Career Development Strategies in the Era of Industrial Revolution 4.0 by the Criminal Investigation Unit (Bareskrim Polri)

Dimas Dwi Ananto[1]; Basir S [2]; Chairul Muriman Setyabudi [2]

[1] Police Science Studies, School of Strategic and Global Studies, Universitas Indonesia, Indonesia

[2] School of Strategic and Global Studies, Universitas Indonesia, Indonesia

E-mail: Dimas.mediasocial@gmail.com

Abstract

The present study aimed to examine the career development strategies implemented by the Criminal Investigation Unit of the Police of the Republic of Indonesia (Bareskrim Polri) in responding to the challenges of the Industrial Revolution 4.0 which has been followed by significant changes in various aspects of human life, including the world of work and career development. As a crucial entity that maintains the professionalism and integrity of Polri personnel, Bareskrim Polri is required to adapt career development strategies that are relevant to the demands of the current era. This study applied library research by collecting data from various literature sources related to career development, Industrial Revolution 4.0, and the role of the National Police Criminal Investigation Unit. The data were then analyzed qualitatively to identify strategies that had been implemented as well as new strategies that could be developed by Bareskrim Polri. The results of the analysis showed that Bareskrim Polri had made several efforts to adapt career development in accordance with the Industrial Revolution 4.0 era. These strategies included the use of information technology for training and development, the use of analytical data to identify personnel's career development needs, and the promotion for continuous learning culture among Polri personnel.

Keywords: *Industrial Revolution 4.0; Bareskrim Polri; Career Development Strategies; Human Resource; Training and Skill Improvement*

Introduction

We are currently living in the era of the fourth industrial revolution where anyone, anytime and from anywhere can quickly access all information in the world (Pambudi, Muslihati, & Lasan, 2020). Science and technology are also developing rapidly in the era of the industrial revolution 4.0, which is demonstrated by the rise of digitalization technology, robotization and intelligent automation, the Internet of Things, and artificial intelligence, which have an impact on various sectors of life such as the economy, national and global companies, society, and individuals (Heri, 2019; Cseh & Varga, 2020). Such sophisticated technological changes will undoubtedly have a beneficial impact on accelerating progress in various levels of society as well as being a threat to certain levels of society.

Human resource development is highly necessary for Indonesian society and government institutions, in this case National Police personnel (Samual & Kasim, 2020). The National Police, which is responsible for maintaining public order and security, surely must respond to the various impacts of the Industrial Revolution 4.0, especially in terms of professionalism and preparation of human resources to face various developments. The police's creative and inventive skills are very important to predict and respond to social processes that can give rise to various types of crime. The change in human resources towards digitalization and information technology is a problem that must be addressed by all National Police leaders to develop a complete strategy to meet the demands of the industrial revolution 4.0 era (Samual & Kasim, 2020).

In the midst of the digital transformation characterizing this era, Bareskrim within the National Police is receiving in-depth attention. Bareskrim Polri is the main implementing element of Polri at Headquarters level led by the Head of Bareskrim (Kabareskrim) Polri who is responsible to the Head of the National Police of the Republic of Indonesia (Kapolri). Bareskrim Polri is tasked with developing and carrying out the functions of investigating criminal acts, supervising and controlling investigations, carrying out identification, forensic laboratories in the context of law enforcement, as well as managing national criminal information (Dewi, 2020).

In the context of the Industrial Revolution 4.0 era, when the development of digital technology is forming a fundamental shift in the professional and security landscape, Bareskrim is facing major challenges to ensure that National Police personnel remain relevant, skilled, and able to face various dynamic and complex situations (Asbudirman & Hamzah, 2023). Therefore, the present study aimed to analyze the career development strategies implemented by Bareskrim Polri in facing the Industrial Revolution 4.0 era.

