspecting animals, managing situations frequently encountered during transport such as adverse weather conditions, and dealing with emergencies, including euthanasia;</li><li>j) species-specific aspects and age-specific aspects of animal handling and care, including feeding, watering and inspection; and</li><li>k) maintaining a journey log and other records.</li></ul>



# Results and Analysis

Comparison between KM Camara Nusantara and Australian Import Ships

No	Comparative Aspects	Australian Import Ships	KM Camara Nusantara Vessel - Indonesia
1	Transport Capacity	2000 s.d. 16.000 head/ship	500 head/ship
		Adapted to its function as an export ship to all corners of the world with the number of cattle that exceed domestic needs	Adapted to its function as an inter-island cattle carrier with limited availability of cattle from producer centers
2	The suitability of the cattle raising system with the design of the cage on the ship	Colony system with colony cage design	Individual system with colony cage design
		There is a match between the design of the enclosure and the colony maintenance system	The design of the enclosure is not yet in line with the individual cattle breeding system

# Results and Analysis

Comparison between KM Camara Nusantara and Australian Import Ships

No	Comparative Aspects	Australian Import Ships	KM Camara Nusantara Vessel - Indonesia
3	Methods for Handling Cattle	Relatively simple and fast because the character of an Australian cattle (Brahman Cross) with a system of maintenance of the colony was accustomed to a colony transfer that did not recognize the touch of a human hand or was tied with a rope	Relatively complicated and slow due to local cattle with a colony maintenance system but handling during transportation is treated individually which is tied with ropes
4	Location Mapping System on the ship	It has been programmed since the ship received information in the form of:	Although the capacity is small, mapping decks still need to be run for:
		- Number of cattle to be loaded	- Grouping cattle buyers
		- Type/gender of cow	- Type/gender of cow
		- Customer/buyernya	- Size / size of weight
		- Distance	

# Results and Analysis

Comparison between KM Camara Nusantara and Australian Import Ships

No	Comparative Aspects	Australian Import Ships	KM Camara Nusantara Vessel - Indonesia
5	Cattle data transported on ships	- Calculated by group / type / sex	- Calculated by group / type / sex
		- Each group / type / sex has data on cattle weight draw globally (not individually)	- Not yet complete data on weighing cattle
6	Control during the trip	- All cattle are controlled at regular intervals	- The control method and recording carried out on imported vessels can be applied to the Camara Ship
		- All control results are recorded in the recording control and will be analyzed by Stockman for further action	
		- Some checklist that must be filled: general condition of cow health in each pen enclosure and feed / drink conditions (Check the contents and functions)	

# Results and Analysis

Comparison between KM Camara Nusantara and Australian Import Ships

No	Comparative Aspects	Australian Import Ships	KM Camara Nusantara Vessel -Indonesia
7	Number of Cattle Guards	depends on the ship's carrying capacity. Generally the carrying capacity is 2000-3000 cattle.	The number of local cow guards is unlikely to be equated with Australian imported ship cattle because of differences in cow characteristics and ease of access to equipment and the condition of the form of cow feed.
		Cow guards number 6-8 people, with stockman 1 person. Thus the ratio of 1 person: 350 cattle	Ratio of 1 person: 75 cattle
		Their task is divided into working hours shifts, so that cattle can be maintained and controlled for 24 hours	
8	Unloading at the destination port	Unloading cattle from ship to one truck for 15 cattle only takes 15 minutes	The local beef character that must be handled one by one requires a longer time for one truck containing 15 cattle that takes 45-60 minutes.



