Volume 12, Nomor 2, Juni 2023

DOI: https://doi.org/10.33395/jmp.v12i2.12491 p-ISSN: 2089-9424

**Terbit**: 01 Juni 2023

e-ISSN: 2797-3298

# Human Capital Development and Economic Growth: A Literature Review on Information Technology Investment, Education, Skills, and Productive Labour

<sup>1</sup>Ferly Agustina Sairmaly <sup>1</sup>Program Studi Ekonomi Pembangunan, Fakultas Ilmu Sosial dan Humaniora, Universitas Lelemuku Saumlaki, Indonesia

<sup>1</sup>ferlyasairmaly@gmail.com

#### **ABSTRACT**

A country's economic growth is influenced by various factors, including human resource development. High-quality and productive human resources are the main key in promoting sustainable economic growth. Therefore, this study aims to conduct a literature review on education investment, information technology, skills, and productive labour in the context of human capital development and economic growth. The focus of this study is primarily qualitative. Methods for gathering data include paying close attention to detail while viewing and recording data, and then using analytical techniques such as data reduction, visualisation, and inference to draw conclusions. The study arrives at the conclusion that human capital development through investments in education, information technology, skills, and productive labour plays a crucial role in a country's economic growth. For example, investment in quality education provides individuals with knowledge and skills, expands employment opportunities, and increases people's purchasing power.

Keyword: Human Capital, Economic Growth, Education, IT, Skills, Productive Labour

### INTRODUCTION

The economic growth of a nation is subject to a multitude of factors, one of which pertains to the advancement of human resources (HR) (Rustiawan et al., 2023). The cultivation of proficient and efficient human resources is crucial in propelling sustainable economic development (Kamar et al., 2022). The objective of this study is to perform a comprehensive analysis of the existing literature on education investment, information technology, skills, and productive labour in relation to the development of human capital and its impact on economic growth.

Investing in education is a crucial element in the development of human capital. According to (Cahyono et al., 2023), the provision of quality education is essential in equipping the labour force with the necessary knowledge and skills to make effective contributions to economic activity. According to (Rukman et al., 2023), sufficient allocation of resources towards education can result in the development of a proficient, imaginative, and pioneering labour force. This, in turn, has the potential to enhance the productivity and competitiveness of a nation's economy.

Furthermore, the advancement of information technology is a significant contributor to the enhancement of human capital and the promotion of economic growth. The utilisation of information technology has brought about significant changes in the methods of production, communication, and work processes across various sectors of the economy (Harahap,





Volume 12, Nomor 2, Juni 2023

DOI: https://doi.org/10.33395/jmp.v12i2.12491 p-ISSN: 2089-9424

e-ISSN: 2797-3298

Kraugusteeliana, Pramono, Jian, et al., 2023). The proficient utilisation of information technology has the potential to enhance labour efficiency and productivity, while also enabling access to a broader range of information and educational prospects (Harahap, Ausat, Rachman, et al., 2023).

The development of skills is a crucial aspect in the realm of human resources. According to (Harahap, Ausat, & Suherlan, 2023), possessing skills that align with the demands of the labour market, such as technical, managerial, and communicative skills, can enhance an individual's prospects for employment and contribute to their overall economic prosperity. Moreover, the acquisition of skills that are regularly refreshed and tailored to technological advancements and market exigencies will facilitate enhanced adjustment to fluctuations in the worldwide economy.

The development of human capital and economic growth are significantly influenced by productive labour. According to (Ausat, Al Bana, et al., 2023), an efficient workforce has the ability to generate greater output within a specific time frame, thereby enhancing a nation's production potential and economic competitiveness. According to (Ausat, 2023), the augmentation of labour productivity can be achieved by means of sufficient education and training, proficient utilisation of information technology, and the enhancement of skills and employability.

This study aims to enhance comprehension of the correlation between the development of human capital and economic growth by conducting a comprehensive review of literature on education investment, information technology, skills, and productive labour. The findings of this research have the potential to furnish valuable insights for policymakers, academic establishments, and economic stakeholders in devising measures and tactics to enhance the development of human capital and foster sustainable economic progress.

Some of the expected benefits of this research are:

- 1. Strengthen the link between education investment, information technology, skills, and productive labour in the context of human capital development and economic growth.
- 2. Identify key factors that can improve a country's human capital development and economic growth.
- 3. Provide insights into the importance of adequate education investment to create a skilled and competitive workforce.
- 4. Discuss the role of information technology in influencing efficiency, productivity and access to education.
- 5. Explore the importance of skills development relevant to the changing labour market.
- 6. Highlighted the importance of labour productivity in improving a country's economic competitiveness.
- 7. Provide an understanding of how human capital development can contribute to sustainable economic growth

The present study aims to perform a comprehensive literature review by gathering and scrutinising scholarly works pertaining to the domains of education investment, information technology, skills, productive labour, and economic growth. The employed research methodologies may encompass perusal of scholarly literature via journal databases, scrutiny of pertinent articles through content analysis, and amalgamation and appraisal of the outcomes derived from the chosen literature.

