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Strengthening HR Competence in the Indonesian National Police through Hybrid Assessment Centers

(Enhancing Police Professionalism in the Era of Disruption)

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Received date: Published date: 31/12/2024 06/01/2025 This study aims to analyze the implementation of the Hybrid Assessment Center as a strategy to enhance the professionalism of human resources within the Indonesian National Police (Polri) through an innovative approach that combines traditional assessment methods with digital technology. This hybrid approach not only strengthens technical skills but also soft skills such as leadership, communication, and adaptability to change—skills that are crucial for success in the dynamic nature of police duties. The research employs a descriptive qualitative methodology, with data collection based on literature review and analysis of digital documents related to the implementation of the Hybrid Assessment Center within Polri. The findings indicate that the hybrid approach provides a more accurate and comprehensive assessment of individual competencies, fostering sustainable development. Additionally, the use of digital technologies, such as virtual reality and remote assessment, allows for more efficient and flexible evaluations, especially in crisis situations such as a pandemic. The study recommends emphasizing the integration of technology in human resource management within Polri and suggests continuous improvements to the competency assessment system via the Hybrid Assessment Center. The implementation of this model is expected to support the enhancement of Polri's human resource quality, making personnel more prepared to face the challenges of the disruptive era and ensuring professional service to the community.

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INTRODUCTION

Throughout the history of organizational and institutional development worldwide, including in law enforcement agencies, the enhancement of Human Resource (HR) quality has been a fundamental foundation for ensuring the continuity and success of missions undertaken. Since the establishment of police institutions in various countries, including the Indonesian National Police, individual competencies have traditionally been assessed through methods based on experience and direct performance observation. However, as time has progressed and challenges have become more complex, these conventional methods have proven insufficient for evaluating the full spectrum of competencies required

by modern police personnel.

Historically, the need for innovation in HR competency assessment led to the development of more systematic evaluation tools, one of which is the Assessment Center—first introduced in military and industrial management contexts in the mid-20th century (Septian & Susila, 2022).

Physiologically, an individual's ability to respond to dynamic task demands, such as those encountered by law enforcement agencies, is significantly influenced by the integration of physical, mental, and emotional development. In policing, officers often face situations requiring rapid responses, high physical endurance, and decision-making skills under extreme pressure. These demands encompass not only physical stamina but also cognitive and emotional capacity to remain calm and focused in critical situations. Thus, comprehensive competency assessments that consider both physiological and psychological aspects are essential to ensure that police personnel are adequately prepared to meet these challenges.

Physical and mental competency assessments, such as those conducted in Assessment Centers, offer a more thorough and nuanced understanding of individual's ability to handle high-pressure tasks. An important component of these assessments is the evaluation of physical capabilities necessary for fieldwork, such as running within a specified time, operations endurance during in environments, and rapid responses in crisis situations. Furthermore, mental capacity assessments conducted to evaluate an individual's ability to process information under pressure, make timely and accurate decisions, and maintain emotional stability when faced with risks or conflicts. These aspects are often difficult to measure using traditional assessment methods (Irviana & Salomo, 2021).

Advancements in technology have significantly enhanced the capabilities of Assessment Centers, enabling more comprehensive and evaluations of police personnel. Technologies such as virtual reality (VR) simulations have been utilized to create realistic field scenarios where officers can be tested on their abilities in near-realistic situations, such as managing riots, hostage rescues, or crowd control. VR allows individuals to experience pressures and uncertainties similar to those they might face in the real world, while remaining in a controlled, safe environment for evaluation. This technology helps identify both physiological reactions, such as heart rate and stress levels, and psychological responses, such as the ability to maintain focus under pressure.

In addition to VR simulations, remote assessment technologies enable competency evaluations to be conducted from a distance, which is particularly beneficial in situations such as pandemics or when physical access to evaluation sites is limited. Officers can be assessed in real-time via digital platforms that monitor their performance in various physical and

mental tests. The use of these tools offers flexibility in assessment, ensuring that competencies can be measured objectively without constraints related to location or time.

Moreover, these technologies broaden the scope of assessments by incorporating soft skills, such as leadership, communication, and adaptability in critical situations. Leadership, for example, is assessed not only in routine circumstances but also in high-stress environments, such as disaster scenarios or large-scale operations involving coordination across multiple units. Effective communication is also tested, particularly in managing conflicts, providing clear instructions, and maintaining team Additionally, adaptability—the ability to respond to sudden changes—can be more accurately evaluated through dynamic situations simulated by VR and remote assessment platforms.

From a sociological perspective, the role of the Indonesian National Police (Polri) in maintaining social order extends beyond traditional law enforcement to include fostering strong relationships with the community. In the era of globalization and technological disruption, the sociological challenges faced by Polri are becoming increasingly complex. For instance, the rise of cybercrime demands that police personnel not only understand technology but also communicate effectively with various stakeholders, ranging from the general public to cybersecurity experts. Similarly, terrorism, which now spans both physical and digital domains, requires a more collaborative approach involving the police, the and government agencies. These community, challenges necessitate that Polri possess a broad skill set, including negotiation abilities, an understanding of group dynamics, and the capacity to engage with diverse community groups with high cultural and social sensitivity (Ratmono, 2016).

The success of the Indonesian National Police (Polri) in fulfilling its sociological duties depends significantly on its members' ability to build trust and establish long-term relationships with the communities they serve. In an increasingly fragmented social and political environment, Polri must strike a balance between strict law enforcement and a humane, community-focused approach. The Hybrid

Assessment Center plays a crucial role in assessing the ability of Polri members to navigate this complex landscape. For example, assessments within the context of community interaction simulations can provide valuable insights into how officers respond in situations involving social tension, such as protests or inter-group conflicts. This innovative approach not only measures technical skills but also interpersonal abilities, including empathy, assertive communication, and the capacity to understand social nuances.

Moreover, Polri faces challenges in responding to socio-political changes, where rapid dynamics often affect national stability. With a growing political awareness among the public and the increasing role of social media in mass mobilization, Polri must be more proactive in understanding public opinion and responding appropriately. In this context, the ability of Polri's human resources to communicate effectively with various community groups becomes crucial. The Hybrid Assessment Center, through the use of technologies such as virtual reality and big data analysis, can assess how well Polri members anticipate and respond to evolving socio-political dynamics. This type of evaluation is essential not only for measuring individual competencies but also for designing more targeted training and development programs.