KM CAMARA NUSANTARA	
KLEDER JOB DESIGN FRAMEWORK	
Position: <u>Kleder</u> / Stockman	
JOB SUMMARY	
Maintain and take care of livestock from quarantine, loading and unloading processes, and during livestock transportation on <u>Camara Nusantara Ship 3</u> .	
ESSENTIAL FUNCTIONS	
<ol style="list-style-type: none"><li>1. Loading and unloading livestock at the quarantine hall, loading and unloading on the livestock ship <u>KM Camara Nusantara</u></li><li>2. Weighing livestock body weight before loading on the ship</li><li>3. Weighing livestock body weight after the loading process on the ship</li><li>4. Calculate feed and water requirements for livestock during quarantine and transportation</li><li>5. Collecting and storing animal feed on ships</li><li>6. Prepare and provide feed and drink to livestock during quarantine and sea transportation</li><li>7. Handling livestock contaminants/dirt during the transportation process on cattle vessels</li><li>8. Register number of livestock and livestock conditions during the quarantine and sea transportation</li><li>9. Implement cattle health care together with a veterinarian</li><li>10. Record and report every incident during quarantine and livestock transport</li><li>11. Maintain hygiene and health of livestock, including cleaning dirt and bathing livestock.</li></ol>	
JOB NEEDS AND QUALIFICATIONS	
<ol style="list-style-type: none"><li>1. Education: High School / Diploma in Animal Husbandry</li><li>2. Knowledge Needs: Knowing the techniques of raising livestock properly, mastering livestock handling techniques, having experience in raising livestock or having worked in the field of animal husbandry will be a plus</li><li>3. Needs skills and abilities: spirited leadership and able to work with the environmental conditions on the vessel, able to collaborate with colleagues, communicate well.</li><li>4. Experience: Have to experience in farming or not.</li></ol>	
OTHER INFORMATION	
<ol style="list-style-type: none"><li>1. Willing to work on cattle boats during the shipping process</li><li>2. Having physical and physical health</li><li>3. Strong mentality</li><li>4. Accustomed to working in the field</li><li>5. The scheduled departure of livestock with cattle boats can change</li></ol>	

# Results and Analysis

## Job Design Analysis of Kleder

# Formulation of Kleder's competency improvement strategy at the Camara Nusantara Livestock Ship

FOCUS

Improving kleder's competency as one of the key human resources in livestock transportation on the Camara Nusantara Livestock Ship

FACTOR

Human resources  
(0.456)

Facilities and infrastructure  
(0.253)

Work environment  
(0.165)

Ship management  
(0.127)

ACTOR

Livestock owner  
(0.134)

Kleder  
(0.138)

Ship operator  
(0.245)

Government  
(0.224)

Transporter service  
(0.129)

Livestock buyer  
(0.133)

AIMS

Increase knowledge  
(0.214)

Performance improvement (skill)  
(0.237)

Maintain product quality (livestock animal)  
(0.271)

Improvement of worker standards  
(0.280)

STRATEGY

Development and training based on competency  
(0.225)

Increase work motivation and insentives (reward)  
(0.194)

Developing kleder competency standard  
(0.361)

Improve kleder recruitment systems  
(0.190)





# Formulation of Kleder's competency improvement strategy at the Camara Nusantara Livestock Ship

Table 1 Weight and priority factors for the Kleder Competency Improvement Strategy in the Camara Nusantara Livestock Ship

Factor Elemens	Weight	Priority
Human Resources (HR)	0.456	1
Ship Management	0.253	2
Facilities and Infrastructure	0.165	3
Work Environment	0.127	4

Human resources (HR) are the first priority with weight values (0.456).

HR is very influential in improving kleder competency, because with good human resources, the improvement of competency Kleder in the Camara Nusantara Livestock Ship will run well and will get maximum results.



# Formulation of Kleder's competency improvement strategy at the Camara Nusantara Livestock Ship

Table 2 Actor weight and priority for the Kleder Competency Improvement Strategy in the Camara Archipelago Livestock Ship

Actor Elemens	Weight	Priority
Ship Operator	0.245	1
Government	0.224	2
Kleder	0.138	3
Livestock owner	0.134	4
Livestock buyer	0.133	5
Transporter service	0.129	6

Livestock ship operators are the most influential actors in the strategy of increasing competency with weights (0.245).

The ship operator has full responsibility for the operation of the ship including regulating kleder's work during transportation.



# Formulation of Kleder's competency improvement strategy at the Camara Nusantara Livestock Ship

Table 3 Target weight and priority for the Kleder Competency Improvement Strategy in the Camara Nusantara Livestock Ship

Goal Elemens	Weight	Priority
Improvement of kleder work standards	<b>0.280</b>	<b>1</b>
Maintain product quality (livestock animal)	0.271	2
Performance improvement (skill)	0.237	3
Increase knowledge	0.214	4

Increasing the standard of kleder workers is needed in an effort to improve kleder's competence in the Camara Nusantara Livestock Ship. Kleder's recent education is graduated from junior high school and does not have training in handling livestock, livestock, and others.



