

## STRATEGIC HUMAN CAPITAL AND KNOWLEDGE MANAGEMENT: DRIVING INDONESIAN AIR FORCE PERFORMANCE

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### Abstract

This research examines the determinants of organizational performance within the Indonesian Air Force's Capital City Sector Command (Kosek IKN) by analyzing the roles of personnel education, utilization, and welfare, with knowledge management (KM) as a mediating variable. Employing a mixed-methods approach, the study integrates quantitative structural equation modeling with qualitative thematic exploration to provide a comprehensive view of military HRM dynamics. The findings reveal that while education and welfare are significant drivers of performance, personnel utilization lacks statistical significance. Furthermore, mediation analysis demonstrates that KM only facilitates the path between welfare and organizational performance, remaining uninfluenced by education or utilization. These results highlight a critical shift in defense management: personnel welfare is the primary catalyst for fostering a knowledge-sharing culture and driving excellence, outweighing technical competencies. This study advances military HR theory by proposing a welfare-centric model for sustainable performance in strategic defense command.

**Keywords :** *Organizational Performance , Knowledge Management , Personnel Welfare , Military Human Resource Management , Personnel Education and Training*

### INTRODUCTION

In the era of the Industrial Revolution 4.0 and global military transformation, defense organizations are required to rely not only on the advantages of the main tools of the weapon system, but also on the quality of human resources (HR) that are professional, adaptive, and highly competitive. Military modernization places personnel competence, knowledge management, and welfare as strategic factors in maintaining operational readiness and organizational effectiveness (York et al., 2024). In the dynamics of the current military organization. The Indonesian National Army Air Force (TNI AU) faces complex challenges related to technology mastery, interoperability of weapon systems, and multidimensional threat dynamics. As a strategic unit of national air defense, the National Capital Sector Command (Kosek IKN) has a crucial role in coaching, operating, and supporting air defense operations. The performance of the Kosek IKN organization is an important indicator of the success of the implementation of the national defense strategy. However, various internal evaluations show that organizational performance has not been fully optimal, which is reflected in the limitation of technically certified personnel, mismatch of personnel placement with competencies, repetition of technical operational errors, and weak knowledge transfer and documentation mechanisms between units.

The human resources literature confirms that education and training play an important role in improving organizational competence and performance (Mathis et al., 2016). However, in high-tech organizations such as the military, improving competencies does not always have a direct impact on performance if it is not supported by an effective knowledge management system. Tacit operational and technical knowledge is often inherent in individuals and undocumented, resulting in loss of personnel turnover (York et al., 2024). This condition has the potential to cause repeated operational errors and inefficiency in the use of defense equipment. In addition to education and the use of personnel, welfare is an important factor in maintaining the motivation, loyalty, and work readiness of soldiers. (Judge & Robbins, 2017) stated that welfare has a significant effect on job satisfaction and performance. In the framework of this discussion, welfare inequality between assignment areas and between levels of rank can lower morale and hinder the formation of a culture of knowledge sharing. Previous empirical research has shown that good well-being can encourage extra-role-playing behaviors, including a willingness to share experiences and knowledge (Ahmad & Lestari, 2022). Knowledge management (*knowledge management*) is a key factor that bridges investment in human resources in education, placement, and welfare with the achievement of organizational performance. *Knowledge management* enable organizations to systematically create, store, share, and leverage knowledge to improve decision-making effectiveness and operational performance (Davenport & Prusak, 1998). In military organizations, success *knowledge management* greatly determines the continuity of learning across generations of soldiers and the success of the mission. Although various studies have examined the influence of education, personnel use, and welfare on organizational performance, empirical research that specifically integrates these three variables with *knowledge management* as a mediating variable in military organizations, especially the Indonesian Air Force, is still limited. Therefore, this study aims to analyze the influence of *Personnel Education, Personnel Utilization, and Personnel Welfare on the Organizational Performance* of Kosek IKN and its staff, with *Knowledge Management* as an intervening variable. This research is expected to make a theoretical contribution to the development of military human resource management as well as practical implications in the formulation of policies to improve the performance and sustainability of national air defense organizations.

### LITERATURE REVIEW

**Teori Resource – Based View (RBV):** Theory *Resource-Based View* (RBV) emphasizes that competitive advantage and organizational performance come from the organization's ability to strategically manage internal resources (Wernerfelt, 1984). RBV views organizations as a heterogeneous collection of resources, where differences in ownership and utilization of these resources will result in differences in performance between organizations (Peteraf, 1993). (Barney, 1991) explains that organizational resources can create a sustainable competitive advantage if they meet the characteristics of the *Valuable, Rare, Inimitable, and Non-substitutable* (VRIN). This concept was then further developed by emphasizing that strategic resources must be difficult to replicate due to historical conditions, causal ambiguity, and social complexity (Barney, 1991). RBV also distinguishes between tangible and intangible resources. (Hall, 2009) states that intangible resources, such as HR competencies, organizational culture, and knowledge, have greater potential in creating long-term advantage. This view is reinforced by (Amit & Schoemaker, 1993) which confirms that organizational capabilities are the main mechanism in converting resources into performance. In the framework of this discussion, RBV places human resources as a strategic asset that is difficult to replicate and of high value (Wright et al., 1994). Effective HR management practices have been proven to contribute significantly to organizational performance (Lepak & Snell, 1999).

