

**COMMUNICATION STRATEGIES
FRAMEWORK IN WILDLIFE
TRAFFICKING USING SOCIAL MEDIA:
A NETNOGRAPHY STUDY**

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A NETNOGRAPHY STUDY**

by

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LIST OF ABBREVIATIONS

CITES	Convention on International Trade in Endangered Species of Wilde Fauna and Flora
COD	Cash on delivery
FB	Facebook
GT	Grounded theory
IFAW	International Fund for Animal Welfare
IG	Instagram
IUCN	International Union for Conservation of Nature
Monitor	Monitor Conservation Research Society
PERHILITAN	<i>Jabatan Perlindungan Hidupan Liar dan Taman Negara</i> (Department of Wildlife and National Parks)
PM	Private message
TRAFFIC	The Wildlife Trade Monitoring Network
UNODC	United Nations Office on Drugs and Crime
WCS	Wildlife Conservation Society
WWF	World Wildlife Fund for Nature

**KERANGKA STRATEGI KOMUNIKASI DALAM PEMERDAGANGAN
HIDUPAN LIAR MENGGUNAKAN MEDIA SOSIAL:
SATU KAJIAN NETNOGRAFI**

ABSTRAK

Di Malaysia, pemerdagangan hidupan liar secara dalam talian sangat berleluasa yang mana media sosial seperti Facebook (FB) dan Instagram (IG) digunakan untuk mengiklankan hidupan liar terancam. Walaupun aktiviti ini merupakan satu ancaman, tidak banyak kajian dilakukan dalam bidang komunikasi di Malaysia. Maka, kajian ini bertujuan menyelidik proses komunikasi antara penjual dan pembeli hidupan liar dalam media sosial (FB and IG). Kaedah *grounded theory* digunakan dengan pemerhatian netnografi dan temu bual dilakukan secara *zig-zag*. Data dari kaedah pemerhatian menjadi asas membina soalan temu bual dan data dari temu bual pula digunakan semula untuk pemerhatian. Sembilan dimensi pemerhatian deskriptif oleh Spradley (1979) digunakan sebagai panduan untuk kaedah netnografi. Responden temu bual pula terdiri daripada agensi kerajaan dan badan bukan kerajaan (NGO) yang terlibat dalam mengekang pemerdagangan hidupan liar secara dalam talian. Kajian ini mengenal pasti dua kategori penjual iaitu yang mencari untung dan sebagai hobi dan terdapat enam kategori pembeli (pameran, pengumpul, impulsif, serius, orang baru, berpengalaman). Selain itu, tiga kategori maklumat dalam pos (tiada penjelasan, jualan, ciri-ciri), tiga kategori maklumat yang diminta oleh pembeli (lokasi, jualan, ciri-ciri), dan empat kategori maklumat yang diminta oleh penjual (boleh dipercayai, jualan, haiwan, berhubung) juga dikenal pasti. Seterusnya, terdapat dua kategori gangguan yang dialami semasa melihat pos (pencegahan, tindakan), tiga kategori medium penghantaran (bus, pos, tunai semasa penghantaran), dan tiga kategori taktik

yang digunakan (kata kod, berhubung, iklan). Kajian ini menyumbang kepada pembinaan satu rangka kerja aliran komunikasi antara penjual dan pembeli hidupan liar dalam platform media sosial di Malaysia. Rangka kerja ini boleh membantu pihak berkuasa memantau aktiviti pemerdagangan dalam talian bagi pencegahan segera. Kajian ini juga berjaya mengisi jurang penyelidikan mengenai pemerdagangan haiwan liar dalam bidang komunikasi alam sekitar dengan menyumbang bahan pengetahuan dan pemahaman dalam konteks Malaysia.

COMMUNICATION STRATEGIES FRAMEWORK IN WILDLIFE TRAFFICKING USING SOCIAL MEDIA: A NETNOGRAPHY STUDY

ABSTRACT

In Malaysia, online wildlife trade is prevalent whereby social media sites such as Facebook (FB) and Instagram (IG) are used to advertise endangered animals. Even though online wildlife trade is a threat, not much studies have been conducted in the field of communication in Malaysia. Thus, this present study aims to examine the communication process between the sellers and buyers of wildlife on social media sites (FB and IG). The grounded theory method was employed with netnographic observation and in-depth interviews conducted in a zig-zag approach. Data from netnographic observation influenced the interview questions, and vice versa. Spradley's (1979) nine dimensions of descriptive observation was used as a guide to carry out the netnographic observation. Meanwhile, the interview respondents were from the government agency and non-governmental organisations (NGOs) that work to curb online wildlife trade. This study found two categories of sellers i.e., profit and hobby and six categories of buyers (exhibition, collector, impulsive, serious, newbie, experienced). Besides, three categories of information provided in the posts (no explanation, sale, characteristics), three categories of information requested by buyers (location, sale, characteristics) and four categories of information requested by sellers (trustworthy, sale, animal, contact) were found. Next, there are two categories of interferences faced while viewing the posts (deterrence, action), three categories of mediums of delivery/transport (bus, post, cash on delivery [COD]), and three categories of tactics used (code words, contact, advertisement). This study contributes to the development of a communication flow framework between sellers and buyers

of wildlife on social media platforms in Malaysia. This framework can assist the authorities in monitoring the online trade and take immediate action. This study has also managed to fill in the research gaps in the fields of wildlife trafficking and environmental communication by contributing knowledge and understanding in the context of Malaysia.

