

Work Ethics in the Military Logistics: A Narrative Review

Mohd Aman Armawai

*Faculty of Industrial Management, Universiti Malaysia Pahang Al-Sultan Abdullah, Lebu
Persiaran Tun Khalil Yaakob, 26300, Kuantan, Pahang, Malaysia*

4 Woksyop Briged, Kem Batu 10, 25990 Kuantan Pahang

Imaduddin Abidin*

*Faculty of Industrial Management, Universiti Malaysia Pahang Al-Sultan Abdullah, Lebu
Persiaran Tun Khalil Yaakob, 26300, Kuantan, Pahang, Malaysia*

Email: imaduddin@umpsa.edu.my

Puteri Fadzline Muhamad Tamyaz

*Faculty of Industrial Management, Universiti Malaysia Pahang Al-Sultan Abdullah, Lebu
Persiaran Tun Khalil Yaakob, 26300, Kuantan, Pahang, Malaysia*

** Corresponding author*

Abstract

Purpose: This article focuses on the principles and values that govern ethical behaviour in the field of military logistics. Ethical work is demanded for military logisticians. Ethical systems are the components of culture that people create to guide behavior and facilitate human interactions by defining values and actions as virtuous or evil.

Design/methodology/approach: Using a narrative review based on military historical and logistics study by defining principles of work ethics such as hard work, honesty, accountability and professionalism to avoid conflict of interest and obey the rule of law among logisticians. Identifying theories related to work ethics was also defined, such as just war theory, deontological ethics, utilitarianism and ethics based on virtues. Defining previous examples based on the encyclopaedia Code of Conduct to understand further ethical cases to create awareness about ethical issues.

Findings: Provide a clear picture regarding military logistics definition and role and task to support military operations in terms of supply, maintenance operations, deployment and distribution, health service support, engineering, logistics services and operational contract support. The theory for studying ethical matters, cases related to military logistics, ethical and future challenges.

Research limitations/implications: No limitations/implications

Practical implications: Work ethics in the military logistician brief on the crucial role of ethics in managing military logistics in terms of decision making in logistician matters. This study allows us to better grasp the body of knowledge of ethics in the military. It also suggests viable avenues for future research.

Originality/value: By looking at current trends and threads in military operations towards the digitalization era, military logistics will be facing a similar impact on operations, such as autonomous systems, artificial intelligence (AI), internet of things (IoT), etc will be new challenges towards logistician data security.

Keywords: Military ethics, logistics, work ethics, military logistics

Introduction

The military is an institution who responsible for security and defending a country from external threats. The military is divided into three main domains, which are the army, navy and air force. Each service has a breakdown into 3 main groups of military corps, which are combat forces, combat support and combat service support. The service support group is also called the military logistics group. Logistics plays a crucial role in the phases of planning and executing military operations. Military logistics determine the consumer needs parameters, finding sources, organising delivery and controlling the results in varying degrees of conditions of uncertainty (peacetime, warfare) and possible change in the geographical location of collateral (Knight, 2012; Gallasch et al., 2008).

To ensure forces are successful in operations, it is essential to precisely distribute the appropriate resources, equipment, and personnel. Military logistics encompasses the intricate procedures, assets, and frameworks required for the production, transportation, storage, and redistribution of equipment and troops. It involves planning, preparing, and utilizing supply means, including the feeding system, to maintain the army's combat readiness and the support forces operating both within and outside the country. (Wincewicz-Bosy et al., 2022). Military logistics in operations is primarily concerned with achieving effectiveness and must be capable of adapting to sudden changes in demand, resilient to disturbances, and often anticipatory of peak consumption. Military logistics systems are created based on the concepts of effectiveness, resilience, adaptability, and agility, to maximise efficiency whenever feasible (Gallasch et al., 2008).

