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The Influence Of Technological Development On Soldier Professionalism/]: The Role Of Military Organizational Change

Iwan Permana[1*], Setyo Widagdo[1], M. Nuh[1], M. Kholid Mawardi[1]

[1]Brawijaya University, Indonesia
Email: iwanmitha1402@student.ub.ac.id

The rapid advancement of technology has significantly impacted various aspects of life, including the military sector. This study aims to analyse the influence of technological development on soldiers' professionalism, mediated by organizational changes within the military. A quantitative method was employed, collecting data through surveys of military personnel. The findings reveal that technological advancements have a substantial effect on soldier professionalism, mediated by military organizational structure. The study used descriptive analysis and structural equation modelling (SEM) with SmartPLs, providing policy recommendations for improving professionalism amidst technological advancements.

Keywords: Technological Development, Soldier Professionalism, Military Organizational Change

Introduction

War, as a social and political phenomenon, rarely occurs spontaneously, but is driven by deep and complex factors. According to Lindemann (Lindemann, 2024), four main motivations often lead to war: pride, antipathy due to stark differences, self-esteem, and violations of national sovereignty. These motivations reflect basic human survival instincts and reinforce Hobbes' view of human nature as conflict-prone. Clausewitz (Von Clausewitz, 2003) highlights that the primary goal of war is to weaken the enemy beyond recovery, emphasizing military preparedness to achieve political aims.

In the context of Indonesia, both internal and external conflicts require careful attention, with the principle "Si Vis Pacem Para Bellum" (If you want peace, prepare for war) remaining highly relevant. Modern challenges such as asymmetric and cyber warfare further underline the importance of understanding both military and non-military threats in safeguarding national sovereignty. The Russia-Ukraine conflict provides a clear example of the significant impact of international tensions.

In facing global challenges, Indonesia must enhance its national defense by leveraging cutting-edge technology and adopting innovative strategies. Soldier professionalism is a key factor in the success of military organizations, especially amid evolving technologies and organizational structures. However, organizational changes only sometimes yield positive

outcomes. Research by Thompson. Jett Jett et al. (2003) at the Naval Postgraduate School showed that authoritarian leadership changes can negatively impact organizational subcultures. This study will analyze the impact of technology on soldier professionalism mediated by organizational changes, focusing on the 2nd Cavalry Regiment of the Indonesian Marine Corps. The study aims to provide deeper insights into the relationship between technological development and soldier professionalism, contributing new theories for future military organizational development.

Literature review

Capacity Building

Capacity building is utilized as the grand theory in this paper, defined by Grindle (Grindle, 1997) as encompassing various strategies aimed at enhancing government performance in terms of efficiency, effectiveness, and responsiveness. In the military context, capacity building refers to strategic efforts to improve the skills and capabilities of personnel and units to foster positive organizational change, enhancing readiness and effectiveness. The theory highlights the importance of updating operational processes and preparing for evolving challenges to ensure that both individuals and organizations can meet objectives and adapt to shifting environments.

This is particularly crucial in the military context, where situations are constantly dynamic and evolving. To enhance organizational capacity, structural changes are necessary to make the organization more adaptive and efficient in responding to rapid developments, especially in the technological era. Organizational transformation in the military ensures readiness to face modern challenges, allowing for faster, more effective decision-making and operational efficiency, which are aligning military capability with current demands. This enhances the overall strategic agility and preparedness of the armed forces.

Organizational Change

Organizations are inevitably affected by changes in their surrounding environment. To remain effective, they must undergo organizational change, which is a structured and continuous process requiring a contingency or situational approach to improve overall effectiveness (Siagian, 2003). Organizational change involves adjustments in key areas such as structure, personnel, and technology (Robbins & Coulter, 2009). These transformations are essential to ensure the organization can adapt to external shifts, particularly in response to technological advancements and evolving operational demands.