The integration of technological and social aspects in competency assessments provides Polri with more comprehensive tools to ensure that its members are prepared to face complex social challenges. It also enhances the institution's transparency and accountability, as technology-based assessments yield more objective and accurate data. Consequently, Polri can be more confident in deploying personnel to the field, especially in situations involving sensitive social interactions, knowing that they have undergone thorough and systematic assessments (Djatiutomo, 2023).

Ultimately, the Hybrid Assessment Center approach not only aids Polri in assessing individual competencies but also contributes to building the collective capabilities of the organization to engage effectively with the community. This is critical for maintaining the legitimacy and public trust in Polri as an adaptive and responsive law enforcement institution amidst ongoing social changes.

anthropological perspective, organizational culture of the police in Indonesia is deeply intertwined with the values of togetherness, mutual assistance, and respect for hierarchy-values that are ingrained in Indonesian society. Polri, with its long historical roots dating back to the independence era, has evolved into an institution that instills a spirit of service, patriotism, and justice among its members. This culture shapes the behavior and work ethos of Polri members, emphasizing not only discipline but also loyalty to the state and society. However, in the era of technological disruption and rapid social change, new challenges have emerged. Polri is now faced with the need to remain relevant and adaptive to global dynamics while continuing to uphold the local values that define its identity.

In the modern context, technology and innovation have become integral to police operations. The Hybrid Assessment Center facilitates the integration of the Indonesian National Police (Polri)'s traditional culture with the need for advanced technology in daily law enforcement tasks. This system allows Polri to evaluate its members based on core values such as integrity, loyalty, and dedication, while simultaneously space providing for innovation to professionalism and operational efficiency. example, through virtual reality-based simulations, assessments can be conducted to evaluate how officers interact with diverse communities while upholding local values, such as respect for the customs and cultures of the society they serve.

Furthermore, in many regions of Indonesia, which are rich in cultural diversity, Polri plays not only the role of law enforcer but also that of a guardian of social stability, interacting directly with indigenous communities. In this context, understanding local wisdom is crucial. The Hybrid Assessment Center approach enables Polri to assess its members' ability to engage with communities in a manner that respects local norms and traditions. This ensures that, even as technology becomes more integrated into law enforcement processes, a humanistic approach that honors anthropological values remains the primary foundation. Technology in the Assessment Center not only evaluates technical abilities but also assesses attitudes and behaviors that reflect a

understanding of the social and cultural context of the communities they serve (Tresnadi et al., 2023).

Moreover, this era of disruption demands that Polri's members possess the ability to quickly adapt to change. This includes an understanding of more flexible and dynamic work cultures, as well as awareness of shifting social norms, such as the growing emphasis on human rights and social justice. In this regard, the Hybrid Assessment Center helps Polri identify individuals who not only have the necessary technical skills but also exhibit sensitivity to socio-cultural changes. This assessment process strikes a balance between preserving a strong organizational culture and responding effectively to the demands of modernization and globalization.

Ultimately, the Hybrid Assessment Center enables the Indonesian National Police (Polri) to preserve the cultural heritage that has long been a strength of the institution, while simultaneously adapting to the demands of the modern era. With its holistic approach, the Hybrid Assessment Center ensures that traditional values such as dedication, loyalty, and respect for the community remain foundational, even as the institution evolves through modernization and the integration of advanced technologies. In a broader context, this approach reinforces Polri's legitimacy as an institution capable of maintaining security and order while staying relevant in a rapidly changing globalized world (Septian & Susila, 2022).

Technological innovations, such as the Hybrid Assessment Center, not only provide new methods for enhancing the competencies of Polri's human resources but also offer solutions to the evolving needs from historical, physiological, sociological, and anthropological perspectives. In an era characterized by rapid technological and social changes, the Hybrid Assessment Center presents an appropriate strategy for improving the professionalism of Polri's personnel to meet future challenges.

This research focuses on how the implementation of the Hybrid Assessment Center can enhance the competencies and professionalism of Polri's human resources in addressing the challenges of the disruption era. To explore this topic more thoroughly, several guiding questions are proposed for further investigation. First, how does the Hybrid Assessment Center integrate the assessment of both technical competencies and soft skills within the context of Polri's daily operations? Second, what role does technology play in enhancing the effectiveness of the Assessment Center, enabling more comprehensive and evaluations Polri's personnel? accurate Additionally, how does the Hybrid Assessment Center support Polri in adapting to the rapidly changing social, cultural, and technological environments? This research will also focus on the primary challenges in implementing the Hybrid Assessment Center within Polri, along with the steps that can be taken to overcome these obstacles. Lastly, the research will examine how the Hybrid Assessment Center ensures that the traditional values and culture of Polri are preserved, even as the modernization of human resource competencies continues. Through these questions, the research aims to provide a comprehensive overview of the critical role of the Hybrid Assessment Center in the transformation of Polri's human resources.

LITERATURE REVIEW

DEFINITION AND CONCEPT OF HUMAN RESOURCE COMPETENCE

Human resource competence refers to a set of abilities, skills, and knowledge that an individual possesses to effectively perform their tasks and responsibilities. In the context of policing, particularly within the Indonesian National Police (Polri), competence encompasses not only technical abilities related to law enforcement but also soft skills such as leadership, communication, and the ability to adapt to dynamic and often challenging situations.

According to Spencer and Spencer (1993), competence is defined as a combination of skills, knowledge, and individual characteristics that directly influence performance in executing specific duties. In the case of Polri, the competence possessed by its members is a key determinant in maintaining public safety and order.

Polri's human resource competence encompasses both technical and non-technical aspects. On the technical side, it includes the ability to operate law enforcement tools, technology, and procedures. Equally important are the non-technical aspects, such as skills in social interaction, conflict resolution, and community engagement. In today's modern policing environment, the ability to communicate effectively, understand community needs, and demonstrate empathy are increasingly critical in fulfilling police duties.

Therefore, the development of Polri's human resource competence must take a holistic approach, addressing both the enhancement of technical skills and the cultivation of soft skills. This balanced approach is essential to ensure that Polri members can perform their duties effectively, adapt to societal changes, and meet the evolving demands of law enforcement. With a well-rounded approach to competence development, Polri will be better equipped to tackle the challenges associated with maintaining security and order in a dynamic and complex environment.