Throughout history, numerous military commanders have failed to grasp the fundamental significance and relevance of logistics, hence underestimating its profound impact on the outcome of battles. They suffered significant consequences as a result of their negligence. George Washington, Napoleon, General Ludendorff, Field Marshal Montgomery, and General MacArthur are notable commanders who demonstrated exceptional combat planning and execution. However, their failure to prioritise logistics had serious operational consequences and led to the loss of many soldiers' lives. Procuring the physical assets of military organisations, such as supply networks, military mobility, and weapon systems, as well as recruiting, managing, and deploying personnel within a specific theatre of operations.

Military logistics encompasses both logistical activities during times of peace and the provision of support during on-- and offshore operations, whether they are anticipated or unexpected. The role entails the establishment, organisation, and management of logistical networks, often known as "lines of communication", in military jargon, to facilitate the movement and deployment of armies, including the provision of necessary support and maintenance. Military logistics aims to attain and sustain a specific level of preparedness for warfare, referred to as fighting power, while minimising expenses. The core logistics capabilities in the military are generally divided into seven such supply, maintenance operations, deployment and distribution, health service support, engineering, logistics services and operational contract support (Knight, 2012).

Each core has its function towards successful operation, as Figure 1. The acquisition or procurement of equipment and services in military logistics may involve contractors and

government procurement stakeholders. This activity will expose logisticians to unethical practices that include integrity and professionalism, which can hurt their careers and the services they provide. The military organisation initiates each Soldier's induction by providing instruction on the significance of values, ethos, and ethics about their actions and choices (Kemp et al., 2008; Graves et al., 2010). Despite prioritising virtues and morality, logistician military leaders nonetheless confront the ethical quandary of correctly and truthfully relaying the facts.

Military logisticians must ensure precise and timely placement of both equipment and personnel. In addition, they have the responsibility of meticulous strategizing and coordination, considering all potential factors, stages, and potentialities, while collaborating with other entities to ensure the safety, success, and efficacy of each operation. In military logistics, the term "work ethic" pertains to a collection of ideals and concepts that govern an individual's approach and conduct towards work. Ethical systems are the components of culture that people create to guide behavior and facilitate human interactions by defining values and actions as virtuous or evil (Faris R, 1999). It involves a dedication to specific principles such as hard work, honesty, accountability, and professionalism.

Work ethic is a complex notion that encompasses a firm dedication to a range of beneficial behaviours and attitudes towards work. Communication plays a key part in both personal and professional success, as it has a significant impact on individuals' performance, interactions with others, and contributions to their organisations. A strong work ethic is defined by traits such as dedication, accountability, honesty, professionalism, initiative, quality, time management, teamwork, a positive attitude and commitment, responsibility, integrity, professionalism, proactivity, excellence, efficient time management, collaboration, a constructive mindset, and steadfast dedication in assessing the achievement and effectiveness of each military operation. Work ethic in military logistics refers to a set of beliefs and principles that guide an individual's attitude and behaviour towards work.

It requires a commitment to particular values such as diligence, integrity, responsibility, and professionalism. Work ethic is a multifaceted concept that involves a strong commitment to a variety of advantageous habits and attitudes towards work. Effective communication also plays a crucial role in achieving personal and professional success, since it directly impacts an individual's performance, interpersonal relationships, and contributions to their organisations.

CORE LOGISTICS CAPABILITIES	
Core Capabilities	Functional Capabilities
Supply	<ul style="list-style-type: none"> • Manage supply and Equipment • Inventory Management • Manage Supplier Networks
Maintenance Operations	<ul style="list-style-type: none"> • Depot Maintenance Operations • Field Maintenance Operations • Manage Life Cycle System Readiness
Deployment and Distribution	<ul style="list-style-type: none"> • Move the Force • Sustain the Force • Operate the Joint Deployment and Distribution Enterprise
Health Service Support	<ul style="list-style-type: none"> • Casualty Management • Patient Movement • Medical Logistics • Preventive Medicine and Health Surveillance • Theater Medical Information
Engineering	<ul style="list-style-type: none"> • Combat Engineering • General Engineering • Geospatial Engineering
Logistics Services	<ul style="list-style-type: none"> • Food Service • Water and Ice Service • Base Camp Services • Hygiene Services
Operational Contract Support	<ul style="list-style-type: none"> • Contract Support Integration • Contract Management