To address technological advancements in the era of globalization, organizations must undergo changes to adapt to future demands and ensure effectiveness (Winardi, 2006). Organizational change is essential for adjusting to environmental shifts and employee behaviour 9 Robbins & Coulter, 2009). It involves restructuring the organizational framework, management composition, operational systems, and work divisions, all of which are crucial for improving managerial and organizational effectiveness (Djohanputro, 2004). Furthermore, such changes are beneficial for the long-term sustainability of the organization (Sedarmayanti,1999).

Organizational change theory provides a conceptual framework for understanding, explaining, and managing change within an organization. Its primary focus is on how organizations, such as military institutions, can respond to both external and internal shifts, manage these changes, and assess their impacts. The goal of military organizational change theory is to comprehend the dynamics of change, the factors influencing its success or failure, and how to effectively manage it to achieve desired outcomes. Given the unique characteristics of military organizations, strategic planning is critical for successful change implementation, requiring analysis of key components based on organizational assessments.

Based on the theory, the author concludes that organizational change serves as a middle-range theory in this research. It refers to a systematic and continuous process aimed at enhancing organizational effectiveness and capability in achieving its goals. Organizational change, as a middle theory, emphasizes the structured steps needed for an organization to adapt and grow, ensuring it remains aligned with its strategic objectives while responding to evolving challenges, particularly in a dynamic environment such as the military.

Technological Development

The rapid advancement of technology significantly influences modern combat concepts, posing major challenges for military organizations worldwide (Siagian, 2003). They must address emerging technologies while maintaining high levels of professionalism among personnel. These changes impact military organization and soldier professionalism, presenting both challenges and opportunities (Terriff & Lucas, 2012). Particularly, advancements in information technology, communication, and weaponry have transformed modern warfare, necessitating military organizations to adapt their practices, strategies, and tactics while ensuring ongoing professionalism in their ranks.

Organizations are influenced by changes in their surrounding environment, necessitating adjustments to remain effective. Organizational change involves a systematic and continuous planning process that requires a contingency or situational approach to enhance effectiveness. This change impacts various components, including organizational structure, personnel, and technology, ensuring that the organization can adapt to new demands and maintain operational efficiency.

The advancement of combat technology is a crucial factor influencing various aspects of military organizations and soldier professionalism. A key indicator of this development is the modernization of combat equipment. Modern and sophisticated military gear enhances operational capabilities, combat effectiveness, and tactical advantages on the battlefield. However, this modernization necessitates organizational adjustments to ensure that soldiers possess the necessary skills and professionalism to operate new technologies. Critical to this modernization is the availability of the latest technology and the effectiveness of new equipment during training and operations.

Professionalism

Ontology defines professionalism as the underlying concept or quality guiding an individual's behavior in performing tasks according to industry standards. It encompasses awareness of

ethics, technological competence, and other essential professional qualities (Haybron & Madya, 2018). Professionalism entails reliability and expertise, ensuring high-quality task execution. For military organizations, having committed and professional soldiers is crucial (Beam, 1990). A high level of professionalism among soldiers enhances operational effectiveness (Bunderson, 2001), enabling them to fulfill duties despite challenges (Cook, 2004). Thus, soldier professionalism is vital for the optimal functioning of the Cavalry Battalion within the Cavalry Regiment.

Soldier professionalism in the military context focuses on defining, developing, and applying knowledge, skills, and norms related to their duties as armed forces members. This includes advancements in learning and a deep understanding of military doctrine, strategies, tactics, and international security law (Brauer, 2001). The epistemological perspective emphasizes the role of knowledge and learning in shaping military professionalism. Therefore, strategies and critical concepts are needed to enhance soldier professionalism and strengthen military organizations. Soldiers, as military practitioners, operate under the regulations set by Indonesian Law No. 34 of 2004 concerning the duties of the Indonesian Armed Forces.

Based on the various theories mentioned, the researcher concludes that professionalism is an individual's ability to perform tasks and solve problems effectively. The variables determining professionalism standards include the soldier's competence, which encompasses technical, interpersonal, and conceptual skills, knowledge, and abilities. These standards are set by a professional body or relevant association. To enhance professionalism, it is necessary to develop these competencies through training and education, established and standardized by an authoritative body recognized by the military organization itself.