The present study aims to provide a significant contribution to the comprehension of the intricate correlation between the development of human capital and the advancement of the economy. By gaining a deeper comprehension of the determinants that shape the development of human capital and their consequential effects on economic growth, it is anticipated that more efficacious policies can be devised to enhance the calibre of human capital and foster enduring economic growth.

### LITERATURE REVIEW

#### **Human Resource Development**

Human Resource Development (HRD) pertains to the enhancement of the competencies, aptitudes, proficiencies, expertise, and potentialities of individuals or collectives within a given populace (Harahap, Sutrisno, Fauzi, Jusman, et al., 2023). Human resources (HR) encompasses





Volume 12, Nomor 2, Juni 2023

DOI: https://doi.org/10.33395/jmp.v12i2.12491 p-ISSN: 2089-9424

e-ISSN: 2797-3298

various facets pertaining to human potential, encompassing education, training, health, skills, experience, as well as the attitudes and values of individuals (Ausat, Widayani, et al., 2022). The concept of HR development pertains to endeavours and undertakings that are geared towards enhancing the calibre and proficiency of individuals or collectives in realising their utmost potential (Muhamad et al., 2023). The objective is to enhance the capacity of individuals to effectively manage the challenges and modifications that are present in both the occupational milieu and the broader community. The development of human resources can encompass various facets, such as:

- 1. Education: The advancement of education can be achieved through formal institutions like schools and universities, as well as non-formal means like training or courses. Education equips individuals with the essential knowledge and competencies required to fulfil diverse roles and responsibilities in their personal, social, and professional domains.
- 2. Training: Professional development entails targeted and specialised learning endeavours aimed at enhancing technical, managerial, or practical competencies within a specific field or profession. Training can be conducted in various settings, such as the workplace, training institutions, or specialised development programmes.
- 3. Skills: The process of skills development pertains to enhancing an individual's proficiency in carrying out particular tasks. Professionals possess a diverse range of skills, which can be broadly categorised into technical skills (e.g. technological, computer or mechanical skills), interpersonal skills (e.g. communication, teamwork or leadership skills), or skills that are specifically related to their job or profession.
- 4. Health and well-being: The process of people development encompasses endeavours aimed at enhancing the physical and mental well-being of individuals. Individuals who are in good physical and mental health have been shown to exhibit superior performance and are capable of making optimal contributions across a range of domains.
- 5. Attitudes and values: HRD also includes the formation of positive attitudes and values, such as good work ethics, integrity, responsibility, discipline, and a spirit of continuous learning and development.

Human Resource Development (HRD) is a crucial factor in the progress of a nation's economic and social advancement. By means of effective human resource development, both individuals and collectives can enhance their productivity, creativity, and make substantial contributions towards enhancing their personal well-being and the broader advancement of the nation (Wikansari et al., 2023).

#### **Economic Growth**

The term "economic growth" pertains to the augmentation in the monetary worth of the overall production of commodities and amenities generated within an economy throughout a specific duration (Ginting & Rasbin, 2010). The aforementioned statement pertains to the manifestation of a general upsurge in economic activity in a given nation or locality, which is gauged through indicators such as Gross Domestic Product (GDP) or Gross National Income (GNI). Economic growth denotes a favourable transformation in the quantity of commodities and amenities generated and utilised within a nation (Aslan & Rimba, 2020). Typically expressed as a percentage, the metric denotes the proportional fluctuation in the monetary worth of economic production over a given period, typically a year. There are various factors that can contribute to economic growth, such as:

- 1. Addition of resources: Economic growth can occur through an increase in the amount and quality of resources available within a country, such as an increase in the labour population, an increase in investment capital, or an increase in the quality and accessibility of natural resources.
- 2. Innovation and technology: Innovation and technological developments play an important role in economic growth. Technological innovation can improve production efficiency, introduce new products and services, and create new opportunities to create added value.
- 3. Investment: High investment in infrastructure, education, research and development, and other sectors of the economy can drive economic growth. These investments increase production capacity and productivity in the long run.





Volume 12, Nomor 2, Juni 2023

DOI: https://doi.org/10.33395/jmp.v12i2.12491 p-ISSN: 2089-9424

e-ISSN: 2797-3298

4. International trade: Participation in international trade can promote economic growth through increased exports, imports of goods and services, and transfer of technology and knowledge from partner countries.

