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**AWARNESS ON ANIMAL WELFARE HANDLING AND
TRANSPORTATION ELEMENTS DURING FESTIVE SEASON AMONG
TRADERS IN KEDAH**

by

ADIL BIN IBRAHIM



**Thesis Submitted to
College of Business
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in Partial Fulfillment of the Requirement for the Master of Sciences
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Kolej Perniagaan
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ABSTRACT

Animal welfare is receiving increasing attention from Malaysian society and the international community. The World Organization for Animal Health (WOAH) has developed a standard guideline for animal welfare to be applied by all WOAH member nations. WOAH's animal welfare standards encompass a wide range of animal welfare issues, including animal transport. According to the USDA, 2022, the majority of animals, including those utilised for study or display, will be transported by truck, trailer, aeroplane, or boat at some point in their life. Transport can be a substantial cause of stress for animals; therefore, it is crucial to consider their welfare throughout the process. Animal welfare concerns in Malaysia appear to be on the rise. This trend appears to be growing, maybe because of increased public awareness of animal welfare. The importance of animal welfare during the handling and transport of animals must be assessed with respect to the understanding of farmers, particularly animal traders. This study seeks to determine the degree of knowledge, attitude, and practise (KAP) among animal traders about the welfare of *Aidiladha* sacrificial animals during handling and transportation, and to develop concrete solutions to solve this issue. The results indicated that majority animal traders in the State of Kedah have a high KAP level, with 85.72% have high knowledge, 94.6% have high attitude, and 98.22% have high practice in animal welfare during handling and transport. Attitude and knowledge variables were also shown to have a relationship with best practises, with the relationship between attitude variables and best practises being particularly high. Consequently, the KAP survey of animal traders reveals the level of animal welfare knowledge during handling and transit. Consequentially, the government's efforts to educate stakeholders and the public about animal welfare must consist of an ongoing enforcement and awareness campaign. Further study needs to be done to assess among others livestock industry player and public opinion on animal welfare practice during handling and transport for government better understanding for better future policy formulation, strategic planning, and animal welfare implementation.

Keywords: Animal Traders, Animal Welfare, Handling, Transportation, Knowledge, Attitude, Practice

ABSTRAK

Kebajikan haiwan semakin mendapat perhatian daripada masyarakat Malaysia dan masyarakat antarabangsa. Pertubuhan Kesihatan Haiwan Sedunia (WOAH) telah membangunkan garis panduan standard untuk kebajikan haiwan untuk digunakan oleh semua negara anggota WOAH. Piawaian kebajikan haiwan WOAH merangkumi pelbagai isu kebajikan haiwan, termasuk pengangkutan haiwan. Menurut USDA, 2022, kebanyakan haiwan, termasuk yang digunakan untuk kajian atau pameran, akan diangkut dengan trak, treler, kapal terbang atau bot pada satu ketika dalam hidup mereka. Pengangkutan boleh menjadi punca utama *stress* bagi haiwan; oleh itu, adalah penting untuk mempertimbangkan kebajikan mereka sepanjang proses itu. Kebimbangan mengenai isu kebajikan haiwan di Malaysia dilihat semakin meningkat. Trend ini nampaknya semakin berkembang, ini mungkin hasil daripada peningkatan kesedaran orang ramai tentang kebajikan haiwan. Kepentingan kebajikan haiwan semasa pengendalian dan pengangkutan haiwan mesti dinilai berkenaan dengan pemahaman penternak, khususnya peniaga haiwan. Kajian ini bertujuan untuk mengetahui tahap pengetahuan, sikap, dan amalan (KAP) di kalangan peniaga haiwan tentang kebajikan haiwan korban Aidiladha semasa pengendalian dan pengangkutan, dan untuk membangunkan penyelesaian konkrit untuk menyelesaikan masalah ini. Hasil kajian menunjukkan bahawa peniaga haiwan di Negeri Kedah mempunyai tahap KAP yang tinggi, iaitu 85.72% mempunyai pengetahuan yang tinggi tentang elemen kebajikan haiwan semasa pengendalian dan pengangkutan, 94.6% mempunyai tahap sikap yang tinggi, dan 98.22% peratus terlibat dalam amalan kebajikan haiwan semasa pengendalian dan pengangkutan. Pembolehubah sikap dan pengetahuan juga ditunjukkan mempunyai hubungan dengan amalan terbaik, dengan hubungan antara pembolehubah sikap dan amalan terbaik adalah sangat tinggi. Akibatnya, tinjauan KAP terhadap peniaga haiwan mendedahkan tahap pengetahuan kebajikan haiwan semasa pengendalian dan pengangkutan. Sehubungan itu, usaha kerajaan untuk mendidik pihak berkepentingan dan masyarakat umum tentang kebajikan haiwan mesti terdiri daripada penguatkuasaan dan kempen kesedaran yang berterusan. Kajian lanjut perlu dilakukan untuk menilai pemain industri ternakan yang lain dan juga pendapat umum tentang amalan kebajikan haiwan semasa pengendalian dan pengangkutan untuk pemahaman yang lebih baik kepada kerajaan untuk penggubalan dasar, perancangan strategik, dan pelaksanaan kebajikan haiwan.

Kata kunci: Peniaga Haiwan, Kebajikan Haiwan, Pengendalian, Pengangkutan, Pengetahuan, Sikap, Amalan

DECLARATION

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; and any editorial work, paid or unpaid, carried out by a third party is acknowledged.



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List of Abbreviations

ANOVA	Analysis of Variance
DVS	Departments of Veterinary Services
KAP	Knowledge, Attitude and Practice
SPSS	Statistic Package for the Social Science
WOAH	World Organization of Animal Health



Chapter 1: Introduction

1.0 Introduction

Malaysia is seen as a country with a civilization and culture that loves animals since the 15th century. This can be seen with the existence of the Malacca Code from 1489 to 1511, the Pahang Code from 1590 to 1614. When colonialism occurred in the 19th century, the enactment for the Prevention of Cruelty to Animals was introduced. At that time, the ban on fighting between cows and chickens was banned to protect animal welfare. Today, parallel to the rapid development of Malaysia as one of the fastest developing countries, the issue of animal welfare is seen as a matter that is taken seriously by the community.

Animal welfare is getting more and more attention from Malaysian society and the world. The World Organization for Animal Health (WOAH) have developed an animal welfare guideline as a standard to be implemented by all WOAH member countries. Animal welfare standard that been develop by WOAH covers a broad scope on animal welfare, from management of the animal, transport, slaughter, breeding animal and during destructions of the animal example such as because of disease. It is also including all types of animals for various uses such as livestock, pets, recreational animals, aquatic animals, wildlife and animals used for research and teaching purposes (WOAH, 2022).

Animal welfare has scientific, ethical, economic, cultural, social, religious, and political dimensions, according to WOAH,2022. It is one of the World Organisation for Animal Health's top priorities and is drawing increasing interest from the public. According to the Terrestrial Code by WOAH, 2022, "animal welfare is the physical and emotional status of an animal in connection to its living and dying conditions."

Simply said, animal welfare is the obligation humans must treat animals with humanity and responsibility.

1.1 Background of Study

Transportation can be defined as a concept of how to transfer from one place to another (Kamus Dewan Bahasa dan Pustaka, 2007). Transport can be categorized by mode of transport itself, such as land, air and maritime. According to USDA, 2022, at some point in their lives, most animals, including those used for research or exhibition and livestock, will be transported by truck, trailer, aeroplane, or boat. Transport can be a significant source of stress for animals, so it is essential to consider their welfare throughout the process. The animals must reach their destination in good health and with minimal distress.

The Animal Welfare Act 2015 (Act 772) was gazetted on 29 December 2015 and came into force on 1 July 2017. Based on the provision Section 15 of Act 772, there are thirteen (13) activities that involve the use of animals must be licensed by the Animal Welfare Board. Accordingly, the Malaysian Veterinary Services Department (DVS) has took the initiative to develop an Animal Welfare Code Animal Welfare Practices which contains related standards and guidelines for animal welfare. This code of practice acts as a reference for the owner-license and any party concerned in ensuring the welfare and well-being of the animals involved in the above activities always maintained. In line with the social agenda of today's society focusing on issues related to animal welfare, it is expected that the Code Animal Welfare Practices can be implemented during handling animals in activities that involve the use of animals such as which is listed in the Schedule of Act 772 (Department of Veterinary Services, 2019).

Eid al-Adha also known as *Aidiladha* is one of the biggest festivals for Muslims around the world. The celebration of *Aidiladha* will usually involve sacrificial animals for the purpose of the celebration as a sign of the sacrifice of a Muslim to commemorate the event where Prophet Ibrahim was instructed by Allah SWT to slaughter his son as a sign of obedience to the commandment revealed by Allah SWT. Malaysia, with its majority Muslim population, also celebrates and performs the sacrifice. In the year 2022, the Department of Veterinary Services of Malaysia estimates that 38,000 livestock will be needed for the purpose of sacrificial worship alone (Harian Metro, 2022). Usually, livestock for this sacrifice will be slaughtered outside of a licensed or approved government facility either in a mosque, surau or private premises under the Law of Animal (Slaughter Control) Rules 2009. Lack of knowledge and facility cause animal handling during process of sacrificial does not comply with animal welfare practices. Generally, the delivery of these livestock to the permit is using a vehicle such as a lorry as transport and is carried out within 1 or 2 days before *Hari Raya Aidiladha* is celebrated. At this time, we will be able to see how these livestock are transport and handled without practicing animal welfare. Livestock are forced to get in and out of trucks without adequate facilities, are handled roughly and are usually beaten. In the teachings of Islam itself, there is much written in the Al-Quran and Hadith regarding the need to take care of the welfare of animals. However, we still see the neglect of animal welfare during sacrifices and this needs to be improved. By considering the above facts, the study aims to identify the factors affecting animal traders on animal welfare during handling and transportation of animal.

1.2 Problem Statement

Animal welfare issues in Malaysia are seen to be increasing day by day. This is supported by a report from the Department of Veterinary Services of Malaysia stating that there has been an increase in reports on the neglect of animal welfare from 510 cases in 2017 to 620 cases in 2018 is about 22% of increase (Athira,2021). This trend is seen to increase perhaps because there was awareness from the public about animal welfare.

Farmers especially animal traders understanding of the importance of animal welfare during the handling and transport of livestock needs to be evaluated. This aims to improve the image of the Muslim community in Malaysia and at the same time make Malaysia an example of an Islamic country that emphasizes the aspect of animal welfare.

This research aims to identify the level of knowledge, attitude, and practice from the animal traders on animal welfare of *Aidiladha* sacrificial animal during handling and transportation and to map out actionable solutions to address this.

