

BUILDING SOLDIERS' HUMAN RESOURCE CAPABILITIES IN FACING SOCIETY 5.0

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Abstract. Society 5.0 describes the development of a society that is increasingly integrated with advanced technology, such as artificial intelligence, IoT, and robotics. In this context, the role of soldiers in national defense and security becomes increasingly complex. Therefore, this research aims to understand how to build the human resource capabilities of soldiers so they can face and contribute positively to Society 5.0. This research uses a qualitative approach with descriptive methods. Data was collected through in-depth interviews, observation and document analysis. The research results show that the changing paradigm of threats to state sovereignty in the digital era and sophisticated information technology demands rapid adaptation in TNI military training. Non-traditional threats, such as cyber attacks from states and non-state groups, require increased digital literacy, special training in the field of cybersecurity, strong analytical and intelligence capabilities, development of sophisticated defense equipment operating capabilities, soft skills, and strengthening discipline and ethics. . Developing the human resource capacity of TNI soldiers in these aspects is key in maintaining state sovereignty in an increasingly complex era and continuously developing technology. With soldiers who are well trained and committed to the values of integrity and humanity, the TNI is ready to face various challenges that may arise in the future in maintaining the country's security and sovereignty.

1. INTRODUCTION

In an era of rapid technological development, human society has entered a new era known as Society 5.0 (Bimantoro et al, 2021). Society 5.0 represents an increasingly close fusion between the physical and digital worlds, where advanced technologies such as artificial intelligence, the Internet of Things (IoT), robotics and cloud computing are becoming key drivers of social, economic and cultural change (Fukuyama, 2018). This era not only influences the way we work, interact, and access information, but also influences the basic paradigms in everyday life (Fukuda, 2020).

One sector that has had a significant impact from this shift is the defense and security sector. In the midst of the increasingly complex dynamics of Society 5.0, the role of soldiers in maintaining national security and national defense is becoming increasingly challenging (Budi et al, 2021). This era presents more complex cyber threats, requires stronger network security, and allows countries to leverage advanced technology in tracking and intelligence. The use of robotics and autonomy in the military is also growing, while the use of data for strategic decision making is becoming more important (Rahman, 2020). However, challenges related to privacy and ethics in the use of this technology also arise. In this context, adaptation and innovation in the defense and security domain are key in maintaining national integrity (Chotimah, 2015).

Therefore, it is important to understand how to build the human resource capabilities of soldiers so that they can effectively face and contribute positively to Society 5.0 (Putro, 2022). This era requires soldiers to be adaptive and responsive to technological developments, social changes, and increasingly complex threats (Tanjung, 2021). In facing more sophisticated cyber threats, soldiers must have a strong understanding of network security and high digital literacy. They must also be able to utilize advanced technologies, such as artificial intelligence and data analytics, to understand and respond to potential threats (Sebastian, 2018). Additionally, soldiers need to undergo ongoing training to keep their skills up to date with changing technology. Sensitivity to ethical and privacy issues in the use of technology is also important (Irfan et al, 2021).

TNI institutions or organizations benefit greatly because they are able to overcome various problems and challenges in national defense by building the Human Resources (HR) capabilities of soldiers who have very valuable characteristics (Firdaus et al, 2016): Tanggon (strong mental toughness, perseverance and determination to achieve goals), Responsiveness (high intellectuality, expertise and professionalism), and Trengginas (physical ability to carry out tasks in various conditions). This concept is reflected in the Three Basic Patterns of Education which include attitudes and behavior, knowledge and skills, and physical health (Adjisakti et al, 2021).

In line with human resource management principles, the importance of having quality human resources is emphasized. Without quality human resources, a country's progress will be hampered (Sutrisno et al, 2010). Improving the quality of human resources can only be achieved through good and correct planning regarding human resources. Therefore, HR is considered one of the most valuable and important factors in an institution or organization, because they are the main driver in achieving goals and objectives (Darim, 2020). HR interests also cover all aspects of management, including planning, development, performance evaluation, compensation and employment relations (Larasati, 2018).