Figure 1. Core and functional logistics capabilities (Knight, 2012)

Literature Review

Concept of work ethics in military logistics

Military logistics work ethics encompass a set of principles that guide the behaviour and actions of military personnel involved in military logistical operations. The professional military ethic refers to the collection of behavioural norms that are widely recognised and largely embraced by the military profession. The expectations are based on the trust and confidence placed in the profession by the nation, as well as the traditional and evolving values required to fulfil the distinct military mission (Galligan, 1979). The concept of work ethics in military logistics is underpinned by several key principles, including hard work, honesty, accountability, and professionalism. Many prevailing views of the causes of the perceived problem of professional ethical conduct are concerned with such culprits as shifting morality, civilianization, and entrepreneurialism (Galligan, 1979).

Military logisticians always deal with contract and financial management for defence purposes. Standardization of all ethical code of conduct standards to guide military leaders in ethical business decisions was implemented in the US Army beginning in 1993 in the Joint Ethics

Regulation (JER) (Steven, 1994). The ethical standard is required to avoid conflicts of interest and ensure that the law is respected in fact and appearance. Hard work in military logistics ethics emphasizes the dedication and diligence required to ensure the smooth functioning of logistical operations, emphasizing a strong work ethic and commitment to fulfilling tasks promptly and effectively to support military missions. Honesty is another crucial principle in military logistics ethics, emphasizing the importance of truthfulness and transparency in all logistical dealings.

Maintaining honesty in reporting, communication, and decision-making is essential for building trust within the logistics chain and upholding the integrity of military operations. Work ethics in military logistics involve a variety of concepts that prioritise integrity, professionalism, dedication, efficiency, teamwork, respect, adaptability, and security. Adherence to these ethical standards is vital to ensure the efficient support of military missions, protect the principles of the military institution, and enhance the overall success and safety of military personnel and operations.

History of work ethics in military logistics

The evolution of work ethics in military logistics throughout history showcases the gradual establishment of standards and approaches that have shaped the efficiency, integrity, and professionalism of logistical support in military operations. The Roman military was renowned for its remarkable logistical expertise, which was vital for supporting large and manoeuvrable soldiers. During ancient times, Roman logisticians emphasised the significance of discipline, efficiency, and reliability. They built intricate systems for the movement and preservation of products, demonstrating early ideas of ethical logistics such as responsibility and meticulousness.

Sun Tzu's *The Art of War*, written by the ancient Chinese emperor, highlights the importance of logistics, focusing on preparedness, effective resource utilisation, and strategic supply chain planning. The ethical principles included prudence and anticipation. The 20th century witnessed significant global conflicts that involved large logistical efforts and complex ethical considerations. Situations on a mission can be unpredictable, so the logistics team has to be prepared for sudden issues and react instantly (Pawelczyk, 2018). The Fourth Geneva Convention of 1949, as part of the broader Geneva Conventions, created a comprehensive framework to protect civilians during times of war, leading to significant impacts on logistical operations. Modern logistics now include ethical considerations such as the treatment of prisoners of war, the protection of civilian infrastructure, and reducing unnecessary suffering. Currently, military ethics in logistics cover several topics such as environmental concerns, the use of private contractors, and the effects of logistical operations on local communities.

Contemporary military doctrines place significant emphasis on the need to reduce collateral damage and prevent the exploitation or injury of civilian populations via supply chains. The emergence of international humanitarian law and the growing examination of military operations by global media and human rights organisations have underscored the ethical aspects of military logistics. The core logistical challenges for military operations are: the cost of logistics, transport and the outsourcing of logistics (Major & Strickmann, 2011). These challenges will reflect on ethical logistics decisions and manifestations, such as substandard craftsmanship, the exertion of power for personal gain, the offering or acceptance of bribes, fraudulent contracts, and improprieties in procurement.