Methods

This study employs a quantitative method, defining and formulating problems, conducting theoretical research, and formulating hypotheses. It involves data collection and analysis to test hypotheses (Tashakkori & Teddlie, 2003) After defining the problem, relevant theories are selected to explain it, operational definitions are provided, and hypotheses are developed (Hammarberg et al., 2016). Once hypotheses are formulated, valid data is gathered and analyzed (Obeng, 2016), ensuring the research instruments are tested for validity and reliability. Finally, the analyzed data and tested hypotheses are presented in tables, graphs, and concise narratives.

For the quantitative data in this research, the impact of technology on the professionalism of the 2nd Cavalry Marine Regiment is assessed through military organizational changes, using a questionnaire administered via Google Forms. This data collection aims to illustrate how technological advancements influence the professionalism of soldiers within the context of ongoing organizational transformations in the military. By employing technology for data gathering, the study seeks to capture current perceptions and insights related to this dynamic interplay.

To collect data, it is crucial to first establish the research variables. This step is essential as it allows for the investigation of specific aspects that contribute to drawing conclusions. The researcher is responsible for identifying and defining these variables in alignment with the

research topic or direction. As stated by Sugiyono (Sugiyono, 2019), research variables are determined by the researcher to represent the study, providing direction and relevant information needed to draw conclusions.

Based on the explanation, the study titled "The Impact of Advancements in Combat Technology on Soldier Professionalism: The Role of Military Organizational Change" categorizes the variables as follows: technological advancement is the independent variable, soldier professionalism in the Cavalry Regiment 2 Marine Corps serves as the dependent variable, and military organizational change acts as the intervening variable. This relationship can be illustrated in a diagram that clearly depicts how these variables interact within the research framework.

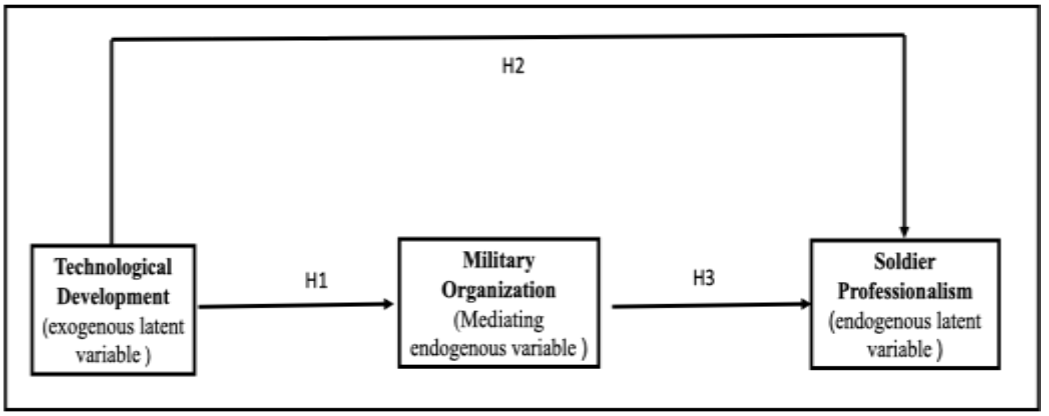

Figure 1. Diagram illustrating the relationship between the variables (Source: Data processed by the author, 2024.)

Based on the defined research variables, the researcher can effectively organize and collect data. This categorization helps answer emerging questions in the study. The population for this research comprises all soldiers of the 2nd Cavalry Regiment Marine Corps under the Pasmar 2 Surabaya command. According to the monthly report for January 2024, the population consists of 256 personnel from the Tankfib Battalion, 359 from the Ranratfib Battalion, and 305 from the Kapa Battalion. This information can be summarized in Table 3.1 of the research population.