5. Economic policy: Appropriate fiscal and monetary policies of the government can influence economic growth. Sound fiscal policies, such as healthy budget deficit management, and prudent monetary policies, such as inflation control, can create an economic environment conducive to growth.

The desirability of sustained economic growth stems from its potential to yield extensive social and economic advantages. Robust economic growth has the potential to generate fresh employment opportunities, augment the income and well-being of individuals, enhance infrastructure, and broaden the reach of healthcare and educational services. It is imperative to prioritise inclusive and sustainable economic growth, while considering social, environmental, and equitable income distribution factors.

#### Education

Education is a methodical procedure that entails imparting knowledge, abilities, principles, and perspectives to individuals through pedagogy, instruction, or educational encounters (Harahap, Suherlan, Rijal, & Ausat, 2023). Education is a purposeful and systematic endeavour aimed at augmenting an individual's cognition, competencies, and growth across multiple domains of existence. Education holds significant significance in shaping and advancing the growth of individuals, societies, and countries (Fauzi et al., 2023). The primary objective of education is to facilitate individuals in achieving their maximum potential, fostering comprehension of their surroundings, and equipping them to engage actively in society (Septianti et al., 2023). Education comprises a multitude of crucial elements, such as:

- 1. Curriculum: This is a structured and organised learning plan that covers the range of subjects and topics taught to students in an education system. It includes learning objectives, teaching materials, teaching methods and evaluation of learning outcomes.
- 2. Teaching Methods: Involves the various techniques and strategies used by educators to deliver learning materials to students. These can include lectures, group discussions, projects, experiments, demonstrations, and the use of learning technologies.
- 3. Educational Institution: A place or institution that provides an environment and facilities for the educational process, such as a school, university, training institute, or non-formal education centre.
- 4. Teacher/Educator: Individuals who have a central role in the education process. They are responsible for teaching, guiding and educating students, as well as providing guidance and knowledge needed.

Education can cover various levels, from early childhood education, primary education, secondary education, to higher or professional education. Education can also be provided in various forms, such as formal education (such as schools and universities), non-formal education (such as courses or training), and informal education (such as everyday learning in the community or through direct experience).

The advantages of acquiring an education are multifaceted. The provision of opportunities for the acquisition of knowledge and skills necessary for both daily life and the professional sphere is facilitated. Acquiring education has the potential to enhance employment prospects, augment earnings, promote individual welfare, and foster comprehension of significant principles, morals, and societal perspectives. Furthermore, education is known to have a significant impact on the cultivation of individuals' critical, analytical, and creative thinking abilities, as well as their social and emotional competencies. The role of education in fostering a cultured, inclusive, and democratic society is of significant importance. Furthermore, it is noteworthy that this phenomenon plays a significant role in fostering the growth of leadership, innovation, and adaptability among individuals in response to societal changes and the dynamic global landscape.

### **Information Technology**





Volume 12, Nomor 2, Juni 2023

DOI: <a href="https://doi.org/10.33395/jmp.v12i2.12491">https://doi.org/10.33395/jmp.v12i2.12491</a> p-ISSN: 2089-9424

e-ISSN: 2797-3298

The term Information Technology (IT) pertains to the utilisation of computer systems, communication networks, hardware, software, and computers to acquire, retain, modify, administer, and disseminate information (Kraugusteeliana et al., 2022) and (Sudirjo et al., 2023). The aforementioned statement encompasses a diverse array of technological tools that are employed for the purpose of electronically managing, transmitting, and retaining data (Ausat, Suherlan, et al., 2023). The digital transformation occurring in diverse domains of life such as commerce, education, communication, entertainment, and governance is significantly influenced by the pivotal role played by Information Technology. The field of Information Technology encompasses various elements, such as:

- 1. Hardware: The physical components of a computer system, such as personal computers, servers, computer networks, mobile devices, and other hardware used to process and store data
- 2. Software: Are computer programs or applications used to manage, analyse, and manipulate data. It includes operating systems, application software, development software, and various other programmes used in computing and information processing.
- 3. Communication Network: An infrastructure used to connect computer devices and systems so that data and information can be transmitted. Communication networks can be local area networks (LANs), wide area networks (WANs), or the internet that allows global information exchange.
- 4. Information System: A collection of tools, techniques, and methods used to collect, store, manage, and process information. Information systems can include databases, content management systems, database management systems, and various applications used to manage information in organisations.
- 5. Information Security: These are the measures and practices taken to protect data and information from possible threats and attacks. Information security involves the use of technology, policies, and procedures to prevent unauthorised access, manipulation, theft, or damage to data.