To foster and carry out professional accountability and internal security functions, Bareskrim has an important role in law enforcement, and is required to always respond to the demands of the community and various interests. Even though these conditions create tensions for the position of Bareskrim investigators, they are normatively obliged to always be objective, independent and guided by the supremacy of law and society's sense of justice. The success of Bareskrim in carrying out its mission depends on its sensitivity and ability to anticipate future environmental developments and their impact on the mission and organization and the ability to analyze and find various facts, data and information. It relies on statutory regulations to understand the case. The ability to find and identify criminals and suspects, as well as the ability to manage organizational resources need to be used to support and realize the organization's vision (Hartanto, 2020).

This study became increasingly important considering the rise in criminal acts and crimes related to technology in the Industrial Revolution 4.0 era. This phenomenon requires Bareskrim Polri to not only maintain the discipline and professionalism of its personnel, but also encourage the improvement of human resource (HR) capabilities in facing rapidly developing technological challenges. To face the increasingly complex and organized threat of cybercrime, Bareskrim Polri must ensure that each personnel has relevant and up-to-date technological competence. Therefore, study on career development strategies in the Industrial Revolution 4.0 era by Bareskrim Polri would dig deeper into how this organization designs self-development efforts that not only prioritize order and integrity, but also ensure the reliability of the technological skills needed to carry out its duties as a law enforcer.

Therefore, this study elaborated in depth on the career development strategies adopted by Bareskrim Polri in facing the complex demands of the Industrial Revolution 4.0. It is expected that the research results can provide valuable guidance for the development of National Police personnel in the future.

Research Method

This study employed library research technique, a methodology that focuses on the use of library sources such as books, encyclopedias, dictionaries, newspapers, documents, and periodicals, and so forth (Harahap, 2014). Utilization of this technique required following specific library protocols to access and obtain relevant resources and resources necessary for the effective advancement of studies, as well as to incorporate relevant findings from previous studies. The data sources of the study included reference books,

academic journals, official letters, periodicals, legal provisions, and comparable research findings, all of which were obtained through libraries or online platforms such as open journal systems through internet searches. The data collection procedures required careful recording and systematic classification of data, which was organized based on research sub-problems. After that, the data was analyzed using content analysis technique to produce theories, concepts and research findings that were able to answer existing research questions (Neuendorf, 2016). This comprehensive methodology allowed this study to carefully investigate and draw from various credible sources and lay the foundation for the investigation of career development strategies in the context of the Industrial Revolution 4.0 by Bareskrim Polri.

Discussion

1. Development of Industrial Transformation and Its Implications for Diversification of Life and Workforce

The progress of the Fourth Industrial Revolution will undoubtedly have an impact on various aspects of life, such as industry, human resources, organizations, crime, and so forth. Basically, the world is changing, and whether we realize it or not, the Fourth Industrial Revolution will have an impact on humanity. Automation, mobile computing, and artificial intelligence are no longer science fiction ideas, but have become a reality (Keywell, 2017). Keywell (2017) saw that the strategic and significant impact on human resource empowerment is caused by changes in work culture, attitudes and behavior, knowledge and skills. In addition, the industrial revolution consisted of four phases, the first of which began in 1800 and progressed from the use of hand and muscle power to the use of machine power. Around 1900, the second phase of the industrial revolution began with Henry Ford's mass production, which was accompanied by advances in basic materials and energy sources used in manufacturing, such as steam, coal, iron, steel, electricity, oil, and chemicals. Around 1970, the third phase of the industrial revolution began to use programmable machines, and electrical and mechanical technology was gradually replaced by digital technology.

The industrial revolution 4.0 can be defined as increasing digitalization throughout the "value chain" and the ability to structure the real-time movement of data between people, things and systems. Furthermore, Baur and Wee (2015) conducted an empirical study of 300 well-known manufacturing businesses and found that less than 48% of respondents stated that their organizations were ready to face the impact of the Industrial Revolution 4.0. Empirical research by Baur and Wee (2015) provided insight into the role of visionary leadership in overcoming the impact of the Industrial Revolution 4.0 on organizations, by considering the scale of influence of the Industrial Revolution 4.0.

