



LOGISTICS DISTRIBUTION GOVERNANCE MODEL OF THE INDONESIAN NATIONAL MILITARY IN SUPPORTING TASK FORCE UNITS IN OPERATIONAL AREAS

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Abstract: This study explores the logistics distribution governance model of the Indonesian National Military (TNI) in supporting task force units within operational areas. Utilizing qualitative methods and literature review, the research highlights the complexities and challenges faced by TNI in managing logistics across Indonesia's vast archipelago. Effective logistics distribution is critical for ensuring timely delivery of essential supplies and resources to military units, thereby enhancing operational readiness and effectiveness. The findings indicate that TNI has developed a comprehensive and integrated logistics governance framework that emphasizes centralized planning and coordination, enabling efficient resource allocation across diverse geographical landscapes. Additionally, the study underscores the importance of adopting advanced technologies such as Enterprise Resource Planning (ERP) systems and real-time tracking solutions to improve transparency and responsiveness in the supply chain. Furthermore, the implementation of a defense strategy based on major islands fosters self-sufficiency in logistics capabilities, reducing dependency on external resources. Ultimately, this research contributes to understanding how effective logistics governance can enhance military operations in complex environments, providing insights for policymakers and military leaders to optimize logistical support for task forces operating in challenging terrains.

Keywords: logistics distribution, indonesian national military, task force units, operational areas, governance model



INTRODUCTION:

The successful execution of military operations is highly dependent on effective logistics distribution and management [1]. As a vast archipelagic country, the Indonesian National Armed Forces faces unique challenges in providing logistics support to its units deployed in various operational areas. Logistics management is a critical component in supporting the operational effectiveness and readiness of the armed forces. Defense logistics encompasses not only the provision of goods and services, but also strategic planning, supply chain management, and complex resource oversight (Octaviana, N.D.). Effective and efficient logistics distribution governance can contribute significantly to the performance and readiness of task forces in operational areas, especially in the vast archipelagic country of Indonesia with diverse geographical conditions [3].

The same thing was expressed by [4] and [5], logistics management in the context of defense is a key element in maintaining the readiness and efficiency of a country's armed forces. Proper and efficient logistics processes are essential to ensure the smooth supply, maintenance, and distribution of military equipment. Defense Logistics focuses on key areas of logistics and supply chain management in the context of sustainability, inventory management, resilience, procurement, information systems, and crisis response.

A more comprehensive definition is explained by [6], Logistics is basically moving, supplying, and maintaining military forces. It is fundamental to the ability of armies, navies, and air forces to operate--indeed, to exist. It involves personnel and material, transportation, housing and depots, communications, evacuation and hospitals, personnel replacement, services, and administration. In a broader sense, it has been referred to as the war economy, including industrial mobilization, research and development, funding, procurement, recruitment and training, testing, and basically everything related to military activities other than strategy and tactics.

Logistics is a key component of supply chain management, involving the complex planning, implementation, and control of the flow and storage of goods, information, and services from point of origin to point of destination [3]. Effective logistics support is vital to the Indonesian National Armed Forces' ability to ensure timely delivery of critical supplies and resources to troops engaged in operations across the country's vast and diverse operational theaters. Efficient and reliable logistics enable the Indonesian National Armed Forces to maintain operational readiness and meet mission objectives with unwavering resilience, especially given the complexity of Indonesia's geography and operational environment as an archipelagic nation. A robust and integrated logistics



system is the foundation for the Indonesian National Armed Forces' ability to address multifaceted logistics challenges and ensure the continuous flow and timely distribution of essential supplies to troops across the theater of operations.

However, the increasingly complex challenges and modern demands in defense logistics management have driven the need for innovative solutions and also the use of more comprehensive technology to minimize the potential for existing logistics problems [3] [7]. Technologies such as integrated information and communication systems, advanced data analytics, and the application of smart logistics concepts utilizing the Internet of Things can contribute significantly to increasing efficiency, effectiveness, and responsiveness in defense logistics distribution. [8][9][10] By utilizing technological advances, the Indonesian National Army can develop a logistics system that is more adaptive, precise, and responsive to various challenges in the field, so as to ensure a smooth and timely flow of supplies to all operational units in various broad and diverse geographic areas.