The field of Information Technology exerts a significant influence on both the societal and commercial domains. The utilisation of Information Technology (IT) has significantly altered the manner in which we engage in work-related activities, communicate with others, acquire knowledge, engage in commercial transactions, and engage in social interactions. The utilisation of technology facilitates enhanced efficacy and output, convenient retrieval of data, distant cooperation, innovation of novel commodities and amenities, and revolutionises various industries and economic domains.

Information Technology (IT) is a crucial factor in the development of human capital and economic growth. It enhances labour efficiency and productivity, improves the accessibility and quality of education, facilitates distance learning and e-learning, expands employment and entrepreneurship opportunities, and fosters innovation and the development of new technologies (Ausat, 2022). The integration of Information Technology in the field of education facilitates the acquisition of vast educational resources, including but not limited to online learning materials, video tutorials, and e-learning platforms. The implementation of this approach can potentially enhance the standard of education, expand the accessibility of education to geographically isolated or underdeveloped regions, and equip individuals with the necessary digital competencies required in an increasingly interconnected job market.

#### **Skills**

Skills are defined as the practical abilities and knowledge that individuals acquire through education, training, experience, and practise in a specific field (Ausat & Suherlan, 2021). Skills encompass a range of dimensions, such as physical, cognitive, interpersonal, and technical proficiencies that are necessary to effectively execute particular duties or occupations.

Physical skills pertain to the aptitude of utilising body parts with efficiency and expertise. The aforementioned skills encompass both fine motor skills, such as those involved in writing, drawing, or playing a musical instrument, and gross motor skills, such as those utilised in running,





Volume 12, Nomor 2, Juni 2023

DOI: https://doi.org/10.33395/jmp.v12i2.12491 p-ISSN: 2089-9424

e-ISSN: 2797-3298

jumping, or participating in sports. The acquisition of physical skills can be facilitated through deliberate and repetitive practise, structured training, and hands-on practical experience (Bosse et al., 2015).

The cognitive faculties encompass the capacity to engage in critical thinking, troubleshoot, and efficiently apply acquired knowledge. This encompasses cognitive aptitudes such as analytical proficiency, synthetic capability, evaluative acumen, and critical prowess. The repertoire of mental abilities encompasses not only cognitive faculties such as creativity, clarity in communication, and logical reasoning, but also proficiency in solving problems. The enhancement of mental skills can be achieved through educational pursuits, training regimens, and experiential learning opportunities (Beauchamp et al., 2012).

Social skills encompass the aptitude to engage in social interactions, effectively convey messages, and collaborate with individuals. Proficiency in interpersonal skills encompasses effective communication, active listening, empathetic comprehension of others' emotions, conflict resolution, collaborative teamwork, and fostering positive relationships. The acquisition of social skills encompasses the capacity to adjust to diverse social and cultural contexts. The acquisition of social skills can be facilitated through engagement in social interaction, repeated practise, and exposure to diverse social contexts (Kington et al., 2013).

Technical skills refer to the specific and specialised abilities that are necessary for a particular occupation or area of expertise. The aforementioned skills encompass proficiencies pertaining to the utilisation of particular instruments, software applications, apparatuses, or technologies, in addition to the capacity to execute particular duties with adeptness and accuracy. The acquisition of technical skills typically necessitates specialised instruction and hands-on involvement within the pertinent domain (Persky & Robinson, 2017).

Proficiency in various abilities is crucial in both professional and personal spheres. Possessing pertinent and robust competencies can enhance competitiveness, expand superior career prospects, and enhance individual efficacy (De Vos et al., 2011). Proficiency in various skills enables individuals to surmount obstacles, attain objectives, and acclimatise to societal changes and the dynamic labour landscape.

### **Productive labour**

Productive labour pertains to individuals or collectives possessing the requisite abilities and competencies to effectively contribute to the production process and generate economic worth (Bueno, 2022). The concept of productive labour refers to the capacity of human resources to engage in economic activities and contribute to the advancement of a nation or institution's economic growth and development (Fitriah et al., 2023). The attributes associated with productive labour encompass:

- 1. Skills and Competencies: Productive labour has skills and competencies that are in line with the demands of a particular job or economic sector. They have the knowledge, technical skills, and understanding necessary to carry out tasks effectively and efficiently.
- 2. Productivity: Productive labour is capable of producing high output in a given time. They have the ability to use available resources efficiently, optimise work processes, and achieve desired results.
- 3. Creativity and Innovation: Productive workers have the ability to think creatively, solve problems, and innovate. They are able to make new contributions, generate new ideas, and find innovative solutions to challenges faced.
- 4. Adaptability: Productive workers are able to adapt to changes that occur in the work environment and learn new skills according to market needs. They can change and develop according to changes in technology, market requirements, and organisational needs.
- 5. Collaboration and Communication: Productive workers have the ability to work in teams, collaborate with colleagues, and communicate well. They can share knowledge, coordinate well, and build positive working relationships.