Table 1. Research population

No	Unit in 2nd Cavalry Regiment of Marine Corps	Amount
1	2nd Marine Tankfib Battalion	256
2	2nd Marine RRF Battalion	359
3	2nd Marine KAPA Battalion	305
	TOTAL	920

Source: Monthly report of the 2nd Cavalry Regiment Marine Corps, January 2024

In this research, the sampling method employed will be proportionate stratified sampling, a type of probability sampling that involves dividing the entire population into different strata

or subgroups. The researcher will categorize each battalion based on the ranks of officers, non-commissioned officers, and enlisted personnel. The sample size will be determined by ensuring proportional representation from the observed population. If the population is assumed to follow a normal distribution, the sample will be calculated using Slovin's formula (1960), as follows:

$$n = \frac{N}{1 + Ne^2}$$

Information:

n : Number of Samples

N : Large population

e : Trust level (5% = 0,05)

n : 920/ (1 + (920 x 0,05)2) = 920/3,3 = 278,78 rounded 279.

Based on the criteria calculations, a sample size of 279 personnel will be drawn from the population of 920 members of the Marine Cavalry Battalion, with a margin of error of 5%. These respondents will be selected from each Cavalry Battalion within Pasmar 2. The distribution of the sample can be seen in Table 2, which outlines the sample distribution for the research.

Table 2. The sample distribution for the research

No	**Units**	**Total**			
		Officer	**Nco**	**Enlisted**	**Total**
1	2nd Marine Tankfib Battalion	15	40	23	78
2	2nd Marine RRF Battalion	20	60	28	108
3	2nd Marine KAPA Battalion	12	50	31	93
	TOTAL	47	150	82	279

Source: Monthly report of the 2nd Cavalry Regiment Marine Corps, January 2024

Data analysis will be conducted to process the quantitative data obtained from questionnaires administered to the members of the Cavalry Regiment and experts. The analysis will employ statistical techniques, specifically using Structural Equation Modeling (SEM). SEM enables the examination of relationships between latent variables and their indicators, as well as the direct relationships among latent variables and measurement errors. This approach will facilitate a comprehensive understanding of the interactions between the different factors in the study.

The concept of Structural Equation Modeling (SEM) was developed by Sewall Wright in 1934 and was initially known as path analysis before evolving into SEM for easier application

(Yamin, 2009). SEM is a statistical technique that analyzes the patterns of relationships between latent variables and their indicators, as well as the direct relationships among these latent variables and measurement errors. According to Hair (Hair et al., 2006) SEM can simultaneously analyze multiple dependent and independent variables. For the analysis, SmartPLS software will be used as the analytical tool.

Results and Discussion

Research Data Analysis

The statistical data analysis results using SmartPLS involve testing both the external and internal models. Partial Least Squares (PLS) is a component-based or variance-based equation modeling method. It is a robust analytical approach that does not rely on many assumptions, such as normal data distribution and the necessity for large samples (Hermawan & Hasibuan, 2016).

At this stage, the theoretical model will be illustrated through a SEM diagram, showing the causal relationships tested, with direct arrows indicating the causal links between the constructs based on the processed research data using SmartPLS 4.0.

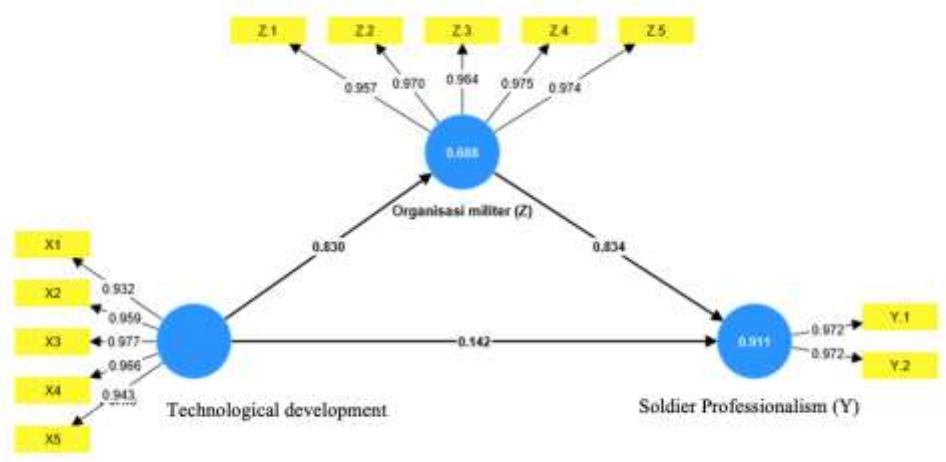

Figure 1. Casual relationship model between variables

Source: results processed by the author with Smart PLS 2024

Information:

