

**COMMUNICATION ISSUES IN MALAYSIAN ARMY INFANTRY UNITS
DURING DISASTER RESPONSE IN KELANTAN, MALAYSIA**

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Thesis submitted to the Centre for Graduate Studies, Universiti Pertahanan Nasional
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(Resource Management)

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ABSTRACT

This study was undertaken to investigate the relationship between elements of communications that is communications channel, media communications, Intra-Agency Communications, Inter-Agency Communication, and Knowledge among Infantry Personnel in Disaster Response in Kelantan. A total of 400 infantry personnel consisting of 5 infantry battalions are involved in this study, which is located in Kelantan. In term of methodology, this study will using quantitative research method through the questionnaire survey distributed to the sample of study. Meanwhile, the statistical analyses used in this study are descriptive and analytical construct. The findings were analyses using the Statistical Package for Social Science (SPSS) version 22.0 and a path model with 9 hypotheses testing was analyses using the SmartPLS Software Version 3.0. The coefficient of reliability scales using the Cronbach's alpha analysis showed that all values are greater than 0.6. The findings showed that the level of communications channel, media communications, Intra-Agency and Inter-Agency Communications among Infantry Personnel in Kelantan is high. The data were also analyses using structural equation modelling advanced statistical technique in order to determine the correlation analysis of direct effect and to observe the role of knowledge as moderating variable in the relationship between elements of communications (communications channel, media communications, Intra-Agency and Inter-Agency Communication) in the Infantry Personnel achievement of disaster response. The study conclude that all the elements of communications have significant effects on disaster response; however, the moderation effect of knowledge in all direct effect relationship was not supported. Statistically the knowledge does not give the biggest impact to each infantry personnel. Discussion of findings, limitations and recommendations for future study are also discussed in the later part of the study.

ABSTRAK

Kajian ini dijalankan untuk mengkaji hubungan antara elemen komunikasi iaitu saluran komunikasi, komunikasi media, komunikasi dalaman, komunikasi antara agensi dan pengetahuan di antara anggota infantri dalam tindak balas bencana di Kelantan. Sejumlah 400 anggota infantri yang terdiri daripada 5 batalion infantri yang terlibat dalam kajian itu yang terletak di Kelantan. Kajian ini dijalankan dengan menggunakan kaedah penyelidikan kuantitatif melalui kajian soal selidik yang diedarkan kepada sampel kajian. Sementara itu, analisis statistik yang digunakan dalam kajian ini adalah pembinaan deskriptif dan analisis. Hasil kajian dianalisis dengan menggunakan *Statistical Package for Social Science* (SPSS) Versi 22.0 dan 9 ujian hipotesis dianalisis dengan menggunakan perisian SmartPLS Versi 3.0. Skala kebolehpercayaan menggunakan analisa alpha Cronbach dan komposit kebolehpercayaan menunjukkan bahawa semua nilai lebih besar dari 0.6. Penemuan ini menunjukkan bahawa tahap saluran komunikasi, komunikasi media, komunikasi dalaman dan komunikasi antara agensi di kalangan anggota infantri adalah tinggi. Data ini juga dianalisis dengan persamaan struktur pemodelan teknik statistik lanjutan untuk menentukan analisis korelasi kesan langsung dan untuk memerhatikan peranan pengetahuan sebagai pemboleh ubah mencekah dalam hubungan dengan elemen – elemen komunikasi (saluran komunikasi, komunikasi media, komunikasi dalaman dan komunikasi antara agensi) dalam pencapaian terhadap tindak balas bencana anggota infantri. Kajian ini menyimpulkan bahawa kesemua elemen komunikasi yang dikaji mempunyai kesan yang signifikan terhadap tindak balas bencana. Walau bagaimanapun, kesan pemboleh ubah mencekah pengetahuan dalam semua hubungan langsung tidak memberi kesan. Secara statistik, pengetahuan tidak memberi impak terbesar kepada setiap anggota infantri. Perbincangan mengenai penemuan, limitasi dan cadangan untuk kajian masa depan juga dibincangkan di bahagian akhir kajian.