Jurnal Minfo Polgan Volume 12, Nomor 2, Juni 2023

e-ISSN: 2797-3298

DOI: https://doi.org/10.33395/jmp.v12i2.12491 p-ISSN: 2089-9424

The contribution of productive labour is a crucial determinant in the economic development of a nation. The possession of a proficient, innovative, and efficient labour force can enhance a nation's competitiveness in the international market, augment the productivity of economic domains, and generate superior economic prospects. Enhancing human capital development and elevating the calibre of productive labour are crucial components for attaining sustainable and allencompassing economic growth.

#### RESEARCH METHOD

There was no primary data collection through in-depth field research as part of this study; instead, the researchers relied on secondary sources and analysed them in the laboratory. The researchers consulted a number of sources to conduct the investigation efficiently. Digital media and scientific databases were searched for relevant sources using keyword searches related to the topics presented here. The topic covered was human capital development and economic growth in terms of investment in IT education, skills and productive labour. The authors' search strategies were flexible, allowing them to utilise a wider range of print and digital resources to obtain the information they needed. We benefit from the resulting time savings. Our argument is supported by scholarly articles and databases such as ResearchGate, Elsevier, and Emerald Insight. Human capital development and economic growth in terms of investment in IT education, skills, and productive labour are the main topics of this research. The authors use keyword emphasis to help define the boundaries of the discussion and ensure coherence in the arguments made. To achieve this, we used qualifying terms. Journal articles, essays and other scholarly works published after 2015 were the main focus of this study. During the search process, we used targeted keywords to browse through various online databases. It should be noted that this study only includes articles, journals, and publications that are considered important to the topic of HR development and economic growth in terms of investment in IT education, skills, and productive labour. Papers, journals and magazines not directly related to the topic were excluded. Overall, the 49 works cited in this article provide a broad coverage of the topic.

This study is categorized as a qualitative inquiry. Throughout the data collection process, methodologies such as active listening and comprehensive documentation of all pertinent data were implemented. The aforementioned techniques were utilized throughout the data analysis process, which included reducing the data, presenting the data, and formulating conclusions, to ensure a thorough analysis. The primary objective of this inquiry was to deepen our understanding of the literature examined for this undertaking. The process of data reduction involved a systematic organization, categorization, and purification of the collected data to facilitate the extraction of meaningful insights and the production of significant outcomes. As a result of the complex and multifaceted characteristics of the data, it was imperative to perform analysis during the reduction phase itself. During this phase, our focus was on the process of condensing information to its most relevant components in order to achieve our ultimate goal. At the outset, a collection of 70 discrete sources was gathered. The initial process resulted in a variation of 49 units for the numerical variable. Moreover, the utilization of visual aids such as graphs and charts will be implemented to clarify the data that has been presented. The next step in the process of data reduction involves a systematic organization of the dataset in a structured format, with the objective of improving understanding and facilitating inference. In the present context, the transmission of information is frequently accomplished through the utilization of field notes, which can be construed as a variant of written discourse. The implementation of this specific methodology for data representation has the capability to improve the classification and organization of data in relational frameworks. The final stage of the investigation entails drawing logical inferences from the collected data, ultimately concluding the inquiry. The result of the aforementioned action has led to the acquisition of a comprehensive approach for analyzing qualitative data. Following the completion of data reduction and presentation, a comprehensive analysis was carried out to ensure that all elements were consistent with the research objectives. The aim of this phase is to derive meaning from the collected data through the identification of patterns, similarities, and differences that can be



Volume 12, Nomor 2, Juni 2023

DOI: https://doi.org/10.33395/jmp.v12i2.12491 p-ISSN: 2089-9424

e-ISSN: 2797-3298

leveraged to develop solutions for previously identified problems. The results derived from these sources are considered highly reliable. The aim of this endeavor is to gather accurate and dependable data in order to improve understanding.

#### RESULTS AND DISCUSSION

The development of human capital is a crucial factor in fostering economic growth within a nation. The present literature review aims to examine crucial elements of human capital development, specifically in relation to investment in education, information technology, skills, and productive labour, and their influence on the advancement of the economy.