This study provided an important framework for visualizing the tendencies of the Industrial Revolution 4.0 towards increasing the training and development of quality human resources. As a result, a broader investigation into the disruptive influence McKinsey claimed to have on today's industrial workforce is warranted. According to Osborne and Strokosch in Klimova & Maresova (2018), around 47% of the workforce in the United States will require high levels of training and certification in the future Industrial Era 4.0 (Noah, 2018). According to previous research results, there will be considerable demand for information technology (IT), software development, and ICT-related skills along with developments in industrial technology and automation.

2. Challenges of the Industrial Revolution 4.0 in the Field of Life of Workers, Especially in the Responsibilities and Obligations of Bareskrim Polri

The Industrial Revolution 4.0 has changed the global panorama with rapid and profound advances in digital technology. The impact affects various sectors of life, including the labor sector. The industrial, economic and educational sectors have adapted to these changes. However, one of the sectors that is perhaps most significant in dealing with the impact of the Industrial Revolution 4.0 is the security sector, especially in terms of the responsibilities of Bareskrim Polri. The Industrial Revolution 4.0 presents various new

challenges for the workforce, especially regarding increases in automation and the use of smart technology. This leads to increased efficiency in various sectors but also results in changes in the employment landscape. Jobs previously performed by humans can be replaced by automation and artificial intelligence systems. Therefore, workers are expected to have new skills that suit the demands of the digital era, such as technical abilities and mastery of data analysis. Bareskrim Polri has a critical role in ensuring professionalism and ethics within the National Police.

In the era of Industrial Revolution 4.0, the National Police Criminal Investigation Unit is faced with several important challenges. First, rapidly developing technology requires police personnel to have an understanding of digital investigative technology and methods. Bareskrim Polri needs to ensure that personnel have adequate qualifications and skills to handle cyber and digital crime cases. Second, increased reliance on technology also brings new risks to data security and privacy. Bareskrim Polri must ensure that all personnel have an understanding of the cyber security and data privacy standards necessary to protect sensitive information. Third, the use of new technologies often presents new ethical dilemmas. Bareskrim Polri must develop guidelines and regulations to guide personnel when using technology with appropriate ethics and safeguarding human rights. Furthermore, to face very rapid changes in technology, Bareskrim Polri needs to implement a continuous training program to always ensure that all personnel have the latest skills in overcoming challenges related to the Industrial Revolution 4.0. Fifth, new technology can change the dynamics of criminal acts and ethical violations. Bareskrim Polri needs to develop effective monitoring and control methods to ensure that all personnel continue to carry out operations in accordance with established ethics and standards.

The problems arising from the above conditions have resulted in a significant shift in the skills required by local producers to navigate rapid market fluctuations, as emphasized in the 2018 World Economic Forum (WEF) report (Heri, 2019). This transition has pushed analytical thinking, creativity, complex problem solving, and emotional intelligence to the forefront, all of which are critical in setting the Fourth Industrial Revolution (Gash & Hobbs, 2018). Furthermore, they also outlined six new problems that the police must face in the Industry 4.0 era. These issues are critical in changing the policing landscape and include (Gash & Hobbs, 2018):

a. Full Engagement with the Digital World: The digital fingerprints left by almost every crime demand the use of digital technology into all aspects of police activities. For effective investigations, data has grown to be one of the most strategic and crucial assets.

b. Private Sector and Civil Society Engagement: Private sector investment in crime prevention and investigation has outstripped public sector output with private sector crime-fighting capabilities often exceeding those of traditional police forces. Increasing community participation in crime prevention remains a priority.

c. Rapid Adaptation to Changing Dynamics: New types of crime are emerging as a result of rapid innovation and social interconnection requiring flexible policing techniques.

d. Leveraging Cyber-Physical Systems: Technological developments and the "internet of things" have blurred the boundaries between the virtual world and the real world.

e. Leveraging Unknown Amounts of Data and Information: As police become more digital, ongoing data analysis and research requires decentralized decision making and information management.

f. Ensuring Full Transparency: Regarding increased public and police scrutiny, all police actions can be evaluated in public, private and virtual spaces. To balance transparency and confidentiality, strict technical management is essential.