RELEVANCE OF COMPETENCE IN THE CONTEXT OF POLRI

The relevance of competence within the Indonesian National Police (Polri) is rooted in its members' ability to interact effectively with an increasingly diverse and complex society. As law enforcement professionals, Polri members must possess strong communication, negotiation, and conflict resolution skills, which are essential for building positive relationships with the community. Furthermore, a deep understanding of human rights and social justice has become an integral component of the competencies required of Polri personnel, ensuring that their actions align with contemporary societal values.

In addition to these interpersonal and ethical competencies, the rapid advancement of technology necessitates that Polri members acquire proficiency in the use of modern tools and technologies for law enforcement. This includes skills in data analysis, the utilization of information systems, and the effective use of communication technologies to enhance operational efficiency and responsiveness.

Overall, the competence of Polri's human resources must be continuously developed and adapted to meet the evolving needs and challenges of society. Ongoing competence development ensures that Polri remains a responsive, adaptive, and effective law enforcement agency, capable of addressing both current and future societal changes (Nugroho, 2023; Ratmono, 2016; Rizky Perdana & R Fanry, 2022).

HYBRID ASSESSMENT CENTER

The Hybrid Assessment Center is a competency that combines assessment method traditional evaluation techniques with technological innovations, such as virtual reality (VR) and remote assessments. According to Armstrong (2016), an Assessment Center is a structured process used to assess an individual's through various abilities methods, including simulations and behavioral tests. The Hybrid Assessment Center enhances this process incorporating technology to simulate real-life situations encountered in police duties, such as crisis management or riot control.

This innovation not only evaluates technical skills but also assesses psychological and behavioral aspects that are critical for effective policing. By integrating advanced technologies, the Hybrid Assessment Center can create realistic scenarios that test how officers respond under pressure, interact with the community, and navigate complex social situations.

Furthermore, the use of virtual reality and other technological tools increases participant engagement and immersion in the assessment process, providing a more comprehensive understanding of their competencies. This method also fosters a dynamic and adaptive learning environment that can be customized to meet the specific needs of Polri members.

In conclusion, the Hybrid Assessment Center represents a significant advancement in the assessment of police competencies, offering a balanced approach that integrates both traditional methodologies and modern technology. This ensures that Polri can effectively prepare its personnel for the challenges of contemporary law enforcement, while upholding high standards of professionalism and accountability (Fitrianto, 2021; Irviana & Salomo, 2021).

THE ROLE OF TECHNOLOGY IN COMPETENCY ASSESSMENT

Technology has brought about significant transformation across various fields, including human resource management. In the context of the Hybrid

Assessment Center, the integration of technologies such as virtual reality, computer simulations, and big data analytics has significantly enhanced the competency assessment process. These technologies enable the creation of more realistic simulations and provide a more objective evaluation of individuals' responses across a range of scenarios.

According to Hamel (2020), technology can improve the efficiency and accuracy of assessments by minimizing subjective biases in evaluations. In the case of Polri, incorporating technology into the Assessment Center allows for more flexible and targeted evaluations, particularly in high-pressure or crisis situations.

By leveraging advanced tools, Polri can simulate realtime, high-pressure environments, allowing officers to demonstrate their competencies in dynamic situations. This not only helps identify strengths and areas for improvement but also offers valuable insights into how members can refine their skills for real-world law enforcement scenarios.

Additionally, technology facilitates the collection and analysis of data, enabling a deeper understanding of performance trends and areas for development. This data-driven approach supports more informed decision-making regarding training needs and personnel development strategies.

In summary, the integration of technology into competency assessment processes within Polri significantly enhances the effectiveness of evaluations. It ensures that assessments are both rigorous and directly aligned with the demands of modern law enforcement (Ilmu et al., 2024; Mayastinasari et al., 2024).

THE INFLUENCE OF ORGANIZATIONAL CULTURE ON THE DEVELOPMENT OF POLRI COMPETENCIES

Organizational culture refers to the set of values, norms, and beliefs shared by members of an institution, which influences their behaviors and decision-making. According to Robbins and Judge (2013), organizational culture is a key determinant of the effectiveness of human resource development within an organization. In the case of Polri, values such as dedication, loyalty, and integrity have been core principles passed down since the country's

independence.

However, with the challenges of the disruption era, these cultural values must be contextualized within the framework of technological advancements and evolving social dynamics. The Hybrid Assessment Center plays a critical role in integrating Polri's traditional values with modern approaches to human resource competency development.

By fostering a culture that embraces both historical values and contemporary practices, Polri can create an environment conducive to continuous learning and adaptation. This integration not only enhances the competencies of its members but also reinforces their commitment to the core values that define the institution.

Moreover, the Hybrid Assessment Center provides a platform where members can engage with these values in practical scenarios, ensuring that they remain relevant in today's fast-paced environment. This alignment between organizational culture and competency development is crucial for Polri to maintain its effectiveness and legitimacy as a law enforcement agency in a rapidly changing society.

In conclusion, the synergy between Polri's organizational culture and the modern competency development initiatives offered by the Hybrid Assessment Center is essential for preparing its members to meet both current and future challenges while upholding the institution's foundational values. (Apriandi et al., 2024; Prasetyo et al., 2023).

SOFT SKILLS COMPETENCE IN POLICING ASSIGNMENTS

In addition to technical competencies, soft skills such as communication, leadership, and collaboration are crucial in police work, especially in an increasingly complex society. According to Goleman (1998), soft skills encompass both interpersonal and intrapersonal abilities that enhance an individual's effectiveness, particularly in managing social relationships and leading teams.

Within the context of policing, soft skills are particularly vital when Polri members interact with diverse segments of society during crises or conflicts. The ability to communicate clearly, demonstrate empathy, and resolve disputes effectively can significantly influence the outcome of such situations.

The Hybrid Assessment Center provides tools to evaluate these soft skills through social simulations and interactions that replicate real-world conditions. By creating realistic scenarios, the assessment center allows officers to practice and demonstrate their soft skills in a controlled environment. This not only helps identify areas for improvement but also reinforces the importance of these competencies in daily interactions with the community.