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter presents the background of study, problem statement, research questions and objectives, conceptualisation, research limitations, and research significance. Finally, an overview of the chapters in this thesis is provided.

1.2 Background of Study

Wildlife crime can be defined as “any activity that involves illegal trade in protected wildlife and plants” (Benjamin-Fink, 2016). Southeast Asia (SEA) is a chief supplier of wildlife to the rest of the world, besides also being a centre of wildlife consumption (TRAFFIC, 2008a) and it is reported that the hunting, trafficking and consumption levels of wildlife are persistent (Krishnasamy & Zavagli, 2020). Furthermore, SEA is also identified as a transit point for plants, animals, and their derivatives (Anak, 2008). For example, SEA countries are transit points for ivory from Africa, before ending up in China or Vietnam (Abdul Majid, 2019). This includes Malaysia, a megadiverse nation; however, this richness in biodiversity has made this country a source for poaching, wildlife trafficking, and a hub for international trade (Koshy, 2020). For example, non-governmental organisations (NGOs) discovered 2,241 animal traps and 1,728 illegal campsites in three priority tiger landscapes in Malaysia between 2010 and 2013 (Sharma, 2017). Malaysia has been reported as a major transit point for smuggling ivory (Abdul Majid, 2019; Fears, 2014) and is a main exporter of reptiles, mammals, and birds (Nijman, 2010).

The government of Malaysia is serious about curbing illegal wildlife trade and protecting the wildlife from poaching. The Department of Wildlife and National Parks

(PERHILITAN), under the Ministry of Natural Resources, Environment and Climate Change (Malaysia), is the government agency in charge of protecting the country's wildlife. There are three separate laws pertaining to wildlife in Malaysia, i.e., Wildlife Conservation Act 2010 [Act 716] (for Peninsular Malaysia), Wildlife Protection Ordinance 1998 (for the state of Sarawak), and Wildlife Conservation Enactment 1997 (for the state of Sabah). These laws function to regulate, protect, conserve and manage wildlife in Malaysia. Furthermore, Malaysia is a signee of the Convention on International Trade in Endangered Species of Wilde Fauna and Flora (CITES), which “enables Parties to cooperatively regulate international wildlife trade through the agreed upon listing of species traded or species potentially threatened by trade in three Appendices with differing levels of protection and trade restrictions imposed” (Harfoot et al. 2018). Other than that, Malaysia is also part of regional intergovernmental networks like ASEAN Wildlife Enforcement Network (ASEAN-WEN). Besides the government, NGOs also play a role in protecting wildlife; among them are The Wildlife Trade Monitoring Network (TRAFFIC), World Wildlife Fund for Nature (WWF)-Malaysia, and Malaysian Nature Society (MNS). Such NGOs help with raising awareness about wildlife crime and conduct programmes to educate the public, and the public for their part, take interest in participating besides offering support in forms of money, effort, and time. In Malaysia, one effort would be the campaign by TRAFFIC and Malaysian Conservation Alliance for Tigers (MyCAT) to encourage public to report wildlife crime, which can be made via the Wildlife Crime Hotline (TRAFFIC, 2008b). Nevertheless, despite their combined effort to protect the wildlife, incidents of wildlife trade still plague Malaysia; consequently, the country is suffering from extinction of species (e.g., Sumatran Rhino in Peninsular Malaysia [Sharma 2017]), introduction of invasive species to the ecosystem (e.g., Saba et al. 2021, 2020),

etc. Wildlife trafficking is a transnational organised crime, whereby the poachers in Africa, traders and sellers in Asia, Europe, and the United States of America (US) are all now connected, and this poses a threat to the stability of every single country in our globalised world (Lawson & Vines, 2014). Besides, it has been shown that convergence exists between illegal wildlife trade and drug trafficking networks [Financial Action Task Force (FATF), 2020]. For example, Mario Tabraeu, a drug lord, had trafficked hyacinth Macaws (an endangered species) into the US (van Uhm & Siegel, 2021). The wildlife trafficking process starts with local brokers facilitating orders for the required wildlife or part of wildlife such as rhino horn and elephant ivory, followed by the execution by poachers (Jacobson & Daurora, 2014). The illegally procured items are then shipped straight to the demand destination or will first transit at another country where it is safer to export. Mathiesen (2016) stated that transit ports such as Port Klang in Malaysia can keep ivory shipments for months, before they get shipped out with paperwork listing a new port of origin, in a new vessel. Besides, Hong Kong Custom officials have seized 7,200 kg of ivory tusks, valued at RM 40 million, found in a 40-foot container from Malaysia stated to hold frozen fish (The Star, 2017). Other cases include pangolin scales falsely declared as general product from Ghana and Congo seized by Malaysian Customs Department (Camoens, 2017) and komodos transported from Malaysia via human mules to the US (Christy, 2010). These cases portray the various means traffickers use to conduct their illegal business.