The development of RBV further gave birth to *knowledge-based view* who view knowledge as the organization's main strategic resource (York et al., 2024). Organizational knowledge that is systematically managed through knowledge management will improve the adaptive capabilities and performance of the organization (Alavi & Leidner, 2001). In both public and military organizations, RBV is relevant because

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organizational performance is highly dependent on the institution's ability to manage internal resources effectively, rather than solely external factors (Kaplan & Norton, 2001). Thus, RBV provides a strong theoretical foundation to explain the causal relationship between internal resource management and organizational performance.

**Personnel Education Theory :** Personnel education is a planned, systematic, and continuous process that aims to improve individual knowledge, skills, attitudes, and character in order to be able to carry out their duties and responsibilities optimally in the organization. Education is understood as a conscious effort to develop human potential through structured and long-term learning, resulting in relatively permanent behavioral changes (Hasibuan, 2003). In the existing organizational dynamics, education functions as a strategic instrument in the development of human resources that are oriented towards increasing work effectiveness and performance (Simamora, 2004). (Armstrong & Taylor, 2023) emphasizing that personnel education is an integral part of strategic human resource management because it contributes directly to the formation of the organization's core competencies. In military organizations, personnel education has a broader meaning because it focuses not only on improving cognitive and technical competencies, but also includes character building, discipline, loyalty, and leadership spirit. Military personnel education is seen as an integral part of the human resource development system which aims to create personnel who are professional, have integrity, and are ready to carry out state duties under various conditions (TNI Kodiklat, 2020). In line with the TNI Commander's Regulation Number 73 of 2012 concerning the TNI Education System, education is designed to form attitudes, knowledge, skills, and behavior of personnel in accordance with the needs of the position and structure of the military organization. Theoretically, personnel education can be explained through the Human Capital Theory which states that education is a long-term investment in human capital that will increase the productivity and contribution of individuals to the organization (Becker, 1964). In the military context, investment in education through formation, vocational, and career development education will increase the strategic value of personnel and the effectiveness of the unit. In addition, behavioral learning theory emphasizes that education and training are able to shape work behavior through the process of habituation and reinforcement, which is very relevant in the formation of discipline and preparedness of military personnel (Skinner, 1965). (Noe, 2020) adding that a well-planned educational program can improve job readiness, adaptability, and the ability of personnel to respond to changes in the dynamic organizational environment. Military personnel education also adopts an experiential learning approach, where effective learning is obtained through hands-on experience, reflection, and application in real-world situations. Methods such as field exercises, operation simulations, and operational case studies are the main means in shaping personnel readiness and resilience (Kolb & Kolb, 2005). The effectiveness of education is more optimal if there is a transfer of knowledge and skills from the educational environment to the implementation of tasks in the field, so that education really has an impact on the performance of individuals and organizations (Baldwin & Ford, 1988). Thus, the education of personnel in the military environment is the main foundation of human resource development that not only improves technical competence, but also builds character, leadership, and ideological values. Personnel education that is systematically and continuously designed will directly contribute to the improvement of professionalism, operational readiness, and overall performance of military organizations.

**Personnel Utilization Theory :** *Personnel Utilization* is a strategic process in human resource management that emphasizes the optimal use of labor through placement, task management, potential development, and performance evaluation to support the achievement of organizational goals. From the perspective of HR management, effective personnel utilization starts from the fit between individual characteristics and job demands. Mathis and Jackson (2020) emphasized that the placement of personnel in accordance with their competencies and educational backgrounds will increase productivity and work motivation, while Handoko (2021) stated that the suitability of individual abilities with organizational needs is the core of the successful use of human resources. This view is in line with *the person job fit* theory put forward by Kristof-Brown et al. (2020), which states that individual and job fit have a direct effect on performance, job satisfaction, and organizational commitment. In addition to placement, an important dimension in *Personnel Utilization* is the clear and proportionate delegation of duties and authority. Robbins (2016) explains that effective delegation not only improves work efficiency, but also fosters a sense of responsibility and involvement of personnel. Gomes (2019) added that the delegation of authority in accordance with individual capacity allows personnel to work independently and optimally, so that organizations can maximize the potential of human resources they have.

The next dimension is the development of personnel potential as part of the long-term utilization of human resources. Dessler (2020) states that *Personnel Utilization* is not only oriented to the utilization of existing capabilities, but also to preparing personnel for higher roles and responsibilities in the future. Mangkunegara (2019) emphasized that the development of potential through education, training, and work rotation is a strategic investment by the organization to maintain the sustainability and readiness of human resources. Work productivity is also the main indicator of the success of *Personnel Utilization*. Simamora (2019) explained that the level of productivity reflects the extent to which human resources are utilized effectively and efficiently in producing quality output. In line with that, Hasibuan (2021) emphasized that the effectiveness and efficiency of individual work are the main measures of the success of labor utilization in organizations.