Role of work ethics in military logistics

The military possesses a dual nature, serving as both a professional department of the government and a respected military profession. The character of the military, both as an institution and a profession, is crucial for achieving the objective of the military. Nevertheless, the trust and confidence that individuals place in the military as an ethical profession provide them with the independence to demonstrate disciplined initiative, which is crucial for successfully carrying out missions in many global circumstances. Work in ethical play a crucial part for a logistician in a military operation.

Operations are about influencing a theatre; they demand resources and logistics to be sustained, in particular when the military operates in a geographical theatre abroad (van Fenema & van Kampen, 2021) Main challenges in the logistics field are to explain the 4D formula, which includes: demand, distance, destination and duration (Major & Strickmann, 2011). Participation of service contractors in the mission will lead towards financial management. Although it is required to provide effective logistics support in the mission but ethical issues have arisen. Integrity is crucial in maintaining a strong work ethic, as it requires honesty and transparency in every action and decision. The precision of information is of utmost importance in logistics management. Inventory status reports must be both precise and punctual to ensure that each unit receives its requirements promptly and without any delay.

Transparency entails conducting all processes and procedures openly and with accountability, to prevent any deviations or corruption. Therefore, a robust adherence to moral principles and values fosters confidence and reliability across different hierarchies within the military organisation. Responsibility and accountability are fundamental components of work ethics in military logistics. Every logistician must exhibit a sense of responsibility and be prepared to assume accountability for any choice taken. This entails immediately and efficiently resolving difficulties that arise when errors occur. Accountability guarantees that all individuals adhere to elevated levels of professionalism and comply with relevant legislation and procedures.

Enhanced operational efficiency and effectiveness can be achieved when every member of the logistics team comprehends and embraces their respective duties. Additionally, it fosters a more regimented and orderly work atmosphere, which is essential in frequently fast-paced and high-stress military scenarios. In addition, strong work ethics in military logistics encompass concepts of equity and regard for all team members and stakeholders engaged. Equitable resource allocation should be implemented, devoid of any bias or prejudice, to guarantee that all units obtain the necessary equipment according to operational priorities. Work ethics include the acknowledgement and regard for the inherent worth and entitlements of all individuals, encompassing soldiers, support staff, and the local communities engaged. Through the implementation of robust work ethics, military logistics not only contribute to the achievement of mission objectives but also enhance the perception and standing of the military as an organisation that operates with honesty, impartiality, and a strong commitment to societal well-being.

The type of work ethic in military logistics and issues related to

The work ethic in the military progressively changed in United States Military in early 1971 onwards after two incidents happen. The initial event was the My Lai massacre, followed by a tribunal in which 30 officers were involved in both the killing itself and the subsequent

concealment of the crimes committed in the Vietnamese village. Secondly, in 1971, research was conducted under the guidance of General Westmoreland and carried out by the War College. The study specifically examined the perceptions of officers towards senior leaders and the officer corps. The study revealed that numerous officers perceived the senior leadership and the officer corps' system as morally bankrupt, characterised by a structure that incentivized self-centered ambition and concealed ineptitude. Following that discovery, the standard ethical code was enforced, implemented and classified as "professional ethics" (Galligan, 1979).

Military logistics include the regulations and standards that dictate the conduct and decision-making of individuals involved in this field. The key elements of work ethics in military logistics encompass duty, responsibility, integrity, and honesty. The core values include accountability, professionalism, respect and fairness, compliance with law and regulation, confidentiality and security, ethical decision-making, and commitment to service.

Accountability: Personnel in military logistics must possess a profound sense of obligation and accountability. This encompasses demonstrating unwavering dedication to their responsibilities, comprehending the paramount significance of their tasks in bolstering military operations, and constantly executing their obligations to the utmost of their capabilities.

Integrity and honesty: Ensuring honesty and integrity is of utmost importance. This entails adhering to the principles of honesty and accuracy while providing reports, refraining from any type of deceit or distortion of facts, and maintaining complete openness in all logistical procedures.

Responsibility: Individuals must take responsibility for their actions and decisions. This entails assuming accountability for both achievements and setbacks and ensuring that resources are utilised suitably and effectively.