In the information technology era, traffickers are using the available advancements to carry out their illegal activities. It is becoming increasingly common to conduct wildlife trade using social networks, via the availability of the internet (Lemaître & Hervé-Fournereau, 2020; Krishnasamy & Stoner, 2016). Other illegal trades, such as of stolen medicines or pharmaceuticals, are also performed online on

social media platforms and marketplaces (Dugato & Sidoti, 2023). Traders who post and advertise wildlife on social media, besides signalling to potential buyers what wildlife and wildlife products are available, are offered a wide field of interested buyers (TRAFFIC, 2019). Online platforms, such as Facebook (FB) and Instagram (IG), are said to be the most common site to procure illegal items with the upstream part of the supply chain are mostly hidden (Keskin et al., 2023). For example, in one case in Kuala Lumpur, known as a popular stop for animal traffickers, a turtle broker from India was caught while trying to sell endangered turtle species to an undercover investigator (Wagner, 2019). The deal was made through FB, a social media platform that has a wide reach, thus, making it a favourite tool among animal traffickers, while also making it hard for the company to perform monitoring and block the illegal activity. Social media and other digital platforms like apps are also being used to facilitate drug and human trafficking (UNODC, 2023; Wynne, 2023). In short, the internet has become the world's largest marketplace that is open 24-7 with advantages such as low trading costs and ability for wildlife traders to hide their identity (IFAW, 2018).

As such, the International Fund for Animal Welfare (IFAW) has been carrying out investigations on online trade in endangered wildlife. From their survey of online marketplaces from various countries (such as the United Kingdom [UK], Germany, Russia, Canada, Qatar, China, Colombia, USA, etc.), IFAW discovered that many (CITES) Appendix I and II wildlife are traded online (IFAW, 2014a, 2008). In general, based on IFAW's series of surveys, there has been an increase in the number of advertisements for endangered wildlife online.

In Malaysia, trade via the social media, especially through FB is increasing; for example, it was reported that a private FB group believed to be operating from the

state of Johor was selling wildlife products such as tiger bones and elephant teeth (Sim & Shah, 2019). By using social media to conduct their trade, wildlife traffickers based in Peninsular Malaysia are said to benefit since they have access to potential buyers numbering in the thousands besides being able to hide their identity and avoid the authorities (Cannon, 2019). Private FB and WhatsApp groups, which allows members by invitation only, are said to fuel the demand for Malaysia's protected wildlife and their parts (Sim & Shah, 2019).

Malaysia is very much embroiled in wildlife trafficking, be it as a hub or having a flourishing illegal online trade of wildlife. The Director of PERHILITAN has shared that the online illegal activity is increasing every year due to the use of smart phones and the availability of internet subscription packages (Md Denin, 2022). Hence, it is imperative that steps are taken to curb this crime because wildlife trafficking has many devastating effects.

First, wildlife trafficking threatens the overall biodiversity of our planet's richest ecosystems (Doody et al., 2021; Xie, 2015), since every species on earth plays an important and unique role in the intricate network of relationships of nature (Still, 2003). Felbab-Brown and Porter (2016) insists that species extinction, at a rate about 1,000 times the historical average, must be seen as a global ecological catastrophe, just like climate change. As stated in Lemaître and Hervé-Fournereau (2020), in some Asian and African countries, rhinos have totally vanished. For example, uncontrolled poaching is the main reason Sumatran Rhino was declared extinct in the wild in Peninsular Malaysia in 2015 (Sharma, 2017). Conservationists in Malaysia say that wild animals removed from forests to be sold as pets can cause their survival in the wild to be threatened (Cannon, 2019). Besides, wildlife trafficking causes various deleterious impacts not only to the environment, but also to humans and the economy.

There could be possible loss of undiscovered species, both flora and fauna, with important value, especially plant with medicinal properties (Doody et al., 2021; Xie, 2015). Furthermore, wildlife is very important for the survival of a high percentage of the world's population, usually the most deprived or underprivileged (WWF, 2014). Unchecked poaching and wildlife trafficking will affect the economy of countries like Kenya, which earns over \$ 1 billion annually just from safaris and the tourism industry (Anderson & Jooste, 2014). Poor rural populations might even turn to poaching and wildlife trafficking themselves, as it would be a way to escape from poverty and moreover, poaching has a low risk/high reward dynamic with higher economic returns compared to legitimate jobs (Jacobson & Daurora, 2014). Other than that, increased traffic of animals, as noted by experts, will raise the risk of zoonotic disease transmission (Xie, 2015) due to consumption of bushmeat, consumption of exotic foods, development of ecotourism, access to petting zoos, and keeping of exotic pets (Chomel, Belotto, & Meslin, 2007). Human lives are lost too due to wildlife trafficking. Besides injuring and killing animals, the poachers often attack and kill park rangers; for example, more than 1,000 rangers in Africa have lost their lives due to this (Xie, 2015). Furthermore, profits from illegal wildlife trade are used to fund terrorist activities; The Lord's Resistance Army (Uganda) is reported to trade ivory with Arab businessmen and Sudanese military officers for cash, food, guns, and medical supplies (Anderson & Jooste, 2014).