# Formulation of Kleder's competency improvement strategy at the Camara Nusantara Livestock Ship

Table 4 Alternative weights and priorities for the Kleder Competency Improvement Strategy in the Camara Nusantara Livestock Ship

Alternative Elemen	Weight	Priority
Developing kleder competency standard	0.361	1
Development and training based on competency	0.255	2
Increase work motivation and insentives (reward)	0.194	3
Improve kleder recruitment systems	0.190	4

Development of Competency Standards is needed as a guideline for kleder to have good skills and knowledge in handling and taking care for livestock.



# Conclusion

- ❑ Development of human resources, especially kleder competence is a very important thing to do.
- ❑ Results from stakeholder analysis show that farmers and the NTT provincial government have a role as key players in developing kleder competencies.
- ❑ Stakeholder analysis and AHP analysis and shows that ship operators are actors who do not have a large interest but have a large influence on stockman's competence in KM Camara Nusantara.
- ❑ Ideally and based on the results of expert opinion show that to get the ideal competency, kleder should be recruited by the ship operator directly.
- ❑ There is a need to develop National Work Competency Standards for kleder as a work guide to improve competency in the future.



# Recommendation

- ❑ The recruitment system for kleder should be designed by the ship operator.
- ❑ Stakeholders (local government / ship operators / livestock owners) should be able to provide training for kleder so that they can carry out their duties and authorities properly.
- ❑ The establishment of a National Work Competency Standard (SKKNI) needs to be made for Kleder profession as a guideline in the future.

# Lampiran

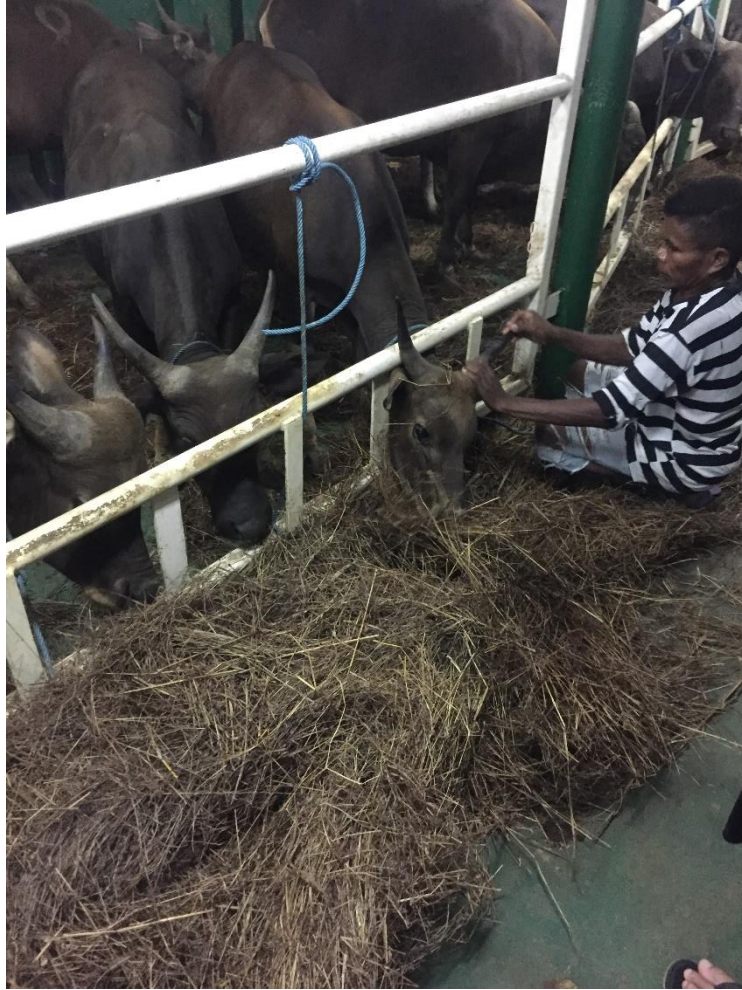


Picture 1 Interview with kleder KM Camara Nusantara 3



Picture 2 Team of animal logistics research students with one of the kleder

# Lampiran



Picture 3 The head of the cow is trapped between the cage fence



Picture 4 Storage of feed by kleder



**THANK YOU**