Exemplary conduct and adherence to professional standards: Exemplary levels of professionalism are crucial. This encompasses strict adherence to military norms of behaviour, the ongoing enhancement of skills and knowledge, and the maintenance of a superior level of competence and performance.

Respect and fairness: Adhering to ethical principles in military logistics necessitates the equitable and respectful treatment of all personnel, the implementation of non-discriminatory measures, and the cultivation of a culture that values mutual respect.

Legal Requirements: Complying with applicable rules, regulations, and policies is of utmost importance. This encompasses adherence to international laws of armed conflict, national legislation, and internal military policies that control logistics operations.

Ensuring the privacy and protection of information: Preserving the secrecy and security of information is crucial in the field of military logistics. This entails safeguarding confidential data from unauthorised entry and guaranteeing the security of logistical strategies and activities.

Ethical decision-making: Personnel are required to make judgements by taking ethical issues into account, effectively balancing the requirements of the mission with moral standards. This entails assessing the possible ramifications of choices on both military efficacy and wider ethical considerations.

Dedication to providing assistance and support: An unwavering dedication to serving the military and bolstering its mission is essential. This entails giving priority to the requirements of the service over personal benefits and demonstrating unwavering commitment to the well-being and efficiency of military operations.

Most of the ethical failures were not being educated clearly unless the education came from case studies or examples from previous cases. Based on the encyclopaedia of ethical failure in 2016, in the realm of military logistics, most real-life situations revolve around the principles of integrity and professionalism.

1. The Government has received indications that a military reservist is trying to sell Government property, such as military bags and boots, to civilian employees at a significant markdown. According to the investigations, it appeared that the reservist had extensive access to a wide range of military equipment. This conclusion was drawn from his advertisement, where he claimed to be able to provide boots of any size required by his colleagues. An investigation revealed that the reservist's residence included Government property valued at over \$3,000. He was verbally counselled for his improper use of Government resources.
2. A Navy contractor at the Space and Naval Warfare Systems Centre Charleston Detachment has admitted to taking bribes from a goods shipping company. The contractor now faces a potential prison sentence of 5 years. The contractor received things valued at over \$10,000, including lavish meals, concert and NASCAR tickets, weekend stays at a bed-and-breakfast, jewellery, and "spa days" at a department shop, in return for awarding freight transportation contracts to the company. Investigators found that, by chance, the goods company had almost little business before the contractor granted them contracts, which eventually amounted to over \$700,000. The contractor is subject to a maximum prison sentence of five years and a fine of \$250,000. She is the eighth defendant implicated in an inquiry involving illicit payments between goods shipping companies and government contractors. The source of this information is UPI, and the date is March 20, 2006.
3. According to Marshall Baron Clinard's comprehensive study on corporate corruption, the country was afflicted by corruption among arms suppliers throughout the civil war. Some bullets were packed with sawdust instead of gunpowder. These fraudulent imitations persisted into the twentieth century. The defence business during WWI was characterised by profiteering, political power abuse, hubris, and fraud. Amidst World War II, Harry Truman unexpectedly assumed the position of the President of the United States, partly due to his inquiries into fraudulent activities and excessive profiteering by arms manufacturers. Senator William Proxmire (D-Wisconsin) conducted congressional hearings during the Vietnam War that exposed the exploitation of the defence sector.
4. Bribery (18 U.S.C. § 201-Type Violations) - Determining the Monetary Value of Your Integrity An individual serving in the Navy was convicted and sentenced to a period of over three years in a Federal correctional facility for engaging in a scandal involving the exchange of sexual favours for classified information. The Navy Lieutenant Commander confessed to providing confidential documents to a foreign defence contractor in return for an evening with a prostitute at a Malaysian karaoke club, cash-

filled envelopes, and accommodations in foreign hotels. The amount of the bribes totalled \$15,000. He was penalised with a fine of \$15,000 and was also instructed to provide the Navy with an extra \$15,000 as compensation.