Thus, due to its impacts, numerous stakeholders are involved in the fight against wildlife trafficking. In Malaysia, to curb online wildlife trade, PERHILITAN along with the Malaysian Communications and Multimedia Commission (MCMC), are monitoring social media and e-commerce sites (Arumugam, 2015). NGOs like TRAFFIC on the other hand, are conducting surveys to determine the extent of the

trade online (for example, Krishnasamy & Stoner, 2016) and the conservation community members of Malaysia have been regularly monitoring and reporting to PERHILITAN about advertisements of wildlife for sale on social media made by the seller Kejora Pets (Cannon, 2019). Nonetheless, in general, to the best of the researcher's knowledge, studies on wildlife trade, including online trade, in the context of Malaysia is lacking. Furthermore, the communication process of illegal online wildlife trade in Malaysia has not been studied thus far. Therefore, this research aimed to examine the communication process between wildlife sellers and buyers via social media in Malaysia and develop a communication process framework to help curb online wildlife trade. This framework will show the communication process flow and the links between players involved in the illegal online wildlife trade in Malaysia, specifically on social media platforms, which will then assist the organisations involved in curbing this trade in taking relevant actions. For instance, the framework will show the mediums of delivery used to transport the wildlife to buyers. On the other hand, this research chose to examine the social media platforms FB and IG because these platforms have been implicated in the illegal trade of wildlife in Malaysia (for example: Cannon, 2019; Oon, 2019; Wagner, 2019). Nevertheless, the generation gap aspect was not considered in this present study when the social media platforms were chosen since the focus was on deciphering the communication process between wildlife sellers and buyers and not on their demographic characteristics.

1.3 Problem Statement

This research argues that social media contributes to the increase or intensity of illegal wildlife trade in Malaysia. Past research (for example, Chng & Bouhuys, 2015; Krishnasamy & Stoner, 2016; Gomez & Bouhuys, 2018; Chng, Saaban, Wechit & Krishnasamy, 2021; Ong & Chin, 2022) have shown that illegal online trade of

wildlife is prevalent in Malaysia, with various types of wildlife offered for sale, such as otter, turtles, tortoises, and birds. Social media is heavily used as revealed in those researches. In Malaysia, social media platforms such as FB are used to advertise and sell animals such as slow loris (Sukumaran, 2015), binturong and dusky leaf monkey (Abdullah, 2016). The then enforcement director of PERHILITAN, Abdul Kadir Abu Hashim revealed that dealers would post on FB, on pages such as Forever Pet, DinendSivali, and BanyIsz from which interested buyers will then contact them (AsiaOne, 2015). Thus, social media has enabled the illegal trade of wildlife in Malaysia by providing a place for sellers and buyers to meet online and carry out the trade. This is a problem for the authorities due to the nature of the online environment, such as posts advertising animals can be deleted (Xu, Li, Cai & Mackey 2019), and sellers and buyers using fake profiles, whereby it is hard to collect evidence and build a case leading to the arrest of the perpetrators.

FB, which is owned by Meta along with WhatsApp and IG, has been a platform for countless traffickers to market their illegal products, connect and discuss with potential buyers, and even receive payments (Stiles, 2019). Wildlife traders are utilising such social media sites to avoid exposure or being caught when they carry out transactions with clients all over the world (Mohamed Idris, 2016). This is because, according to Simone Haysom, a senior crime analyst at the Global Initiative Against Transnational Organised Crime, “Criminal networks are taking advantage of cyberspace to avoid traditional street markets and are making maximum use of encrypted communication channels offered by tools such as closed and secret groups on FB to conduct their illicit business” (Waruru, 2019). Hence, social media platforms, such as FB, which offers a high level of privacy, has created challenges in monitoring illegal activities and performing necessary enforcement steps (Guan & Xu, 2015).

Apart from that, FB's algorithms are said to link wildlife trade criminals, via suggesting friends and recommending groups, resulting in a growing network of like-minded individuals conducting illegal activities (Stiles, 2019). Based on the report by Alliance to Counter Crime Online (ACCO), approximately 30% of the FB pages trading wildlife were found through the platform's "related pages" feature that uses algorithms to suggest pages that are similar to previously visited or liked pages (Ebersole, 2020). In Malaysia, it is reported that traders have turned to recruiting customers via popular local FB groups for hikers and outdoor lovers; new members are then added into secluded instant messaging groups like WhatsApp (Tan, 2016). Thus, FB is aiding in accelerating or growing the illegal online wildlife trade.

Even though FB and IG are among the founding members of the Global Coalition to End Wildlife Trafficking Online that was launched in May 2018, a random search on these platforms still show numerous groups and users advertising exotic pets, as well as ivory and rhino horn, which were sold in closed groups using code words (Stiles, 2019). Buyers and sellers of wildlife use code words or keywords in their conversation as a strategy to evade detection by authorities. Code words such as "aloo" (potato) to imply musk deer and "kola" (banana) to mean elephant tusk (Shekhar, 2016) have been used in India. Meanwhile, for Malaysia, based on thorough review of past studies, no research has reported any specific examples of code words or keywords used during online wildlife trade. Since tactics such as using code words has become a hurdle for the authorities in curbing online wildlife trade, not knowing the code words makes it even harder to detect and stop online wildlife trade. Some tactics used to carry out wildlife trade include avoidance (for example, hiding goods) and management (such as negotiating, attempt to give bribes, and corruption), besides employing new routes and methods to transport the illegal items (Gore et al., 2021;

Heinrich et al. 2019). As such, it is vital to find out what code words and other tactics are used by sellers and buyers on social media platforms in Malaysia.