As the main armed force of the Republic of Indonesia, the Indonesian National Armed Forces (TNI) has a fundamental responsibility to maintain the national security and sovereignty of the world's largest archipelagic nation. Given the extraordinary geographic diversity and logistical complexity inherent in the Indonesian archipelago, ensuring timely and reliable delivery of critical supplies, equipment, and resources to TNI units spread throughout the archipelago is a primary concern for military leadership. The logistical challenges faced by the TNI in supporting operations and missions in diverse and hard-to-reach operational areas require effective, efficient, and integrated logistics distribution management to meet troop needs and maintain operational readiness throughout the country.

As an integral component of Indonesia's national defense equipment, the Indonesian National Armed Forces has the primary responsibility to safeguard the country's sovereignty and support the achievement of national security objectives [11]. Given Indonesia's vast geography, characterized by a vast archipelago and diverse operational environments, the Indonesian National Armed Forces' logistics operations are highly complex, requiring seamless coordination and implementation of robust and adaptive support systems to enable operational readiness and effectiveness of forces deployed across the country's vast theater of operations. The Indonesian National Armed Forces' logistics challenges are exacerbated by the country's archipelagic nature, with scattered islands and remote operational areas, as well as the difficulty in maintaining a reliable and timely supply chain to ensure a continuous flow of critical resources and materials to



units in the field [12].

Furthermore, the diversity of cultural, social, economic, and geographical characteristics of various regions in Indonesia adds significant complexity to military logistics operations. The uniqueness and specificity of the environment and local conditions encountered throughout the country pose a challenge for the Indonesian National Armed Forces in managing its logistics distribution. As a result, the TNI must continue to refine and adjust its logistics support strategy comprehensively to accommodate the diverse characteristics and needs of various operational areas. This emphasizes the importance of developing an effective, efficient, and responsive logistics distribution governance model to be able to handle these multifaceted challenges. In doing so, the TNI can ensure timely and reliable fulfillment of logistics needs, thereby enabling the military to fulfill its mission objectives with unwavering resilience and fighting spirit. [13][10]

As the main armed force of the Republic of Indonesia, the Indonesian National Army is faced with a number of complex challenges in managing logistics distribution to support task force operations in various operational areas. Based on the sources provided, some of the main challenges faced by the TNI include:

1. Indonesia's vast geography with its widely spread archipelago makes it difficult to maintain a reliable and timely supply chain from point of origin to operational units throughout the region.
2. Difficulty in maintaining continuity and efficiency of the supply chain, especially due to the high logistics complexity caused by the diversity of cultural, social, economic and geographical characteristics in various operating areas.
3. The need to continuously adapt and develop logistics support strategies to accommodate specific needs across a wide and diverse range of operational areas.
4. These challenges emphasize the importance for the TNI to build a comprehensive, effective, and responsive logistics distribution governance model to support task forces across all operational areas.

TNI Logistics Distribution Management Model

The Indonesian National Armed Forces has developed a comprehensive and integrated logistics distribution framework to support its operational units across the region. At the heart of this framework is a centralized planning and coordination system, which serves to oversee the strategic allocation of resources and integrate the overall supply chain. [8]By implementing a centralized approach to logistics management, the Indonesian National Armed Forces can maintain a holistic



view of its needs and optimally distribute resources to maximize operational readiness and responsiveness.

To ensure efficient and effective logistics implementation, the Indonesian National Army has built a centralized system that regulates planning, coordination, and resource allocation, as well as integrating the supply chain across the organization. With a strong command and control center, the TNI logistics system can adapt and respond quickly and appropriately to various changes in needs or disruptions that may occur in the supply chain in a wide, challenging, and geographically diverse operational area.