1.3 Research Objective

- 1) To describe socio demographic profile of animal traders in State of Kedah
- 2) To assess level of knowledge, attitude, and practices of animal traders in State of Kedah on animal welfare during handling and transportation
- 3) To assess relation between knowledge and attitude toward animal welfare practices during handling and transportation
- 4) To assess socio demographic of animal traders related with knowledge, attitude, and practice in animal welfare during handling and transportation.

1.4 Research Question

- 1) What is socio demographic profile of animal traders in Kedah?
- 2) What is the level of knowledge, attitude, and practice among animal traders in Kedah on animal welfare during handling and transporting *Aidiladha* Sacrificial animal?
- 3) What is the socio demographic characteristics of animal traders associated to knowledge, attitude, and practice in animal welfare during handling and transportation?

1.5 Scope

The scope of the study is limited to animal traders that lives in Kedah. This survey period will last for a maximum of 4 weeks and will end when either 62 volunteers have been recruited or 4 weeks have passed. Each volunteer to the study will be asked to complete a short questionnaire (close-end questions).

1.6 Significance of Research

Through this study, will give information to researcher about the level on knowledge, attitude, and practice of animal traders on animal welfare emphasis on handling and transport aspect. In addition to this, the overview presented in this research will push for new paradigms especially government site what needs to be done to improve awareness and education among public and farmers about important of animal welfare during handling and transport.

1.7 Key Definition of terms

1. **Animal Welfare** - means the owner's responsibility to ensure that the animal's needs are met from several things such as the environment, diet, the animal's ability to exhibit its natural behaviour patterns, protected from pain, suffering, injury and disease
2. **Animal Transportation** - the transport used by the owner of the livestock to be moved from one location to another location by using any kinds of modes of transportation such as air, maritime or land.
3. **Animal Handling** - animal handling is a method for humans to interact with animals by using safe methods such as physical or chemical restraint apart from understanding the behaviour of animals that want to be handled
4. **Aidiladha Sacrificial Animal** - Animals used for sacrificial worship. Animals that are slaughtered must be healthy. Animals that can be sacrificed are camels, cows, buffalo, and goats. For other than these three four are not allowed.

1.8 Organization of The Research Paper

The first chapter presents an overview of the study by depicting a comprehensive synopsis of the study in a single section, so setting the stage for the subsequent chapters. This chapter consists of an overview of the study, definitions of essential words, and an outline of the research.

The second chapter provides a literature review of past research pertaining to the study's key factors. It will address in-depth research on the topic, covering

characteristics such as knowledge, attitude, and practises regarding animal welfare during animal handling and transportation.

The third chapter describes the methodology of this study. This chapter will discuss the research framework in detail. The link between the variables will also be a major consideration in this chapter. This relationship will inform the creation of the study's hypotheses. It will also outline the research methodology and data analysis techniques employed by the researcher. Consequently, it also includes the research population and sampling, data collection methods, survey questionnaire preparation, and measurement item identification.

Chapter four includes a comprehensive discussion of the data analysis, findings, and results of the hypothesis testing.

The conclusion of the research will be presented in Chapter five. This will be followed by a description of the data analysis, and the chapter will conclude with the study's limitations and suggestions for future research.

Chapter 2: Literature Review

2.0 Animal Welfare Concept

People respect animals for social, cultural, economic, and emotional reasons: they give food, fibre, and companionship, are used in sport, recreation, and scientific study, and are becoming increasingly valuable as environmental assets.

Animals are transported between nations for all these reasons, and the associated trade is a substantial component of international commerce and cultural exchange. Animal movement will continue in the future and is likely to increase because of the increased worldwide mobility of people and advancements in transportation technologies. As a result, concern for the welfare of transported animals has increased, as has interest in regulations designed to safeguard these animals (Adams, D.B.,1994).

Long-term and global experience reveals that animals can move between countries using modern modes of transportation without incurring any harm. Nevertheless, every means of foreign movement carries the risk of disease, stress, and pain.

2.1 Needs and factors related to animal welfare during transportation

Adams, D.B.,1994 in his study state that, in animal welfare, the idea of "needs" is important. A "need" is "a deficiency in an animal that can be fixed by getting a certain resource or reacting to a certain environmental or bodily stimulus." These needs are different for each species, each animal's physical and behavioural state, and each set of circumstances. Animals that are pregnant or growing have different needs than animals that are not. Animals that are sick or hurt also have specific needs that, for the most part, can't be met while they are being transported.

WOAH, 2022 also said something like Adams, D.B.,1994 definition of animal welfare. Animal welfare is also based on the ideas of "freedoms," "obligations," and "rights." These have to do with the moral duty to meet the biological needs of animals in our care. Animal Welfare means the owner's responsibility to ensure that the animal's needs are met from several things such as the environment, diet, the animal's ability to exhibit its natural behaviour patterns, protected from pain, suffering, injury and disease. There are five main components to achieving animal welfare that also known as five freedom of animal welfare, namely:

- 1) Freedom from hunger and thirst
- 2) Free from pain and disease
- 3) Free to express his natural behaviour
- 4) Free from fear and distress
- 5) Free from discomfort

When animals are shipped across borders, they have certain needs that must be met.

It has been said that sheep must have the following things to be safely transported by sea:

- a) Adequate palatable, nutritionally balanced feed that meets their physiological needs;
- b) Adequate water to drink
- c) Air that is free of harmful gases
- d) An environment that allows the animal to show off its behaviour and doesn't put too many limits on its physical movement.
- e) Protection from bad weather, either natural or man-made
- f) protection from parasites, disease, predators, and injuries.
- g) access to proper care, including quick, humane killing, when needed.

2.2 Factors related to animal welfare during transportation

Several authors have written about factor that stress out animals during transport.

Hails talked about how transport stress affects animals, focusing on pigs, the "porcine stress syndrome," and both road and rail travel (Stephens, D.B, 1982).

There was a list of the following stressors:

- a) Being away from home and group member for a long time
- b) Loading and unloading
- c) Too many people in small places
- d) unfamiliar and loud noises
- e) Vibrations, jolts, extremes of temperature and humidity, speeding up and slowing down while moving, long periods of waiting when there may not be any air flow, and fast air flow when the vehicle is moving.
- f) gases from faeces, urine, and fumes; changes in the bacteria and other organisms that the animals are exposed to; lack of food and water.

Stephens, D.B, 1982 in his study, put the bad effects of transportation into two categories: physical or emotional disturbances. He then compared these to the general responses that stressors cause. Fear was singled out as an emotion that can cause the alarm and stress responses in the body.

2.3 Transportation and Animal Welfare

The World Organization of Animal Health (WOAH) has also outlined that the handling and transport process of animals is also one of the criteria that must be followed to ensure animal welfare is always prioritized during transportation. Among the outlined are:

- i. The responsibilities of the owner and operator

- ii. Competence of the owner and operator
- iii. Handling and procedures before, during and after animal transport
- iv. Transport criteria
- v. Management of sick, injured, or dead livestock during transport

2.4 Eid al-Adha

Eid al-Adha is a very meaningful celebration for Muslims around the world. There are two main purposes of celebrating Eid al-Adha, which is a sign of a Muslim following the command of Allah SWT and the second is as a sign of togetherness towards other Muslims who are in trouble. Sacrifice (qurban in Arabic) is a sign of the sincerity of a Muslim to share his sustenance with others and a sign of gratitude for the sustenance that Allah SWT gives to someone. Therefore, the quality of the sacrificial meat is not only focused on *Halal* but must meet the *Thoiyiban* standard. *Thoiyiban* or in simple language is quality (Javaid et al., 2018). To ensure that the meat produced is of good quality, the animals that want to be slaughtered and that will be slaughtered need to be reduced or avoided from experiencing stress. Research shows that livestock that are in a state of stress will produce low quality meat such as meat will look dark, firm, and dry (DFD) because of the increased pH factor in the meat or the meat may become pale, soft, exudative (PSE) because of the change in the pH of the meat which becomes low. Physiological changes in meat due to this stress result in low meat quality (easily perishable and not long-lasting if not stored immediately in the refrigerator) (Lis, Safitri, 2021).

Livestock can experience stress starting from livestock being separated from their group to be moved to another place. For example, the sale of livestock to buyers for the purpose of slaughtering for sacrificial worship. During the process of catching

and moving livestock onto transport vehicles such as lorries will also cause stress to the livestock. New conditions and atmosphere with inappropriate vehicle conditions will cause stress to the livestock. Until reaching the destination, for this case a mosque, surau or personal premises. Livestock handling that is carried out roughly will also cause stress to the livestock. When it is time to slaughter, the animals to be slaughtered are once again treated roughly and the animals see their friends who have been slaughtered. This will also cause stress to the livestock.

2.4.1 Animal Rights and Welfare in Islam

In Islamic teachings, we are taught to respect and love every living thing, be it humans, birds, insects, and animals. This is because in Islam, everything mentioned above is the creation of Allah SWT. Islam also teaches us to treat animals the same way we treat humans. In the Qur'an, hadiths, the stories of the Prophet show many examples of how early Muslims loved and loved animals. In Islam too, we are taught that animals have tasks, roles and have their own purpose. Islam allows its people to eat meat from animals that are halal and slaughtered only. (Even for these animals, the Holy Prophet (ﷺ) has directed His followers to show mercy, that will be rewarded by Allah on the Day of Rising". He (ﷺ) emphasized on the manners and etiquettes of slaughtering, in addition to the basic principles, to safeguard the animals from unnecessary pain.

2.5 Knowledge, Attitude, Practice (KAP)

In the 1950s, KAP surveys were initiated in the disciplines of family planning and population research. These surveys, which are also referred to as knowledge, attitude, behaviour, and practise surveys, are increasingly frequently used to determine health-

related behaviours and how people obtain health care (Andrade, C. et al., 2007). (2020). A KAP survey is intended to be representative of a specific demographic. Its purpose is to determine what people know (their knowledge), believe (their attitude), and do (their practise) in respect to the issue of interest. Information is acquired through semi structured or (more frequently) structured questionnaires that respondents or interviewers can complete (Pradipta, I.S. et al., 2022). One can collect both qualitative and quantitative data.

KAP surveys are easy to plan, do, analyse, and figure out what they mean. Because of this, KAP surveys have become popular, especially in the field of public health, where they help with allocating resources, making plans for, and putting public health programmes into action (Andrade, C. et al., (2020). Below is some of the most important reasons to do KAP surveys.

- a) To find out what people know, what they think they know, what they believe, how they act, and what they do about a certain health topic.
- b) To understand, analyse, and discuss about interesting topics or situations in the field.
- c) To understand, analyse, and discuss about interesting topics or situations in the field.