It is important to highlight that the problems faced by the Republic of Indonesia Police are unique due to the particularities of this country. These problems in the context of the Industrial Revolution 4.0 include:

1) Need for Personnel

The availability of appropriate organizational resources, including human factors, infrastructure, budget and methodology, or better known as the 4 M's (man, money, materials and method), will influence organizational performance and goal achievement (Faniyah & Maulana, 2023). However, many experts believe that of the four categories of resources, human resources are the most important aspect for every organization. Even though human resources are an important asset, their dominance has been reduced in the Industrial Revolution 4.0 era since the emergence of automated technology. The National Police needs to plan human resource recruitment carefully by emphasizing qualities such as information technology skills.

2) New Crime

The digital revolution has triggered the emergence of a number of new crimes, including cyber crimes such as online fraud, identity theft, and other types of virtual crime. To face these new dangers, the National Police must change its plans and strengthen the capabilities of its personnel.

3) Modernization of Public Services

Modern society expects services that are timely, ease of use, and cost-effective. To meet these demands, the National Police, like other institutions, must modernize their services while following the technological modernization outlined in Presidential Decree No. 95 of 2018, which emphasizes the integration of electronic-based government systems to improve the efficiency and quality of public services (Presidential Decree No. 95, 2018) (Heri, 2019). Through simple and uncomplicated operations, the National Police is expected to be faster, simpler and more transparent. Extortion and intermediaries must also be eliminated.

Meanwhile, in the field of culture, all levels of the National Police must eliminate excessive violence, corruption or arrogance from the authorities, which clearly contradicts the ideals of Tribrata and Catur Prasetya (Faniyah & Maulana, 2023). Apart from that, it is also important to build a positive work culture or work ethic to increase the productivity of police performance. To create a better climate, bureaucratic changes can be directed at innovations that facilitate and strengthen security and law enforcement. The National Police has achieved several successes through community service innovations such as E-Samsat, SIM Online, SKCK Online, Smart SIM, E-Tilang and others (Faniyah & Maulana, 2023; Heri, 2019).

These innovations certainly provide convenience for the community and build public trust in the National Police. Police professionalism, which is reflected in a good management system, must also support the successful implementation of organizational reform. Personnel training and development must be adapted to the needs of the organization and society. This approach must be balanced with adequate police human resources. Mastery of science and technology is a valuable asset in facing competition and anticipating change. Education, training and research in the field of police science and technology must be part of the process of strengthening the professionalism of police personnel (Faniyah & Maulana, 2023).

According to the research results, one of the steps to provide the best public service from the National Police to the community was to comply with the Republic of Indonesia State Police Regulation No. 1 of 2008 concerning the Police through Polri training. For instance, this is carried out on the 110 call service as a National Police service to the public via telephone to report/complain about problems related to disturbances in security and public order or criminal acts/violations (Faniyah & Maulana, 2023). Lastly, the introduction of Industry 4.0 has ushered in a new era of policing that requires technological prowess, inventiveness and reactivity. To properly maintain the safety and security of the country in an ever-changing criminal and technological environment, the Indonesian National Police must overcome these obstacles through strategic planning, recruitment, technical adaptation and modernization.

3. Career Development Strategy in the Era of Industrial Revolution 4.0 by Bareskrim Polri

The Industrial Revolution 4.0 has changed the organizational paradigm in various sectors, including law enforcement. Bareskrim Polri has an important role in dealing with increasingly sophisticated cyber threats and crimes. Therefore, career development is very important for this department to ensure that its personnel have the relevant skills and knowledge to face new challenges. In general, a career development strategy is a series of intentional and planned activities undertaken by people, workers or professionals to enhance their skills, experience and opportunities in their chosen career path, designed to help individuals achieve their long-term career goals, maximize their potential, and continuously improve their performance and job satisfaction. Career development tactics often include self-assessment, skill development, networking, goal planning, and continuous learning, here are some key elements of career development strategies (Hall & Mirvis, 1995; Koster, Dengerink, Korthagen, & Lunenberg, 2008):

a. Self-Assessment

A critical first step to embarking on a career trajectory is a rigorous assessment of one's inherent strengths and weaknesses as well as an introspective examination of values, interests, and aspirations. This systematic self-assessment framework can look closely at areas of proficiency and growth potential which then facilitates alignment between personal career ambitions and intrinsic beliefs (Bourke, 2014).