In implementing the logistics distribution governance model, the Indonesian National Army applies a hierarchical organizational structure that includes upper, middle, and lower echelons [14]. This structure allows for coordinated and vertically connected information flow, decision-making, and resource allocation, from the national command center to tactical units in the field. Thus, this hierarchical structure supports the integration and synchronization of logistics processes at all levels, from strategic planning to operational execution. In addition, this structure also allows the Indonesian National Army to develop and maintain a solid and integrated logistics network throughout a wide and diverse operational area geographically, socially, economically, and culturally. This is important to ensure the availability and distribution of resources reliably, in order to meet the needs of troops in various operational areas.

This is inseparable from Indonesia's defense strategy which emphasizes the development of strong and reliable national defense capabilities. The logistics aspect plays a crucial role in supporting this strategy, ensuring the timely and effective delivery of essential supplies, equipment, and resources to troops carrying out various tasks and operations across the country's vast and diverse geographic areas. Robust and integrated logistics are the backbone of the readiness and mobility of the Indonesian National Armed Forces, enabling troops to operate effectively in a variety of challenging conditions and locations throughout the archipelago. Investment in sophisticated logistics capabilities, including the adoption of cutting-edge information technology, supports efforts to realize a national defense force that is reliable and responsive to various operational situations.

The centralized approach in TNI logistics management allows them to maintain a holistic view of logistics needs and distribute resources optimally to maximize operational readiness and responsiveness. This military logistics distribution model also emphasizes the importance of close collaboration and coordination among various stakeholders, including logistics units, operational



units, and related government agencies. This collaborative effort aims to ensure a smooth and integrated flow of goods, information, and resources throughout the TNI logistics supply chain [10][8][15]. Thus, the TNI can maintain the availability and distribution of timely and effective logistics, allowing troops to carry out operational missions with maximum readiness and fighting power in various operational areas throughout the archipelago.

The governance model cannot be separated from the Nusantara Defense Strategy implemented by Indonesia, which relies on defense forces on large islands. This strategy emphasizes the development of solid and sustainable defense capabilities at the regional level, including in the logistics aspect to support the implementation of tasks and unit operations in various geographic areas in this archipelagic country. The Nusantara Defense System encourages the growth of defense forces on the five large islands, supported by the production capabilities of the defense industry and regional-based logistics to meet the needs of units operating in their respective regions. [14] [11]. According to the Ministry of Defense of the Republic of Indonesia, it is expected that each large island at least has its own production capacity and logistics support to avoid dependence on supplies from other areas and ensure continuity of logistics support for operational units in the region.

The Indonesian National Armed Forces' effective logistics management efforts are also supported by the adoption of comprehensive Information Technology. The implementation of an integrated Enterprise Resource Planning system enables the automation and integration of critical logistics processes, such as planning, procurement, inventory management, and distribution. In addition, the use of advanced technologies such as vehicle tracking, sensors, and advanced data analytics enables the TNI to monitor the movement of goods in real-time, predict demand trends and patterns, and optimize transportation routes and capacity. Investments in this IT infrastructure and capabilities significantly increase the transparency, efficiency, and responsiveness of the Indonesian National Armed Forces' supply chain, supporting reliable and timely logistics distribution efforts across the operational area.

Thus, it can be concluded that the Indonesian National Armed Forces has developed a comprehensive and integrated logistics distribution governance model to support task forces across Indonesia's vast and diverse operational areas. This framework is built on the foundation of a strong centralized organizational structure, which allows for coordination and synchronization of logistics processes from strategic planning to operational execution. In addition, the TNI has also adopted a large island-based defense strategy, which encourages the development of independent



logistics capabilities on each large island to ensure the availability and distribution of resources reliably for troops in various operational areas. Furthermore, the TNI has implemented advanced information technology, such as Enterprise Resource Planning systems and tracking technology, which significantly improve the transparency, efficiency, and responsiveness of its logistics supply chain. Thus, the TNI's comprehensive and integrated logistics distribution governance model enables them to ensure reliable and timely logistics support for task forces across Indonesia's diverse operational areas [16][17] [14] [18].