Another dimension that is no less important is personnel satisfaction and involvement. Schaufeli and Bakker (2021) stated that a high level of work involvement indicates that personnel feel empowered and optimally utilized by the organization. Herzberg (2022) adds that job satisfaction arises when individuals feel their roles are meaningful and their contributions are recognized, which ultimately impacts loyalty and commitment to the organization. In military organizations, operational efficiency and effectiveness are crucial dimensions in *Personnel Utilization*. Siagian (2019) explained that efficiency is related to using resources as little as possible to obtain maximum results, while effectiveness focuses on achieving organizational goals appropriately. Flippo (1984) emphasized that the use of human resources must always be associated with the real results of the organization in order to be able to support institutional performance in a sustainable manner. Based on these various views, it can be concluded that the dimensions of *Personnel Utilization* include the suitability of personnel placement, delegation of duties and authority, potential development, work productivity, personnel satisfaction and involvement, and operational efficiency and effectiveness. In the dynamics of military organizations such as the IKN Sector Command (Kosek IKN), these dimensions are an important foundation to ensure operational readiness, personnel professionalism, and the success of the implementation of state defense tasks optimally.

**Theory Personnel Welfare:** *Personnel Welfare* is a strategic concept in human resource management that emphasizes meeting the physical, psychological, social, economic, and professional needs of personnel in order to create healthy, safe, and supportive working conditions for optimal performance. Personnel well-being is not only understood as the provision of financial compensation, but includes an overall quality of life that allows individuals to carry out organizational duties and responsibilities effectively and sustainably. From an HR management perspective, the well-being of personnel serves as the primary foundation for individual motivation, loyalty, and performance. Mathis and Jackson (2021) state that a comprehensive well-being program contributes significantly to increased job satisfaction, employee retention, and organizational stability. This view is strengthened by Handoko (2021) who emphasizes that welfare is an organizational means to create a sense of security and comfort at work so that personnel can work with focus and high productivity. One of the main theoretical foundations in explaining *Personnel Welfare* is Maslow's Hierarchy of Needs theory (1943). Maslow stated that individual well-being is achieved when basic needs and the need for self-actualization are met gradually. In the scope of organizational discussions, the fulfillment of physiological and security needs through salary, benefits, and job security is a prerequisite for the fulfillment of social needs, rewards, and self-development. In this perspective, the welfare of personnel cannot be separated from the fulfillment of psychological and emotional needs. In addition, the *theory of Subjective*

*Well-Being* put forward by Diener (1984) emphasizes that well-being is determined by an individual's subjective perception of his happiness and life satisfaction. Warr (2020) explains that a supportive, fair, and safe work environment will form positive psychological conditions that have a direct impact on work performance and engagement. Beehr and Newman (2021) added that good psychological well-being is able to reduce work stress levels and increase individual resilience in the face of organizational pressure.

A holistic approach to well-being was further developed by Keyes (2022) through the *Complete Mental Health Model*, which views well-being as an integration between emotional, psychological, and social health. According to Keyes, a well-to-do individual is not only free from mental disorders, but is also able to function optimally in his or her social and professional roles. This approach is relevant for organizations that demand high performance and long-term stability, including military institutions. Another important dimension in Personnel Welfare is the balance between work life and personal life. Greenhaus and Beutell (1985) explain that the imbalance of work and personal life roles can lead to role conflicts that negatively impact individual well-being and performance. In this context, organizational policies that support *work-life balance* play an important role in maintaining emotional stability, mental health, and sustainability of personnel performance. In the realm of military organizations studied, *Personnel Welfare* has a strategic meaning because it is directly related to the physical and mental readiness of personnel in carrying out high-risk tasks. Ilmarinen (2019) emphasized that the welfare of military personnel must include excellent physical condition, mental stability, social protection, and recognition of sacrifices in duty. Danna and Griffin (2020) also stated that well-managed well-being will increase productivity while reducing fatigue levels and decreased performance. Based on these various views, it can be concluded that *Personnel Welfare* is a multidimensional concept that includes physical, psychological, social, economic, and professional well-being. In the military context such as the IKN Sector Command (Kosek IKN), the welfare of personnel is a key element in maintaining operational readiness, loyalty, organizational stability, and the successful implementation of state defense tasks in a sustainable manner.

**Theory Knowledge Management:** *Knowledge Management* (KM) is a strategic approach in organizational management that focuses on knowledge management as a key asset to improve performance, innovation, and competitive advantage. KM involves a systematic process of identifying, acquiring, developing, storing, sharing, and utilizing both explicit and tacit knowledge to support the achievement of organizational goals in a sustainable manner. Davenport and Prusak (2022) explain that *Knowledge Management* is an integrated process that allows organizations to collect, distribute, and use knowledge effectively to create added value. This view is in line with Nonaka and Takeuchi (2020) who emphasize that the ability of organizations to create and transfer knowledge is the main source of competitive advantage. From a strategic management perspective, *Knowledge Management* is not only understood as an information storage activity, but as a dynamic cycle that creates organizational learning. Wiig (2021) stated that KM is a deliberate and systematic process of building, updating, and applying knowledge so that organizations are able to improve the effectiveness and quality of decision-making. Awad and Ghaziri (2022) added that the success of KM is highly dependent on the integration between people, processes, and technology in managing organizational knowledge.