b. Goal Setting

The essence of effective career development is the crystallization of clear and achievable professional goals (Creed & Hughes, 2013). These goals, whether short-term (within one year) or long-term (spanning several years), create a motivational boost, encouraging dedicated efforts to achieve sustainable progress.

c. Skill Enhancement

The foundation of career development lies in the continuous development of skills appropriate to the field. It includes the acquisition of new competencies, strengthening existing skills, and compliance with industry dynamics and technological innovation (Khan, Rajasekar, & Al-Asfour, 2015).

d. Education and Training

Participation in structured educational activities, including accredited workshops, courses, seminars and certification, serves as a powerful pathway to increasing skills and gaining recognized qualifications. These efforts strengthen competencies and increase market viability (Bridgstock, Grant-Iramu, & McAlpine, 2019).

e. Networking

The formation of complex professional networks serves as an instrumental channel, providing access to important contacts, prospects, and deep perspectives (Forret & Dougherty, 2004). Frequent involvement at industry events, integration into relevant professional groups, and thoughtful online networking collectively strengthen the expansion of relationships.

f. Mentorship and Coaching

Intentional engagement with an experienced mentor or coach who has expertise in the field will provide much-needed insight, innovative ideas, and alternative viewpoints. This mentoring relationship offers strategic guidance during the face of challenges and complexity.

g. Career Path Planning

The formulation of a carefully structured career trajectory requires a comprehensive plan that describes the actions required for development, lateral transition, or industry shift (Khan, Rajasekar, & Al-Asfour, 2015). The strategic approach drives comprehensive development.

h. Personal Branding

Personal branding represents the careful orchestration of a professional identity, encapsulating competence, confidence, and expertise. A carefully crafted resume, authoritative online presence, and concise elevator pitch collectively epitomize these branding efforts (Waller & Waller, 2020).

i. Adaptability

Given that the contours of the contemporary workforce landscape are dynamic and changing, developing adaptability is a necessity (Seibert, Kraimer, & Heslin, 2016). This requires acceptance of opportunity, complexity, and new roles, which strengthens the foundation for lasting career achievement.

j. Continuous Learning

A commitment to continuous learning is an unwavering principle, where continued professional development is sustained through careful consumption of specialized literature, active participation in webinars, enrollment in online courses, and careful monitoring of industry progress (Collinson et al, 2009).

k. Life Balance

A wise balance between professional advancement and personal well-being is essential. Awareness of the potential pitfalls of burnout underscores the importance of maintaining a balance between work and personal life (Direnzo, Greenhaus, & Weer, 2015).

l. Feedback and Evaluation

The iterative development process is catalyzed through careful self-evaluation, coupled with input from peers, supervisors, and mentors. Constructive criticism highlights areas for improvement, then aligns the trajectory with evolving demands (Collinson et al, 2009).

One of the strategies that has emerged in career development in the Industrial Revolution 4.0 era is a multidimensional approach that combines traditional knowledge and technological capabilities. Literature research shows that continuous education and training is a core element in this strategy. Cyber Division personnel need to continually update their knowledge of the latest developments in cyber technology, such as the latest attack techniques and tools used by cybercriminals. In this case, training and certification in the field of cyber security is crucial to maintain the quality and expertise of personnel.