2.6 Previous KAP Study on Animal Welfare During Transport and Handling

Previous study by Wambui et al, 2018 in his study on Animal Welfare KAP of Stockpersons in Kenya found that demographic characteristics of the stockpersons generally influenced their animal welfare KAP, especially in their practices. This statement also agrees by Celik and Bozkurt, 2016 in his study on Animal Welfare KAP in Mus Province, Turkey. The 'Theory of Planned Behaviour recognizes that

attitudes, together with subjective standards and perceived behaviour control, are significant predictors of behaviour intentions (Azjen 1991). Emotional responses to other species, the extent to which an animal is of instrumental use and value to humans, and other specific human characteristics, such as gender, money, and whether they grew up with pets, influence human attitudes toward animals (Serpell 2004). Sincrail, M. et al. 2017 found that the majority of respondents in all four countries (Malaysia, Thailand, China, Vietnam) believed that the animal welfare during handling and transport are important to them and there was agreement among respondents in all four nations that they planned to enhance the welfare of animals and that they were confident in their ability to do so.

2.7 Chapter Summary

As a summary, this chapter focus on details of the literature that relates to the construct of this research that includes animal welfare concept, needs and factor relate to animal welfare during transportation, animal right and welfare in Islam and KAP study on animal welfare during transport and handling. Details discussion on the concept, theories and challenges that related towards variables that will form the framework of this study. Consequently, the following chapter will integrate the research framework, the creation of hypotheses, and the research methods with the questionnaire design pertinent to the current study..

Chapter 3: Methodology

3.0 Research Framework

This study will be based on a specific target which is among animal traders in Kedah who have involve during handling and transporting animal for festive season especially for *Aidiladha* Sacrificial. Considering this, the researcher has chosen a quantitative methodology to test objective theories by analyzing the relationship between variables. The design of the variables and the instrument will be as quantitative as it is measurable, allowing the data to be evaluated using statistical methods. To provide quantitative and measurable data outcomes, simple random sampling with purposive sampling has been selected as the sampling method. Sampling for a specific purpose, also known as judgmental, selective, or subjective sampling. Inclusion for this sample is animal traders that handling and transport ruminant for slaughtering purpose for *Aidildha* Sacrificial event and for exclusion, animal traders that handling and transporting animals others than ruminant and for others reason such as fattening and breeding purpose. Data will be collected by circulating questioners with self-administered questioner using via online channels WhatsApp's accounts related to animal traders that lives in Kedah and ask collaboration with Department of Veterinary Services in State of Kedah. The questionnaires were made available in Malay. The objective of the final written report will consist of introduction, literature and theory, methodology, findings, and discussion at the end of the data collection.

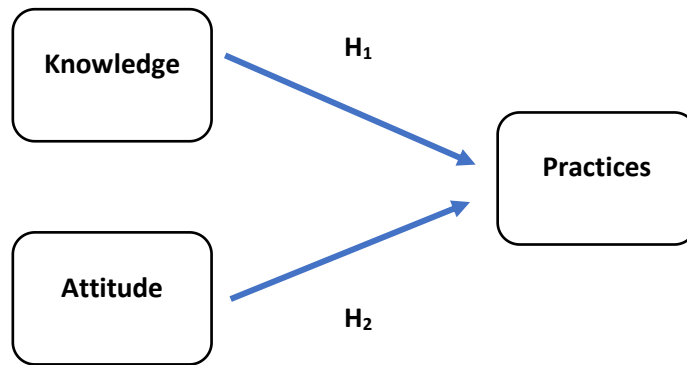


Figure 3.1 Proposed research Framework

3.1 Propositions Development

This study aims to assess the animal welfare knowledge, attitudes, and practices of animal traders in Kedah during the handling and shipping of *Aidiladha* Sacrificial animals. For evaluation of each dimension, a self-administered questionnaire is used in this study. In addition, it examines the association between knowledge, attitude toward practices to determine their relationships. This investigation has four aims:

- 1) To describe current profile of animal traders in Kedah. The questionnaire includes questions about socio demographic background such as age, gender, level of education, years of experience in the industry, marital status, area living, religion, involvement in the animal handling and transport industries, level of understanding of livestock production systems and how they gain their knowledge. The objective can explore by a research question RQ1,

RQ1: What is current profile of animal traders in Kedah?

The participants will respond to sociodemographic background questions. The responses will be categorised and described before being shown as percentages.

- 2) To assess knowledge, attitude, and practice of welfare of *Aidiladha* Sacrificial animal during handling and transporting among animal traders in state of kedah.

This objective can explore by a research question RQ₂.

RQ2: What is the level of knowledge, attitude and practice among animal traders in Kedah on animal welfare during handling and transporting Aidiladha Sacrificial animal?

Participants will answer questions addressing their animal welfare knowledge, attitudes, and practises during animal handling and transportation. Using the Skewness Kurtosis Test, the normal distribution of each dimension's score will be calculated and analysed. Also utilised are descriptive statistics such as mean, standard deviation, median, interquartile range, and percentage.

- 3) To assess relationship of knowledge, and attitude among animal traders with their practices. Relationship of knowledge, attitude towards practices scores will be analysed correlation by Multiple Regression. There are two hypotheses to explore the relationships can be seen:

H1: Knowledge of animal welfare during handling and transportation correlates with Practices

H2: Attitude towards animal welfare during handling and transportation correlates with Practices.

- 4) To examine socio demographic of animal traders related with knowledge, attitude, and practice in animal welfare during handling and transportation. The objective can describe by a research question RQ₃.

RQ3: What is the socio demographic characteristics of animal traders associated to knowledge, attitude and practice in animal welfare during handling and transportation?

Participants give their characteristics in age, gender, level of education, years of experience in the industry, marital status, area living, religion, involvement in the animal handling and transport industries, level of understanding of livestock production systems and how they gain their knowledge. Pearson Correlation Test, ANOVA and T Test will be employed for describing between various of demographics and knowledge, attitude, and practice factors.

3.2 Research Design

In this research, I purposed to uses explanatory research design to define the variables and the relationships of the study. Explanatory research may be conducted if there are unanticipated relationships between variables. Explanatory studies aid in defining what two or more components of a problem or circumstance are and how they are related. The targeted respondents will be among animal traders that lives in State of Kedah and their base operation is in State of Kedah. This research aims to attain one hundred percent (100%) respondents. The respondents will be chosen regardless a person that involve in handling and transportation of the ruminant. We eliminate those individuals who are animal traders, but not ruminant animal and purpose of transportation and handling is focus on transporting animal for

slaughtering. Each potential respondent was sent a copy of the five-page questionnaire through an online survey.

3.3 Research Population

The target population of this quantitative research is among animal traders who live in and operate their business in State of Kedah that involved in handling and transport animal during *Aidiladha* Sacrificial.

3.4 Sample Size

The sample size for this research is 62 samples. Number of animal traders is extracted from e-Vetpermit system that been used by Department of Veterinary Services to manage registration, application, and approval of animal movement in Malaysia. To achieve 95% confidence interval level, minimum 54 samples need to be collected.

3.5 Sampling Technique

To attain quantitative and measurable data results, a survey by distribution of questionnaires (close end questions) through simple random sampling with purposive sampling it been choose as the sampling technique. Purposive sampling, also known as judgmental, selective, or subjective sampling. Inclusion for this sample is animal traders that handling and transport ruminant for slaughtering purpose for *Aidildha* Sacrificial event and for exclusion, animal traders that handling and transporting animals others than ruminant and for others reason such as fattening and breeding purpose.

3.6 Instrumentation

In this research, I propose to use questioners to do the survey. A survey is a study method for collecting relevant information from selected group of respondents to gather information and insights on topics that been study. Questionnaires are a good way to get information from a large number of people or from people who don't have time to go to an interview or take part in a study. For this analysis, a five-page questionnaire survey is suitable. Respondents could privately state their views or feelings without worrying about the researcher potential reaction.

A structured questionnaire with four sections (Section A, B, C and D) will be used for the survey (see Appendix 1 for current study's questionnaire). Section A will consist of questions on respondents demographic profiles. Section B, C, and D will be questions based on knowledge, attitude, and practices. Sections B, C, and D will be a five-point Likert scale, ranging from (1) strongly disagree to (5) strongly agree.

3.7 Data Collection

Data will be collected by circulating questioners with self-administered questioner using via online channels WhatsApp's personal accounts related to animal traders that lives in Kedah and ask collaboration with Department of Veterinary Services in State of Kedah. The questionnaires were made available in Malay languages.

According to the Department of Veterinary Services in State of Kedah, the number of animal traders that active in 2022 is 62 person. This data is extracted from E-Vetpermit system that been used by Department of Veterinary Services to manage application and approval of animal movement in Malaysia. The E-Vetpermit system comprises three modules: premise registration, inter-state movement and intra-state movement module. The premise registration module stores premise data including

owner information, premise location, contact person information, premise production or activity, and vehicle and animal registration. The inter-state movement module is used to manage the application for the permit of live animals and animal products movement from one state to another while the intra-state movement module manages the application of within state or district movement and slaughter permit. Since this population is small and spread out across Kedah and there isn't much time to collect data, a Google survey is a good way to collect data from a large number of respondents in a short amount of time and specifically target animal traders in Kedah (Ihab, S.E, 2020). Acceptance model studies that had already been done were used to get the questions for the questionnaires.

In addition, testing of proposed models requires a standardized set of questions for data processing and analysis. The questionnaires will include a demographic part that will identify the respondent details including the explaining the purpose of the study. The questionnaires will be distributed through an online survey using google document. This is because the researcher uses a qualitative method that is to get as many respondents as possible. Other than that, it is easy to access by the participants. This approach is used to quantify the problem by way of generating numerical data using Linkert Scale ranging from (1) strongly disagree to (5) strongly agree, that can be transformed into usable statistics.

3.8 Data Analysis Technique

There are three primary goals for the data analysis. First, researcher will attempt to comprehend the data, then researcher will analyse the data's clarity, and finally researcher will test the hypotheses that have been established. The questionnaire data will be transferred into Microsoft Excel spreadsheet for accurate and effective

calculation. The data will then be analysed using version 29.0 of SPSS. The animal trader's socio-demographics are summarised using descriptive statistics, and all variables are categorised and displayed as frequency distributions and percentages. To display the range of respondents to each item and the relative frequency for dichotomous questions, descriptive statistics will be utilised.

3.9 Chapter Summary

As discussed on every section of this chapter, justification on why the specific methodology been selected for research being done that include the research design selection of the population and how the sampling being done, data collection methods, development of instrument being done and what statistical method been chosen for data analysis. The questionnaire that been prepared for this research is for collection of data on the social demographic background, knowledge, attitude and practices of animal traders emphasis on handling and transportation of animal. The survey was done fully on web-based systems and period of one months or hundred samples have been collected. Furthermore, the data that been collected from respondents is analyzed by SPSS version 29.0.