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APPROVAL

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LIST OF ABBREVIATIONS

CFA	CONFIRMATORY FACTOR ANALYSIS
CNR	COMBAT NET RADIO
AVE	AVERAGE VARIANCE EXTRACTED
PLS	PARTIAL LEAST SQUARE
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY
NYPD	NEW YORK POLICE DEPARTMENT
FDNY	FIRE DEPARTMENT, CITY OF NEW YORK
WTC	WORLD TRADE CENTRE
ICT	INFORMATION AND COMMUNICATION TECHNOLOGIES
SEM	STRUCTURAL EQUATION MODELING
CR	COMPOSITE RELIABILITY
SPSS	STATISTICAL PACKAGE FOR SOCIAL SCIENCES
RMR	ROYAL MALAY REGIMENT
RRR	ROYAL RANGER REGIMENT
BR	BORDER REGIMENT
HTMT	HETEROTRAIT-MONOTRAIT
MMEA	MALAYSIAN MARITIME ENFORCEMENT AGENCY
RMAF	ROYAL MALAYSIAN AIR FORCE
PDRM	ROYAL MALAYSIAN POLICE
RMN	ROYAL MALAYSIAN NAVY

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Disaster will cause an impact that will result in casualties and property damage. However, there are things that are often forgotten during disaster, such as problems in communication. When disaster happens, it will cause many casualties, while the infrastructures are badly damaged, giving rise to issues in communication.

Issues in communication happen due to the lack of communication resources that can provide information on the current situation during disaster and the location. In addition, communication problems also happen due to the disconnection of communication channels caused by infrastructure damage and communication infrastructure effect from the disaster. Moreover, issues in communication in a natural disaster situation are also due to inadequate information and more information about the disaster situation. As mentioned by Robert (2001), one of the first problems in dissecting any communication issues is to define the meaning of the term “communication”.

Based on past events of earthquake and tsunami Aceh and Nias in 2004, the problem of communication was very bad during these disasters. There was still no accurate information after several weeks of disaster. There was still no accurate information received about the areas of disaster several weeks after the disaster. For example, information on the number of casualties involved, the number of people who survived the location of temporary placement of victims, and safe places. The lack of such information resulted in the crisis of communication getting worse. Furthermore, the same incident also occurred during the earthquake and tsunami in Japan. However, the situation in Japan is slightly different because it is more quickly overcome as Japan is very advanced in their technology. Therefore, the problem in communication during disaster in Japan is not too bad. It took only a few hours for all communication resources in Japan to work again and be able to provide enough information. Mass media also plays an important role.

In the Malaysian context, disaster in the form of floods often hit our country. Since 1920, Malaysia has undergone a series of major floods like in 1926, 1963, 1965, 1967, 1969, 1971, 1973, 1979, 1983, 1988, 1993, 1998, 2005, 2006, 2007 and 2014. This frequency shows that people should be prepared for all eventualities in the face of disaster. Moreover, in recent years, Malaysia was vulnerable to various natural hazards including large floods, tsunami, cyclonic storms and landslides that emerged from climatological changes (Shaluf et al, 2003). Meanwhile, in Malaysia, surveys related to communication in disaster management are less conducted by researchers although Malaysia is also involved in disaster. However, more studies are done by other countries. Furthermore,

awareness of the importance of communication in disaster management gets higher lately after the event of tsunami in 2004. Therefore, it motivates researchers to study the problem of this communication during the disaster and add the knowledge as a moderating factor which is less conducted in the previous research.

One of the factors related to communication in disaster is a problem in communication channels. Moreover, communication in disaster is not only needed in emergency situations, but it is also important during disaster and pre-disaster. According to Haddow and Haddow (2008), the ability in communication during disaster of public, intra and inter agencies will be able to reduce the risk, save lives and reduce the impact of disaster.