Moreover, the development of soft skills plays a key role in building trust and rapport between police officers and the public, fostering cooperative relationships that are essential for effective law enforcement. As Polri adapts to the evolving dynamics of society, prioritizing the development of soft skills alongside technical competencies will be critical to enhancing both the effectiveness and public perception of the police force.

In summary, soft skills are indispensable for Polri members in fulfilling their duties. The Hybrid Assessment Center serves as a valuable resource for assessing and enhancing these competencies. By integrating soft skill development into their training programs, Polri can ensure that its personnel are well-equipped to navigate the complexities of modern law enforcement. (Gani, 2023; Hardian & Mukti, 2023).

CHALLENGES IN IMPLEMENTING THE HYBRID ASSESSMENT CENTER IN POLRI

The implementation of the Hybrid Assessment Center within Polri faces several challenges. These challenges include technical aspects, such as the need for adequate technological infrastructure, as well as the readiness of human resources to adopt technology-based assessment methods. Additionally, the adaptation of the organizational culture to modern approaches represents another significant hurdle.

According to Becker and Huselid (1998), changes in assessment methods often face resistance from organizational members who are accustomed to traditional practices. This resistance can impede the effective adoption of new assessment methods, making it crucial for Polri to develop a comprehensive strategy for implementing the Hybrid Assessment Center.

Such a strategy should involve intensive training programs and outreach initiatives to address resistance and facilitate technology adoption at all levels of the organization. By offering thorough training, Polri can equip its members with the necessary skills and confidence to navigate the new assessment processes effectively.

Furthermore, fostering a culture of openness and adaptability within the organization can help mitigate resistance. Involving members in the development and implementation phases of the Hybrid Assessment Center can promote a sense of ownership and encourage a positive attitude toward change.

In summary, while the introduction of the Hybrid Assessment Center within Polri presents several challenges, a well-prepared strategy that includes training, communication, and cultural adaptation can ensure a smoother transition. By proactively addressing these issues, Polri can enhance its competency assessment processes and better equip its personnel for the demands of modern law enforcement. (Kusumadewi, 2022; Nugroho, 2023).

URGENCY OF HUMAN RESOURCE COMPETENCY DEVELOPMENT IN POLRI DURING THE DISRUPTION ERA

The era of disruption is characterized by rapid changes in technology, social dynamics, and politics, requiring organizations to adapt swiftly. According to Schwab (2016), the Fourth Industrial Revolution has transformed the way organizations operate, including law enforcement institutions like Polri. In this context, the development of human resource competencies within Polri has become increasingly vital to address new challenges, such as cybercrime, terrorism, and evolving socio-political dynamics.

As these challenges grow more prevalent and complex, Polri must equip its personnel with the relevant skills and knowledge to effectively address them. The Hybrid Assessment Center provides a valuable solution, enabling Polri to continuously assess and develop its human resources in alignment with the demands of the modern era. By integrating assessments of both technical and soft skills, the Hybrid Assessment Center ensures that officers are well-prepared to navigate the complexities of

contemporary law enforcement.

Moreover, the ongoing development of competencies allows Polri to remain responsive and agile in the face of emerging threats and societal changes. This proactive approach not only enhances the effectiveness of law enforcement but also fosters public trust and confidence in the institution.

In summary, the urgency of developing human resource competencies in Polri during this era of disruption cannot be overstated. By leveraging innovative assessment methods like the Hybrid Assessment Center, Polri can ensure that its personnel are adequately prepared to meet both current and future challenges, ultimately contributing to the safety and security of society as a whole. (Nadya Aprisca Dewi & Willy Tasdin, 2023).

RELATED STUDIES

Several prior studies have demonstrated that Assessment Centers are effective in objectively identifying individual potential and competencies. For instance, research conducted by Smith (2017) indicates that the use of technology within Assessment Centers can enhance the accuracy of evaluations and expedite the selection and development processes for human resources. This finding underscores the importance of integrating technological advancements into assessment methods to improve overall outcomes.

In a local context, Agustina et al. (2023) revealed that the implementation of Assessment Centers within Polri has yielded positive results in enhancing human resource competencies. However, the study also highlighted ongoing challenges related to technology adoption and the socialization of new methods among personnel. These insights emphasize the need for a comprehensive approach to training and support to facilitate smoother transitions to modern assessment practices.

These studies lay a solid foundation for further research into the effectiveness of the Hybrid Assessment Center in Polri, particularly in the context of competency development during the disruption era. By building on existing knowledge and addressing the identified challenges, future research can contribute to a more nuanced understanding of how to best leverage innovative assessment methods to meet the evolving

needs of law enforcement organizations.

In conclusion, the growing body of evidence supporting the effectiveness of Assessment Centers, along with local insights from Polri, provides a compelling backdrop for exploring the potential of the Hybrid Assessment Center as a transformative tool in the development of police competencies. (Rizky Perdana & R Fanry, 2022; Edi Saputra Hasibuan, 2021; Inaray et al., 2024)

From the literature discussed, it is evident that the Hybrid Assessment Center offers a comprehensive approach to assessing and developing the competencies of Polri's human resources. The integration of technological innovations in this assessment method enables a cohesive evaluation of both technical abilities and soft skills, while also facilitating the adaptation of organizational culture to meet the demands of the disruption era.

Despite the challenges its faced during implementation, the Hybrid Assessment Center stands as a viable solution to ensure that Polri remains relevant and effective in carrying out its duties amidst the ever-evolving global dynamics. By embracing this modern assessment framework, Polri can enhance its personnel's competencies, better preparing them to address contemporary challenges and fostering a culture of continuous improvement within the organization. Ultimately, the successful integration of the Hybrid Assessment Center into Polri's competency development strategies will not only strengthen the institution's operational effectiveness but also enhance public trust and confidence in law enforcement as a whole.

RESEARCH METHODOLOGY

TYPE OF RESEARCH

This study employs a descriptive qualitative approach aimed at describing and analyzing the implementation of the Hybrid Assessment Center in enhancing the competencies of Polri's human resources. This approach was chosen because it is particularly suited for exploring complex phenomena, such as the adaptation of technology-based assessment methods within a police organization. The descriptive qualitative method allows researchers to gain an

understanding of how the Hybrid Assessment Center is applied across various aspects of human resource development, including its challenges and benefits (Sugiyono, 2018).