Chapter 4: Results and Discussion

4.0 Response Rate

A total of 62 animal traders in State of Kedah are approached and brief about the research while link for questionnaire (google document) were send via their own personal Whatapps and with the helps from *Persatuan Pengimport, Penternak dan Pengusaha Ternakan Negeri Kedah* to distribute the questionnaire to the selected group. Data collection was conducted for four weeks from 14 October to 13 November 2022. The unit analysis of this study is ruminant animal traders that lives in State of Kedah and their base operation is in State of Kedah. From 62 link send, 56 respondents were returned with complete answer with the response rate was 90.32% with all representatives of each ruminant commodity has responded. Data from this completed questionnaire were entered and analysed using Statistical Package for the Social Sciences (SPSS) version 29 (IBM Corporation 2022).

4.1 Content Validity

Content validity can be defined as the extent to which the measuring tool covers enough of the questions that are being investigated and are the basis for the study. Content validity means talking to a small group of target respondents and experts to decide if the items chosen to represent the construct are good enough (Hair et al. 2017). In this study, the content validity of the measurement tools was checked by asking two research experts in traceability technology and a DVS expert in livestock to look at the tools and give their suggestions for making them better. After the experts looked over the questionnaire, the needed changes were made based on their

comments and suggestions to make the questions, statements, and instructions in the questionnaire clearer.

4.2 Assessment of normality

In multivariate analysis, the assumption of normalcy is the most fundamental, and it refers to the degree to which the distribution of data for a given metric variable conforms to the normal distribution. Because normality is essential if the study uses the F and t statistics for analysis, all resultant statistical tests are nullified if the deviation from the normal distribution is substantial enough. There is a common practise in estimating that assumes data is normally distributed (Bai and Ng 2005). Non-normality, which might be indicated by a highly skewed or highly kurtosis data distribution, can have unpredictable consequences for specification or estimate (Bai and Ng 2005). The existence of outliers in the data collection may account for this abnormality.

To assess kurtosis and skewness, it is possible to define the shape of any distribution by utilising a formula. Kurtosis refers to the distribution's "peakness" and "flatness" relative to the normal distribution. Meanwhile, kurtosis relates to the height of the distribution, and skewness describes the distribution's balance; it is imbalanced if tilted to one side (right or left), or it is centred and symmetrical with roughly the same form on both sides (Hair et al. 2017).

Responses are said to follow a normal distribution when their skewness and kurtosis are both zero. As a rule of thumb, a skewness value that is either more than +1 or less than -1 indicates a highly skewed distribution. If the kurtosis value is larger than one, the distribution is said to be excessively skewed to the right. Furthermore, a kurtosis below -1 implies an overly flat distribution. Nonnormal distributions are those with skewness and/or kurtosis values outside of this range (Hair, et al., 2017).

Table 4.1 Result of Skewness and Kurtosis

Descriptive Statistics

	N	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis		
	Stats	Stats	Stats	Stats	Stats	Stats	Std. Error	Stats	Std. Error
K1	56	1	5	3.48	.786	-.172	.319	.926	.628
K2	56	3	5	4.09	.721	-.135	.319	-1.020	.628
K3	56	1	5	3.55	.851	-.265	.319	.449	.628
K4	56	1	5	4.00	.934	-.833	.319	.663	.628
K5	56	2	5	3.48	.874	.226	.319	-.596	.628
K6	56	2	5	4.41	.757	-1.118	.319	.636	.628
K7	56	1	5	4.05	.903	-.876	.319	.965	.628
K8	56	2	5	4.20	.862	-.574	.319	-.936	.628
K9	56	1	5	4.04	.990	-1.006	.319	.646	.628
K10	56	2	5	4.05	.840	-.485	.319	-.503	.628
A1	56	3	5	4.52	.603	-.846	.319	-.227	.628
A2	56	3	5	4.50	.632	-.894	.319	-.192	.628
A3	56	2	5	4.20	.903	-.560	.319	-1.166	.628
A4	56	3	5	4.27	.774	-.511	.319	-1.141	.628
A5	56	3	5	4.41	.654	-.666	.319	-.536	.628
A6	56	3	5	4.48	.660	-.914	.319	-.242	.628
A7	56	3	5	4.37	.728	-.720	.319	-.756	.628
A8	56	3	5	4.25	.745	-.445	.319	-1.055	.628
A9(a)	56	1	5	4.50	.809	-2.030	.319	5.278	.628
A9(b)	56	1	5	4.00	.991	-1.047	.319	1.247	.628
A9(c)	56	3	5	4.13	.740	-.205	.319	-1.118	.628
A9(d)	56	3	5	4.34	.695	-.574	.319	-.754	.628
A9(e)	56	3	5	4.16	.781	-.293	.319	-1.290	.628
A9(f)	56	3	5	4.32	.664	-.465	.319	-.695	.628
A10(a)	56	1	5	4.27	.842	-1.308	.319	2.573	.628
A10(b)	56	1	5	4.04	.953	-.858	.319	.551	.628
A10(c)	56	3	5	4.20	.672	-.252	.319	-.749	.628
A10(d)	56	3	5	4.21	.706	-.331	.319	-.918	.628
A10(e)	56	2	5	4.09	.815	-.377	.319	-.824	.628
A10(f)	56	2	5	4.16	.781	-.531	.319	-.426	.628
A10(g)	56	3	5	4.18	.811	-.343	.319	-1.396	.628
A10(h)	56	3	5	4.16	.781	-.293	.319	-1.290	.628
A10(i)	56	3	5	4.21	.706	-.331	.319	-.918	.628
P1	56	3	5	4.32	.664	-.465	.319	-.695	.628
P2	56	3	5	4.37	.702	-.679	.319	-.694	.628
P3	56	3	5	4.41	.682	-.736	.319	-.554	.628
P4	56	3	5	4.52	.632	-.965	.319	-.076	.628
P5	56	3	5	4.59	.626	-1.273	.319	.577	.628
P6	56	3	5	4.54	.571	-.752	.319	-.418	.628
Valid N	56								

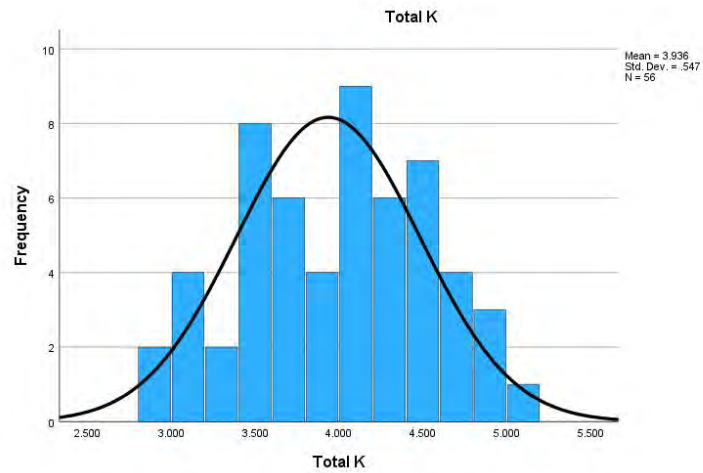


Figure 4.1 Skewness and Kurtosis for Knowledge

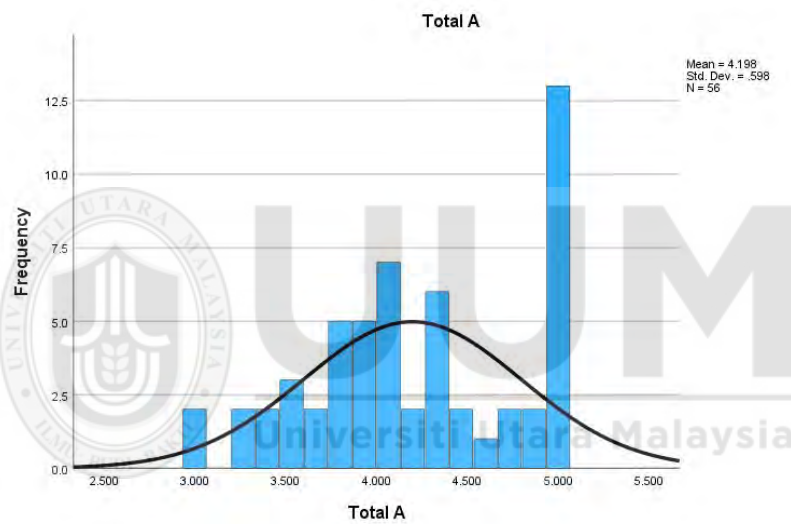


Figure 4.2 Skewness and Kurtosis for Attitude

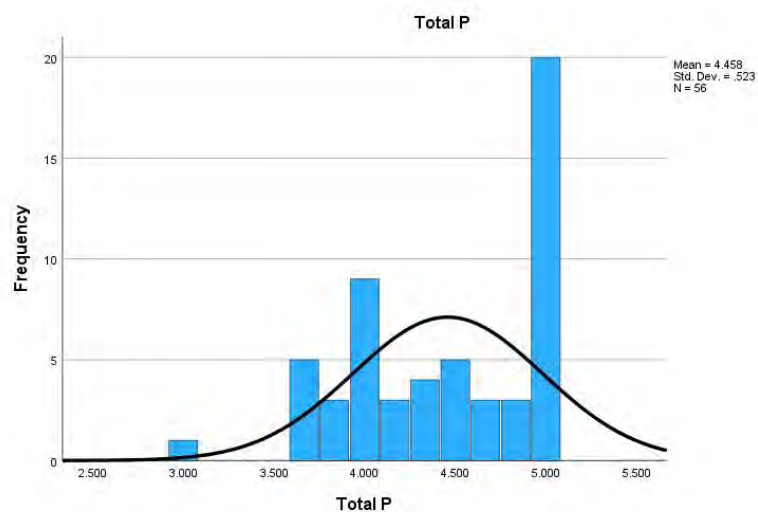


Figure 4.3 Skewness and Kurtosis for Practice

4.3 Reliability Analysis

The survey's multiple Likert question reliability was calculated using Cronbach's alpha(α). Cronbach's alpha(α) is a generally accepted and sufficient reliability index for use in quantitative research (Bujang et al. 2018). As a measure of internal consistency, a high Cronbach's alpha implies that the items in a set are highly connected (Bujang et al. 2018). Having a Cronbach's alpha near to 1 indicates that the research instruments are highly reliable (Bujang et al. 2018). Cronbach's alphas below 0.60 are regarded low, between 0.70 and 0.80 are fair, and alphas above 0.80 are excellent (Tavakol, and Dennick, 2011). To ensure accuracy, a reliability study was conducted on each variable. With values of 0.840, 0.958, and 0.894 for knowledge, attitude, and practise, respectively, the reliability of each item in the variables measure to verify its reliability were at a good value.