Investment in education is a crucial element in the development of human capital. The provision of quality education equips individuals with the requisite knowledge and skills that are crucial for the enhancement of a nation's workforce. The act of investing in education encompasses the provision of sufficient educational facilities and infrastructure, the development of a curriculum that aligns with the demands of the labour market, and the enhancement of the quality of teaching personnel (Tuhuteru et al., 2023). By making appropriate investments in education, individuals can attain the essential knowledge and competencies required to engage in productive work, thereby contributing to the overall economic advancement of a nation.

In addition to investments in education, the utilisation of information technology is a significant contributor to the development of human capital and the advancement of economic growth (Satriadi et al., 2022). The proliferation of information technology has revolutionised the modes of operation and manufacturing across virtually all domains of the economy. The proficient utilisation of information technology has the potential to enhance efficiency and labour productivity, while also facilitating increased accessibility to information and educational prospects. The utilisation of information technology enables individuals to engage in self-directed learning via online courses, access up-to-date information, and participate in remote work platforms (Curran et al., 2019). Hence, the allocation of resources towards the enhancement of information technology infrastructure and the acquisition of digital skills is imperative for the advancement of human capital development and the promotion of economic growth.

In addition, competencies constitute a crucial aspect of human resources (HR) development. Enhancing the workforce's competitiveness can be achieved by acquiring skills that align with the demands of the labour market. The aforementioned abilities encompass technical, managerial, and social proficiencies that facilitate an individual's capacity to acclimatise to expeditious transformations within the occupational milieu. Investing in training and skills development has the potential to enhance both labour productivity and quality, while also creating more favourable prospects for higher-quality employment (Diawati et al., 2023). The enhancement of skills also serves as a catalyst for innovation and the emergence of novel technologies, thereby making a significant contribution to the sustained economic expansion (Sutrisno et al., 2023).

The attainment of a productive workforce is contingent upon the implementation of efficient human resource development practises. An efficient and effective workforce is one that possesses the requisite knowledge, skills, and motivation to perform optimally (Az-zaakiyyah et al., 2022). The enhancement of workforce productivity can lead to an augmentation in production capacity, a boost in competitiveness, and the facilitation of sustainable economic growth for a nation. An industrious labour force has the potential to foster ingenuity and advancement within the industrial domain, while simultaneously augmenting the economic value added (Ausat, Risdwiyanto, et al., 2023).

Investing in education, information technology, skills, and productive labour for the development of human capital has a noteworthy influence on the economic growth of a nation. To begin with, a sufficient allocation of resources towards education enables individuals to acquire knowledge and competencies that enable them to make productive contributions to economic endeavours. The provision of quality education can create pathways to enhanced employment prospects, thereby augmenting personal earnings and bolstering purchasing capacity (Fallah Shayan et al., 2022). As income and purchasing power rise, there is a corresponding increase in



Volume 12, Nomor 2, Juni 2023

DOI: https://doi.org/10.33395/jmp.v12i2.12491 p-ISSN: 2089-9424

e-ISSN: 2797-3298

demand for goods and services, which subsequently stimulates growth in the economic sector.

Furthermore, the utilisation of information technology has brought about significant transformations in the operational and manufacturing processes across diverse industries of the economy. The proficient utilisation of information technology has the potential to enhance efficacy and output, curtail manufacturing expenses, and expedite the creation of novel commodities and amenities. Within the domain of human resource development, the utilisation of information technology facilitates broader accessibility to educational and training opportunities via virtual platforms (Gadzali, 2023). This phenomenon presents prospects for individuals to augment their knowledge and competencies without being restricted by spatial demarcations or temporal limitations. Possessing a proficient workforce in the domain of information technology can confer a competitive edge to a nation in the international marketplace.

The acquisition of skills that align with the demands of the labour market is crucial in enhancing labour productivity. Enhancing the workforce's capacity to adapt to technological advancements and market fluctuations can be achieved through investment in training and skills development (Touriano et al., 2023). The possession of robust technical abilities, including proficiencies in technology, manufacturing, or specialised professional knowledge, can enhance an individual's productivity and competitiveness. Furthermore, the cultivation of managerial and social competencies is crucial for establishing efficacious professional connections, promoting teamwork, and exhibiting robust leadership. The enhancement of workforce skills can lead to increased efficiency, innovation, and competitiveness within the industrial sector, thereby promoting economic growth.

Productive labour is known to have a favourable effect on the growth of the economy. The engagement in productive labour has the potential to enhance operational efficiency and efficacy in the manufacturing of commodities and provision of services (Ausat, Suherlan, et al., 2022). Additionally, it can lead to an improvement in the standard of products, as well as a reduction in the depletion of resources. Furthermore, the engagement in productive labour fosters innovation and novel discoveries, thereby stimulating the expansion of the industrial domain and generating fresh economic prospects. The cultivation of a productive workforce can enhance a nation's competitiveness in the international market, foster foreign investment, and promote the expansion of more sophisticated economic domains.