5. A former Sperry executive has admitted guilt in Federal District Court for bribing a Navy official to get an advantage in vying for an electronics contract. The Navy official, who also admitted guilt, received a sum exceeding \$400,000 for his endeavours in suggesting and endorsing the corporation, which was transferred to a bank account located in the Bahamas. The individuals involved in the situation experience dramatic irony as Sperry, despite the Navy official's endeavours, was excluded from the contract competition. These admissions of guilt were only a small portion of the over 20 additional convictions that arose from a Department of Justice probe into fraudulent military procurement. The sentences imposed include a 32-month imprisonment for a distinct bribery scheme instigated by another Sperry executive, as well as a 27-month imprisonment for the individual referred to as the "banker" in that particular case. Lesson learned: There are no benefits to engaging in bribery. (Source: Associated Press; published on October 21, 1989).
6. A Major in the United States Army Reserve admitted guilty to charges of conspiracy and bribery concerning DOD contracts at Camp Victory, Iraq. As per the charging document, Theresa Jeanne Baker was given monetary compensation and various objects, such as a Harley-Davidson motorcycle, by Raman Corporation, a defence contractor, and Elie Samir Chidiac, a former employee of another defence contractor. As a result, Baker shared confidential information and dishonestly granted contracts to the contractor. Baker rescinded contracts that had been granted to external contractors and deceitfully reassigned them to Chidiac. Baker's sentencing is now awaiting a decision, however, if convicted of the two bribery charges, he may face a maximum punishment of 15 years imprisonment for each count. In addition, he may be subject to a fine of either \$250,000 or three times the monetary amount of the bribe received, whichever is greater. In addition, Baker was accused of two instances of conspiracy. Each offence carries a maximum sentence of five years of imprisonment and a fine of \$250,000.
7. First Lieutenant Robert Moore (Ret.) has agreed to pay \$120,000 as reparation for receiving monetary bribes from vendors in return for granting Department of Defence contracts. Moore admitted guilt for bribery related to contract awards at Bagram Airfield, Afghanistan. Additionally, he confessed to participating in a scheme to falsify the quantity of bunkers and barriers supplied at Bagram. As a result, the Department of Defence paid for bunkers and barriers that were never actually received. Moore confessed to fabricating damage reports for leased cars, resulting in the Department of Defence being charged for repairs that were never really done. Additionally, Christopher P. West, an Army Major, and Patrick W. Boyd, an Air Force Master Sergeant, also admitted guilt for bribery and conspiracy charges in connection with similar actions. Both parties agreed to individually pay \$500,000 and \$130,000 as restitution to the Department of Defence (DOD).
8. An employee in the Air Refuelling Wing of the Arizona National Guard, who held the rank of Sergeant, was tasked with the duty of accurately documenting surplus aircraft parts. This procedure entailed completing the necessary documentation and packing

loose things into boxes. The Sergeant rapidly grew disgusted with the process and opted to discard the goods outright. The Sergeant's decision to take a shorter route resulted in him receiving counselling and triggered a comprehensive evaluation of the correct procedures for maintenance across the entire division.

9. A refund of \$44,000 was issued due to the contractor's overpricing. An Army technician, who was purchasing a Seal Replacement Parts Kit from a defence contractor, observed that the price of the kit was abnormally high compared to the cost of each component. Consequently, the technician reached out to investigators for further inquiry. Investigators analysed the price of the components and the expenses the company faced in assembling each kit and found that the contractor was adding \$500 to the cost of each kit. Investigators also uncovered that the Government had procured many kits at an exorbitant price. Due to the meticulous analysis conducted by the observant technician, the defence contractor has decided to provide a voluntary reimbursement of \$44,000.

Theories related to work ethics in military logistics

Theories about work ethics in military logistics offer a comprehensive framework for directing ethical decision-making and conduct. Military logisticians can ensure the ethical, effective, and compassionate conduct of their operations by incorporating ideas from the Just War Theory, deontological ethics, utilitarianism, and virtue ethics. These ideas aid in achieving a harmonious equilibrium between the requirements of military necessity and the obligation to minimise harm while upholding moral and legal principles (Mustamirrah et al., 2016).