4.4 Descriptive Analysis

RQ1: What is current profile of animal traders in Kedah?

The data analysis of this study continued with the descriptive analysis. For this study, the descriptive analysis is used to describe the respondent's demographic characteristics and farming background including age, gender, level of education, years of experience in the industry, area living, religion, involvement in the animal handling and transport industries, level of understanding of livestock production systems and how they gain their knowledge. The summary of the descriptive analysis is shown in *Table 4.2*.

Table 4.2 Demographic Characteristics and Background of The Respondents

Profile Variable	Range	Frequencies	
		N= 56	Percentage (%)
Age	18-25	24	42.9
	26-40	17	30.4
	41-55	10	17.9
	56-65	5	8.9
Gender	Male	50	89.3
	Female	6	10.7
Education	Primary	0	0.0
	Secondary	21	37.5
	Diploma	25	44.6
	Undergraduate	7	12.5
	Postgraduate	3	5.4
Experience (years)	Less than 5 years	20	35.7
	5-15 years	31	55.4
	More than 15 years	5	8.9
Living Area	Urban	5	91.1
	Rural	51	8.9
Religious	Islam	56	100.0
	Hindu	0	0.0
	Buddha	0	0.0
	Christian	0	0.0
Type of livestock industry you are involved	Beef cattle and buffalo production	25	44.6
	Dairy industry (cattle/ goat/buffalo)	10	17.9
	Abattoirs/meat works	1	1.8
	Sheep and goat meat production	13	23.2
	All above commodity	7	12.5
Job role	Work directly with the animals	11	19.6
	Team Leader: Supervise people who work directly with the animals	4	7.1

Self-evaluation on level of understanding of livestock production systems	Business owner	5	8.9
	Business Manager	2	3.6
	Farmer	34	60.7
	Very good	2	3.6
	Good	13	23.2
	Fair	36	64.3
	Poor	5	8.9
Source of knowledge on animal welfare	Very Poor	0	0.0
	Formal qualifications-relevant degree, training course	10	17.9
	Farm employment-hands on experience	14	25.0
	Personal interest-internet, journals, newspaper articles, and television program	4	7.1
	Friends and acquaintance	1	1.8
	All of the above	27	48.2

From the statistics in *Table 4.2* demography and farming background, from 56 questionnaires analysed 89.3% respondents are male and the rest are female. About half of the respondents (73.3%) are young entrepreneur ages between 18-40 ages with the rest of the animal traders in ages 41-55 (17.9%) and 55-65 (8.9%) years old. Among the respondents 62.5% of the animal traders background educated up to diploma level, followed by secondary level of education 37.5% of *Sijil Pelajaran Malaysia* or *Sijil Kemahiran Malaysia* holder. 35.7% of the animal traders are having at least 5 years experience, 55.4% have 5-15 years experience and 8.9% have experience more than 15 years. From the statistics, we also can see 91.1% of the animal traders lives in rural areas and the rest in urban areas with 100% of animal traders in State of Kedah that involve in handling and transporting animals for

Aidiladha Sacrificial event is Islam. Most of animal traders in State of Kedah involve in beef cattle and buffalo production 25 (44.6%) samples. Second most type of commodity involve is sheep and goat meat production 13 (23.2%), follow by all type of commodity in ruminant sector 7 (13%) samples, dairy industry 10 (17.9%) and in abattoirs/ meat work sector 1 sample 1.8%.

In Job role evaluation, data shows 60.7% of samples is the farmers itself work as the caretaker until the points the animal been transport for slaughtering purpose, 19.6% person work directly with the animals, 8.9% business owner, 7.1% supervise people who work directly with the animals and 3.6% is the business owner itself. Samples group also been ask about their own opinion on level of understanding on livestock production system and what kind source of knowledge on awareness of handling and transporting animals according to animal welfare. Finding shows 64.3% of samples said they have sufficient understanding (indicate by answering fair), 23.2% of samples declare they have good understanding, 8.9% have poor understanding s and 3.6% have good understanding of livestock production systems. For source of knowledge on animal welfare 48.2% declare they gain their knowledge on animal welfare from formal education (degree/training course), hands on experience, self-taught (personal interest) by searching in internet, reading a television program, and from friends/acquaintance. Second higher sample is followed by hands on experience 25%, formal education (degree/training course), self-taught (personal interest) and 1.8% friends/acquaintance.

4.5. Level of Knowledge, Attitude and Practice

RQ2: What is the level of knowledge, attitude, and practice among animal traders in Kedah on animal welfare during handling and transporting Aidiladha Sacrificial animal?

4.5.1 Knowledge of respondents on knowledge of animal production systems during handling and transport among animal traders in State of Kedah

From the questionnaire, knowledge of respondents is evaluated from knowledge section. The respondents evaluate their knowledge level based on nine structured closed ended question from 5-point Linkert scales as; 1=Very poor, 2= poor, 3= fair, 4=good and 5=excellent with the midpoint is 3. For scoring knowledge, the original Bloom's cut-off points of 80.0-100.0%, 60.0-79.0%, and 59.0% and below were modified from the KAP study towards Covid-19 among chronic disease patients at Addis Zemen Hospital in Northwest Ethiopia. Calculated total knowledge score from 10 items ranging from 10 to 50. The total midway of 30 to 39 indicates an adequate degree of expertise. Participants whose overall knowledge score falls below the total midpoint (30-39) do not have adequate or satisfactory knowledge of current practice and the significance of the traceability system (Salina, 2022). *Table 4.3* displays the frequency and percentage of individuals with adequate understanding of animal production systems during animal handling and transport.

Table 4.3 Responses to Questions Related to The Level of Knowledge on Animal Production Systems During Handling and Transport Among Animal Traders in State Of Kedah

	Questions	Level of knowledge		
		Not Satisfactory N (%)	Fair N (%)	Satisfactory N (%)
K1	Do u know World Organisation of Animal Health (WOAH) is the organisation that sets international standards for livestock handling and transport	3 (3.6)	27 (48.2)	26 (46.4)
K2	Do u know Department of Veterinary Services (DVS) is the organisation that sets Malaysia standards for livestock handling and transport	0 (0.0)	12 (21.4)	44 (78.6)
K3	Do u know narrow shafts of light make cattle stop moving	4 (7.2)	23 (41.1)	29 (51.8)
K4	Do u know teeth eruption can be use when determine ages for cattle/ buffalo/ sheep/ goat for selecting cattle for slaughter for <i>Aidiladha</i> Sacrificial	3 (5.4)	12 (21.4)	41 (73.2)
K5	Do u know weight of the animal, whether the animal have horns or not, the animals' pregnancy status and length of the journey determining how many animals to put on a truck?	6 (10.7)	25 (44.6)	25 (44.7)
K6	Do u know to move animal from one place to other need documentation such as animal health certificate and permit for transporting an animal from one place to others	1 (1.8)	6 (10.7)	49 (87.5)
K7	Do u know, the best times to transporting an animal is depend on the weather conditions and the best times for Malaysia is early or late in the evening	2 (3.6)	12 (21.4)	42 (75.0)
K8	Do u know, unfit/unhealthy animal cannot be transport without permission from Department of Veterinary Services (DVS)	1 (1.8)	13 (23.2)	43 (75.0)
K9	Do u know the position of livestock in the vehicle during transport should be arranged alternately according to the number of livestock so that it is not crowded and comfortable	5 (8.9)	8 (14.3)	43 (76.8)

K10	Do u know Livestock handlers are responsible for all livestock being moved including when loading, transporting, and unloading them including basic knowledge of ruminant livestock behaviour, clinical signs of disease and signs of animal welfare neglect such as stress, heat stress, dehydration, injury, pain, discomfort and death	2 (3.6)	12 (21.4)	42 (75.0)
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Overall, the majority of animal traders in this study have fair knowledge (score of >59/80) on animal production systems during handling and transport among animal traders in State of Kedah. From the score, we also known that 14.29% animal traders have poor knowledge, 64.29% have a fair knowledge and 21.43% have good knowledge on overall of animal production systems during handling and transport. This level of knowledge also reflected the knowledge and understanding of animal traders regarding Animal Welfare Act 2015 and Code of Practice on Animal Transport Activities (Ruminant) published and introduced by Department of Veterinary Services of Malaysia (DVS) as a part of Malaysia initiative to having a sustainable development. Erian, I., Sinclair, M. and Phillips, C.J. (2019) in his study suggest that, local research and training programs focused on moral and ethical principles regarding the care of animals during slaughter and transportation need to be conducted, educational programmed must target all age groups, adopting initiatives aimed at students to raise public awareness about animal welfare and usage of multimedia platforms and social organizations will lead to advancements in animal welfare knowledge.

Results finding from question K2, K3, K7, K9 and K10 which pertaining to animal welfare element during handling and transport animals, have level of satisfactory knowledge among animal traders. Results K2 shows 78.6% of animal traders know

that Department of Veterinary Services is the organisation that sets Malaysia standards for livestock handling and transport. Results K3 shows 51.8% of animal traders know narrow shaft will make animal feel uncomfortable and will cause stress to animals during handling. Result K7, K9 and K10 shows 75% of animal traders have satisfactory knowledge on animal welfare requirement to transporting animals. Results finding from question K6 (87.5%) and K8 (75%) which pertaining to E-Vetpermit elements, shows that animal traders in State of Kedah have level of satisfactory knowledge which highlighted, animal traders know the role and functions of DVS.

4.5.2 Attitude of Respondents Towards Livestock Management, with Special Emphasis on Welfare During Handling and Transport

Attitude is a disposition or predisposition to respond positively or negatively to a certain concept, object, person, or situation, which determines an individual's choice of behaviour and responses to challenges, incentives, and rewards (Fazio, R.H. 2007). According to the Theory of Planned Behaviour, attitudes, together with subjective norms and perceived behaviour control, are key predictors of behaviour intentions (Fazio, R.H. 2007). Human views about animals are influenced by emotional responses to other species, the extent to which an animal is of instrumental use and value to humans, and other special human qualities such as gender, wealth, and upbringing with pets (Serpell 2004). In section C of the questionnaire, segments on attitudes will assess animal traders perspectives on livestock management, with a focus on handling and transport. The attitude statements were adapted from a previous study on Public and industry stakeholders' knowledge of animal welfare standards in livestock production systems and its link to attitudes, behaviour, and

training (Ihab, S.E., 2020) and the Department of Veterinary Services of Malaysia's Code of Practices on Animal Transport Activities (Ruminant). *Table 4.4* provides a summary of the questionnaire responses pertaining to livestock management, with an emphasis on handling and transport. The level of attitude was evaluated using ten structured, closed-ended questions. 1 = Very poor, 2 = poor, 3 = fair, 4 = good, and 5 = excellent, with a mean of 3 on the 5-point Linkert scale. On a scale of 115 points, scores at or above 92 were deemed satisfactory, and scores below 69 were deemed unsatisfactory.