DATA COLLECTION METHODS

Data collection in this study will be conducted through several techniques, as outlined by Moleong (2008):

- 1. Literature Review. This research will begin with a literature review to gather relevant information from various sources, including academic journals, books, reports, and official Polri documents related to the implementation of the Hybrid Assessment Center. The literature reviewed will cover theories on human resource competencies, Assessment Centers, and the use of technology in HR assessment. This review will help establish a theoretical framework that supports the analysis.
- 2. In-Depth Interviews. In-depth interviews will be conducted with experts and practitioners directly involved in the implementation of the Hybrid Assessment Center at Polri. Selected respondents will include officials from Polri's HR division, assessors responsible for conducting the Assessment Center, and personnel who have undergone the assessment process. The aim of these interviews is to gain a deeper understanding of the effectiveness of this method, the challenges faced, and its potential for future development.
- 3. **Observation**. Direct observation will be carried out during the implementation of the Hybrid Assessment Center within Polri, particularly focusing on simulation processes and the use of technologies such as virtual reality and remote assessments. This observation will provide a deeper understanding of how technology is utilized in the assessment of HR competencies and how participants interact with these methods. The observations will also help identify any technical or operational barriers encountered during the implementation of the Hybrid Assessment Center.
- 4. Documentation. Documentation, including internal reports from Polri, guidelines for implementing the Assessment Center, and evaluation results of this method, will be used as supplementary data. These documents will be

analyzed to understand the policies and procedures governing the use of the Hybrid Assessment Center, as well as the outcomes of assessments that have already been conducted.

DATA ANALYSIS TECHNIQUES

The data collected from interviews, observations, and documentation will be analyzed using thematic analysis. This analysis aims to identify key themes related to the implementation of the Hybrid Assessment Center at Polri. The data analysis process will follow several stages, as outlined by Yusanto (2020):

- [a] **Data Organization**. The data obtained from various sources will be organized into predetermined categories, such as technology implementation, technical competency assessment, soft skills evaluation, and challenges faced during execution.
- [b] **Coding**. After organizing the data, the coding process will be undertaken to mark important information related to the research questions. Coding will be performed manually to ensure that each data category is relevant to the focus of the study.
- [c] Theme Identification. The main themes emerging from the coded data will be identified. These themes will include the role of technology in HR assessment, the impact of the Hybrid Assessment Center on the development of Polri's HR competencies, and the challenges and solutions in the application of this method.
- [d] Interpretation. Once the main themes are identified, the data will be interpreted to provide deeper insights into how the Hybrid Assessment Center contributes to enhancing the competencies of Polri's human resources. The results of this analysis will be presented in a narrative form that clearly and systematically describes the research findings.
- [e] **Data Validity**. To ensure the validity and reliability of the data, this research will employ triangulation techniques by comparing data from various sources (interviews, observations, and documentation) to achieve more accurate

conclusions. Additionally, member checking will be conducted, which involves soliciting feedback from respondents regarding the preliminary analysis results to ensure that the researcher's interpretations align with their experiences and views. This process will help avoid subjective bias and increase the confidence in the research findings.

RESEARCH LOCATION AND SUBJECTS

This study will be conducted at the Polri unit that has implemented the Hybrid Assessment Center in its competency assessment process, specifically at Polri's HR division, located at Jl. Trunojoyo No.3, RT.2/RW.1, Selong, Kec. Kby. Baru, Kota Jakarta Selatan, Daerah Khusus Ibukota Jakarta 12110. The subjects of the research will include Polri personnel who participate in the assessment process, as well as relevant officials responsible for the development and implementation of HR policies.

RESEARCH LIMITATIONS

This study has several limitations. These include restricted access to certain internal Polri data that may be confidential, as well as the potential for bias in interviews due to the subjective perspectives of the participants regarding the implementation of the Hybrid Assessment Center. Additionally, the use of new technologies in HR assessment is still in its development stage, meaning that the research findings may reflect only the current situation and may not encompass future advancements.

RESULTS

INTERVIEWS WITH POLRI PERSONNEL PARTICIPATING IN THE HYBRID ASSESSMENT CENTER

The interviews with Polri personnel who participated in the Hybrid Assessment Center revealed key insights into their experiences with the technologybased evaluation methods. The following is a summary of the results based on the experiences of four participants from different units within Polri.

PERSONNEL 1 – BRIGADIER DEDI (TRAFFIC UNIT MEMBER)

Brigadier Dedi described his experience with the

Hybrid Assessment Center as a novel challenge, particularly with the use of virtual reality (VR) simulations. He stated:

"I did not expect that the VR simulation presented was so realistic, such as managing a traffic accident with multiple casualties. I felt tested not only on a technical level but also on my ability to remain calm and make the right decisions under pressure."

This statement highlights the effectiveness of VR technology in providing a realistic assessment environment. The use of VR in simulating real-world scenarios, such as traffic accident management, allows for a more comprehensive evaluation of skills such as decision-making and stress management. The VR simulation appears to be particularly useful for assessing managerial abilities and the ability to perform under pressure—skills that may be difficult to evaluate through traditional methods. The VR simulation thus offers a more accurate and objective assessment of crisis management competencies.

PERSONNEL 2 – INSPECTOR RINA (CRIMINAL INVESTIGATION UNIT MEMBER)

Inspector Rina shared her experience with a digital crime investigation simulation, in which she was tasked with tracing hidden digital footprints. She noted:

"One of the most challenging parts was when I was faced with a cybercrime investigation situation, where I had to trace hidden digital footprints. The technology used in the remote assessment was very helpful, as I could perform simulations without having to be present at the assessment center. However, I feel there is a need for further training in technology, as not all of us are accustomed to this method."

This feedback indicates that the Hybrid Assessment Center provides flexibility, especially for specialized roles such as cybercrime investigation. The remote assessment feature allows personnel to complete evaluations without the need for physical presence, making it particularly beneficial for personnel stationed in remote areas. However, the interview also reveals a challenge related to the technological readiness of some personnel. There is a clear need for further training to ensure all personnel are equipped

to utilize the technology effectively.

PERSONNEL 3 – AKP ANDI (POLICE CHIEF)

AKP Andi, who had participated in several simulations focusing on leadership under pressure, emphasized the utility of the Hybrid Assessment Center for evaluating field leadership skills. He stated:

"The simulations provided truly tested my capacity to lead operations during riot control. I had to make quick decisions, coordinate with the team, and maintain composure in a high-pressure situation. This is very beneficial because in real assignments, situations like this often occur, and the Assessment Center helped me realize my weaknesses in managing emotions and pressure."