In this context, this research aims to explore effective strategies and approaches in building soldiers' human resource capabilities so that they are ready to face Society 5.0. This research will involve case studies in the military environment to gain deeper insight into the challenges and opportunities faced by soldiers in this era. Thus, it is hoped that this research can make a significant contribution to the development of military policies and training programs that are relevant to the demands of this increasingly sophisticated era.

2. METHOD

The approach used in this research is a qualitative approach. A qualitative approach can be built or constructed as a research strategy that emphasizes words rather than quantification in data collection and analysis, and also emphasizes an inductive approach in the relationship between theory and research which can produce a theory (Sugiyono, 2011). Moleong (2014) revealed that one of the characteristics of a qualitative approach is that it focuses on the processes that occur or results. Qualitative researchers are interested in trying to understand how things emerge. Based on this opinion, the qualitative approach taken by researchers will focus on the reality that is happening, both through observing the research subject and finding out the factors that caused it to happen, then looking for solutions to the problems that are happening. This research chose a qualitative approach for several reasons, apart from describing events or social realities, but also to find and reveal building human resource capabilities for soldiers in facing society 5.0.

3. RESULTS AND DISCUSSION

Fundamental changes in the paradigm of threats to state sovereignty have occurred over time, especially with the advent of the digital era and sophisticated information technology (Supriyadi et al, 2021). Initially, the TNI's military training focused on conventional combat, where the main threat came in the form of armed conflict with other countries that used traditional weapons. However, currently, threats to state sovereignty are increasingly diverse and dynamic (Bakrie, 2007).

One key change is the emergence of non-traditional threats that are not limited to armed conflict. This threat can come from states (state actors) or non-state groups (non-state actors) such as terrorist groups, hackers or other malicious actors. They use sophisticated information and communication technology to create disruption, launch cyber attacks, disrupt critical infrastructure, and even threaten social and political stability (Sarjito, 2022).

The importance of the use of technology in addressing these threats means that military training must adapt quickly to meet these changes. Soldiers must have a strong understanding of aspects of cyber security, cyber warfare, and also the ability to face threats coming from various sectors, both conventional and non-traditional. Therefore, the TNI's role in maintaining state sovereignty is no longer

limited to conventional military aspects, but also involves expertise in the fields of information technology and cyber warfare to face growing threats in the society 5.0 era (Akbar, 2022).

Referring to Law no. 34 of 2004 concerning the TNI, it is stated that the TNI is tasked with protecting the sovereignty of the country from threats and interference through military operations of war (OMP) and military operations other than war (OMSP). In carrying out its duties, the TNI is currently facing increasingly complex threats, which are a combination of traditional and non-traditional threats, or what are usually called hybrid threats. Slowly but surely, cyber threats are starting to resonate in the world of international defense, almost on par with conventional attacks. The TNI AD, as the front guard in maintaining the integrity of the Republic of Indonesia, feels called to make adjustments to become more aware of the world of information and communication technology (Neang et al, 2021).

Therefore, in achieving its goals, the TNI must be able to increase the human resource capacity of its soldiers not only to face threats originating from the state (state actors) or non-state groups (non-state actors). Therefore, it is necessary to develop the human resource capacity of TNI Soldiers in facing these new threats as a result of the impact and influence of the era of society which is conditional on the development of information technology.

1. Increasing Digital Literacy

A deep understanding of information and communication technology (ICT) as well as cyber threats and cyber warfare is essential for TNI (Indonesian National Army) soldiers in this modern era. In an environment that is increasingly connected and dependent on ICT systems, TNI soldiers must have strong knowledge of ICT to carry out their duties effectively. This includes the ability to operate ICT devices and systems, understand potential cyber threats, and how to protect oneself and systems from cyber attacks that could damage military operations.