It is crucial to curb wildlife trade in Malaysia, including those conducted online, as an uncontrolled and excessive level of trade could lead to several dire consequences. First, is extinction of wildlife. Uncontrolled poaching is the main reason Sumatran Rhino was declared extinct in the wild in Peninsular Malaysia in 2015 (Sharma, 2017). It does not help that in Malaysia, specifically 686 plants and 225 animals are at risk of extinction, with at least 256 of them assessed as Critically Endangered, as listed in IUCN's Red List (Krishnasamy & Stoner, 2016). This shows more animals and plants could possibly go extinct in Malaysia. Second, wildlife trade can negatively impact the people who economically rely on the wildlife or the affected canopy or living area, whereby when the wildlife is removed in a certain quantity it can affect the number of preys, predators or the living area (Keskin et al., 2023). As explained by WWF-Malaysia (2023), village communities rely on local wildlife and plants for their day-to-day nourishment and any disturbance to the natural ecosystem will impact their well-being in the long run. Third, the country could be affected by the risk of invasive species and zoonotic diseases (WWF-Malaysia, 2023). Wildlife trade can result in invasive species being introduced into the ecosystem, whereby they can prey or compete with local species. There have been incidents of alien ornamental fishes i.e., pets, being released into native freshwater ecosystems in Malaysia; several studies have examined the risk of invasion and the impacts (Saba et al. 2021, 2020). Wildlife trade could also cause the spread of zoonotic diseases, such as the devastating COVID-19 outbreak due to the SARS-CoV-2 virus (Lee et al., 2020). People involved in the commerce, consumption (i.e., food, medicine) or use (i.e., pets) of live animals or animal products engage in close proximity with those commodities (Webb, 2021).

Thus, humans become exposed to viruses originating from animals, such as bats for the COVID-19 virus.

To help prevent this situation from worsening, as suggested by Nijman et al. (2019), more research monitoring the online wildlife trade is necessary since the online wildlife trafficking issue has not received much focus from scholars (Demeau, Vargas, & Jeffrey 2019). Conservation groups are said to worry about the ease at which live animals can be purchased on FB and other platforms, which consequently opens the market for smugglers (Niranjan, 2019). Live animals (e.g., slow lorises, Ploughshare tortoises) and its derivatives or products (e.g., ivory, rhino horn) can be ordered, purchased and delivered at the click of a button in which both sellers and buyers do not need to leave their homes or business place (Koshy, 2020). Besides, Krishnasamy and Zavagli (2020) have recommended that monitoring and researching of online wildlife markets in Malaysia be conducted. Meanwhile, Sung and Fong (2018) carried out a case study based on turtles to demonstrate the usefulness of monitoring the online trade. Hence, it is pertinent to check the illegal online wildlife trade occurring, specifically on the social media sites FB and IG, in the context of Malaysia.

More importantly, the communication between sellers and buyers must be scrutinised. Past research on online wildlife trade in Malaysia (for example, Chng & Bouhuys, 2015; Krishnasamy & Stoner, 2016; Gomez & Bouhuys, 2018; Chng, Saaban, Wechit & Krishnasamy, 2021; Ong & Chin, 2022) focused on determining the number of online sites, number of species/wildlife, value of trade, number of advertisements, etc. Based on relevant literature search, no research has examined the communication process between online wildlife sellers and buyers; thus, there is a research gap in this area of study, in the context of Malaysia. Specifically, the information provided and requested by wildlife sellers and buyers and the tactics

employed by them on social media have not been examined yet. For example, studies on code words, a type of tactic, employed in online wildlife trade are lacking. Similarly, no past research has analysed the information exchanged between wildlife sellers and buyers on the online environment, which could then reveal details pertaining to methods of delivery or payment for instance. Deciphering the communication process that occurs during the online trade is crucial as it will shed more light in spotting, preventing, apprehending, and subsequently restricting the illegal online trade of wildlife. As stated by Krishnasamy and Zavagli (2020), online platforms, along with physical markets, cater to the demand for wildlife and hence, illegally existing ones must be eliminated. Besides, the analysis of the online market of wildlife is useful to spot the different individuals carrying out the illicit trade and to call for regulations and monitoring of online trade (Keskin et al., 2023). Most efforts to curb wildlife trafficking is focused at the start and end of the chain, i.e., stop poaching at the wildlife's habitat and conducting awareness campaigns to educate the public (Cannon, 2019). Players in the middle of the chain, like Kejora Pets are often not targeted, whereby exposing them is labour and time intensive, something that has failed to attract the equal attention and investment the two ends of the chain get. Online traders enable the whole trafficking process and targeting them means the best opportunity to disrupt the trafficking network.

Therefore, this research aimed, in the Malaysian context, to examine the communication process between wildlife sellers and buyers via social media, specifically by scrutinising the information exchanged between them. This study also sought to investigate the communication tactics used by sellers and buyers via social media. Finally, based on the findings acquired from scrutinising the information provided and requested by sellers and buyers on social media posts and the tactics

determined, a communication process framework of wildlife trade via social media in Malaysia was developed. The information and tactics helped build the framework by showing the flow of communication between sellers and buyers and other players in the online wildlife trade, such as suppliers, and the specific platform or site employed to perform a specific part of the online interaction, for instance, initial communication on social media platforms and further discussion on more private channels like apps.

1.4 Research Questions

The research questions for this study are as follows:

1. How does the communication process proceed between wildlife sellers and buyers via social media?
2. How is information provided and requested by sellers and buyers in the online wildlife trade communication process via social media?
3. How are tactics used by sellers and buyers in the online wildlife trade communication process via social media?
4. What communication process framework can be suggested to help curb illegal online wildlife trade?

1.5 Research Objectives

Specifically, this research aimed to:

1. To determine the communication process between wildlife sellers and buyers via social media.

2. To determine the information provided and requested by sellers and buyers in the online wildlife trade communication process via social media.
3. To determine the tactics used by sellers and buyers in the online wildlife trade communication process via social media.
4. To suggest a communication process framework to help curb illegal online wildlife trade.