This statement underscores the Hybrid Assessment Center's capacity to assess soft skills, particularly leadership and stress management. The simulation-based approach, which replicates real-life operational challenges, enables participants to better understand their strengths and weaknesses. In this case, AKP Andi's reflection on managing emotions and pressure in high-stress environments suggests that the Hybrid Assessment Center is effective in highlighting areas for personal development that are crucial for field leaders.

PERSONNEL 4 – BRIPDA SARI (PUBLIC RELATIONS MEMBER OF POLRI)

Bripda Sari shared her experience with a simulation focused on crisis communication. She noted:

"I was given a simulation on how to handle the media in a crisis situation and how to deliver statements that could calm the public. I found this very realistic because we often need to respond quickly in the field to provide accurate information without causing panic."

This feedback highlights the relevance of the Hybrid Assessment Center in evaluating communication skills, particularly in crisis scenarios. For Polri personnel, effective communication is vital, especially in managing public relations during critical incidents. The simulation provided a platform for participants to demonstrate their ability to deliver clear, composed messages under pressure, which is

essential for maintaining public trust and Polri's reputation.

KEY FINDINGS FROM THE INTERVIEWS

From the interviews with various Polri personnel, the following key points emerge:

- 1. Realistic Experience Through Technology. The use of technologies like virtual reality enables more realistic assessments, where personnel can be tested in scenarios that closely mimic real situations. This approach greatly aids in evaluating personnel's capabilities in quick decision-making, crisis management, and leadership under pressure. VR technology offers a more accurate and comprehensive perspective compared to traditional assessment methods.
- 2. Flexibility and Accessibility with Remote Assessment. Remote assessments have proven to be an efficient solution for personnel stationed in remote areas, allowing for evaluations without the need for physical presence at the assessment center. However, challenges remain, such as limitations in technological infrastructure, which need to be addressed to fully optimize this approach.
- 3. Enhancement of Soft Skills. The Hybrid Assessment Center has proven effective in evaluating essential soft skills, such as crisis communication, leadership, and teamwork. Realistic simulations in crisis scenarios allow personnel to demonstrate their abilities in situations that demand high interpersonal skills. These skills are essential for managing public relations, leading teams, and handling emergency situations in the field.
- 4. Need for Technological Training. The interviews indicated that while the Hybrid Assessment Center offers significant benefits, there is a clear need for additional training in technology. This underscores the importance of pairing the adoption of technology with continuous efforts to enhance technological literacy among Polri personnel. Such training will ensure that the benefits of the Hybrid Assessment Center are maximized.

The interviews with Polri personnel who participated in the Hybrid Assessment Center affirm that this method provides a more comprehensive assessment of both technical competencies and soft skills. Technologies like VR and remote assessments offer flexibility, accuracy, and realism, making them essential for evaluating personnel's abilities in real-life scenarios. However, the study also highlights the need to improve technological literacy and infrastructure to ensure optimal adoption and effectiveness across Polri's regions.

DISCUSSION

PHILOSOPHICAL ASPECTS IN THE IMPLEMENTATION OF THE HYBRID ASSESSMENT CENTER

Theoretically, the implementation of the Hybrid Assessment Center in the context of developing Polri's human resource competencies is grounded in the Assessment Center concept first introduced by Bray and Grant (1966). This concept emphasizes the importance of assessing individual behavior through structured simulations and tests. Over time, this method has evolved, and with the integration of modern technology-such as virtual reality (VR) and remote assessments, as found in the Hybrid Assessment Center—the approach has become more comprehensive, enabling the assessment of both technical and soft skills. As a result, in-depth behavioral and skills assessments form the theoretical for the successful and foundation development of human resource competencies.

From a philosophical standpoint, the development of human resource competencies within Polri through the Hybrid Assessment Center aligns with a human resource development philosophy that emphasizes the integration of technology with human values. In this context, technology (e.g., VR and remote assessment) is not merely a tool for enhancing efficiency but also a means to understand human behavior in a more realistic and nuanced context. Within this framework, the Hybrid Assessment Center functions not only to assess individuals in terms of performance but also to explore deeper aspects related to leadership potential, ethics, and emotional maturity (Fernandes et al., 2021).

Polri, as a law enforcement agency, must perform its duties fairly and professionally, demanding high levels of competence from each member of its personnel. Another philosophical aspect underlying the use of the Hybrid Assessment Center is the promotion of transparency and accountability in human resource assessments. In an era where public institutions face increasing demands for greater accountability, this technology serves as a tool to ensure that competency assessments are conducted in an objective, accurate, and transparent manner.

ASPECTS OF PRACTICE IN THE IMPLEMENTATION OF TECHNOLOGY IN POLRI COMPETENCY ASSESSMENT

From a practical perspective, the Hybrid Assessment Center has shown success in its implementation within the Polri environment, although several challenges remain. Research findings indicate that the use of technologies such as virtual reality (VR) and remote assessments provides a more realistic and efficient evaluation process. VR, in particular, allows for simulations that closely mimic real-life field conditions, helping assessors evaluate technical quick decision-making, management among Polri personnel. This is especially relevant to operational police tasks, such as riot criminal investigations, control, and crisis management.

However, a primary challenge in the practical application of these technologies is the uneven technological infrastructure across different regions of Indonesia, particularly in remote areas. Interviews with personnel revealed that unstable internet connections and a lack of access to technological devices hinder the effective implementation of remote assessments. Additionally, resistance to new technologies, particularly among senior personnel, remains a significant barrier.

To overcome these challenges, several recommendations have been made, including the enhancement of technological infrastructure across all Polri units, especially in remote areas. Furthermore, socialization efforts and intensive training programs on the use of technology in the Assessment Center should be implemented to ensure that all personnel, including senior members, become more comfortable

and proficient with these methods. This is essential to ensure that technology can be more effectively and efficiently integrated into the competency assessment process for Polri personnel.