LITERATURE REVIEW AND METHODOLOGY:

Literature Review

Previous research has highlighted the importance of well-coordinated logistics in supporting military operations, especially in the context of an archipelagic country like Indonesia. A study on systems literacy among Nigerian Air Force logisticians [19] highlighted the importance of having a well-organized logistics scheme to support troops in the field – a lesson relevant to the Indonesian Armed Forces in addressing their unique logistics challenges. The study provides valuable insights into how good logistics capabilities can enable troops to operate effectively, despite the vast and diverse geography of an archipelagic country. Understanding logistics practices and challenges in other countries can help the TNI identify areas for development and implement innovative solutions to strengthen logistics support for their operational units across Indonesia.

The article on military logistics [20] emphasized that insights from the field can contribute to our understanding of the integration of business logistics within firms, across firms, over time, and in response to environmental change. The military logistics literature provides insights into the role of logistics relative to other aspects of war, insights into the conduct of logistics in complex environments, the coordination of diverse interests during mobilization, war, and demobilization, and the identification of lessons that provide guidance and insight for the next generation of military logisticians. These findings are particularly relevant to the Indonesian National Army's logistics distribution model, which faces unique geographic and operational challenges.

Furthermore, a study on Indonesia's diplomatic collaboration and military competency enhancement [8] highlights the importance of building the capability and resilience of the Indonesian National Armed Forces as a key variable in achieving national security goals. In this context, strong logistical support is a vital component to ensure that the TNI can carry out tasks and operations effectively across Indonesia's vast and diverse geographic regions. The study



emphasizes that good logistical capabilities can enable troops to operate effectively, despite the unique geographic challenges of an archipelagic country like Indonesia. Well-organized logistics can support the mobilization, deployment and maintenance of troops across the archipelago, enabling them to achieve their missions and operational objectives with maximum effectiveness.

Furthermore, research on the design and implementation of a crowdsourcing-based logistics management system in Indonesia, as discussed in the "Indonesia-United Logis" study, reveals significant potential benefits from leveraging digital technology solutions and mobilizing community participation. This concept can improve supply chain visibility and overall logistics operation efficiency, and offers relevant insights for developing more innovative and responsive logistics distribution strategies for the Indonesian National Armed Forces. By integrating modern technology and community involvement, the TNI can build a logistics system that is more transparent, flexible, and adaptive to the dynamics of the operational environment, thereby supporting more effective troop mobilization and deployment across Indonesia's vast and diverse territory.

Logistics practices in the defense context encompass a variety of complex and vital activities to achieve the goals of the defense organization. These logistics activities include customer service, ordering process, distribution, inventory control, demand forecasting, traffic and transportation management, storage, and procurement. The main objective of defense logistics practices is to ensure the availability and timeliness of the provision of defense equipment, materials, and technology needed to support military operations. This requires close cooperation between various stakeholders, such as government policy, defense industry, military technology, and end users, to ensure the smooth running of defense logistics practices and protect the entire territory of the Unitary State of the Republic of Indonesia [7]. Effective and integrated defense logistics are a vital component to ensure that the Indonesian National Army can carry out tasks and operations effectively throughout Indonesia's vast and diverse geographic area.

Source [21] provides a comprehensive explanation regarding the concept of logistics and the development of logistics systems within the scope of Presidential Regulation Number 26 of 2012 concerning the Development of the National Logistics System. The explanation emphasizes the importance of integrating logistics infrastructure nodes, both logistics nodes and links between logistics nodes, which function to flow goods from the point of origin to the point of destination efficiently.



Logistics in this context is a complex and vital process in achieving organizational goals. The logistics process includes a series of critical activities, from procurement, movement, to storage of goods and materials needed. Logistics plays an important role in ensuring the availability and timeliness of the necessary resources, so that it can support the implementation of tasks and operations effectively.

With effective logistics management, the Indonesian National Armed Forces can ensure the smooth flow of goods and information, and optimize the comprehensive utilization of resources. This in turn will improve the operational readiness and responsiveness of the TNI, allowing them to carry out tasks and operations throughout Indonesia's vast and diverse territory more effectively and efficiently. Well-managed logistics allows the TNI to mobilize, deploy, and sustain troops throughout the archipelago, so that they can achieve their missions and operational objectives optimally. Comprehensive and integrated logistics management is a key element in ensuring the TNI's ability to carry out operations throughout Indonesia's geographical area.