Table 4.4 Responses to Questions Related to The Level of Attitude on Animal Production Systems During Handling and Transport Among Animal Traders in State of Kedah

	Statements	Level of knowledge		
		Not Satisfactory N (%)	Fair N (%)	Satisfactory N (%)
A1	The welfare of the animals during handling is important to me	0 (0.0)	3 (5.4)	53 (94.6)
A2	The welfare of the animals during transport is important to me	0 (0.0)	4 (7.1)	52 (92.8)
A3	I arranged livestock alternately according to the number of livestock so that it is not crowded and comfortable during transportation	1 (1.8)	15 (26.8)	40 (71.4)
A4	The welfare of the animals while being transported is satisfactory in my workplace	0 (0.0)	11 (19.6)	45 (80.3)
A5	Most people who are important to me would approve of me making improvements to the welfare of the animals in my care	0 (0.0)	5 (8.9)	51 (91.1)
A6	I intend to make improvements to the welfare of the animals in my care	0 (0.0)	5 (8.9)	51 (91.0)
A7	I am confident that I can make improvements to the welfare of animals	0 (0.0)	8 (14.3)	48 (85.7)

A8	In the past I have tried to make improvements to the welfare of the animals in my care	0 (0.0)	10 (17.9)	46 (82.2)
A9	The following factors influence my personal assessment of the welfare of the animals during slaughter and transport;			
	a) My religious beliefs	1 (1.8)	5 (8.9)	50 (89.3)
	b) My personal beliefs (not religious)	3 (5.4)	12 (21.4)	41 (73.2)
	c) The extent to which there are more pressing concerns than the welfare of animals in my community	0 (0.0)	12 (21.4)	44 (78.5)
	d) How important the welfare of animals is to the company I work for	0 (0.0)	7 (12.5)	49 (87.5)
	e) How important it is to my peers	0 (0.0)	13 (23.2)	43 (76.8)
	f) My knowledge about animal handling and animal transportation practices	0 (0.0)	6 (10.7)	50 (89.3)
A10	The main factors that influence my ability to make improvements to animal welfare during handling and transport include the following:			
	a) My religious beliefs	1 (1.8)	8 (14.3)	47 (83.9)
	b) My personal beliefs (not religious)	3 (5.4)	12 (21.4)	41 (73.2)
	c) The extent to which there are more pressing concerns than the welfare of animals in my community	0 (0.0)	8 (14.3)	48 (85.7)

d) How important the welfare of animals is to the company I work for practices	0 (0.0)	9 (16.1)	47 (83.9)
e) How important it is to my peers	1 (1.8)	13 (23.2)	42 (75.0)
f) The laws relevant to animal slaughter and animals transportation practices	1 (1.8)	10 (17.9)	45 (80.4)
g) My work space	0 (0.0)	14 (25.0)	42 (75.0)
h) The availability of tools and resources	0 (0.0)	13 (23.2)	43 (76.8)
i) My knowledge about animal handling and animal transportation practices	0 (0.0)	9 (16.1)	47 (83.9)

Most of the animal traders equivalent to 94.6% from the total sample collected, generally agree with positive attitude towards livestock management, with special emphasis on welfare during handling and transport. The highest percentage of agreement statements is A1 94.6 on welfare of the animal's during handling is important to the animal traders. Most of the respondents also showing positive agreement on statement regarding animal welfare during handling and transport A5, A6 and A9(c). This result shows the readiness of animal traders to improve their management and their willingness to implement or apply good handling and transporting animal with animal welfare consideration. Similar study done by Sincrail, M. et al. 2017 found that the majority of respondents in all four countries (Malaysia, Thailand, China, Vietnam) believed that the animal welfare during handling and transport are important to them and there was agreement among respondents in all four nations that they planned to enhance the welfare of animals

and that they were confident in their ability to do so, with Malaysians and Thais agreeing the most, followed by Vietnamese and Chinese respondents with equal agreement. Most respondents from China, Thailand, and Malaysia agreed that they had attempted to improve animal welfare in the past, whereas Vietnamese respondents were less likely to agree. Laws were again rated as the most important factor influencing respondents' ability to make improvements to animal welfare during transport in all countries, except Malaysia, where religion was again rated as more important (Sincrail, M. et al. 2017). This also reflect the same situation in this study that show 89.3% agree that religious is the factors that influence them to apply animal welfare behaviour compared to laws 80.4%.

4.5.3 Practice of respondents on towards livestock management, with special emphasis on welfare during handling and transportation

Practice is defined as to do or perform often, customarily, or habitually (Merriam Webster, 2022). In the section D of the questionnaire, practice segments will examine animal traders' agreements with the statement which reflects their current practice at the farm related to handling and transportation of animals. The response on practices of livestock management, with special emphasis on welfare during handling and transportation is shown in *Table 4.5*. The practice level was evaluated based on six structured closed ended question on agreement and disagreement on farmer's practice. 5-point Linkert scales as; 1= strongly disagree, 2= disagree, 3= neutral, 4= agree and 5 = disagree with the midpoint is 3. Scores equal to or higher than 24 of the total score of 30 were considered the best practice, while scores below 24 were considered fair.

Table 4.5 Responses to Questions Related to The Level of Practice on Animal Production Systems During Handling and Transport Among Animal Traders in State of Kedah

	Statements	Practice		
		Not Satisfactory N (%)	Fair N (%)	Satisfactory N (%)
P1	I handle livestock for transfer purposes by practicing and emphasizing animal welfare	0 (0.0)	6 (10.7)	50 (89.3)
P2	I transporting livestock for transfer purposes by practicing and emphasizing animal welfare	0 (0.0)	7 (12.5)	49 (87.5)
P3	I ensure livestock are loaded and unloaded from the vehicle using a ramp to avoid injury to the livestock and at the same time take care of the welfare of the livestock	0 (0.0)	6 (10.7)	50 (89.3)
P4	I ensure that the livestock to be moved must be healthy for the purpose of transportation	0 (0.0)	4 (7.1)	52 (92.9)
P5	I ensure that the livestock to be moved must have a veterinary health certificate and a valid travel permit from the Department of Veterinary Services	0 (0.0)	4 (7.1)	52 (92.9)
P6	I will check my vehicle and make sure it is safe for the livestock to ensure the welfare of the livestock	0 (0.0)	2 (3.6)	54 (96.4)

The results show most of the animal traders (98.2%) do have good practices of livestock management, with special emphasis on welfare during handling and transportation.

4.6 Relationship Between Independent Variables (Attitude, Knowledge) and Dependent Variables (Practice)

H1: Knowledge of animal welfare during handling and transportation correlates with Practices

H2: Attitude towards animal welfare during handling and transportation correlates with Practices.

In order to fulfill this research objectives, which are to investigate the relationship between knowledge towards practice and attitude towards practice, researcher analyzed the data using Multiple Linear Regression.

Table 4.6 Model Summary for Framework

R Square	Sig. F Change
.567	<.001

- Note: a) Independent Variables (Attitude, Knowledge)
b) Dependent Variables (Practice)

Table 4.7 Results for ANOVA Analysis for Framework

Model	df	Mean Square	Sig.
Regression	2	4.269	<.001 ^b

- Note:** a) Independent Variables (Attitude, Knowledge)
b) Dependent Variables (Practice)

Table 4.8 Results for Coefficients Analysis for Framework

Model	Sig.
Knowledge	.004
Attitude	<.001

- Note:** a) Independent Variables (Attitude, Knowledge)
b) Dependent Variables (Practice)

4.6.1 Multiple Linear Regression

Multiple Linear Regression is used to analyse whether independent variable (knowledge and attitude) will represent dependent variable (practice) and fulfil the research objectives 2 on investigating the relationship between knowledge and attitude toward livestock management, with a focus on animal welfare during handling and transportation. Using this method, the analysis will be more centred on the relationship between variables (dependent and independent variables) in each study. Multiple regression analysis is the most prevalent technique for predicting the relationship between a continuous independent variable and a single continuous dependent variable. After all assumptions were satisfied, hypotheses were tested.

This study shows R squared value of 56.7%, indicate strong relationship of knowledge and attitude of animal traders towards livestock management, with special emphasis on welfare during handling and transportation. From one-way ANOVA, the significant value with $p < 0.01$ show that model framework used for this study is significant. The relationship between variable was further investigated to see the significant variable. Significant of coefficient found the relationship between knowledge towards practice with $P = 0.004$ and attitude towards practice with $P < 0.001$. Next, the summary of SPSS results for the hypotheses testing is presented by this study.

Hypothesis 1 predicted that level of animal traders knowledge correlate with practice towards livestock management, with special emphasis on welfare during handling and transportation. The result does support the hypothesis. There is relationship on level of animal knowledge to the practice. Lee, M., Kang, B.-A. and You, M., 2021 and Papagiannis D. et al., 2020 in his study also agreed that higher level of knowledge is positively related to the practice of preventive measures.

Hypothesis 2 expected that level of animal traders attitude correlate with practice towards livestock management, with special emphasis on welfare during handling and transportation. The result confirms this hypothesis. Thus, action that animal traders taken towards good practice towards livestock management, with special emphasis on welfare during handling and transportation is influence by the good attitude of the animal traders. Leon, A.F., Sanchez, J.A. and Romero, M.H. (2020), in his study found that animal handler that have a strong empathy have a good attitude towards animal welfare practices.

4.7 Socio Demographic Characteristics of Animal Traders Associated to Knowledge, Attitude and Practice

RQ3: What are the socio demographic characteristics of animal traders associated to knowledge, attitude and practice in animal welfare during handling and transportation?

To answer **RQ3**, multi group analysis had been conducted if there are differences between groups for the demographic characteristics included in this study (e.g. experience (years), age, gender, living area, level of education and self-evaluation on level of understanding of livestock production systems). Continuous data on demographic characteristics were tested using Pearson correlation test. Two group's types of data were tested using independent t-tests and two-way analysis of variance (ANOVA) between group of variables at 95% confident intervals $p < 0.05$. Summary of results test differences between group as *Table 4.9*.

Table 4.9 Demographic Characteristics vs Knowledge, Attitude and Practice

Demography Characteristic	Variables		
	Knowledge	Attitude	Practice
Pearson (sig-2 tailed, P-values)			
Experience (years)	.969	.021	.050
Age	.504	.210	<.001
T-Test (Two-sided, P- values)			
Gender	.084	.297	.016
Living Area	.371	.632	.556
ANOVA (P-values)			
Level of Education	.514	.370	.064
Self-evaluation on level of understanding of livestock production systems	.347	.125	.060

From *Table 4.9*, there is significance of experience(years) with attitude ($p < 0.021$), experience(years) with practice ($p < 0.050$), age with practice ($p < 0.001$) and gender with practice (0.016) towards good livestock management, with special emphasis on welfare during handling and transportation.