1.6 Conceptualisation

Conceptualisation in research is necessary to provide an agreed upon meaning for concepts in that research. In the words on Sequeira (2014), conceptualisation is the breaking and converting of research ideas into common meanings to reach a consensus among users. On the other hand, according to Blackstone (2017), “conceptualisation involves writing out clear, concise definitions for key concepts”. It is to specify precisely what a researcher means and do not mean by the terms utilised in the study (Sequeira, 2014). In this research, a few concepts and terms are of importance and thus their meaning within the context of this study will be explained.

1.6.1 Wildlife trafficking and wildlife trade

According to the Wildlife Conservation Society (WCS, 2021), wildlife trade is “the commerce of non-domesticated animals or plants, usually extracted from their natural environment or raised under controlled conditions, either as living or dead animals or their body parts”, and it is regulated by UN’s CITES. Thus, illegal wildlife trade is the trade of wildlife that does not comply with CITES. A simpler but similar definition for wildlife trade is provided by TRAFFIC (2023) i.e., “any sale or exchange of wild animal and plant resources by people”. On the other hand, illegal wildlife

trafficking is “any environment-related crime that involves the illegal trade, smuggling, poaching, capture or collection of endangered species, protected wildlife (including animals and plants that are subject to harvest quotas and regulated by permits), derivatives or products thereof” (WCS, 2021; UNODC, 2019). Based on the definitions given by WCS, TRAFFIC, and UNODC, it can be said that illegal wildlife trade is part of illegal wildlife trafficking. Since this research examines the trade of wildlife that occurs on the online environment, i.e., specifically scrutinising the activity of buying and selling wildlife transpiring between sellers and buyers on social media platforms, the term wildlife trade was deemed suitable. This research therefore refers to the definition provided by WCS (2021). It should be noted however that throughout this thesis, both the terms (i.e., wildlife trafficking and wildlife trade) appear, as originally mentioned in the cited past research or report. Also, when either term appears along with the word “illegal” (i.e., illegal wildlife trafficking and illegal wildlife trade), it represents and emphasises that the act is illicit or unlawful. For example, wildlife trade on social media can be legal (such as by pet shops with permit from PERHILITAN) and illegal (for instance, individuals selling protected animals like hornbill).

1.6.2 Online wildlife trade

In this study, online wildlife trade refers to the trade of wildlife occurring on online platforms, such as online marketplaces (e-Bay, Amazon, Shopee, etc.) and social media sites (FB, IG, TikTok, etc.). This research investigated online wildlife trade on social media sites FB and IG based in Malaysia.

1.6.3 Communication process

Communication process is the process of creating and exchanging information that involves thoughts and ideas as well as understandings shared by the people communicating with each other. This sharing can be verbal i.e. via words or nonverbal i.e. via expressions and body language. Simply put, it is the exchange of a message between two or more people (Nordquist, 2017). As defined by Engel, Warshaw and Kinnear (1994), communication is “a transactional process between two or more parties whereby meaning is exchanged through the intentional use of symbols”. Similarly, Seiler and Beall (2003) have stated that communication is the “simultaneous sharing and creating of meaning through human symbolic action”. Holm (2006) has stated that communication is intentional and a deliberate effort is made to evoke a response. Holm further mentioned that each participant must thoroughly comprehend the other person’s communication whereby when that does not occur, no dialogue takes place. Similarly, as stressed by Lunenburg (2010), no communication can exist unless a common understanding resulting from the exchange of information takes place.

In this research, communication process between sellers and buyers of wildlife via social media was examined. As such, for this research, communication process means the dialogue and exchange of information that occurs through social media sites utilised to conduct illegal trade of wildlife. As the communication occurs in an online environment, the process involves the use of words or texts, pictures, emoticons, emojis, and gifs. Specifically, the communication process observed starts from the moment a post was made available on the selected social media sites, and the subsequent interaction that occurred.

1.6.4 Communication process framework

According to Partelow (2023), there is no universally accepted definition for framework, but its definition and purpose will likely be different across disciplines and thematic fields (Cox et al., 2016). One definition would be by McGinnis and Ostrom (2014: 1) who define frameworks as “the basic vocabulary of concepts and terms that may be used to construct the kinds of causal explanations expected of a theory”. Crockett (2017) meanwhile states that a framework gives a big picture outline or summary of numerous descriptive categories and how they could be linked to each other. As such, in the context of this research, communication process framework is a framework that depicts the communication that takes places on social media platforms between sellers and buyers of wildlife.

1.6.5 Communication tactics

Communication tactics in this research refers to the methods or means utilised by sellers and buyers of wildlife, via social media, to illegally trade. A common tactic in use is the application of code words or keywords to represent an animal or part of it to avoid detection by the authorities (Stiles, 2019; Shekhar, 2016; Williams, 2015). This study aimed to uncover other tactics employed by sellers and buyers of wildlife on social media.

1.7 Research Limitations

This research encountered several limitations. One of the limitations was the issue of the observed FB groups and IG accounts that went missing during data collection period. As such, to counter this limitation, the FB and IG posts were video captured using a screen recorder app. Besides, due to safety reasons, it was deemed

too risky for the researcher to directly communicate with the online wildlife sellers and buyers. More details about the limitations of this study are provided in Chapter 6.