Just war theory is a moral framework employed to ascertain the circumstances under which it is justifiable to engage in warfare. The concept can be traced back to Catholic moral theorists such as Augustine of Hippo and Thomas Aquinas, although it has had various manifestations throughout history. Today, the notion of just war is categorised into three distinct categories, each with its specific ethical principles: justice before war, justice during war, and justice after war.

The second theory is about deontological ethics. Deontological ethics is a moral framework that uses principles to differentiate between actions that are morally right and morally wrong. Deontology is commonly linked to the philosopher Immanuel Kant. Kant posited that ethical activities adhere to universal moral rules, exemplified by the principle of "do not deceive." It necessitates that individuals adhere to the regulations and fulfil their obligations. This technique aligns harmoniously with our inherent understanding of what is morally acceptable or unacceptable (Freeman et al., 2021). Deontology, in contrast to consequentialism, does not necessitate the evaluation of the costs and benefits of a circumstance when assessing actions. This approach eliminates subjectivity and ambiguity as it requires adherence to established rules.

The third theory is utilitarianism, which is a philosophical theory that focuses on maximising overall happiness and minimising overall suffering. Utilitarianism is a moral theory that promotes activities that promote happiness or pleasure and opposes actions that result in sadness or harm. Utilitarianism, when applied to social, economic, or political decisions, seeks to improve society as a whole (Kanu & Ndubisi, 2022). According to utilitarian philosophy, an action is considered right if it leads to the greatest happiness for the largest number of individuals in a community or group. The final theory is related to ethics based on virtues.

Initially, it can be recognised as the theory that prioritises virtues or moral character, as opposed to deontology, which focuses on responsibilities or laws, or consequentialism, which focuses on the consequences of actions. Assume that it is evident that assistance should be provided to someone who is in need. A utilitarian would argue that helping the person would lead to the greatest overall well-being, while a deontologist would argue that helping the person aligns with the moral rule of treating others as one would like to be treated. Another view from a virtue ethicist would argue that helping the person demonstrates acts of charity and benevolence.

Current challenges in military logistics

In the digital era, military institutions face challenges in developing effective strategies and tactics to achieve victory by employing intelligent combat methods. Military logistics are categorised as strategic in war and a part of the state, expanding upon the advancements in military affairs programmes. A new era of digital innovations has emerged in the commercial sector, characterised by the utilisation of new technologies for military purposes (Van Fenema, 2021). Emerging technologies have a significant impact on both operations and logistics. For example, drones are increasingly being integrated into new military operations, where they can assist in logistics tasks, such as retrieving injured soldiers or covertly delivering supplies to special operations teams.

However, new technologies require new adaptable support networks. Additionally, they are exposed to cyber threats, especially in a setting where access is restricted or denied. The current procedures are insufficient to accommodate innovations that are driven by the intersection of operations and logistics. Autonomous systems are becoming more and more integral to the logistics equation in the future. This reality necessitates an expanded definition of military logistics, encompassing the activities that are necessary for obtaining the physical assets of military organisations, such as supply chains and military transportation, as well as acquiring personnel and future autonomous systems, and managing and relocating these entities within a theatre of operations.

Not only that, they need to provide military support globally, including facilities and services for personnel and upcoming autonomous systems. This is to ensure soldiers and future autonomous systems have access to and utilise appropriate commercial and military technologies for their duties.

Future direction of work ethics in military logistics

To face technological changes and the sophistication of the era, a concentration on work ethics in military logistics should be paid. This involves a generational change that is different from Generation Z, where the level of education towards empathy might be less due to the factors of social media and the trained as an easy employee with fewer challenges. These factors can lead to integrity and professional weaknesses as a military logistician. Thus, future research can be related to the increasing reliance on new technologies such as artificial intelligence (AI), automation, and blockchain in military logistics, which necessitates careful attention to ethical concerns about cybersecurity, data privacy, and responsible technology usage.