4.8 Chapter Summary

Chapter four has described on the results of the questionnaires that were derived from the respondents and was subjected to few steps in analyzing it. Accordingly, to ensure accuracy, a reliability study was conducted on each variable for knowledge, attitude, and practise, respectively, the reliability of each item in the variables measure to verify its reliability were at a good value. Result also showed that majority animal traders in Kedah have a high level of knowledge, attitude, practice with an average of approximately 4-point by using Likert-Scale. This means most of

the respondents agree with the Knowledge, Attitude and Practice that been answered. Besides that, from the analysis of inferential statistics, we can conclude that the reliability of the scale of multiple Likert questions for each dimension in this survey is high-level of internal consistency.

Based on results from multiple regression analysis, booth independent variable (knowledge, attitude) and dependent variable (practice) has significant value. It shows that, knowledge has significant relationship towards practices and attitude has significant relationship towards practice. Strong significant relationship can be seen for attitude with practices compare to knowledge. This is indicated that, level of attitude can influence level of practice on animal traders and same goes to knowledge that can influence level of practice. Thus, action that animal traders taken towards good practice towards livestock management, with special emphasis on welfare during handling and transportation is influence by the good attitude of the animal traders.

Multi group analysis had been conducted if there are differences between groups for the demographic characteristics included in this study (e.g. experience (years), age, gender, living area, level of education and self-evaluation on level of understanding of livestock production systems). There is significance of experience(years) with attitude ($p < 0.021$), experience(years) with practice ($p < 0.050$), age with practice ($p < 0.001$) and gender with practice (0.016) towards good livestock management, with special emphasis on welfare during handling and transportation. From these results, we can conclude that there is a curtain demographic characteristic that influence knowledge, attitude, and practice among animal traders in State of Kedah.

Chapter 5: Conclusion and Recommendation

5.0 Conclusion

In conclusion, from the analysis of descriptive statistics, we can see that this set of questionnaires had been responded by mostly 18-25 years old malay males living in rural area, who are diploma holder, with 5-15 years of experience in a livestock field as animal traders. All variables of Knowledge, Attitude, Practice have an average of approximately 4-point. This means most of the respondents agree with the Knowledge, Attitude and Practice that been answered.

Besides that, from the analysis of inferential statistics, we can conclude that the reliability of the scale of multiple Likert questions for each dimension in this survey is high-level of internal consistency.

Based on results from knowledge assessment, the majority of animal traders in this study have satisfactory knowledge (score of $>59/80$ and above) 85.72% about knowledge on animal production systems during handling and transport among animal traders in State of Kedah. This level of knowledge also reflected the knowledge and understanding of animal traders regarding Animal Welfare Act 2015 and Code of Practice on Animal Transport Activities (Ruminant) published and introduced by Department of Veterinary Services of Malaysia (DVS) as a part of Malaysia initiative to having a sustainable development. Second assessment is on animal traders attitude. Most of the animal traders (score of $>68/115$ and above) equivalent to 94.6% from the total sample collected, generally agree with positive attitude towards livestock management, with special emphasis on welfare during handling and transport. Assessment on practice shows that animal traders have a good practice (score of $>18/30$ and above) equivalent to 98.22% on welfare during handling and transport.

Based on results from multiple regression analysis, both independent variable (knowledge, attitude) and dependent variable (practice) has significant value. It shows that, knowledge has significant relationship towards practices and attitude has significant relationship towards practice. Strong significant relationship can be seen for attitude with practices compare to knowledge. This is indicated that, level of attitude can influence level of practice on animal traders and same goes to knowledge that can influence level of practice. Thus, action that animal traders taken towards good practice towards livestock management, with special emphasis on welfare during handling and transportation is influence by the good attitude of the animal traders. Leon, A.F., Sanchez, J.A. and Romero, M.H. (2020), in his study found that animal handler that have a strong empathy have a good attitude towards animal welfare practices. There is relationship on level of animal knowledge to the practice. Lee, M., Kang, B.-A. and You, M., 2021 and Papagiannis D. et al., 2020 in his study also agreed that higher level of knowledge is positively related to the practice of preventive measures.

Multi group analysis had been conducted if there are differences between groups for the demographic characteristics included in this study (e.g. experience (years), age, gender, living area, level of education and self-evaluation on level of understanding of livestock production systems). There is significance of experience(years) with attitude ($p < 0.021$), experience(years) with practice ($p < 0.050$), age with practice ($p < 0.001$) and gender with practice (0.016) towards good livestock management, with special emphasis on welfare during handling and transportation. From these results, we can conclude that there is a certain demographic characteristic that influence knowledge, attitude, and practice among animal traders in State of Kedah.

These finding conclude that animal traders in Kedah have good KAP on animal welfare requirement during transport and handling of animals. However, this study does not give a full picture of the whole farmers that involve in the livestock industry and more detail study among others player in this industry need to be assessed to give the exact picture. Awareness among public that involve occasionally during festival such as *Aidiladha* Sacrificial also need to be assessed to know the level of KAP among them.

Although KAP among animal traders in Kedah in a good level, this research found that, there is the need for continuous training and education among farmers especially at the farm level for assurance of good animal welfare practice for achieving sustainable farming. As this research is the first study done on animal traders in State of Kedah emphasis on animal welfare practice during handling and transport, future research could be done using various models to investigate farmers practices and public opinion in animal welfare practice for the whole supply chain itself.

5.1 Limitations of the study

This paper has its limitations whereby first and foremost the research is being conducted only in State of Kedah. Moreover, time limitation to this study while working and studying at the same time hinder researcher from done the research more broadly, so that more data can be collected and analyses. Plus, this unlikely situation only leaded the researcher to pick only State of Kedah for this study. This research, on the other hand, was carried out in a variety of animal traders' perspectives, given the fact that it represented the general experiences of Malaysian logisticians from various aspects, ranging from their background, education, management status, knowledge, attitude and practices. Nonetheless, the broad nature

of this research is perhaps its greatest restriction, since most of the problems examined in the study could be discussed in greater detail independently. This research, for example, has helped me to examine a wide range of factors influencing animal traders' knowledge, attitude and practices specifically in State of Kedah, and further research will allow me to examine further the outcome in more details.

5.2 Recommendations for future research

1. Further scientific research is required to support this study to better comprehend the degree of knowledge, attitude, and practice among farmers and the general public about animal welfare during handling and transportation. This data will aid the relevant authority (DVS) and local authority in future policy formulation, strategic planning, and animal welfare implementation.
2. Continued enforcement of the Animal Welfare Act of 2015 and the Code of Practice for Animal Transport Activities (Ruminants), which can be accomplished by appointing animal welfare volunteer assistants trained in animal welfare in accordance with the Animal Welfare Regulations of 2020.
3. Implement a persistent media effort in the local livestock industry to inform local stakeholders about livestock animal welfare measures and concerns.
4. Improving worker understanding of animal welfare standards through regular training programs, which can be conducted by DVS extension officers or expatriate experts in livestock slaughter and transportation.

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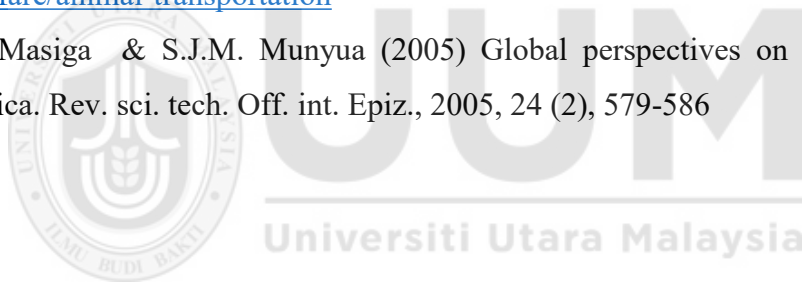
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Surat Iringan Peserta

Tuan / Puan,

Nama saya Adil Bin Ibrahim, seorang Pelajar Semester Tiga Peringkat Sarjana di Pusat Pengajian Pengurusan Teknologi dan Logistik Universiti Utara Malaysia. Pada masa ini, saya sedang menjalankan **Kesedaran Dalam Kalangan Peniaga Haiwan Terhadap Kebajikan Haiwan Bagi Tujuan Perayaan Semasa Pengendalian Dan Pengangkutan Di Negeri Kedah**. Sebagai sebahagian daripada proses pengumpulan data saya, saya ingin menjemput anda untuk mengambil bahagian dalam tinjauan sukarela ini.

Tinjauan ini cuba menyiasat Pengetahuan, Sikap dan Amalan mengenai Kebajikan haiwan di Kalangan Peniaga Haiwan Semasa Pengendalian dan Pengangkutan Haiwan bagi Tujuan Perayaan di Negeri Kedah.

Sila baca soal selidik dengan teliti, dan jawab semua soalan mengikut pengetahuan anda. Tiada jawapan yang betul atau salah; kami hanya berminat dengan pandangan anda. Harap maklum bahawa ini adalah tinjauan sukarela sepenuhnya. Anda tidak akan dipaksa atau dipaksa untuk mengambil bahagian dalam tinjauan ini. Anda boleh memilih untuk menarik diri daripada kajian dalam tempoh 6 minggu selepas selesai tinjauan. Anda mempunyai hak untuk meminta supaya sebarang data yang diberikan ditarik balik atau dimusnahkan dalam tempoh ini.

Sila ambil perhatian bahawa tinjauan hanya akan mengambil masa dari 15 hingga 20 minit, dan jawapan anda akan dilayan dengan sangat sulit dan tanpa nama. Pengurus atau penyelia tempat anda bekerja tidak akan dapat menyemak jawapan anda.

Maklumat tidak akan digunakan dalam apa jua cara yang boleh dikenal pasti. Anda tidak akan dikenal pasti dalam penyelidikan atau penerbitan saya. Semua data yang dikumpul dalam tinjauan ini akan disimpan dalam storan selamat dan hanya dibentangkan dalam bentuk agregat. Untuk maklumat terperinci, saya boleh dihubungi di +60195128653 atau melalui e-mel: adil_ibrahim@cob.uum.edu.my

Terima kasih kerana meluangkan masa dan usaha untuk melengkapkan tinjauan ini. Penyertaan anda dalam tinjauan ini amat kami hargai.