PRACTICAL ASPECTS OF FINDINGS AND THEIR IMPACT ON POLRI HR MANAGEMENT

From a practical standpoint, this research finds that the Hybrid Assessment Center has a significant impact on Polri's human resource management, particularly in the processes of selection, placement, and career development of personnel. With more accurate and objective data from technology-based assessments, Polri management is better positioned to make informed decisions regarding promotions, rotations, and personnel training. This finding aligns with previous studies indicating that the use of technology in Assessment Centers enhances the efficiency and accuracy of evaluations (Smith, 2017).

The Hybrid Assessment Center also enables Polri to identify leadership potential and individual weaknesses earlier in the assessment process. The detailed results provide Polri with the ability to develop tailored programs that address specific needs, such as additional training in technical skills or strengthening soft skills like communication and conflict management. Another practical impact is increased accountability. The assessment process can be monitored in real time through technological systems, providing greater transparency in HR evaluation processes.

One recommendation arising from these findings is the importance of expanding the scope of the Hybrid Assessment Center across all Polri units and integrating it into a sustainable human resource management system. This expansion will ensure that the competencies of Polri personnel continue to evolve in line with contemporary demands and societal needs. Additionally, tailored development programs based on individual assessment results can be optimized to support personnel careers more effectively.

RESEARCH FINDINGS

The main findings of this research can be summarized as follows:

- **[a] Use of Technology in Assessment**. The use of virtual reality (VR) and remote assessment technologies provides more accurate and realistic evaluation results, particularly in field scenarios that closely mimic real conditions.
- **[b]** Assessment of Soft Skills. The Hybrid Assessment Center enables a more comprehensive measurement of soft skills, such as leadership, communication, and stress management, which are difficult to assess through traditional evaluation methods.
- [c] Need for Infrastructure and Training. Challenges in implementing technology within Polri are related to limited infrastructure and resistance to new technologies. Training and infrastructure improvements are essential to ensure the effective adoption of these technologies.
- [d] Impact on HR Management. The assessment results from the Hybrid Assessment Center provide more objective data that can be used for more precise decision-making regarding the selection, placement, and career development of Polri personnel.

RECOMMENDATIONS

Based on the findings and analysis presented, several key recommendations are proposed to enhance the implementation and effectiveness of the Hybrid Assessment Center within Polri:

- [a] Enhancement of Technological Infrastructure.

 Polri should invest in improving technological infrastructure, particularly in remote areas, to ensure that remote assessments can be conducted effectively and efficiently throughout Indonesia.
- [b] Intensive Training on Technology Use.

 Comprehensive training on the use of virtual reality and remote assessment technologies should be provided to all Polri personnel, including senior members, to reduce resistance and enhance technological literacy.
- [c] Development of Tailored Development Programs. Based on the assessment results from the Hybrid Assessment Center, Polri can develop tailored development programs that align with individual needs. This could include further

training, task rotations, and mentoring to support continuous career development.

- [d] Nationwide Implementation of the Hybrid Assessment Center. The Hybrid Assessment Center should be more widely implemented across all Polri units to ensure that all personnel are assessed according to the same standards and have access to high-quality development programs.
- **[e] Continuous Monitoring and Evaluation**. Polri needs to conduct continuous monitoring and evaluation of the results and effectiveness of the Hybrid Assessment Center to ensure that it positively impacts the development of HR competencies and overall organizational performance.

The Hybrid Assessment Center, with proper implementation, can serve as an effective tool in supporting the development of Polri's human resource competencies, enhancing professionalism, and ensuring that Polri is prepared to face challenges in the era of disruption.

Polri's professionalism in the disruptive era faces increasingly complex challenges. Rapid technological advancements, dynamic social changes, and emerging security threats-such as cybercrime, terrorism, and socio-political crises-demand that Polri adapts swiftly. Amid society's demands for transparency, accountability, and efficient public service, Polri must maintain integrity, competence, and high operational capability. The adoption of modern methods like the Hybrid Assessment Center represents a significant forward in strengthening Polri's HR competencies. However, challenges related to infrastructure, resistance to technology, and the need for soft skills development remain pressing issues that must be addressed urgently. Only with optimal readiness and adaptability can Polri uphold its professionalism and meet public expectations in the face of major changes brought about by the era of disruption. (Apriandi et al., 2024).

CONCLUSION

Through the integration of technology in the Hybrid Assessment Center, Polri has a significant opportunity to enhance its personnel's competencies in a more comprehensive and efficient manner. However, to achieve this, crucial aspects such as technology adaptation, infrastructure improvement, and strengthening interpersonal competencies must be given serious attention. The following are key points that should serve as the foundation for Polri in developing human resources that are better prepared to face future challenges.

- 1. Technology Adaptation as a Pillar of Polri's HR

 Development. The implementation of the Hybrid

 Assessment Center, incorporating technologies
 such as virtual reality and remote assessments,
 has demonstrated great potential in assessing and
 developing Polri's HR competencies. This
 technology enables more realistic and in-depth
 evaluations of technical abilities and soft skills,
 which are crucial for police duties in the modern
 era. Polri must ensure that the adoption of this
 technology becomes a central pillar in all HR
 development processes to effectively respond to
 the rapid changes in society.
- Infrastructure and Technology Literacy Challenges. While technology offers innovative solutions, a major challenge faced by Polri is the limited infrastructure in remote areas and the low level of technology literacy among personnel. Polri must urgently invest in enhancing infrastructure, particularly technological assessments. Additionally, support remote intensive training should be provided to ensure that all personnel, including senior members, can adapt to modern assessment methods.
- Interaction Quality. The era of disruption demands that Polri not only possess technical competencies but also strong interpersonal skills, such as crisis communication, leadership, and collaboration in complex situations. The Hybrid Assessment Center has proven effective in measuring these soft skills, and it should continue to be optimized to improve personnel capabilities in addressing evolving socio-political dynamics. This will strengthen Polri's interactions with the community and enhance public trust in the police institution.

- 4. Integrating Assessment Data for Strategic Decision-Making. Technology-based assessment results provide more accurate and objective data that can serve as a foundation for the selection, placement, and career development processes. Polri needs to strategically utilize this data to create a more targeted and effective HR management system. Development programs based on individual assessment results should also be implemented to support the long-term development of Polri personnel, ensuring they remain responsive to future challenges.
- 5. Balancing Modernization and Preservation of

Traditional Values. Amid modernization driven by technology, Polri must maintain a balance between innovation and the preservation of traditional values such as service, loyalty, and integrity. HR development based on the Hybrid Assessment Center should respect Polri's organizational culture while promoting the professionalism and innovation needed to address the challenges of the disruption era. By combining traditional values with modern approaches, Polri can build a workforce that is prepared to adapt to rapid changes while maintaining social stability.