Furthermore, the amalgamation of human capital development with investments in education, information technology, skills, and productive labour has a lasting effect on the economic growth. The provision of quality education and pertinent skills to individuals can empower them to act as catalysts for societal transformation and advancement. Entrepreneurs have the capacity to establish novel enterprises, innovate cutting-edge technologies, and enhance current manufacturing procedures (Azzaakiyyah, 2023). The implementation of this measure is expected to foster a favourable atmosphere for the sustainable development of both the industrial and economic domains (Rembulan et al., 2023). Furthermore, a comprehensive approach to the development of human capital is crucial in mitigating social and economic inequalities. By investing in education and promoting inclusive skills development, individuals from varying backgrounds can attain equal access to economic opportunities, ultimately enhancing their overall well-being. The mitigation of social and economic disparities can lead to enhanced stability, equity, and sustainability within societies.

The present literature review has demonstrated that the development of human capital, achieved through investments in education, information technology, skills, and productive labour, is a critical factor in driving a nation's economic growth. By implementing efficient human capital development strategies, nations can enhance their competitiveness in the international market, boost the productivity and efficacy of their industrial sector, and establish sustainable economic prospects (Sima et al., 2020). Hence, it is imperative to implement public policies that foster comprehensive and enduring development of human capital, which is essential for sustained economic expansion and societal well-being.

When examining the relationship between economic growth and human capital development, it is crucial to take into account various significant factors.





Volume 12, Nomor 2, Juni 2023 e-ISSN : 2797-3298

DOI: https://doi.org/10.33395/jmp.v12i2.12491 p-ISSN: 2089-9424

Initially, it is imperative to note that the cooperation between the public and private sectors plays a pivotal role in promoting efficient human capital development. The provision of policies and regulations that facilitate investment in education, skills enhancement, and the adoption of information technology is a crucial responsibility of governments. Incentives may be offered by policymakers to encourage companies to invest in training and development of their workforce. Conversely, the private sector has the potential to contribute towards the identification of necessary skills in the job market, fostering partnerships with academic institutions to enhance pertinent course content, and furnishing job prospects for proficient graduates. Effective collaboration between the public and private sectors can foster an ecosystem that facilitates comprehensive and enduring human resource development (Kumari et al., 2019).

Furthermore, it is crucial to prioritise the incorporation of inclusion within the realm of human resources development. It is imperative that all members of society, irrespective of their social, economic, or geographic circumstances, are afforded equitable access to educational resources and opportunities for skills enhancement. The implementation of policies aimed at mitigating inequalities in educational access, offering financial assistance to disadvantaged individuals, and guaranteeing equal opportunities for education and employment across genders is necessary. The promotion of inclusion within countries can enable the maximisation of the entire human capital, thereby resulting in a favourable influence on the overall economic growth (Harini et al., 2023).

Thirdly, it is imperative to embrace a sustainable strategy towards the development of human capital. The aforementioned endeavours encompass endeavours to incorporate ecological and societal concerns into educational syllabi, cultivate competencies pertaining to sustainability and eco-friendly technology, and promote innovation that is environmentally conscious (Saputra et al., 2023). The achievement of sustainable economic growth is contingent upon the presence of a workforce that possesses a cognizance of environmental concerns and the capacity to tackle the obstacles posed by climate change and environmental deterioration.

Furthermore, it is crucial to consistently assess and revise human resource development policies. The pace of change in the world is accelerating, particularly in light of advancements in technology and the growth of the global economy. Consequently, it is imperative to tailor education and skills development policies and programmes to accommodate changing trends and requirements (Harahap, Ausat, Sutrisno, et al., 2023). The implementation of ongoing assessment mechanisms can facilitate the identification of accomplishments, obstacles, and prospects within the realm of human resources development, thereby facilitating requisite enhancements and modifications.

Facilitating entrepreneurship and innovation is crucial for attaining sustainable economic expansion. Fostering an entrepreneurial mindset and promoting innovation within a given society has the potential to generate employment opportunities, expedite the assimilation of novel technologies, and invigorate the expansion of more vibrant economic domains. The integration of entrepreneurship education in the curriculum, entrepreneurship training, and the creation of a conducive environment for the development of new businesses are potential avenues for the realisation of human capital development in this context (Gadzali et al., 2023). The cultivation of entrepreneurial skills within the human capital of a nation has the potential to leverage individual creativity and innovation, thereby expediting economic growth.