An important dimension in *Knowledge Management* begins with the organization's ability to identify the strategic knowledge it has and needs. Probst, Raub, and Romhardt (2020) explain that knowledge identification allows organizations to map expertise, experience, and sources of critical knowledge spread across individuals and work units. Without a clear identification process, organizations risk losing critical knowledge due to mutations, rotations, or personnel turnover. The next stage is the acquisition and development of knowledge. Gold, Malhotra, and Segars (2021) state that organizations must actively acquire knowledge from internal and external sources through training, benchmarking, cooperation, and operational experience. This process is then strengthened through knowledge development, namely the creation of new knowledge through innovation, reflection on experience, and learning from the success and failure of the organization. Nonaka and Takeuchi (2020) emphasize that the interaction between tacit and explicit knowledge is key in creating new knowledge of strategic value.

Knowledge storage is a crucial dimension in maintaining the sustainability of the organization. Becerra-Fernandez et al. (2021) explain that knowledge storage in the form of documentation systems, databases, and digital repositories allows knowledge to be re-accessed and used across time and generations. Without a good storage system, organizational knowledge tends to be personal and easily lost. In addition to storage, knowledge sharing is a determining factor for the effectiveness of *Knowledge Management*. Rhem (2021) stated that the knowledge sharing process accelerates organizational learning and improves cross-unit coordination. Knowledge sharing allows best *practices* and important lessons to be widely utilized, reducing repeat mistakes and improving performance. The dimension of knowledge utilization is the core of the success of *Knowledge Management*. Probst et al. (2020) emphasized that knowledge only has value when it is used in work processes, decision-making, and performance improvement. Optimal use of knowledge encourages organizations to be adaptive and responsive to changes in the strategic environment. Knowledge evaluation is then carried out to assess the extent to which knowledge management has a real impact on organizational effectiveness and the achievement of strategic goals. In military organizations such as the IKN Sector Command (Kosek IKN), *Knowledge Management* has a strategic role in maintaining the continuity of defense capabilities. Knowledge management allows for the transfer of operational experience, the development of tactics and procedures, as well as the improvement of personnel readiness to deal with threat dynamics and military technological developments. Thus, *Knowledge Management* is an important instrument in strengthening operational effectiveness, decision-making quality, and strategic excellence of military organizations in a sustainable manner.

**Teori Organizational Performance:** Organizational performance is a central concept in modern management studies, especially in public and military organizations, because it is directly related to the institution's ability to realize its strategic goals. Organizational performance is understood as the results or achievements obtained by an organization in carrying out its main tasks and functions effectively and efficiently in order to achieve the vision, mission, and goals that have been set. Bastian (2021) explained that performance describes the level of achievement in the implementation of organizational tasks in order to realize the organization's strategic goals and direction. The concept of performance can basically be seen from two main perspectives, namely individual performance and organizational performance, where organizational performance is the accumulation and synergy of the performance of all individuals involved in it. Rue and Byars (1981) in Keban (1995) define performance as *the degree of accomplishment*, which is the level of achievement of results on predetermined goals. This definition emphasizes that the performance of an organization cannot be separated from the goals on which the organization itself is based. Therefore, organizational performance is the result of an organized collective work process through managerial and administrative mechanisms. In this presentation, performance is not only understood as the final output, but also as the result of a series of systematic resource management processes. Mahsun (2021) expands the understanding of organizational performance by emphasizing that organizational performance must be viewed comprehensively through outputs, *outcomes*, benefits, and *impacts* resulting from the use of resources and budgets. This approach shows that organizational performance is not only judged by what is generated directly, but also by the extent to which those results provide tangible benefits and sustainable impact for stakeholders. This view is in line with Venkatraman and Ramanujam (2022) who define organizational performance as the level of achievement of organizational goals, both from financial and non-financial aspects, through strategic and comprehensive performance measures. Robbins and Coulter (2016) added that organizational performance reflects managerial effectiveness and efficiency in utilizing organizational resources. This means that performance is not only related to the final results achieved, but also to how the managerial process is carried out optimally. Richard et al. (2009) emphasized that *organizational performance* includes the actual results of the organization which is measured by comparing real achievements against previously set goals and objectives. Meanwhile, Lebans and Euske (2020) view