X: Technological Development Variables (exogenous latent variable)

Z: Military Organization Variables (mediating endogenous variable)

Y: Soldier Professionalism Variable (endogenous Variables)

The Measurement Model (Outer Model) assesses the appropriateness of the measurement, focusing on the latent relationships between variables and their indicators. It includes three aspects: Convergent Validity, Discriminant Validity, and Reliability. The initial data processing involved three variables with a total of 12 indicators, summarized in Table 4.1, which presents the Loading Factor values for these indicators.

Table 3. Loading Factor

Variable	**Indicator**	**Loading Factor**	**Rule of Thumb**	**Conclusion**
Technological development	X.1	0.932	0.700	Valid
	X.2	0.959	0.700	Valid
	X.3	0.977	0.700	Valid
	X.4	0.966	0.700	Valid
	X.5	0.943	0.700	Valid
Military Organization	Z.1	0.957	0.700	Valid
	Z.2	0.970	0.700	Valid
	Z.3	0.964	0.700	Valid
	Z.4	0.975	0.700	Valid
	Z.5	0.974	0.700	Valid
Soldier Professionalism	Y1	0.972	0.700	Valid
	Y2	0.972	0.700	Valid

Source: processed data, 2024

Convergent validity for the measurement model is established by the correlation between item scores and construct scores (loading factor), with a criterion of each instrument's loading factor being >0.7. In the initial data processing, all instruments for the technology development variable, military organization variable, and soldier professionalism variable were valid (>0.7).

Discriminant validity assesses how well indicators measure distinct constructs. For structural equation modelling based on variance, Fornell-Larcker criteria and cross-loading checks are common approaches. The correlation of each indicator with its associated construct should be higher than with other constructs.

Table 4. Fornell-Larcker Criterion Discriminant Validity

	Military Organization (Z)	**Technological development X)**	**Soldier Professionalism (Y)**
Military Organization (Z)	0.968		
Technological development (X)	0.830	0.955	
Soldier Professionalism (Y)	0.951	0.833	0.972

Source: processed data, 2024

The results in Table 4 indicate that the loading values of each indicator item relative to its construct are greater than the cross-loading values. Thus, it can be concluded that all constructs or latent variables possess good discriminant validity, meaning the indicators in the construct block are more effective than those in other blocks.

Following the validity assessment, the next step is to test construct reliability, measured by Composite Reliability (CR). A construct is considered reliable if the CR value is greater than 0.6; however, a value of 0.7 is preferred, as suggested by Hair et al. (2006).

Table 5. Composite Reliability

	Cronbach's alpha	**Composite reliability (rho_a)**	**Composite reliability (rho_c)**	**Average variance extracted (AVE)**
Military Organization (Z)	0.983	0.983	0.987	0.937
Technological development (X)	0.976	0.978	0.981	0.913
Soldier Professionalism (Y)	0.941	0.941	0.972	0.945

Source: processed data, 2024

Based on Table 4.3, the Composite Reliability test results indicate that all values are greater than 0.6, confirming that all variables are reliable. After evaluating the model and confirming that each construct meets the criteria for Convergent Validity, Discriminant Validity, and Composite Reliability, the next step is to evaluate the structural model, which includes R Square, F Square, Direct Effects, and Indirect Effects. The structural model is assessed using R-square for the dependent constructs. An R^2 value of 0.75, 0.50, and 0.25 indicates a strong, moderate, and weak model, respectively (Sarstedt et al., 2017).