Increasingly, military, humanitarian, and public actors find themselves working together in responding to disasters (natural or man-made) and complex emergencies. This challenges the situation for all parties concerned. Moreover, response agencies are becoming more connected to other agencies that need to communicate and share information during disaster, such as public health, medical, and transportation agencies, critical infrastructure sectors such as energy, and information technology.

1.1.1 Perspective of Communication Practices in Disaster Management

Communication is an issue that is considered important in disaster management. Communication during and immediately after a disaster situation is an important element of response and recovery, in that it connects affected people, families, and communities

with first responders, support systems, and other family members. Reliable and accessible communication and information systems also are key to a community's resilience. Communication is an issue that is considered important in disaster management.

The role of communication innovation has been perceived as important to disaster management for a long time. Even though the fact that use of communication has a role in all the four phases of disaster management namely, mitigation, preparedness, response and recovery, most of the application has traditionally been in response and recovery phases. In this study the researcher highlighted communication in the response phase. The new communication channels that have emerged over the last two decades lend themselves to greater possibilities of integration of different communication systems. The interoperability of various communication channels including internet, mobile phones, fax, e-mail, radio and television is increasingly becoming functional.

In the context of disaster management, communication is not only needed in emergency situations, but it is also important during disaster and pre-disaster. According to Haddow and Haddow (2008), the ability in communication during disaster of public, intra and inter agencies will be able to reduce the risk, save lives and reduce the impact of disaster.

1.1.2 Perspective of Communication Practices in Disaster Management in the Malaysian Army.

In the field of Malaysian Army, communication is an essential part of any military operation and usage. Without reliable communication systems, command and control, military element cannot function effectively (Wilgenbusch and Heisig, 2013). Likewise, the Army Combat Net Radio (CNR) availability and readiness are the key factors in achieving success in any military mission and in this circumstance, the Malaysian Army operations.

1.1.3 Malaysian Army Infantry

Malaysian Army currently has 17 Regiments and Corps. These are grouped into three elements that is the combat elements, combat support element and support element. In this study, researcher more focused on the Infantry Corps of the Malaysian Army. This is according to the highly involvement of the Corps during flood response operation in the studied area in Kelantan. The infantry by nature of its structure, organization, training, readiness and inventory capabilities is seen as an appropriate organization to respond to humanitarian and disaster relief operations (Ridzuan et al., 2018).

In Kelantan, the responsibility of Malaysian Army were delegate to the 8th Malaysian Infantry Brigade (8 Bde). This brigade, consist of three infantry battalions under command for administrator. The three infantry battalion organic to 8th Infantry Malaysian Brigade (8Bde), 16th Royal Malay Regiment (RMR), 21ST Royal Malay Regiment and 5th Royal Ranger Regiment (RRR) and, the two infantry battalion under command for administration are 1st and 2nd Border Regiment (BR). An infantry soldier is a well trained in combat skills and arms and they are also the backbone of the army. The primary role is to seek out and close in with enemy, to kill or

capture enemy, to seize and hold ground and to repel attack by day or night, regardless of season, weather or terrain (MD 7.1A TD, 2003; MP1.1.9A TD, 2005). During peacetime, they are required to respond to disaster to assist the civil authorities in the period of emergency under the leading federal agency (Ridzuan et al., 2018). In this study, the researcher focused to investigate the secondary task of infantry in the flood response phase in Kelantan in 2014.

1.2 PROBLEM STATEMENT

Data from the previous study more to qualitative such as study by (Lubna (2017), Sajjad and Laila, (2008), Goldfine, (2011). Moreover, the finding of the previous research also show clearly about communication is a vital part of any operation including disaster response. Their finding also suggested several actions in order to enhance the capabilities of such agencies in conducting disaster response operations. Thorough investigation found that previous research more focus on procedure of communication itself but given less attention on knowledge of the personnel who operating the communication.