In addition, career development strategies also involve efforts to improve technical and leadership skills. Training and coaching individuals to develop technical skills, such as digital forensic analysis and cyber risk management, can help increase the Cyber Division's effectiveness in addressing cybercrime. Apart from that, leadership training and development of managerial skills are also needed to prepare personnel who can coordinate teams and make the right decisions in emergency situations. Cross-functional interactions are also an important part of career development strategies. Through cross-functional exposure, personnel can develop a better understanding of cooperation and interdependence between various divisions in law enforcement. By understanding how other divisions work, they can collaborate more effectively in dealing with complex and multidimensional situations.

The career development strategy in the cyber division of the National Police headquarters can be explained further through the scheme or diagram below:
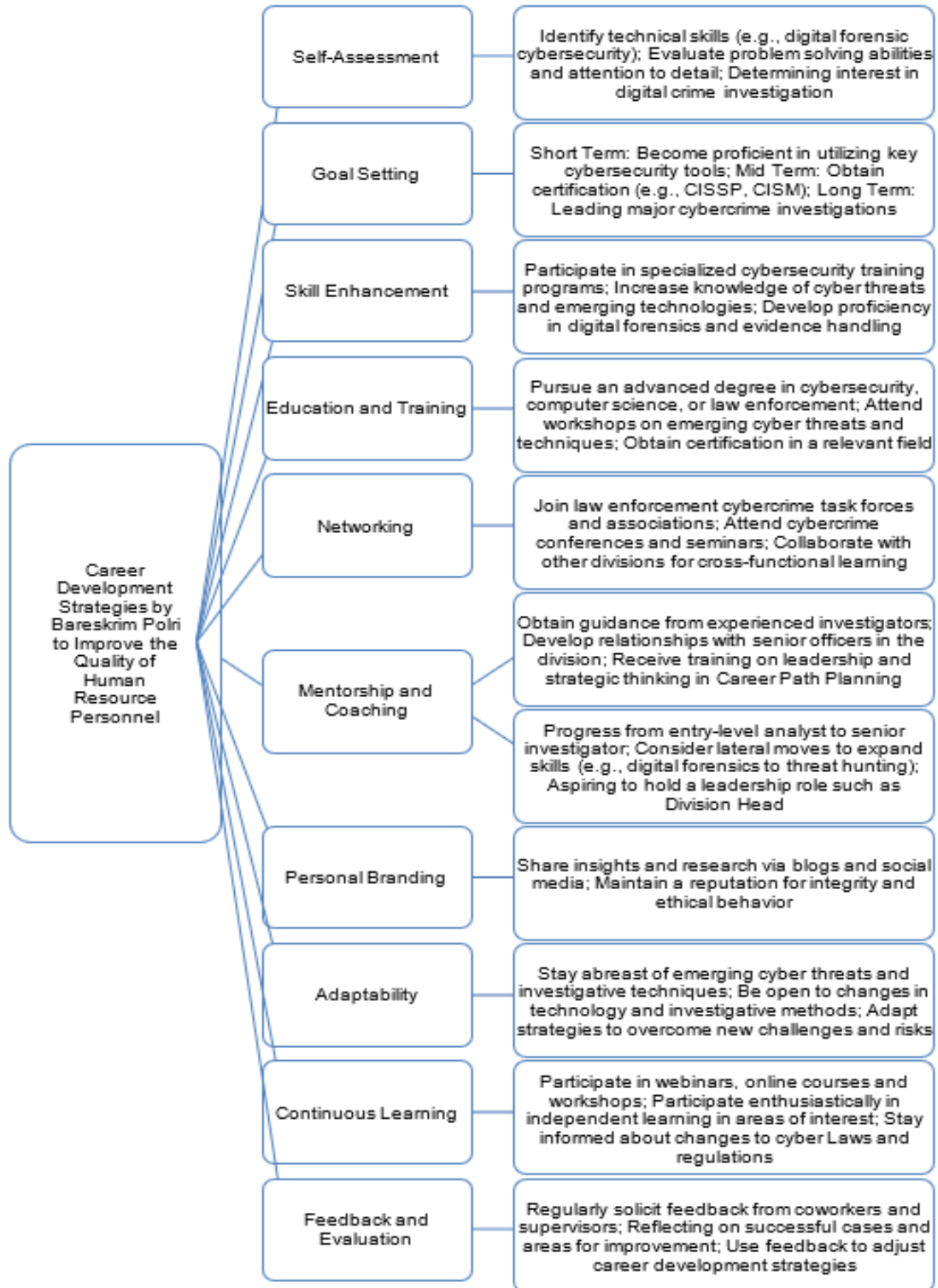