Effective and integrated TNI logistics governance is essential to support task forces operating throughout the territory of the Republic of Indonesia. With comprehensive logistics management, the TNI can ensure the smooth flow of goods, information, and resources, and optimize the use of resources effectively. This will ultimately improve the operational readiness and responsiveness of the TNI, allowing them to carry out tasks and operations throughout the vast and diverse territory of Indonesia more effectively and efficiently.

Methodology

This study is based on an in-depth qualitative analysis of relevant academic literature and a review of organizational documentation, with the aim of understanding the logistics distribution governance practices of the Indonesian National Armed Forces in supporting task forces operating in operational areas. Through this comprehensive approach, this study seeks to identify and analyze patterns, themes, and key insights that can be used to enrich the understanding of the Indonesian National Armed Forces' approach to managing logistics operations effectively.

Through a comprehensive review of academic sources and organizational documentation, this study successfully identified key patterns, themes, and insights that can enrich our understanding of the Indonesian National Armed Forces' holistic approach to managing logistics operations effectively. In-depth analysis of relevant literature, as well as consultation with TNI officers experienced in logistics management, provides a deeper understanding of the logistics distribution



governance practices implemented to support task forces operating in various regions in Indonesia.

In addition to analyzing relevant academic literature sources, this study also conducted in-depth consultations with Indonesian National Army officials who have extensive experience in logistics management. Through this collaboration, the study was able to verify and enrich the findings obtained from the literature review, resulting in a more comprehensive understanding of the logistics distribution governance practices implemented by the TNI to support task forces in the operational area.

RESULTS AND THEIR ANALYSIS

Based on literature searches and consultations with Indonesian National Army officials who are experienced in logistics management, several key elements can be formulated that form the TNI logistics distribution governance model in supporting task forces in the operational area. These elements include:

First, the Indonesian National Army implements comprehensive and integrated logistics planning. This includes an in-depth analysis of the specific logistics needs for each operational area, preparation of an adequate budget, and procurement of the required logistics resources appropriately. Through mature and detailed logistics planning, the TNI can ensure the availability of logistics resources in accordance with the amount, time, and location needed, so that they can support the implementation of tasks and operations in various operational areas effectively and efficiently [22]. This comprehensive logistics planning process allows the TNI to better anticipate and meet the logistics needs of task forces in the field, thereby increasing the readiness and mobility of troops in carrying out operations throughout Indonesia.

Second, the TNI implements an integrated and comprehensive logistics supply chain management system. This is reflected in the close coordination and effective synchronization between the various key components in the logistics supply chain, including suppliers, distribution centers, and task forces in the field. Through good coordination, the TNI can ensure the flow of goods, information, and logistics resources that are smooth, timely, and in accordance with the operational needs of task forces in various regions. With an integrated logistics supply chain system, the TNI can ensure optimal logistics support for task forces in the field, so that they can carry out tasks and operations with high effectiveness [22].

Third, the TNI has developed an integrated logistics information system that can be accessed by various stakeholders. This comprehensive logistics information system enables the collection,



processing, and dissemination of logistics data in real time, thus supporting fast and accurate decision-making in managing logistics distribution in various operational areas. This integrated logistics information system is an important enabler for the TNI to ensure the availability and allocation of logistics resources in accordance with the needs of task forces in the field. Through this system, the TNI can monitor and control the flow of goods, information, and logistics resources effectively, and optimize the use of resources based on dynamic needs in each operational area. The integration of the information system also enables better coordination between various related units and components, thus ensuring the speed and accuracy of decision-making in logistics distribution management to support task forces in the field.

