

Accessing Malaysia Armed Forces Logistics System in Providing Humanitarian Logistics Support

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ABSTRACT

Disasters frequently strike at any time of day or night, necessitating swift action and close coordination between various agencies. When a disaster response becomes increasingly time-consuming, the Armed Forces are frequently called in to assist. Despite the fact that disaster management is not the primary responsibility of the Armed Forces, however, the Armed Forces are frequently used as disaster response machinery because they have complete equipment, logistics, and personnel. In order to identify the logistics system available in the Malaysian Armed Forces (MAF), this study was carried out with a particular emphasis on integration and disaster management in the Armed Forces. A qualitative inquiry methodology was used to complete this study. A protocol for conducting interviews was developed and used as a guideline throughout the interview process. Snowball purposeful sampling was used in this study, which included 13 key informants from the Army, Navy, and Air Force. These individuals work in the logistics field and came from all three branches of the military. According to the findings of this study, there are no job specifications and specializations in disaster management in the MAF. The systematic logistics management implemented by the MAF, on the other hand, has made it easier to coordinate assistance during disasters. In addition, the strength in terms of knowledge, skills and discipline portrayed by the MAF personnel showed a very high commitment to achieving disaster management objectives. This advantage is widely regarded as the most important factor in ensuring that disaster response is carried out effectively and efficiently.

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1. Introduction

Defence logistics support is a critical component of the military [1]. During the war, logistical readiness determines victory. Due to the critical nature of commodities, such as ammunition, fuel, and food during wars, an efficient logistics system is required to assist in expediting the logistics support process. The same goes for disaster response. Humanitarian logistics is a very important element and requires the logistics system to be efficient. In disaster management, the involvement of multiple actors with distinct roles in logistics supports, if well-coordinated, can help expedite the response to disasters [2]–[4]. While there are numerous actors involved in aid distribution, it is observed that most disaster responses end in military intervention [5]. Although disaster response is not the military's primary mission, its assets and capabilities are seen as facilitating the delivery of aid.

As such, this paper examines the logistics system in place within the Malaysian Armed Forces (MAF) and the MAF readiness to provide logistical support during disaster response.

According to Ackoff in [6] a system is a group of related components or an entity formed by at least two components and a relationship between each of its components and at least one other component in the set. Therefore, a military logistics system is a military organization that consists of a set of components comprising acquisition, storage, transportation and movement that managing and executing supplies and deliveries.

This military logistics system is extremely well organized and follows a chain of command when it comes to managing logistics operations. Lis & Jałowiec [6] defines the military logistics system as having eight logistics primary components: doctrine, organization, training, materials, leadership, personnel, facilities, and interoperability. All these components function to complement each other. If one of them fails to operate properly, supply and logistical support will be disrupted. The significance of these eight components is discussed in greater detail below.



Figure 1. Military Logistics System

1.1. Doctrine

Military doctrine is a fundamental principle that the military adheres to when performing a task and serves as a guide for their actions in support of the objectives. Defence logistics is formed based on its doctrine. The logistics doctrine emphasizes the roles and responsibilities of a logistics organization and logistics personnel at times of war and peace. At the strategic, operational and tactical levels, the doctrine serves a variety of distinct but related functions. The logistics doctrine contains information about the organization's structure at all levels, from strategic to tactical operations. It illustrates the functionality of each division. Additionally, the document highlights the responsibilities of each division and operates according to the established chain of command [3]. As a result, any logistics task must be referred to the logistics doctrine for a more precise implementation. In light of the military's increased emphasis on jointness in military operations, most logistics doctrines have been updated to include the operation of joint logistics, which take a collaborative approach to army, navy, and air force logistics.

1.2. Organization

The organizational structure established in the armed forces is intended to facilitate management's achievement of organizational goals. Organizationally, the structure is more akin to a task force. With a more structured organization, information and instruction are delivered more clearly [7]. The logistics management chain in the armed forces extends from the headquarters command to the depots and stores. Clear direction from headquarters to depot simplifies supply distribution and

speeds up the delivery process, especially when involving operations. Given that logistics primary function is to deliver goods to the correct location and at the appropriate time, the accuracy of information is critical.

1.3. Training

Along with basic military training, military personnel will attend specialization courses to improve their skills in particular specializations. Personnel assigned to the logistics division receive training in logistics management and are constantly abreast of new information [8]. Additionally, they must complete billet prerequisite courses that assess their ability to perform logistical tasks before being hired at headquarters, depots, or stores.

1.4. Materials

Military operability is contingent upon the availability of equipment and assets. Thus, logistics is critical for providing logistical support, such as spare parts and maintenance. The provision of complete materials will assist in ensuring the operational readiness of military assets and equipment. The capability of these assets and equipment is highly dependent on operability. Therefore, the provision of spare parts and performing scheduled maintenance can help improve the performance of assets and equipment [9].

1.5. Leadership

In the military, leadership is the pillar of governance as it establishes the conditions for effective cooperation, coordination, and communication with external organizations. Effective leadership will be able to provide direction when it demonstrates effective communication between top management and lower management. Leadership in logistics plays a big role in decision making, particularly when it comes to allocation and procurement needs [10]. Decisions should be made in light of current requirements to ensure the operability of assets and equipment.

1.6. Personnel

The function of personnel is to perform assigned tasks in accomplishing organizational goals. This group of individuals is the organization's driving force and strength. Adequate training and skills can assist personnel in performing well, particularly in logistics-related work, which requires careful planning and a set amount of time to complete a task [11].

1.7. Facilities

Warehouse, depot, and store capabilities are critical in logistics facilities [12]. Inventory management and stock placement must be meticulously planned to avoid waste and reduce operating costs. Additionally, warehouses equipped with cutting-edge automation systems will be able to boost logistics management efficiency.