Selamat sejahtera,

Adil Bin Ibrahim
Pelajar Sarjana
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**KESEDARAN DALAM KALANGAN PENIAGA HAIWAN TERHADAP
KEBAJIKAN HAIWAN BAGI TUJUAN PERAYAAN SEMASA PENGENDALIAN
DAN PENGANGKUTAN DI NEGERI KEDAH.**

Arahan am

Kebanyakan soalan di dalam soal selidik ini menggunakan Skala Likert 5-point. Sila jawab setiap soalan dengan membulatkan pada nombor yang menggambarkan pendapat anda. Beberapa soalan kelihatan sama, namun ia menggambarkan perkara yang berbeza. Sila baca setiap soalan dengan berhati-hati. Segala maklum balas yang diberikan adalah dirahsiakan. Kerjasama anda melengkapi soal selidik ini amatlah dihargai.

Bahagian A : Latar Belakang Sosio-Demografi

1. Berapakah Umur anda sekarang?

_____Tahun

2. Sila nyatakan jantina anda.

☐	Lelaki
☐	Perempuan

3. Sila nyatakan bangsa anda.

☐	Melayu
☐	Cina
☐	India
☐	Lain-lain, sila nyatakan _____

4. Berapa lamakah tempoh penglibatan dalam industri penternakan?

_____Tahun

5. Dikawasan manakah anda menetap?

☐	Luar bandar
☐	Bandar

6. Apakah tahap pendidikan tertinggi anda?

☐	Sekolah rendah
☐	Sekolah menengah
☐	Diploma
☐	Ijazah
☐	Paksa-Ijazah

7. Apa agama yang tuan anuti?

☐	Islam
☐	Hindu
☐	Buddha
☐	Kristian

8. Di bahagian apa yang tuan/puan terlibat dalam bidang pengendalian dan pengangkutan ternakan?

☐	Pekerja
☐	Penyelia
☐	Pemilik Syarikat
☐	Pengurus Syarikat
☐	Penternak

9. Apakah jenis bidang ternakan yang tuan/puan pelihara atau kendalikan?

☐	Lembu dan kerbau pedaging
☐	Lembu/kambing/kerbau tenusu
☐	Bebiri dan kambing pedaging
☐	Rumah sembelih

10. Tahap pengetahuan tuan/puan berkenaan sistem pengurusan ternakan

☐	Sangat Rendah
☐	Rendah
☐	Sederhana
☐	Tinggi
☐	Sangat Tinggi

11. Bagaimana tahap pengetahuan ini diperolehi?

☐	Pendidikan formal/ kursus berkaitan pengurusan ternakan
☐	Pengalaman kerja di bidang penternakan
☐	Minat terhadap penternakan dan bacaan melalui internet, artikel, rancangan di television
☐	Rakan - rakan
☐	Semua yang diatas

Bahagian 2. Bahagian ini akan menumpukan pada pengetahuan anda tentang sistem pengeluaran ternakan khususnya semasa pengendalian dan pengangkutan

Sila nyatakan tahap persetujuan anda pada setiap pernyataan berikut dengan membulatkan pada nombor yang berkaitan.

**SANGAT TIDAK
BAIK → SANGAT
BAIK**

1.	Sejauh manakah pengetahuan anda bahawa Pertubuhan Kesihatan Haiwan Sedunia (WOAH) ialah organisasi yang menetapkan piawaian antarabangsa untuk pengendalian dan pengangkutan ternakan.	1	2	3	4	5
2.	Sejauh manakah pengetahuan anda bahawa Jabatan Perkhidmatan Veterinar (JPV) adalah organisasi yang menetapkan piawaian Malaysia untuk pengendalian dan pengangkutan ternakan.	1	2	3	4	5
3.	Sejauh manakah pengetahuan anda bahawa jalan atau laluan ternakan yang semakin sempit membuatkan lembu berhenti bergerak.	1	2	3	4	5
4.	Sejauh manakah pengetahuan anda bahawa pegantian gigi susu kepada gigi kekal boleh digunakan apabila menentukan umur lembu/kerbau/biri-biri/kambing untuk memilih lembu untuk disembelih untuk korban Aidiladha.	1	2	3	4	5
5.	Sejauh manakah pengetahuan anda bahawa berat haiwan itu, sama ada haiwan itu mempunyai tanduk atau tidak, status kehamilan haiwan dan tempoh perjalanan menentukan berapa banyak haiwan untuk diletakkan di atas trak?	1	2	3	4	5
6.	Sejauh manakah pengetahuan anda bahawa untuk memindahkan haiwan dari satu tempat ke tempat lain memerlukan dokumentasi seperti sijil kesihatan haiwan dan permit untuk mengangkut haiwan dari satu tempat ke tempat lain	1	2	3	4	5
7.	Sejauh manakah pengetahuan anda bahawa masa terbaik untuk mengangkut haiwan adalah bergantung kepada keadaan cuaca dan waktu terbaik untuk Malaysia ialah awal atau lewat petang	1	2	3	4	5
8.	Sejauh manakah pengetahuan anda bahawa haiwan yang tidak sihat/tidak sihat tidak boleh diangkut tanpa kebenaran daripada Jabatan Perkhidmatan Veterinar (JPV)	1	2	3	4	5
9.	Sejauh manakah pengetahuan anda bahawa kedudukan ternakan di dalam kenderaan semasa pengangkutan hendaklah disusun secara bergilir-gilir mengikut bilangan ternakan supaya tidak sesak dan selesa.	1	2	3	4	5

10. Sejauh manakah pengetahuan anda bahawa Pengendali ternakan bertanggungjawab ke atas semua ternakan yang dipindahkan termasuk semasa memuat, mengangkut dan memunggah termasuk pengetahuan asas tingkah laku ternakan ruminan, tanda klinikal penyakit dan tanda-tanda pengabaian kebajikan haiwan seperti tekanan, tekanan haba, dehidrasi, kecederaan, kesakitan, ketidakselesaan dan kematian

1 2 3 4 5

Bahagian 3. Bahagian ini memberi tumpuan kepada sikap anda terhadap pengurusan ternakan, dengan penekanan khusus pada pengendalian dan pengangkutan

Sila nyatakan tahap persetujuan anda pada setiap pernyataan berikut dengan membulatkan pada nombor yang berkaitan.

**SANGAT TIDAK
SETUJU →
SANGAT SETUJU**

1.	Kebajikan haiwan semasa pengendalian adalah penting bagi saya	1	2	3	4	5
2.	Kebajikan haiwan semasa pengangkutan adalah penting bagi saya	1	2	3	4	5
3.	Saya menyusun ternakan secara bergilir-gilir mengikut jumlah ternakan supaya tidak sesak dan selesa semasa pengangkutan.	1	2	3	4	5
4.	Kebajikan haiwan semasa diangkut adalah memuaskan di tempat kerja saya	1	2	3	4	5
5.	Kebanyakan orang yang penting bagi saya akan menyetujui saya membuat penambahbaikan terhadap kebajikan haiwan dalam jagaan saya	1	2	3	4	5
6.	Saya berhasrat untuk membuat penambahbaikan terhadap kebajikan haiwan dalam jagaan saya	1	2	3	4	5
7.	Saya yakin bahawa saya boleh membuat penambahbaikan terhadap kebajikan haiwan	1	2	3	4	5
8.	Pada masa lalu saya telah cuba membuat penambahbaikan terhadap kebajikan haiwan dalam jagaan saya	1	2	3	4	5
9.	Faktor-faktor berikut mempengaruhi penilaian peribadi saya tentang kebajikan haiwan semasa penyembelihan dan pengangkutan:					
	a) kepercayaan agama saya	1	2	3	4	5
	b) Kepercayaan peribadi saya (bukan agama)	1	2	3	4	5
	c) Sejauh mana terdapat kebimbangan yang lebih	1	2	3	4	5

	mendesak mengenai kebajikan haiwan dalam komuniti saya					
	d) Betapa pentingnya kebajikan haiwan kepada syarikat tempat saya bekerja	1	2	3	4	5
	e) Betapa pentingnya ia kepada rakan sebaya saya	1	2	3	4	5
	f) Undang-undang yang berkaitan dengan pengendalian haiwan dan amalan pengangkutan haiwan	1	2	3	4	5
10.	Faktor utama yang mempengaruhi keupayaan saya untuk membuat penambahbaikan terhadap kebajikan haiwan semasa pengendalian dan pengangkutan termasuk yang berikut:					
	a) kepercayaan agama saya	1	2	3	4	5
	b) Kepercayaan peribadi saya (bukan agama)	1	2	3	4	5
	c) Sejauh mana terdapat kebimbangan yang lebih mendesak mengenai kebajikan haiwan dalam komuniti saya	1	2	3	4	5
	d) Betapa pentingnya kebajikan haiwan kepada syarikat tempat saya bekerja	1	2	3	4	5
	e) Betapa pentingnya ia kepada rakan sebaya saya	1	2	3	4	5
	f) Undang-undang yang berkaitan dengan pengendalian haiwan dan amalan pengangkutan haiwan	1	2	3	4	5
	g) Ruang kerja saya	1	2	3	4	5
	h) Ketersediaan alat dan sumber	1	2	3	4	5
	i) Pengetahuan saya tentang pengendalian haiwan dan amalan pengangkutan haiwan	1	2	3	4	5

Bahagian 4. Bahagian ini akan menumpukan pada amalan anda terhadap pengurusan ternakan, dengan penekanan khusus pada pengendalian dan pengangkutan

Sila nyatakan tahap persetujuan anda pada setiap pernyataan berikut dengan membulatkan pada nombor yang berkaitan.

		SANGAT TIDAK SETUJU → SANGAT SETUJU				
1.	Saya mengendalikan ternakan untuk tujuan pemindahan dengan mengamalkan dan menitikberatkan kebajikan haiwan	1	2	3	4	5
2.	Saya mengendalikan ternakan untuk tujuan pemindahan dengan mengamalkan dan menitikberatkan kebajikan haiwan	1	2	3	4	5
3.	Saya memastikan ternakan dimuat dan dipunggah dari kenderaan menggunakan tanjakan bagi mengelakkan kecederaan pada ternakan dan pada masa yang sama menjaga kebajikan ternakan	1	2	3	4	5
4.	Saya memastikan ternakan yang hendak dipindahkan mestilah sihat untuk tujuan pengangkutan	1	2	3	4	5
5.	Saya memastikan ternakan yang hendak dipindahkan mestilah mempunyai sijil kesihatan veterinar dan permit perjalanan yang sah daripada Jabatan Perkhidmatan Veterinar	1	2	3	4	5
6.	Saya akan memeriksa kenderaan saya dan pastikan ia selamat untuk ternakan bagi menjamin kebajikan ternakan tersebut	1	2	3	4	5

Soal selidik tamat.

Saya ingin mengucapkan jutaan terima kasih di atas kesudian anda melengkapkan borang soal selidik ini.