organizational performance as the organization's ability to carry out its mission through the efficient and effective use of resources, which is reflected in financial and non-financial indicators. A strategic approach to organizational performance was further developed by Kaplan and Norton (2022) through the Balanced Scorecard, which views organizational performance as an institution's ability to create value through four main perspectives, namely finance, customers, internal processes, and learning and growth. This approach emphasizes that organizational performance is multidimensional and cannot be measured by just one single indicator. In the framework of an organizational system, performance is the result of the interaction between the inputs used, the processes executed, and the *outputs* and *outcomes* produced. In public and military organizations such as the Indonesian Air Force, organizational performance has distinctive characteristics. Performance is measured not only by technical or operational success, but also by its contribution to the achievement of the country's defense goals, the efficiency of budget use, the professionalism of human resources, and the level of public accountability. Therefore, the organizational performance of the Indonesian Air Force must be understood as the ability of institutions to manage all resources and systems in an integrated manner to maintain operational readiness and national air sovereignty. Organizational performance has a number of fundamental characteristics that distinguish it from individual performance. Mahsun (2019) emphasized that organizational performance is multidimensional, because it includes various aspects ranging from inputs, processes, outputs, to outcomes and impacts. In addition, organizational performance is strategic goal-oriented, where organizational success is measured based on the level of achievement of the vision and mission that has been set. Efficiency and effectiveness are other important characteristics, because good performance requires optimal use of resources to produce maximum results.

## RESEARCH METHODOLOGY

This study uses a *mixed methods* approach with the aim of gaining a comprehensive understanding of the relationship between *Personnel Education*, *Personnel Utilization*, and *Personnel Welfare* on *Personnel Performance* and *Knowledge Management* as a mediation variable. This approach was chosen because quantitative testing of the relationship between variables is not enough to explain the dynamics of the military organizational context, so it needs to be enriched with a qualitative exploration of the experiences and perceptions of TNI Air Force personnel. The mixed method design used is a *sequential explanatory design*, where research begins with the collection and analysis of quantitative data, then continues with the collection and analysis of qualitative data to explain and deepen statistical findings. This approach allows for the integration of numerical results with contextual insights, resulting in a more complete and valid understanding. Philosophically, the quantitative approach is based on the positivism paradigm, while the qualitative approach is used to explore social meanings and realities that cannot be fully explained through numbers. The research approach used is *deductive*, namely the development of hypotheses based on theories and previous empirical findings, which are then tested through field data. Quantitative analysis was carried out using *Structural Equation Modeling* (SEM) with a *Partial Least Square* (PLS) approach. The PLS method was chosen because it is able to analyze the simultaneous relationships between latent variables, accommodates models with mediating variables, and does not require normal data distribution and large sample sizes. In addition, PLS is more oriented towards the development of predictive models rather than mere theoretical confirmation, so it is in accordance with the purpose of this research. The object of the research is active personnel of the Indonesian Air Force who serve in the IKN Sector Command (Kosek IKN) and its ranks, both operational and support personnel. The research locations include the IKN Kosek Command Headquarters, Radar Unit 211 to Radar Unit 216, and Missile Unit 211. The focus of the research is directed at personnel with the criteria for the position of Captain/Group VII and above and have participated in formal and non-formal education and training, because this group is considered to have organizational experience and managerial understanding that is relevant to the research variables.

The research population is about 371 personnel, spread throughout the unit. Given the limitations of time and resources, the sample was determined using the Slovin formula with an error rate of 10 percent, so that a sample of 79 respondents was obtained. The sampling technique uses *proportional stratified* random sampling, with the distribution of samples adjusted proportionally to the number of personnel in each unit and strata of positions, to ensure fair and accurate population representation. The data in this study consists of primary data and secondary data. Primary data were obtained through questionnaire surveys, observations, and interviews. The questionnaire was used to collect quantitative data on respondents' perceptions of all research variables, using a five-point Likert scale. The instruments are compiled based on operational indicators relevant to the context of military organizations. Observations were carried out in a non-participatory manner to maintain objectivity, while structured and semi-structured interviews were conducted with selected informants to explore real experiences, views, and practices related to education, personnel utilization, welfare, knowledge management, and organizational performance. Secondary data was obtained through literature studies and documentation, which included textbooks, scientific journals, previous research reports, and relevant internal documents within Kosek IKN and its units. This data is used to strengthen theoretical foundations, support empirical analysis, and triangulate research findings. Quantitative data analysis was carried out by testing the measurement model (*outer model*) and structural model (*inner model*) using SEM-PLS. Meanwhile, qualitative data is analyzed through the process of data reduction, data presentation, and thematic conclusions, focusing on explaining quantitative results and strengthening research interpretation. The integration of quantitative and qualitative results is carried out at the discussion stage to ensure the validity and depth of the findings.

## RESULTS AND DISCUSSION

**Hypothesis 1** : The first hypothesis tests the influence of *Personnel Education* on *Organizational Performance* in Kosek IKN and its staff. With the sound of Ho and Ha as follows:

Ho: No Influence of *Personnel Education* on *Organizational Performance*

Ha: There is an Influence of *Personnel Education* on *Organizational Performance*

Based on the results of hypothesis testing in this study, it was shown that the Influence of Personnel Education on Organizational Performance resulted in T-statistics: 2.274 ( $> 1.96$ ), P-value: 0.023 ( $< 0.05$ ). The results of the test showed that the path coefficient was positive and the p value was  $<$  level of significance ( $\alpha = 5\%$ ). Thus, the hypothesis that personnel education has a significant effect on organizational performance is accepted. Statistically, these findings indicate that improving the quality of personnel education will directly improve organizational performance. Good personnel education not only includes formal education levels, but also includes official education, continuous training, competency development courses, and knowledge updates according to the demands of tasks and the development of the organization's strategic environment.