1.8 Research Significance

One of this study's significance is the application of the grounded theory method to build a framework. No prior theories were tested in this research; thus, the study is making a contribution in the form of a framework. This research is vital as it is proposing a communication process framework that could assist government agencies and NGOs in curbing online wildlife trade via social media. As mentioned previously, wildlife trafficking is rampant in Malaysia whereby this country is known as a hub for wildlife trafficking activities. Besides, online trade of wildlife is also flourishing in Malaysia, especially via social media sites like FB and IG. As such, it is important to discover the communication process that occurs between sellers and buyers of wildlife on social media along with the information provided and requested by those sellers and buyers. Other than that, this research also aimed to uncover the communication tactics utilised by sellers and buyers of wildlife. Finally, a communication process framework of wildlife trade occurring on social media will be mapped out, based on the results from examining the communication process, the information exchanged between sellers and buyers, and the tactics they employed. This framework will assist government agencies and NGOs in their monitoring of social media sites for illegal wildlife trade in Malaysia. It will be a model for them to combat online wildlife trade. They can detect occurrence of illegal trade faster and more efficiently, for instance, by knowing the code or keywords utilised by sellers and buyers.

As stated previously, very limited and insufficient research have been conducted to study the communication process involved in the online wildlife trade through social media sites. Past studies which investigated online trade of wildlife mostly focused on determining the number of sites, value of items traded, and so on. Thus, this research can fill the gaps in literature by contributing to the body of knowledge in the fields of wildlife trafficking and environmental communication. The communication process framework developed will add to available information on wildlife trade in Malaysia, especially illegal trade on the online environment such as on social media platforms and also to the environmental communication field.

1.9 Overview of Chapters

This chapter has presented the relevant background information for this study, along with the problem statement, research questions and objectives, conceptualisation, research limitations, and research significance. Next, Chapter 2 provides the literature review of topics relevant to this study, namely, wildlife trafficking/trade, online wildlife trade, communication process in online wildlife trade, communication tactics, and social media. Following that, Chapter 3 provides a detailed overview of this study's methodology, which was based on Charmaz's (2006) approach to grounded theory (GT), along with netnography, in-depth interview, and ethics. The first-round netnographic observation and first-round in-depth interview results are presented in Chapter 4 while Chapter 5 discusses the findings of the second-round netnographic observation and second-round in-depth interview. Finally, Chapter 6 ends this thesis with the discussion of the results and the research limitations and suggestions for future research.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter provides the literature review of topics relevant to this research, namely, wildlife trafficking and online wildlife trade in Malaysia and the world, previous research on wildlife trafficking, communication process in online wildlife trade, tactics in online wildlife trade, and social media (FB and IG).

2.2 Wildlife Trafficking

2.2.1 Global scenario

Wildlife trade is the sale or exchange carried out by people wanting to buy, sell or barter wild animals or plant resources (TRAFFIC, 2023). On the other hand, wildlife trafficking encompasses the illegal trade, smuggling, poaching, capture, or gathering of endangered species, protected wildlife (which includes animals or plants bound to harvest quotas and regulated by permits), derivatives, or products thereof (UNODC, 2019). Thus, illegal wildlife trade is part of wildlife trafficking. Wildlife products are varied, which include “live (smuggled) species (e.g., exotic animals used as pets), fresh produce (e.g., meat products made of animals such as gorillas, pangolins, and alligators), animal by-parts (e.g., bear bile), and non-perishable products produced from animals (e.g., elephant tusk ivory, rhino horns, pangolin scales, etc.)” (Keskin et al., 2023). With such a variety of uses, capturing wildlife is definitely something worthy to be carried out, even illegally, as the return or profit is high. With an increase in demand for animal products to be used for purposes as mentioned above, traders are becoming bolder to go against the law and evade the authorities to procure the wildlife. As such, wildlife trafficking has increased steeply.

Wildlife trafficking, which is continuing to grow, is greatly threatening the survival of numerous species and the ecosystems they live in (Demeau, Vargas, & Jeffrey 2019). Approximately 6,000 species of animals and plants have been confiscated between 1999 and 2018, whereby almost all nations in the world have a role in the illegal wildlife trade (UNODC, 2020). Nijman et al. (2019) have expressed that the illegal wildlife trade is a key driver of the worldwide loss of flora and fauna and is propelling the extinction of various species. This is a pressing matter as wildlife products (for medicine, construction, food or culture) are crucial for a large part of trade, economy, and way of life of people all over the world (TRAFFIC, 2023). Nonetheless, the portion of wildlife trade that is illegal is not known, however, it is assumed to be large (Doody et al., 2021). Illegal wildlife trafficking is heavily influenced by a strong and rapidly growing demand worldwide for products such as “bushmeat, ingredients for traditional Chinese medicine, exotic pets, jewellery, trinkets, and accessories such as chess sets, furs for uses ranging from coats to traditional costumes, and trophies” (WCS, 2021). Another reason for the drastic increase in illicit wildlife trade all over the globe would be due to the economic growth experienced by Asia; more people have the ability to buy illegal items such as ivory and rhino horn, either to be used as medicine or to portray wealth and status (WWF-Singapore, 2017a). For example, looking at rhino horn, compared to poverty in supply countries, wealth in demand countries is what drives the trade (Benjamin-Fink, 2016).