Table 5. R Square

	R-square	R-square adjusted
Military Organization (Z)	0.688	0.687
Soldier Professionalism (Y)	0.911	0.911

Source: processed data, 2024

Based on Table 4.4, the R Square value for Path Model I is 0.688 for military organization, indicating that technology development explains 68.8% of the variance in military organization. In Path Model II, the R Square value for soldier professionalism is 0.911, meaning that 91.1% of the variability in professionalism can be explained by technology development, while the remaining variance is attributed to other variables not examined in this study.

In addition to assessing the significance of relationships between variables, researchers should evaluate the effect size using f-square (Wong, 2013). The f-square values are categorized as

follows: 0.02 indicates a small effect, 0.15 a medium effect, and 0.35 a large effect. Values below 0.02 are considered negligible. Thus, incorporating f-square alongside statistical significance offers a more comprehensive understanding of the dynamics between variables in a study.

Table 6. F Square

	f-square
Military Organization (Z) -> Soldier Professionalism (Y)	2.441
Technological development (X) -> Military Organization (Z)	2.209
Technological development (X) -> Soldier Professionalism (Y)	0.070

Source: Processed Data, 2024

Based on Table 6, several variables demonstrate a large effect size. Specifically, the military organization variable significantly influences soldier professionalism, with an f-square value of 2.441, and the technology development variable affects military organization with an f-square of 2.209, both exceeding the 0.35 threshold. In contrast, the effect size for technology development on soldier professionalism is small, with an f-square of 0.007, indicating that while it contributes to professionalism, its impact is relatively minor. Hypothesis testing is done using bootstrapping techniques. The data used for bootstrapping is data that has undergone the Measurement stage.

Hypothesis testing is part of the Structural Model and demonstrates the hypothesized relationships through simulation practices. The bootstrapping test aims to determine the direction and significance of the relationships between latent variables. The hypothesis test is conducted by comparing the t-statistic obtained from bootstrapping to the one-tailed t-table value of 1.96, corresponding to a 5% error standard, or by checking if the p-value is below 0.05. The formulation of the hypotheses is as follows:

1) H1: It is suspected that there is an influence of technological developments on military organizations;
2) H2: It is suspected that there is an influence of technological developments on the professionalism of soldiers;
3) H3: It is suspected that there is an influence of military organizations on the professionalism of soldiers; and
4) H4: It is suspected that there is an influence of technological developments on the professionalism of soldiers through military organizations.

Table 7. Path Coefficients Hypothesis

	Original sample (O)	**Sample mean (M)**	**Standard deviation (STDEV)**	**T statistics (|O/STDEV|)**	**P values**

H 1	Technological development (X) -> Military Organization (Z)	0.830	0.828	0.034	24.314	0.000
H 2	Technological development (X) -> Soldier Professionalism (Y)	0.142	0.139	0.051	2.772	0.006
H 3	Military Organization (Z) -> Soldier Professionalism (Y)	0.834	0.835	0.045	18.366	0.000

Source: Output SmartPLS Botstrapping, 2024

Based on Table 4.6, the bootstrapping hypothesis test reveals the direction of relationships between variables, where the Original Sample indicates the sign and direction of relationships for the entire research sample. The results can be summarized as follows:

The direct effect of Technological Development (X) on Military Organization (Z) is 0.830, meaning that for every unit increase in X, Z increases by 83%. This indicates a positive influence. The positive coefficient suggests that improvements in technology directly enhance military organization. The t-statistic of 24.314, which is greater than the t-table value of 1.967, with a P-value of 0.000 (less than 0.05), shows the effect is statistically significant. Therefore, it can be concluded that technological development positively and significantly impacts military organization, rejecting Ho and accepting H1;

The direct effect of Technological Development (X) on Soldier Professionalism (Y) is 0.142, indicating that for every unit increase in X, Y increases by 14.2%. This effect is positive. The t-statistic of 2.772, which is greater than the t-table value of 1.96, with a P-value of 0.006 (less than 0.05), confirms statistical significance. Therefore, it can be concluded that technological development has a positive and significant direct effect on soldier professionalism. As a result, Ho is rejected and H2 is accepted.; and

The direct effect of Military Organization (Z) on Soldier Professionalism (Y) is 0.834, meaning that for every unit increase in Z, Y increases by 83.4%. This effect is positive. The t-statistic of 18.366, which is greater than the t-table value of 1.967, with a P-value of 0.000 (less than 0.05), confirms statistical significance. Therefore, it can be concluded that military organization has a positive and significant direct effect on soldier professionalism. As a result, Ho is rejected and H3 is accepted.