**Hypothesis 2** : The second hypothesis tests the influence of *Personnel Utilization* on *Organizational Performance* with the following Ho and Ha readings:

Ho: No Effect of *Personnel Utilization* on *Organizational Performance*

Ha: There is an Influence of *Personnel Utilization* on *Organizational Performance*

Based on the results of the hypothesis test in this study, it is shown that the Influence of Personnel Utilization on Organizational Performance produces a path coefficient of 0.042, T-statistic: 0.398 with a p value of 0.691. Statistically, the hypothesis that Personnel Utilization has a positive effect on Organizational Performance is rejected. A P-Value of 0.691 indicates that the chance of error if we accept this hypothesis reaches 69.1%. Although theoretically maximum utilization of human resources should improve performance, there are several reasons why this is not proven Personnel utilization often only measures how "busy" personnel are (quantity of working time), but does not guarantee that the busyness results in quality or strategic output for the organization, Too high utilization of personnel without the support of good workload management can trigger burnout. Personnel who are encouraged to work optimally continuously are at risk of reducing the organization's long-term productivity, If personnel are fully utilized but in areas that are not in accordance with their expertise (mismatch), then their contribution to organizational performance will still not be optimal.

**Hypothesis 3** : The third hypothesis tests the influence of *Personnel Welfare* on *Organizational Performance* with the following readings by Ho and Ha:

Ho: No Influence of *Personnel Welfare* on *Organizational Performance*

Ha: There is an Influence of *Personnel Welfare* on *Organizational Performance*

Based on the results of hypothesis testing in this study, it is shown that the Influence of Personnel Welfare on Organizational Performance produces a path coefficient of 0.079, T-statistic: 6.225 with a p value of 0.000. The results of the test show that the welfare of personnel also has a significant positive direct effect on organizational performance. Personnel who feel that their well-being is cared for will show loyalty, productivity, and high work motivation, thereby improving organizational performance. These findings reinforce the literature that well-being factors not only increase individual job satisfaction, but also drive overall organizational effectiveness.

**Hypothesis 4 :** The fourth hypothesis tests the influence of *Knowledge Management* on *Organizational Performance* with the following Ho and Ha sounds:

Ho: No Effect of *Knowledge Management* on *Organizational Performance*

Ha: There is an Influence of *Knowledge Management* on *Organizational Performance*

Based on the results of the hypothesis test in this study, it is shown that the Influence of Knowledge Management on Organizational Performance produces a path coefficient of 0.482, T-statistic: 4.522 with a p value of 0.000. The results of the test show that Knowledge Management has proven to have a significant positive effect on Organizational Performance. In other words, the practice of collecting, storing, distributing, and utilizing knowledge can increase the effectiveness and efficiency of organizations. Organizations that have a culture of knowledge sharing tend to be more innovative, adaptive, and competitive.

**Hypothesis 5:** The Fifth Hypothesis tests the influence of *Personnel Education* on *Knowledge Management* with the following readings of Ho and Ha:

Ho: No Influence of *Personnel Education* on *Knowledge Management*

Ha: There is an Influence of *Personnel Education* on *Knowledge Management*

Based on the results of hypothesis testing in this study, it is shown that the Influence of Personnel Education on Knowledge Management produces a path coefficient of -0.052 T-statistic: 0.240 with a p value of 0.811. The results of the test showed that Personnel Education did not have a significant effect on Knowledge Management. This can be caused by a mismatch between the education/courses received by personnel and the needs of the organization in knowledge management. In other words, even if personnel have higher education, without proper integration into the organizational system, it does not automatically support Knowledge Management.

**Hypothesis 6:** The Sixth Hypothesis tests the influence of *Personnel Utilization* on *Knowledge Management* with the following readings of Ho and Ha:

Ho: No Influence of *Personnel Utilization* on *Knowledge Management*

Ha: There is an Influence of *Personnel Utilization* on *Knowledge Management*

Based on the results of the hypothesis test in this study, it is shown that the Influence of Personnel Utilization on Knowledge Management produces a path coefficient of 0.193 T-statistic: 0.898 with a p value of 0.370. It has no significant effect. This means that the use of personnel through rotation, assignment, or distribution of work does not directly improve Knowledge Management. This may be because Knowledge Management is more influenced by organizational culture, leadership, and technology system factors, rather than just the placement or utilization of the workforce.

#### **Hypothesis 7**

The Seventh Hypothesis tests the influence of *Personnel Welfare* on *Knowledge Management* with the following readings of Ho and Ha:

Ho: No Influence of *Personnel Welfare* on *Knowledge Management*

Ha: There is an Influence of *Personnel Welfare* on *Knowledge Management*

Based on the results of the hypothesis test in this study, it is shown that the Influence of Personnel Welfare on Knowledge Management produces a path coefficient of 0.751 T-statistic: 5.120 with a p value of 0.000. Welfare on Personnel has a significant positive influence on Knowledge Management. This means that the better the welfare of personnel (compensation, social security, work environment, awards), the greater their contribution to the successful implementation of knowledge management. This is consistent with the Social Exchange theory which states that individuals who feel treated fairly are more willing to share knowledge and contribute to the organization.