Training that focuses on digital literacy is an important first step in preparing TNI soldiers. It includes learning about the basics of computers, software, and the internet. In addition, TNI soldiers need to be given intensive cyber security training to understand the tactics, techniques and procedures used by cyber attackers. They must be trained in identifying potential cyberattacks and responding to them quickly and effectively.

2. Special Training in the Field of Cybersecurity

A deep understanding of information and communications technology (ICT) as well as cyber threats and cyber warfare has become very important for TNI soldiers in this digital era. In the context of national defense, ICT is not just a tool, but also a strategic element that integrates various military and information systems. Therefore, TNI soldiers must have strong digital literacy skills, not only in using hardware and software, but also in understanding trends, developments and potential threats in the cyber world. Training that focuses on digital literacy is a foundation that must be instilled in TNI soldiers. They must be able to use ICT tools efficiently to support communications, planning and execution of military tasks. Additionally, a deep understanding of cyber threats is key to maintaining national security. Good cybersecurity practices, such as the use of strong passwords, active monitoring of potential attacks, and reporting of cyber incidents, should be an integral part of soldier training.

Skills in identifying and countering cyberattacks are also essential. Proactive cybersecurity practices, such as system vulnerability scanning, monitoring network traffic, and identifying signs of cyber attacks, must be taught and mastered by TNI soldiers. Additionally, they need to be trained in responding quickly and effectively to cyber attacks. This involves isolating and containing attacks, restoring impacted systems, and accurate incident reporting. In facing increasingly complex and diverse cyber threats, TNI soldiers who are well trained in digital literacy, cyber security, and skills in countering cyber attacks will be a valuable asset in protecting the military's ICT infrastructure and securing national interests. With continuous training efforts and investment in cyber security technology, TNI soldiers will be ready to face cyber challenges that may occur in the future and better protect the country's sovereignty.

3. Analytical and Intelligence Capabilities

. Strong intelligence and data analysis capabilities are key components in warfighters' preparation to meet potential threats, including cyberattacks, in an increasingly complex national defense environment. TNI soldiers must be equipped with the skills to collect, process and analyze data related to cyber threats. This involves understanding data collection methods, including network traffic monitoring and digital footprint tracking, so they can detect potential attacks early. In addition, strong intelligence capabilities are also important. TNI soldiers need to have access to relevant intelligence information to understand the tactics, techniques and sources of cyber threats they may face. The ability to analyze intelligence to identify potential threats and look for possible attack patterns is an important aspect of protecting ICT infrastructure and national interests.

The importance of data analysis and intelligence capabilities in the context of cyber threats is to enable TNI soldiers to take effective steps to prevent, respond and resolve cyber attacks. With a deep understanding of data and intelligence, they can identify potential security gaps, analyze attacker motivations, and plan better security strategies. Apart from that, this capability also allows them to collaborate with related parties such as cyber security agencies and intelligence agencies to build strong and efficient cyber defenses. In order to maintain national security and military ICT infrastructure, investment in training and developing data analysis and intelligence capabilities for TNI soldiers is a must. This will ensure that they are prepared to deal with rapidly evolving cyber threats and act quickly and appropriately to address possible attacks.

4. Development of advanced defense equipment operating capabilities

Training to operate the main technologically advanced weapon system is an important stage in preparing TNI soldiers to face modern challenges on the battlefield. In a military era that is increasingly dependent on technology, expertise in operating and utilizing sophisticated weapons systems is crucial. This includes weapons, equipment and vehicles equipped with high technology, such as remote control, advanced sensors and encrypted communications systems.

This exercise involves not only the physical use of the tools, but also a full understanding of their capabilities and limitations. Soldiers must be trained to optimize the technological advantages of their weapons, and understand how to protect and maintain them so that they remain operational in optimal conditions. It also includes an understanding of the tactics and strategies involved in using these advanced tools in a variety of combat scenarios.