Figure 1. Career Development Strategies by Bareskrim Polri

Conclusion

Based on the elaboration above, this study concluded that the Industrial Revolution 4.0 was followed by significant changes in various aspects of life, including industry, human resources and organizations. Automation, artificial intelligence, and mobile computing have become a reality and are influencing work culture, attitudes, knowledge, and human skills. Organizations and human resources need to adapt to these changes. Bareskrim Polri, as part of the police, is facing complex challenges due to the Industrial Revolution 4.0. Technology is developing rapidly and influencing aspects such as cyber security, increased automation and the use of smart technology. Bareskrim Polri needs to ensure that personnel have an understanding of technology, cyber security and ethics in the use of technology. The Industrial Revolution 4.0 has had a significant impact on career development in the Police Professional and Security Division. Effective career development strategies must integrate traditional knowledge and technological skills, involve ongoing education and training, and focus on adaptation, ethics, and transparency in the use of technology. Collaboration with the private sector and active participation in professional communities are also important aspects in responding to rapid changes in this industrial era.

References

Asbudirman, A., & Hamzah, N. (2023). Pengaruh Pengawasan dan Kode Etik Bidang Propam terhadap Kinerja melalui Disiplin Kerja Personil. *Management and Accounting Research Statistics, 3(2), 126-145*. doi:https://doi.org/10.59583/mars.v3i2.49.

Baur, C., & Wee, D. (2015). *Mannufacturing's Next Act*. Retrieved from McKinsey & Company: https://www.mckinsey.com/businessfunctions/operations/ourinsights/manufacturing-next-act.

Bourke, R. (2014). Self-assessment in professional programmes within tertiary institutions. *Teaching in Higher Education, 19(8), 908-918*. doi:https://doi.org/10.1080/13562517.2014.934353.

Bridgstock, R., Grant-Iramu, M., & McAlpine, A. (2019). Integrating career development learning into the curriculum: Collaboration with the careers service for employability. *Journal of Teaching and Learning for Graduate Employability, 10(1), 56-72*. Retrieved from https://search.informit.org/doi/10.3316/informit.580534557337065.

Collinson, V., Kozina, E., Kate Lin, Y. H., Ling, L., Matheson, I., Newcombe, L., & Zogla, I. (2009). Professional development for teachers: A world of change. *European journal of teacher education, 32(1), 3-19*. doi:https://doi.org/10.1080/02619760802553022.

Creed, P. A., & Hughes, T. (2013). Career development strategies as moderators between career compromise and career outcomes in emerging adults. *Journal of Career Development, 40(2), 146-163*. doi:https://doi.org/10.1177/0894845312437207.

Cseh, B., & Varga, J. (2020). Taxation and Humans in the Age of the Fourth Industrial Revolution–Financial and Ethical Comments. *Acta Universitatis Sapientiae, European and Regional Studies, 17(1), 103-117*.

Dewi, P. S. (2020). *Gambaran Kadar Hemoglobin Pada Polisi Lalu Lintas (polantas) Di Kepolisian Daerah Bali*. Denpasar: Poltekkes Denpasar.

Direnzo, M. S., Greenhaus, J. H., & Weer, C. H. (2015). Relationship between protean career orientation and work–life balance: A resource perspective. *Journal of Organizational Behavior, 36(4), 538-560*. doi:https://doi.org/10.1002/job.1996.