**Hypothesis 8 :** The Eighth Hypothesis tests the influence of *Personnel Education* on *Organizational Performance* mediated by *Knowledge Management* with the following Ho and Ha readings:

Ho: No Effect of *Personnel Education* on *Organizational Performance* Mediated by *Knowledge Management*

Ha: There is an Influence of *Personnel Education* on *Organizational Performance* Mediated by *Knowledge Management*

Based on the results of the hypothesis test in this study, it is shown that the Influence of Personnel Education on Organizational Performance mediated by Knowledge Management produces a path coefficient of 0.025 T-Statistics:  $0.227 < 1.96$  with a P-Value:  $0.821 (> 0.05)$  → not significant. In this study, the indirect effect between the level of personnel education on organizational performance through knowledge management was declared insignificant. This means that theoretically, higher education should improve the ability to manage knowledge which then has an impact on performance. However, in the context of this study, this is not the case due to several possible factors: Non-Linear Education with Knowledge Application: The level of higher education of (formal) personnel may not automatically translate into effective Knowledge Management practices in the company. The knowledge gained in school/college may be too theoretical and not applicable to the operational needs of the organization, Organizational Culture Barriers: Even if personnel have a good education, if the organizational culture does not support knowledge sharing, then the mediation process will be cut off. Highly educated personnel may tend to keep knowledge to themselves (knowledge hoarding) rather than managing it for the benefit of the organization.

**Hypothesis 9 :** The Ninth Hypothesis tests the influence of *Personnel Utilization* on *Organizational Performance* mediated by *Knowledge Management* with the following Ho and Ha readings:

Ho: No Effect of *Personnel Utilization* on *Organizational Performance* Mediated by *Knowledge Management*

Ha: There is an Effect of *Personnel Utilization* on *Organizational Performance* mediated by *Knowledge Management*

Based on the results of hypothesis testing in this study, it is shown that the Effect of Personnel Utilization on Organizational Performance in Kosek IKN and its staff mediated by Knowledge Management produces a path coefficient of 0.093 T-Statistics:  $0.844 < 1.96$  with a p value of 0.399 ( $> 0.05$ ) → insignificant. Based on the results of data analysis, it was found that Knowledge Management was not able to mediate the relationship between Personnel Utilization and Organizational Performance within Kosek IKN. The hypothesis that states the influence of mediation is rejected. In the context of military or official organizations such as Kosek IKN, the following factors can explain why the use of knowledge management-mediated personnel does not have a significant impact on performance. Routine (Operational) Utilization: Personnel utilization at Kosek IKN is likely to be more focused on the implementation of the main tasks and functions (tupoksi) that are routine, tactical, and technical. This often does not require complex Knowledge Management processes (such as knowledge transfer or idea innovation) to achieve organizational performance, In organizations with strict command, the flow of knowledge is sometimes one-way (top-down). This can hinder the effectiveness of knowledge management as a bridge. Even though personnel are utilized to the maximum, if the knowledge sharing system is hampered by bureaucracy, then there will be no added value converted into organizational performance. This finding confirms that in Kosek IKN, the Knowledge Management variable is not a factor Crucial mediator between the use of personnel and organizational performance. Personnel optimization still contributes, but does not depend on the current knowledge management process

**Hypothesis 10 :** The Tenth Hypothesis tests the influence of *Personnel Welfare* on *Organizational Performance* mediated by *Knowledge Management* with the following words Ho and Ha:

Ho: No Influence of *Personnel Welfare* on *Organizational Performance* Mediated by *Knowledge Management*

Ha: There is an Influence of *Personnel Welfare* on *Organizational Performance* mediated by *Knowledge Management*

Based on the results of hypothesis testing in this study, it is shown that the influence of Personnel Welfare on Organizational Performance mediated by Knowledge Management produces a path coefficient of 0.362 T-Statistics:  $3.656 > 1.96$  with a p value of  $0.000 (< 0.05)$  → significant. The results of the test show that the welfare of personnel has a significant effect on organizational performance through Knowledge Management. This means that the higher the welfare felt by personnel (salary, benefits, facilities, work environment), the better their involvement in Knowledge Management, which ultimately improves organizational performance. In other words, well-being is a driving factor that makes personnel more motivated to share knowledge, innovate, and support the achievement of organizational goals.