Fourth, the TNI has implemented strict control and supervision mechanisms over the implementation of logistics distribution. This includes regular monitoring of the performance of the logistics supply chain to identify potential obstacles or inefficiencies. In addition, the TNI also routinely evaluates the effectiveness of the distribution of logistics resources to ensure that the support provided to task forces in the field is optimal and according to needs. Furthermore, the TNI also makes continuous improvements to the processes and procedures related to logistics distribution based on the results of evaluations and identification of obstacles. Through effective control and supervision, the TNI can ensure that the logistics distribution process runs according to plan, can immediately identify and resolve obstacles in a timely manner, and continuously make continuous improvements to increase the effectiveness of logistics distribution in order to better support task forces in the field [15] [23] [22] .

Fifth, the TNI has strengthened the capabilities of human resources involved in logistics management through comprehensive training and competency development. This is done to ensure that logistics personnel have adequate understanding and skills in carrying out tasks related to planning, implementing, and controlling logistics distribution, so that they can support task forces in the operational area effectively.

The findings of this study indicate that the Indonesian National Army has implemented a comprehensive and integrated logistics distribution governance model to support task forces operating in various regions in Indonesia [22][15] [23] [9]. The TNI's holistic approach to managing logistics distribution includes several interrelated key elements. First, the TNI implements mature and detailed logistics planning, including in-depth analysis of logistics needs in each operational area, adequate budget preparation, and procurement of appropriate logistics resources. This allows the TNI to anticipate and meet the logistics needs of task forces in the field



effectively [22].

Second, the TNI implements an integrated logistics supply chain management system, with close coordination and effective synchronization between various key components, such as suppliers, distribution centers, and task forces in the field. Through an integrated supply chain system, the TNI can ensure the flow of goods, information, and logistics resources that are smooth, timely, and in accordance with the operational needs of the task force [22].

Third, the TNI has developed an integrated logistics information system that can be accessed by various stakeholders. This information system allows the collection, processing, and dissemination of logistics data in real time, thus supporting fast and accurate decision-making in managing logistics distribution [24] [22].

Fourth, the TNI implements strict control and supervision mechanisms over the implementation of logistics distribution, including regular monitoring, evaluation of effectiveness, and continuous improvement to increase the efficiency and effectiveness of logistics distribution.

Fifth, the TNI continuously improves the capabilities of human resources involved in logistics management through comprehensive training and competency development programs.

This approach allows the TNI to ensure the availability and allocation of logistics resources in the right amount, time, and location to support the operations of task forces in various regions. This not only increases the effectiveness and mobility of troops in carrying out operational tasks in the field, but also ensures that they can carry out these tasks more effectively and efficiently. The TNI's comprehensive and integrated logistics distribution governance model is an important key for the TNI to provide optimal logistics support for task forces operating throughout Indonesia. Through careful logistics planning, efficient supply chain management, integrated information systems, strict control and supervision, and strengthening human resource capabilities, the TNI can ensure a smooth and timely flow of logistics resources, so that task forces can focus on carrying out operational tasks in the field.

CONCLUSIONS

Based on the research results, it can be concluded that the Indonesian National Army has developed a comprehensive and integrated logistics distribution governance model to support task forces in carrying out operations in various regions of Indonesia. Key elements in the TNI logistics distribution governance model include mature logistics planning, efficient supply chain



management, integrated logistics information systems, strict control and supervision, and development of human resource competencies related to overall logistics management. Through this holistic approach, the TNI can ensure a smooth and timely flow of logistics resources, so that task forces can focus on carrying out operational tasks in the field.

The findings of this study indicate that a comprehensive and integrated TNI logistics distribution governance model is a key element for the TNI in providing optimal logistics support for task forces operating throughout Indonesia. Through this holistic approach, the TNI can ensure a smooth and timely flow of logistics resources, so that task forces can focus on carrying out operational tasks in the field. Based on the results of this study, it is hoped that the TNI can continue to refine and improve the effectiveness of the logistics distribution governance model in a sustainable manner. This includes improving planning capabilities, supply chain management, information systems, control and supervision, and developing human resource competencies related to logistics management. By continuing to make improvements and innovations, the TNI is expected to be able to support task force operations in the operational area more optimally and effectively in the future.

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