In this study, indirect effects refer to the impact of an exogenous latent variable (X), Technological Development, on an endogenous latent variable (Y), Soldier Professionalism, through a mediating endogenous variable (Z), Military Organization. The indirect effects analysis in the PLS SEM inner model examines how the influence of Technological Development (X) on Soldier Professionalism (Y) is mediated or enhanced by improvements in Military Organization (Z), thus explaining the full dynamics of the relationships between these variables:

Table 8. Indirect effect

	Original sample (O)	**Sample mean (M)**	**Standard deviation (STDEV)**	**T statistics (|O/STDEV|)**	**P values**
Technological development (X) -> Military Organization (Z) -> Soldier Professionalism (Y)	0.692	0.692	0.053	13.159	0.000

Source: Processed Data, 2024

Based on the indirect effects table in the image above, it can be concluded that the indirect effect of X on Y through Z is 0.692, which means that if X increases by one unit, Y can increase indirectly through Z by 69.2%. This effect is positive. The t-statistic value of the influence of technological development on military professionalism through organizational change is greater than the t-table (> 1.967), specifically 13.159, with a P-value < 0.05 of 0.000. Therefore, it can be concluded that the indirect effect of technological development on military professionalism through organizational change is positive, influential, and significant; thus, the null hypothesis (Ho) is rejected and alternative hypothesis (H4) is accepted.

Technological Developments in Military Organizations

The direct effect of technological development (X) on military organization (Z) is 0.83, which means that if X increases by one unit, Z can increase by 83%. This effect is positive. The t-statistic value for the influence of technological development on assignments is greater than the t-table (> 1.967), specifically 24.314, with a P-value < 0.05 of 0.000. Therefore, it can be concluded that the direct effect of technological development on military organization is positive, influential, and significant; thus, the null hypothesis (Ho) is rejected and the alternative hypothesis (H1) is accepted.

The analysis shows that the impact of technological development on military organizations is positively significant. The findings are supported by the statistical significance test, where the t-statistic value (24,314) exceeds the threshold value (> 1,967), indicating a strong correlation between technological advancement and organizational changes in the military. Additionally, the extremely low P-value (< 0.05, exactly 0.000) further confirms the significance of this relationship. This conclusion aligns with previous studies, notably those conducted by researchers like (Farrukh et al., 2021), who emphasized the necessity of adapting organizational structures to accommodate new technologies. Such adaptations could involve creating new units, merging existing ones, or adjusting specific functions and responsibilities to effectively leverage newer technologies.

Technological developments in Soldier Professionalism

The direct effect of technological development on soldier professionalism is 0.142, which means that if X increases by one unit, Y can increase by 14.2%. This effect is positive. The t-statistic value for the influence of technological development on soldier professionalism is greater than the t-table (> 1.96), specifically 2.772, with a P-value < 0.05 of 0.006. Therefore, it can be concluded that the direct effect of technological development on soldier professionalism is positive, directly influential, and significant; thus, the null hypothesis (Ho) is rejected and the alternative hypothesis (H2) is accepted.

Overall, there is a positive relationship, and the analysis indicates that this relationship is quite strong or significant within the context of this research. This aligns with the findings of Daniel M. Haybron and Alex Madva (2018), who state that professionalism refers to an awareness of ethics, technological competence, and other professional qualities deemed essential in a field or profession. Based on the analysis results, it can be concluded that there is a positive influence of technological development on soldier professionalism, and this influence is statistically significant. This means that technology contributes positively to professionalism, and the existing data is robust enough to confirm that this relationship truly exists or is consistent across the population.