#### CONCLUSION

Based on the results of quantitative analysis through SEM-PLS testing which was strengthened by qualitative findings from in-depth interviews, this study concluded that organizational performance within Kosek IKN and its staff is significantly influenced by the quality of personnel education, the level of welfare, and the effectiveness of knowledge management, with relationship dynamics that are not always linear. Personnel Education has been proven to have a positive and significant effect on Organizational Performance, which shows that military education and formal training play an important role in shaping the analytical capacity, technical competence, discipline, loyalty, and strategic mindset of personnel, thereby increasing the adaptability of organizations to technological changes and operational complexities. Personnel Welfare also has a significant positive effect on Organizational Performance, emphasizing that the fulfillment of physical, financial, and psychological well-being is the foundation of motivation, loyalty, operational readiness, and focus on personnel work. Knowledge Management has been shown to have a significant positive effect on Organizational Performance and at the same time acts as an effective mediator between Personnel Welfare and organizational performance, which shows that adequate well-being creates a climate of trust and openness that encourages knowledge sharing, collective learning, and internal innovation. On the other hand, Personnel Utilization does not show a significant influence on Organizational Performance or Knowledge Management, which indicates that the high intensity of personnel use does not necessarily produce strategic added value if it is not accompanied by the suitability of competencies, empowerment, and systematic knowledge transfer mechanisms, so that it has the potential to cause busy work without a real contribution to organizational performance. Personnel Education also does not have a significant effect on Knowledge Management, and fails to be mediated by Knowledge Management in relation to Organizational Performance, which shows that there is a gap between improving individual competencies as educational outcomes and organizational knowledge management, where educational outcomes tend to stop at the individual level and have not been integrated into the knowledge sharing, documentation, and collective knowledge utilization system. Similarly, Knowledge Management is unable to mediate the relationship between Personnel Utilization and Organizational Performance, which confirms that the use of personnel of a structural and administrative nature, such as rotation and assignment, has not been directed to strengthen knowledge management. Overall, the findings of this study show that the performance of the Indonesian Air Force organization, especially in Kosek IKN and its staff, is the result of the synergy between quality education, adequate welfare, and effective knowledge management, while the optimization of the use of new personnel will have a significant impact if integrated with a Knowledge Management system that is able to transform individual competencies into collective advantages of the organization.

#### RESEARCH IMPLICATIONS

1. Implicasi's theorem
  - a. Strengthening Military Human Resources and Knowledge Management Theory  
The results of the study show that personnel welfare and Knowledge Management have a significant influence on Organizational Performance, thus strengthening the concept that welfare theory and knowledge management are relevant to be applied in the context of military organizations. These findings add to the evidence that psychological factors and organizational support strongly determine performance effectiveness in hierarchical command structures.
  - b. Contributions to Theory of Education and the Use of Personnel.  
The insignificance of the relationship between Personnel Education and Personnel Utilization to Knowledge Management and Organizational Performance (via KM) shows that the theory of competency improvement is not always directly proportional to the ability of institutions to manage knowledge. It enriches the literature by showing that contextual mismatch and the absence of knowledge-sharing systems can inhibit knowledge transfer even as individual competence increases.
  - c. The Complexity of Knowledge Management Mediation in Military Organizations  
The finding that KM only mediates the influence of personnel welfare on organizational performance, but does not mediate the influence of education and personnel use, provides new evidence that the emotional factors of well-being, comfort, security, and satisfaction encourage a culture of knowledge sharing more than technical competence alone.
2. Practical Implications for the Indonesian Air Force
  - a. The Importance of Knowledge Management System Integration.  
Organizational performance can be improved by strengthening knowledge documentation, competency databases, knowledge transfer forums, after action reviews, and digital reporting systems. Without this system, the results of education and assignments only stop at the individual.
  - b. Welfare as a Driving Motor for Performance and KM  
Because welfare has proven to be the most powerful variable, the Indonesian Air Force needs to ensure equitable distribution of basic facilities, family support, quality housing, health services, and a fair reward system to maximize the spirit of knowledge sharing and productivity.
  - c. Reformulation of Military and Technical Education.  
Educational materials need to be tailored to the needs of KM, such as learning about operational documentation, digital literacy, innovation frameworks, mentoring, and the formation of a learning culture.
  - d. The Use of Personnel is Not Only Structure-Based but KM Assignments and rotations must be equipped with formal knowledge transfer mechanisms, such as handover notes, knowledge repository, and briefing-debriefing sessions, so that knowledge is not lost when there is a mutation or change of post.

#### ADVICE

Based on the above conclusions, the researcher provides some practical and academic suggestions as follows:

1. For Organizations (TNI AU and related units)
  - a) It is necessary to strengthen the competency-based assignment policy by conducting a more comprehensive mapping of personnel skills.
  - b) Improve access to education and continuous training, both technical and non-technical, to broaden the horizons and enhance the professionalism of personnel.
  - c) Optimizing welfare facilities evenly throughout the unit so that there is no gap between personnel.

- d) Building an integrated knowledge management system through information technology so that knowledge can be documented and accessed across generations.
2. For the next researcher.
  - a) It is recommended to conduct research with quantitative and mixed-method approaches in order to obtain a more objective picture through statistical data.
  - b) Increase the number of informants with a wider scope from various levels of position to gain more diverse perspectives.
  - c) Examine other variables such as leadership style, organizational culture, and intrinsic motivation that also have the potential to affect personnel performance.
3. For Academics.
  - a) This research can be a reference in the development of human resource management theory in the military sector, especially in the context of knowledge management integration.
  - b) The results of this study also open up further study space regarding the relationship between personnel welfare and organizational loyalty in the public sector.

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