Career Development Strategies in the Era of Industrial Revolution 4.0 by the Criminal Investigation Unit (Bareskrim Polri)

237

Faniyah, I., & Maulana, F. (2023). Penerapan Teknologi Informasi Elektronik Police 4.0 Untuk Merespon Secara Cepat Terjadinya Tindak Pidana Pada Wilayah Hukum Polres Payakumbuh. *UNES Journal of Swara Justisia, 7(1), 30-41*. doi:http://dx.doi.org/10.24269/ajbe.v4i1.2100.

Forret, M. L., & Dougherty, T. W. (2004). Networking behaviors and career outcomes: differences for men and women? *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 25(3), 419-437*.

Gash, T., & Hobbs, R. (2018). *Policing 4.0 Deciding the Future of Policing in the UK*. London: Deloitte.

Hall, D. T., & Mirvis, P. H. (1995). The new career contract: Developing the whole person at midlife and beyond. *Journal of vocational behavior, 47(3), 269-289*. doi:https://doi.org/10.1006/jvbe.1995.0004.

Harahap, N. (2014). Penelitian Kepustakaan. *Jurnal Iqra', 8(1), 68-69*.

Hartanto, D. (2020). Model Hierarki Komunikasi Organisasi Badan Reserse Dan Kriminal Kepolisian Republik Indonesia (Bareskrim Polri). *OMUNIKOLOGI:Jurnal Pengembangan Ilmu Komunikasi dan Sosial Vol.4 No.2 Tahun 2020*.

Heri, E. I. (2019). Tantangan Pengembangan SDM Polri di Era Revolusi Industri 4.0. *Ilmu Kepolisian, 13 (2), 90–105*. doi:https://doi.org/10.35879/jik.v13i2.159.

Keywell, B. (2017, Jun 14). *The Fourth Industrial Revolution is about empowering people, not the rise of the machines*. Retrieved from https://www.weforum.org/agenda/2017/06/the-fourth-industrial-revolution-is-about-people-not-just-machines/.

Khan, S. A., Rajasekar, J., & Al-Asfour, A. (2015). Organizational career development practices: learning from an Omani company. *International Journal of Business and Management, 10(9), 88*. doi:http://dx.doi.org/10.5539/ijbm.v10n9p88.

Klimova, B., & Maresova, P. (2018). Economic methods used in health technology assessment. *Economics and Management (2018)*. doi:10.15240/tul/001/2018-1-008.

Koster, B., Dengerink, J., Korthagen, F., & Lunenberg, M. (2008). Teacher educators working on their own professional development: Goals, activities and outcomes of a project for the professional development of teacher educators. *Teachers and teaching, 14(5-6), 567-587*. doi:https://doi.org/10.1080/13540600802571411.

Neuendorf, K. A. (2016). *The Content Analysis Guidebook*. Sage Publishing.

Noah, K. (2018). *The Workforce Implications of Industry 4.0: Manufacturing Workforce Strategies To Enable Entreprise Transformation*. USA: University of Wisconsin.

Pambudi, P. R., Muslihati, M., & Lasan, B. B. (2020). Strategi untuk Membantu Meningkatkan Perencanaan Karier Siswa di Era Revolusi Industri 4.0. *JKI (Jurnal Konseling Indonesia), 5 (1), 28–33*. doi:https://doi.org/10.21067/jki.v5i1.4041.

Samual, R., & Kasim, A. (2020). Strategi SDM Polri Mempersiapkan Generasi "Y" di Era Revolusi Industri 4.0. *Jurnal Ilmu Kepolisian, 14(3), 12*, 219-230. doi:https://doi.org/10.35879/jik.v14i3.280.

Seibert, S. E., Kraimer, M. L., & Heslin, P. A. (2016). Developing career resilience and adaptability. *Organizational Dynamics, 45(3), 245-257*. doi:http://dx.doi.org/10.1016/j.orgdyn.2016.07.009.

Waller, T., & Waller, T. (2020). An Introduction to Personal Branding. *Personal Brand Management: Marketing Human Value, 1-16*. doi:https://doi.org/10.1007/978-3-030-43744-2_1.

Copyrights