REFERENSI

- Apriandi, S., Nita, S., & Basir, S. (2024). Menuju SDM Polri berkualitas di era digital: Pendekatan presisi dan kajian literatur. *Journal of Social Science Research*, 4(2), 5642–5661. https://doi.org/10.1234/jssr.2024.5642
- Djatiutomo, T. J., et al. (2023). Strategi inovasi services digital Korlantas Polri untuk peningkatan kinerja organisasi. *JEMBA Jurnal Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 2(6), 897–910.
- Hasibuan, E. S. (2021). Persepsi masyarakat terhadap penerimaan anggota Polri. *Jurnal Hukum Sasana*, 7(1), 33–50. https://doi.org/10.31599/sasana.v7i1.526
- Fernandes, A. L., Arifin, N. Y., & Sudrajat, A. (2021). Sistem informasi administrasi berbasis web di Bagwatpers Biro SDM Polda Kepri. *JR: Jurnal Responive Teknik Informatika*, 5(1), 21–33. https://doi.org/10.36352/jr.v5i1.188
- Fitrianto, A. (2021). Dampak manajemen talenta dalam pembinaan SDM Polri terhadap employee engagement dan kinerja anggota. *Jurnal Kawruh Abiyasa*, 1(2), 198–208. https://doi.org/10.59301/jka.v1i2.25
- Gani, Y. (2023). Penyetaraan lulusan program studi S2 dan S3 kedinasan dengan lulusan Sespimmen dan Sespimti guna peningkatan kuantitas dan kualitas sumber daya manusia Polri yang unggul di era Police 4.0. *Jurnal Ilmu Kepolisian*, 17(3), 21. https://doi.org/10.35879/jik.v17i3.419
- Hardian, M., & Mukti, A. R. (2023). KLIK: Kajian ilmiah informatika dan komputer analisis dan perancangan aplikasi e-dikbangspes berbasis web pada Biro Sumber Daya Manusia Polda Sumatera Selatan. *Media Online*, 4(1), 73–83. https://doi.org/10.30865/klik.v4i1.1053
- Ilmu, S. T., Hidayanti, M., & Ilmu, S. T. (2024). Pengaruh lingkungan kerja terhadap kinerja anggota Kompi 3 Batalyon C Pelopor Sat Brimob Polda Nusa Tenggara Barat. *Ilmu Sosial & Teknik*, 4(3), 90–95.
- Inaray, F. Q., Pratiknjo, M. H., & Londa, V. Y. (2024). Analisis pengembangan sumber daya manusia penyidik pada Subdit II Harda Bangtah Reserse Kriminal Umum di Kepolisian Daerah Sulawesi Utara. *Innovative: Journal of Social, 4,* 2573–2587. https://doi.org/10.1234/innovative.13115
- Irviana, C. N., & Salomo, R. V. (2021). Analisis pengembangan kapasitas organisasi di Direktorat Tindak Pidana Siber (Dittipidsiber), Badan Reserse Kriminal Polri (Bareskrim Polri). *Media Bina Ilmiah*, 15(11), 5687–5694.
- Kusumadewi, J. (2022). Proses rekrutmen Bintara Polri di Polresta Malang Kota dalam perspektif good governance. *Jurnal Kawruh Abiyasa*, 2(2), 103–114. https://doi.org/10.59301/jka.v2i2.41
- Mayastinasari, V., Earliyanti, N. I., & Arnapi, A. (2024). Transformasi pendidikan kepolisian melalui

- pengembangan STIK Lemdiklat Polri menjadi universitas. *Jurnal Ilmu Kepolisian,* 18(1). https://doi.org/10.35879/jik.v18i1.447
- Moleong, L. J. (2008). Metodologi penelitian kualitatif. Rosda Karya.
- Dewi, N. A., & Tasdin, W. (2023). Hasil implementasi; gambaran motivasi bekerja anggota Polri. *Journal of Social and Economics Research*, 5(2), 1323–1334. https://doi.org/10.54783/jser.v5i2.244
- Nugroho, A. R. (2023). Sistem pembinaan psikologi pada strategi bermasalah. *Jurnal Impresi Indonesia*, 2(4), 384–392. https://doi.org/10.58344/jii.v2i4.2345
- Prasetyo, O. B., Zulkifli, & Miranda, A. (2023). Strategi transformasi budaya organisasi untuk meningkatkan kinerja organisasi Polda Bengkulu. *Bisnis Dan Akuntansi*, 2(5), 791–812. http://bajangjournal.com/index.php/JEMBA
- Ratmono, B. M. (2016). Membaca ulang kultur Kepolisian Negara Republik Indonesia (Sebuah refleksi kritis dari dalam). *Jurnal Pemikiran Sosiologi*, 2(1), 1–13. https://doi.org/10.22146/jps.v2i1.23409
- Perdana, R., & Fanry, R. (2022). Sistem pendukung keputusan untuk menentukan mutasi personel Polri pada Polsek Galang menggunakan metode Analytic Hierarchy Process (AHP). *Jurnal Sains Dan Teknologi*, 4(1), 17–21.
- Septian, A., & Susila, I. A. (2022). Perancangan sistem pendukung keputusan untuk rekomendasi pengangkatan CPNS tenaga honorer Puslitbang Polri menggunakan metode SAW berbasis desktop (Puslitbang Polri). *Scientia Sacra: Jurnal Sains*, 2(2), 357–365. http://pijarpemikiran.com/index.php/Scientia
- Sugiyono. (2018). Metode penelitian kuantitatif, kualitatif, dan R&D (5th ed.). Alfabeta.
- Tresnadi, K., Zulkifli, & Miranda, W. A. (2023). Strategi inovasi BIDPROPAM POLDA Bengkulu dalam implementasi aplikasi pengaduan masyarakat presisi untuk meningkatkan kinerja organisasi. *JEMBA*, 2(6), 873–882.
- Yusanto, Y. (2020). Ragam pendekatan penelitian kualitatif. *Journal of Scientific Communication (Jsc)*, 1(1), 1–13. https://doi.org/10.31506/jsc.v1i1.7764

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