This research was execute to gain the knowledge on communications towards disaster response in Malaysia environment. Interviewed with 8th brigade commander, Brigadier General Dato' Azmi Yahya and 8th Brigade Chief of staf, Liutenant Colonel Muhammad Fazli Idris on 6th February 2015 found the important of communication element in disaster management. The 8th Brigade on a lead agency during heavy flood disaster 2014 in Kelantan facing a problem in managing the communication especially in term of different communication channel between agencies, lack of battery support due to electrical power supply, interaction with media, the highlighted of sensational

issues or untrue stories through the virtual space and the knowledge of military personnel on the communication during involved in the disaster situation. All these problem will lead to the successful or fail of the disaster response operation.

The focus group discussion conducted on the next day of strengthen this issues. This occasion involved 22 military personnel at all levels that is tactical, operational and strategic. They have an experienced actively involved during heavy flood in Kelantan 2014 especially during preparation and response phases. Information gathered from this focus group discussion shows that the differential of communication channel, procedures of communication between agencies poorly coordinated of media reports and understanding of message has main problem during the response phase. Other than that, the knowledge of military personnel such as they do not have enough training about managing disaster and some of them do not know how to handle Radio Tactical Set because of no training to manage all the equipment during disaster and this will affected the operation. The committed knowledge on operating the communication among the military personnel, sometimes will jeopardise the operation.

All these statement had given an idea to researcher how important the communication during disaster response phase. Although it is important, this element was give less attention by scholars especially in Malaysia. Therefore it is motivates researcher to study more deeply about this issues to gathered appropriate findings give suggestion and contribution for improvement. Research will focus on the elements in communications during disasters includes issues of communication channels, media

communications, intra-agencies communications, inter-agency communication and knowledge as moderating.

Extended research in this area highlight the field of communication also jeopardies the response activity during disaster. As state by Robert (2001), communication breakdown when two parties are unable to communicate or when communication is impacted or altered by noise somewhere in the communication cycle. Many scholar view the importance elements in communication are communication channel, media communication, inter agency communication and intra agency communication and that elements will affects the all phases in disaster management cycle.

A thorough review on literature in the research of communication during disaster found that the communications channel, media communications, intra-agency communication, inter-agency communication and disaster response have a significant relationship (Lubna (2017), Sajjad and Laila, (2008), Goldfine, (2011).

Although Malaysia is also involved in disaster, a survey related to communications in disaster management is less conducted by the researchers. Preliminary research at the impact area (Kelantan) in February 2015 give an initial idea to researcher about this issues.

This field observation found that the communication in disaster is a vital element in every phases of disaster management cycle, especially during the response phase. During this phase, all response/rescue team need a quick and accurate information to ensure their effective response. All these need will derived from a knowledge of the personnel, good communication channel through well coordinating frequency, and the parallel understanding on intra-agency and inter-agency communication. However, more study is done in other countries.

1.3 OBJECTIVES OF THE STUDY

The purpose of this study to investigate the relationship between elements of communications that is communications channel, media communications, Intra-Agency Communications, Inter-Agency Communication, and Knowledge among Infantry Personnel in Disaster Response in Kelantan. This study also involves communication channels, media communication, intra-agency communication and inter-agency communications in disaster response. In addition, this study also contains the knowledge as a moderator for this research.

For the purpose of the study, five objectives have been set up to guide the research. They are as follows:

- a) To assess the communication channels being used in the Malaysian Army Infantry Units during disaster response.
- b) To assess the efficiency of intra-agency communication and inter-agency communication in the Malaysian Infantry Units during disaster response.

- c) To assess media communication being used in the Malaysian Army Infantry Units during disaster response.
- d) To determine the level of knowledge between communication channels, media communication, intra-agency communication and inter-agency communication during disaster response.
- e) To assess the level of disaster response management.

1.4 OPERATIONAL DEFINITION

1.4.1 Communications Channel

This communication channel is defined as a medium of information flow within the organization. Communication channels are also the medium in which messages are sent to intended recipients. The way information access to communication channels is an important factor in the process of delivering information quickly and accurately.

1.4.2 Intra-agency communications

Intra-agency communication is the communication that occurs within an agency. Inter-agency communication or internal communication provides the kind of information that allows operational staff and ensure effective management during disasters with cooperation with all staffs.