1.8. Interoperability

Military assets and equipment are frequently used for periods exceeding their economic useful life. At this age, assets and equipment can occasionally obstruct interoperability and deliver subpar performance [13]. As a result, the logistics division provides the best perspectives and recommendations for maintaining the highest level of military assets and equipment

2. The Materials and Method

A qualitative inquiry method was utilized, which resulted in the collection of firsthand information. Inductive strategies used in conducting this study began first by exploring the Malaysian Armed Forces Logistics System in terms of its linkages and integration between services. This study also

explored whether or not the MAF Logistics System could assist in disaster response. After analyzing the MAF Logistics system's function, it was discovered that military organizations do not have a specific role in disaster management; in fact, MAF acts only when necessary, as it is a secondary job. As a result, no specialization in disaster operations exists, but MAF Headquarters will coordinate disaster logistics assistance as needed. Therefore, this study examined the advantages found in MAF that can be frequently seen as expediting the process of logistical assistance during disasters, which has motivated this study to explore further.

The interview was conducted based on the interview protocol developed beforehand. In finding the research participants for the interview, this study used snowball purposeful sampling, which eased the collection of rich information and identification of the research participants [14]. The method used resulted in 13 key informants that comprised the personnel who work in the logistics field from the Army, Navy and Air Forces. Semi-structured interviews were conducted, which were voice recorded. The recordings were transcribed verbatim. Next, the transcript was reviewed using a thematic analysis generating codes to describe the theme categories, which comprised the logistics system, assets and equipment as well as logistics support.

3. Results and Discussion

MAF is a huge, well-managed organization as can be seen from its chain of command. The logistics organizational structure of MAF is led by a Major General or Rear Admiral and has a governance structure involving Logistics Headquarters, Logistics Depots located regionally up to the level of stores that perform logistics supply management.

“...MAF's organisational structure is quite detailed. The Logistics Headquarters located in each Region is responsible for managing all logistics needs related to operations, asset management, and personnel requirement. Additionally, the Logistics Headquarters is responsible for planning the annual allocation requirements to cover logistics needs [sic].”

Research Participant 11

To manage logistics requirements, procedures are implemented following the logistics doctrine in each Service. The logistics doctrine guides logistics management in war and peacetime. Additionally, this logistics doctrine is developed under the Malaysian Government's Financial Procedures and is subject to current regulations. When determining the functionality of MAF, assets and equipment are the most important elements.

“..The logistics doctrine of the MAF was developed by expert officers, who took into consideration logistics management during both war and peacetime. This logistics doctrine contains numerous specialised chapters on topics such as equipment management, depots and stores, military vehicle operation, procurement, and even disposal. However, all the instructions in this doctrine are in accordance with current government procedures [sic].”

Research Participants 8

Research Participants 9 added,

“..Despite the fact that we are entrusted with performing duties to protect our national security, and despite the fact that defence spending is extremely expensive, we continue to adhere to the principle of integrity and spend prudently. We will use

the government's budget allocation to spend that is truly necessary, as it is the people's money and we are accountable for it [sic].”

The allocation provided by the government is used as much as possible in maintaining this equipment. Acquisition of new assets is planned but subject to current allocation. Logistics facilities such as depots, stores, and transport assets are managed regionally by Logistics Headquarters. MAF's logistics management functions consist of spare parts, consumables, food, fuel, and consumer goods. The logistics personnel assigned to the task are experts with the required skills. These individuals are always assigned to appropriate courses and frequently provided with the most up-to-date logistics information. However, it was observed that logistics management in MAF is more service-specific, with the element of jointness occurring only during operation and exercise execution.

“Although there is jointness within MAF, it has become customary for each service to manage its own logistics. This, I believe, is not a significant issue because any requirement involving other services is coordinated by MAF Headquarters [sic].”

Research Participants 9

Additionally, each service is supported by its own logistics system. Since 2000, the MAF has been developing Information Communication and Technology, which is used as a tool and enabler in the warehouse's operation. In the Army, a system similar to CODIMS is used to plan inventory. There are several inventory management systems available in the navy, including SPIA V2 for spare parts management and SPIA V3 for consumable item management. The SPKB system is widely used in logistics management within the Air Force. Although each service has its own logistics system, the logistics status of each service is presented to the highest management level quarterly.

Besides, it was discovered that there has been no skill set in disaster management work. If a disaster response is required, existing assets and equipment are fully utilized, and assistance is dispatched based on available inventory. Additionally, assigned personnel carry out tasks following their military knowledge and experience. Research Participant 5 added,

“Probably because military personnel have high discipline, different work cultures, as well as unparalleled levels of loyalty, make disaster operations easy to coordinate. In addition, these military personnel have also been trained to perform the tasks given in accordance with the objectives that have been outlined, so the action on disaster response is more effective and efficient [sic].”

4. Conclusion

Overall, it can be seen that the MAF has a very strong internal logistical coordination between services. The available logistics systems are the pillars of their operations. In addition, the strengths found in the MAF are born from highly disciplined personnel, obedient to instructions and focused on achieving the set objectives making it easy for them to coordinate a given job especially involving defence operations. Although the element of jointness has been implemented in the MAF, it seems that logistics management is still implemented separately as a single service. In addition, the advantage found in the ATM is the logistics system available in the service to help MAF function well and efficiently. However, it would be better if this system can be integrated and has a platform where all information can be obtained. Despite the advantages, it was found that the MAF does not have a structure in disaster operations. This is because the main function of MAF is more on safeguarding national sovereignty, with disaster management being a secondary task. Nevertheless,

the involvement of MAF during disaster response has a great impact and is well managed, whereas the coordination with disaster agencies can speed up the disaster management process.

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