There are many methods a wildlife is poached or captured alive to be trafficked out of source country. In the case of rhino, the action can be summarised into timing, tracking, immobilising, and horn removal (Benjamin-Fink, 2016). Poachers use horrible immobilisation methods like chasing rhinos to high-voltage source to cause electrocution or through barbed wires or even directly killing the animal to get the

horn. From the kill site, the horns are moved to international airports and ports, where it will travel directly or via transit hubs to consumer markets (Hübschle, 2016). The rhino trade chain usually consists of poachers, middlemen buyers, exporters, couriers, and end-users (WWF-Singapore, 2017b). Between 2017 and 2018, rhino horns have been smuggled out of Africa into the Southeast Asian nations such as Vietnam and Laos (Abdul Majid, 2019). Meanwhile, in a report published in the Guardian, the method ivory is smuggled is explained by TRAFFIC and the Environmental Investigation Agency (EIA) (Mathiesen, 2016). Ivory shipped in falsely labelled containers (like tea, waste paper, and avocado) leave Africa via a few ports well-known for high level of corruption. In transit countries such as Malaysia, the containers would be relabelled into something less suspicious like dried fish, before being transported to Hong Kong and China. Past research has revealed the European Union (EU) and its member nations as transit points for illegal wildlife and wildlife products between Africa and Asia (Lemaître & Hervé-Fournereau, 2020). For example, Heinrich, Koehncke and Shepherd (2019) have examined the role of Germany in the illicit global trade of pangolins. They reported that most of the shipments involving Germany originated from West Africa (predominantly from Nigeria, a key nation implicated in the international pangolin trafficking). Furthermore, the researchers discovered the prominent use of postal services as a vital mode of transportation. Meanwhile, export of pangolin scales from Uganda was registered to have increased to destination countries that comprise China, US, Malaysia, and Vietnam (Rossi, 2018). These few examples reveal how the animals are moved from the source country to the demand countries.

Besides ivory, rhino horn and pangolins, which are wanted for food and consumption, medicine, luxury items, textiles, leather products, and high-ranking gifts

(Lemaître & Hervé-Fournereau, 2020), other animals are also trafficked all over the world. For instance, between January 2000 and June 2022, approximately 3,400 tigers were seized across 50 nations and territories; 13 tiger range countries recorded 77% of the seizure incidents (1,688 from 2,205 incidents) with India, China, and Indonesia recording the highest seizures (Wong & Krishnasamy, 2022). Besides live and dead whole tigers, items seized include tiger skins, teeth, claws, and bones. As reported in UNODC (2020), every part of a tiger is utilised and thus traded, such as for traditional medicine, and currently, tiger parts consumers are buying them to show off their wealth instead of for their health. Other than that, live southern rufous hornbills (*Buceros mindanensis*) have been trafficked into Indonesia from the Philippines (Cowan, 2021). Moreover, 99 cases of illegal live trade of hornbills were recorded between 2015 and 2021 in seven Southeast Asia (SEA) nations; this involved 268 live hornbills from 13 species (Cowan, 2021). Live hornbills are trafficked via several routes, i.e., Indonesia to the Philippines and Indonesia to Russia, China, and Malaysia. Indonesian Borneo is said to be a hornbill poaching hotspot and in recent years, border authorities have carried out huge seizures of hornbill casques; these casques were planned to be brought into Malaysia (Cowan, 2021).

The illegal wildlife trade has several devastating impacts, such as irreversible species loss, collapse of ecosystems, and spread of harmful diseases [Financial Action Task Force (FATF) 2020; Webb & Hanifah, 2017]. One of the negative impacts of illicit wildlife trade is the spread of zoonotic diseases, such as the COVID-19, which has killed millions of people and infected many more, causing pain and suffering (Keskin et al., 2023). The COVID-19 virus is believed to have transmitted from bats to pangolins to humans (Doody et al., 2021). Risks of such diseases are higher among species that are traded, without regulation, in large volumes mostly due to higher levels

of exposure and lax safety and/or sanitation rules (Keskin et al., 2023). Similarly, when wildlife are illegally taken from their habitat, butchered and traded, the possibility of zoonotic diseases transmission increases as no hygienic conditions exists (UNODC, 2020). Besides, the various unique combinations of illegally harvested wildlife in wet markets promote host-jumping in possibly fatal pathogens while trafficking animals into dense human populated areas will increase the risk of uncontrollable spread of the disease (Doody et al., 2021). Furthermore, another impact would be habitat degradation, i.e., when a species is removed from a habitat in a certain quantity, it affects the number of preys and predators or the canopy or living area; consequently, the people economically dependent on the species or area are affected (Keskin et al., 2023). The biodiversity, which is eroding due to wildlife trafficking, must be protected as it offers humans various things including “clean air and water; food; mitigation from floods and droughts; detoxification and decomposition of wastes; soil generation, renewal and fertility; pollination of crops; pest control; medicines; climate control; and protection from climate extremes” (Doody et al., 2021). The World Bank (2020, as cited in Doody et al., 2021) has said that loss of ecosystems services (i.e., carbon storage, water filtration and flood retention), costing a shocking \$2–\$3 trillion annually, is caused by wildlife trafficking via the removal of wildlife, forest products and coastal resources. Other impacts include hampering the socioeconomic growth of origin nations by affecting governance and political stability, driving conflicts, and causing human rights abuses (Lemaître & Hervé-Fournereau, 2020).

Despite the terrible impacts, wildlife trafficking related offenders are said to generally be sentenced with (small) fines, whereby at times the fines are lesser than the value of the items trafficked, sold or attained by the offenders (UNODC, 2019). All over the world, species are affected by illegal wildlife trade because poachers,