Operational training of technologically advanced major weapons systems can also involve combat simulations and computer-based training to give soldiers a realistic experience without high physical risks. In this way, they can hone their skills in dealing with complex and dynamic situations on the modern battlefield. Overall, this exercise aims to ensure that TNI soldiers can utilize advanced technology to their strategic advantage and maintain an edge in increasingly sophisticated and competitive battles.

5. Soft Skills Skills Development.

Technical skills are indeed very important in the ability of TNI soldiers to carry out their military duties, but "soft skills" also have an equally important role in the modern context. Good communication skills, for example, allow soldiers to interact with their peers effectively, respond to orders, and provide clear reports. In the midst of fast-paced and complex situations, proper communication can avoid misunderstandings and optimize coordination in the field.

Inter-agency cooperation is also very important in the modern military sphere. In situations involving multiple stakeholders, including the military, government, and private sector, the ability to work together and coordinate well is essential. TNI soldiers must be trained to collaborate with various entities to achieve greater common goals, including in tasks such as handling natural disasters, humanitarian operations, and protecting national resources.

By developing "soft skills" such as communication skills and inter-agency collaboration, TNI soldiers can become more effective members of teams, face more complex situations, and carry out

their duties better. This combination of technical skills and "soft skills" enables TNI soldiers to overcome various challenges faced in an environment that is constantly changing and developing.

6. Strengthening Discipline and Ethics

Military discipline training and ethics in the use of technology are two very important aspects in equipping TNI soldiers to carry out their duties to safeguard state sovereignty. Military discipline is the foundation of any effective armed force. This includes understanding and enforcing rules, regulations, and hierarchy in a military environment. TNI soldiers must be taught to obey orders, maintain order, and carry out their duties with full responsibility. Strong military discipline is the primary foundation for conducting military operations effectively and facing fast-paced and dangerous situations with courage and docility.

In addition, ethics in the use of technology is becoming increasingly important in an era where information technology and weapons are increasingly integrated into military tasks. TNI soldiers need to be given a deep understanding of the ethical values that govern the use of technology, including the use of sophisticated weapons. They must understand the moral limitations of the use of military force and act in accordance with the principles of the international laws of war. Ethics also includes respect for human rights and the protection of civilians in armed conflict. This training involves not only understanding the rules, but also developing the correct attitude in the use of military technology.

The combination of strong military discipline and ethics in the use of technology creates competent and responsible TNI soldiers. They will be able to safeguard the country's sovereignty with pride and integrity, while carrying out their duties efficiently and within limits in line with human values. Thus, this training is a very important element in preparing TNI soldiers to face the various challenges and missions they face in maintaining the country's security and sovereignty.

Developing the capacity of TNI soldiers' human resources (HR) in various aspects, including technical skills, "soft skills," military discipline, and ethics in the use of technology, is an important step to ensure that the TNI can effectively face ever-growing threats in an increasingly complex and technology continues to advance. With soldiers who are well trained, have a deep understanding of various relevant aspects, and are committed to the values of integrity and humanity, the TNI will be a formidable force in maintaining the security and sovereignty of the country, ready to face various challenges that may arise in the future .

4. CONCLUSION

In facing changes in the increasingly complex and diverse paradigm of threats to state sovereignty, the TNI (Indonesian National Army) must make quick and comprehensive adjustments. Non-traditional threats, especially cyber threats and cyber warfare, have become a significant challenge in the Society 5.0 era. Therefore, developing the capacity of TNI soldiers' human resources (HR) is very important. Steps that need to be taken include increasing digital literacy, special training in the field of cyber security, developing analytical and intelligence capabilities, operating sophisticated defense equipment, developing soft skills, and strengthening discipline and ethics in the use of technology. All of this will help TNI soldiers be better prepared to face growing threats in an increasingly complex environment. With soldiers who are well trained in various relevant aspects, the TNI will be able to maintain the country's security and sovereignty more effectively, respond to challenges that may arise in the future, and carry out their duties with high courage, integrity and humanity. This is an important step towards a strong national defense in the modern era filled with sophisticated information and communication technology.

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