The integration of AI and machine learning in logistics will present novel ethical dilemmas, including the imperative of responsible utilisation of these technologies, the avoidance of

biases in AI algorithms, and the preservation of human supervision in crucial decision-making procedures. Leakage of military logistics data easily happens and is even possibly sold to opponents through AI medium technology by hackers. Logistical instructions from military commanders possibly be duplicated or readjusted, which may jeopardise the logistical support in military operations. Another topic of research that can be pursued is safeguarding the integrity of logistical data and systems from cyberattacks as a critical ethical concern. The requirement for increased accountability and openness in military operations will promote the adoption of ethical practices in logistics. This encompasses strong systems for reporting and resolving unethical activity, clear methods for making decisions and upholding public trust through ethical behaviour. Snap check inspections and periodic auditing must be done by a neutral body so that the discovery of falsification of logistics records and military procurement data can be prevented at an early stage.

Additionally, researchers can put more emphasis on cultivating ethical leadership within military logistician. The role of leaders with the necessary skills to make morally upright decisions and cultivate a culture that values honesty and ethical conduct can be intensified in the process of planning and carrying out tasks. Learning about religious education will also be effective for officers and military personnel of the existence of God, who sees all action, and the existence of sin and reward will be able to give awareness. Understanding the fundamental importance of ethical behaviour and decision-making allows future leaders to effectively incorporate these principles into their developing leadership abilities.

Conclusion

Military logistics implies a complex system and encompasses the intricate procedures, assets, and frameworks required for the production, transportation, storage, and redistribution of equipment and troops. It involves planning, preparing, and utilizing supply means, including the feeding system, to maintain the army's combat readiness and support troops operating both within and outside the country. Military logisticians have shown the importance of logistics operations in the military organization, which, through the development of modern technology, has become one of the most important factors in the success of military operations. The first part of the paper mentions on introduction of military logistics and their work ethic environment, including the history of military logistics and ethical behaviour that logistician have faced in their working culture.

The second part of the paper explains on literature review of the concept of work ethics aspect, which emphasizes the elements of hard work, honesty, accountability, and professionalism. From this basic concept will expand to various other conceptual priorities such as integrity, professionalism, dedication, efficiency, teamwork, respect, adaptability, and security. Understanding and adoption by the military personnel at all levels is vital to ensure efficient support in military missions. The history of the work ethic in military logistics began from the time of the ancient Roman military, which was vital for supporting large and manoeuvrable soldiers. Sun Tzu's book *The Art of War* also stated effective preparation, resource utilization and strategic supply chain planning. Modern logistics now include ethical considerations such as the treatment of prisoners of war, the protection of civilian infrastructure, and reducing unnecessary suffering.

The role of work ethics in characterising the military personnel as government institution employees and uniform body professionals. Integrity is crucial in maintaining a strong work ethic, as it requires honesty and transparency in every action and decision. The precision of

information is of utmost importance in logistics management. Inventory status reports must be both precise and punctual to ensure that each unit receives its requirements promptly and without any delay. Transparency entails conducting all processes and procedures openly and with accountability, thus preventing any deviations or corruption.

The type of work ethic explains professional ethics, which encompasses duty, responsibility, integrity, and honesty. The core values include accountability, professionalism, respect and fairness, compliance with law and regulation, confidentiality and security, ethical decision-making, and commitment to service. The previous cases on military logistics work ethics are given as an example in writing based on this ethical failure encyclopaedia to provide a deeper understanding, especially for military leaders at all levels, to be able to educate and understand subordinates. Theories related to military logistics work ethics were also identified, such as just war theory, deontological ethics, utilitarianism and ethics based on virtues.

Finally, the paper explains the future direction of work ethics in military logistics, including the use of AI technology and the involvement of military personnel from the new generation who are educated more about the challenges of social media and less challenging work. The focus of military logistics research will transition from planning and optimisation to multidisciplinary studies that integrate operations research, analytics, innovation management, and new organisational approaches influenced by networks, platforms, and ecosystems. (Van Fenema, 2021). This can cause vulnerability and leakage of military logistics information to the adversary if not controlled and curbed from the very beginning stage

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