Military Organizations towards the Professionalism of Soldiers

The analysis results indicate that the influence of military organization (Z) on soldier professionalism (Y) is positive, direct, and significant. This conclusion is drawn from the t-statistic test results, where the influence of military organization (Z) on soldier professionalism (Y) exceeds the t-table value (> 1.967), specifically at 18.366, with a P-value < 0.05 of 0.000. Therefore, it can be concluded that the direct influence of military organization (Z) on soldier professionalism (Y) is positive, directly influential, and significant; thus, the null hypothesis (Ho) is rejected and the alternative hypothesis (H3) is accepted.

The results align with the research conducted by Siagian (2003), which states that organizational change is a series of processes involving systematic and continuous planning that requires a contingency or situational approach to enhance the effectiveness of an organization. To address technological advancements in the era of globalization, it is essential to implement actions that transform the current organization into one that meets future expectations, thereby achieving greater organizational effectiveness. This perspective is consistent with the insights provided by Winardi (2010), emphasizing the necessity of adapting organizational structures to keep pace with technological progress.

Indeed, the effective aspects of military organization such as its structure, management systems, training programs, and organizational culture significantly contribute to elevating the professionalism of soldiers. This connection is crucial because it demonstrates that improvements in these organizational facets can serve as strategic steps toward enhancing both the quality and performance of military professionals. Overall, these findings support the notion that investments and attention dedicated to managing military organizations can yield substantial impacts on boosting professionalism within them.

Technological Developments on Soldier Professionalism through Military Organizations

Based on the analysis, it was found that the indirect influence of technological advancements (X) on soldier professionalism (Y) through the military organization (Z) is 0.692. This means that if there is an increase of one unit in the technological advancements variable (X), the professionalism of soldiers (Y) can indirectly increase through the military organization (Z) by 69.2%

This influence is positive, indicating that an increase in technological advancements tends to enhance soldier professionalism through the role of the military organization. Furthermore, statistical results show that this influence is statistically significant. The obtained t-statistic value is 13.159, which is much higher than the t-table value of 1.967. Additionally, the P-value is 0.000, which is far below the 0.05 significance threshold.

Based on these results, it can be concluded that the indirect influence of technological advancements on soldier professionalism through the military organization is positive, impactful, and significant. Therefore, the null hypothesis (Ho), which states that there is no significant influence, is rejected, while the alternative hypothesis (H4) is accepted.

Overall, technological advancements have made a significant contribution to enhancing soldier professionalism through various mechanisms within military organizations. Advances in technology not only affect the tools and systems used in military operations but also directly influence the structure and functions of military organizations themselves. These changes impact how soldiers are trained, assigned, and carried out their missions, ultimately contributing to an improvement in their professional quality.

These technological developments have led to significant changes in military organizations worldwide (Zayna et al., 2017). The integration of modern technology into military institutions affects how these organizations operate, ranging from improvements in information management to the development of more effective operational strategies. In this context, military organizations serve as a bridge between technology and soldier professionalism, as they are responsible for ensuring that soldiers possess the relevant skills and knowledge to effectively utilize technology in their duties.

Furthermore, military organizations play a crucial role in creating an environment that supports technological adaptation, such as by providing technology-based training, facilitating the development of technical competencies, and establishing frameworks that enable optimal application of technology in the field. Thus, military organizations function as agents of change that ensure technological advancements are not only seen as operational support tools but also as key factors in shaping soldier professionalism.

This demonstrates that military organizations have a central role in linking technological developments with the enhancement of professionalism. Through policies, training, and structural adaptations, military organizations empower soldiers to effectively leverage technology in operational contexts, which, in turn, enhances their professionalism and readiness to face modern challenges.

Conclusion

The findings of this research reveal that technological advancements significantly impact the enhancement of soldier professionalism, with military organizations playing a crucial mediating role in this process. Through a quantitative approach and analysis using the SEM method with SmartPLS, this study has found that changes in the structure and dynamics of military organizations are essential to maximize the benefits of technology for soldiers. These findings provide a strong foundation for formulating strategic policies that support the transformation of military organizations to improve the quality and professionalism of soldiers amidst the rapid technological developments in the digital era.

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