Incorporating the academic, research, and industrial sectors into human resources development is a crucial aspect to consider. The formation of partnerships among academic institutions, research facilities, and corporations can yield significant benefits in terms of fostering innovation, facilitating the dissemination of knowledge to commercial operations, and implementing technological breakthroughs in various industries. Within this particular context, internship programmes, applied research initiatives, and collaborative projects that involve both universities and industry can serve as a crucial link between theoretical concepts and practical applications. Additionally, these efforts can enhance the pertinence of education in relation to the demands of the labour market.

It is imperative to give due consideration to the ethical and social responsibility dimensions



Volume 12, Nomor 2, Juni 2023

DOI: <a href="https://doi.org/10.33395/jmp.v12i2.12491">https://doi.org/10.33395/jmp.v12i2.12491</a> p-ISSN: 2089-9424

e-ISSN: 2797-3298

of human resources development. The pursuit of sustainable economic development necessitates the upholding of ethical values, justice, and social sustainability. The promotion of social and environmental responsibility awareness, as well as the cultivation of critical thinking and long-term thinking abilities, should be integral components of education and skills development. This initiative has the potential to cultivate a cohort of conscientious personnel who possess the capacity to effectively engage with the societal and ecological predicaments that are currently being encountered.

In achieving sustainable economic growth, it is imperative to prioritise human capital development by investing in education, information technology, skills, and productive labour. By fostering partnerships between the public and private sectors, prioritising inclusivity and sustainability, promoting entrepreneurship and innovation, facilitating collaboration between academia and industry, and upholding ethical and social responsibility standards, nations can cultivate proficient, competitive, and adept human resources to confront forthcoming obstacles. The cultivation of comprehensive and enduring human resources development emerges as a crucial foundation for attaining equitable and enduring economic expansion.

#### **CONCLUSION**

The present literature review has demonstrated that the development of human capital, achieved through investments in education, information technology, skills, and productive labour, is a pivotal factor in the economic growth of a nation. The allocation of resources towards high-quality education confers upon individuals the acquisition of knowledge and competencies, broadens the scope of employment prospects, and augments their capacity to make purchases. The utilisation of information technology facilitates enhanced accessibility to education and training, while concurrently augmenting efficiency and productivity. The acquisition of skills that are pertinent to the demands of the labour market can enhance labour productivity and facilitate the ability to adjust to technological advancements. The effectiveness of human resource development is bolstered by a workforce that is productive and drives innovation, efficiency, and competitiveness. Additionally, collaboration between the public and private sectors, inclusion, sustainable approaches, entrepreneurship and innovation, academic-industry sector collaboration, and social responsibility are all crucial factors in achieving this goal.

Drawing from the findings of this literature review, there exist a number of recommendations aimed at enhancing the development of human capital and promoting economic growth:

- a) In order to ensure equal access and quality of education for all individuals, it is imperative that the government augment its investment in education, both in terms of budgetary allocation and policy implementation. It is imperative that educational programmes are modified to incorporate competencies that are pertinent to the forthcoming job market.
- b) To promote greater accessibility, reduce the digital divide, and enhance efficiency and productivity, it is imperative to augment the utilisation of information technology and digitalization in education and training.
- c) To effectively address labour market demands, enhance educational curricula, and facilitate job placements for proficient graduates, it is imperative to establish a strong alliance between the public and private sectors via collaborative partnerships and cooperative initiatives.
- d) The prioritisation of inclusion ought to be a fundamental aspect of human resources (HR) development. It is imperative that programmes and policies are formulated in a manner that guarantees equitable accessibility for individuals hailing from diverse social, economic, and geographical strata.
- e) The incorporation of environmental and social issues into HRD curricula and the development of sustainability-related skills are crucial in adopting a sustainable approach to HRD.
- f) It is imperative to augment collaboration among the academic, research, and industrial domains via internship initiatives, applied research, and joint ventures. This would guarantee the pertinence of education to the demands of the labour market and expedite the assimilation of novel technologies.





Volume 12, Nomor 2, Juni 2023

DOI: https://doi.org/10.33395/jmp.v12i2.12491 p-ISSN: 2089-9424

e-ISSN: 2797-3298

g) Periodic assessments and revisions of policies are imperative to stay abreast of changing patterns and requirements. It is imperative to regularly revise and adapt education and skills development policies to ensure their pertinence and efficacy in addressing forthcoming obstacles.

- h) Sufficient financial backing for education and training is imperative, encompassing contributions from both the public and private domains. Investing in human capital over an extended period is likely to yield substantial economic advantages and generate enduring returns for the nation.
- i) The field of human resource development necessitates a particular emphasis on the capacity to adjust to swift transformations in technology and the labour market. It is advisable to promote the cultivation of perpetual learning abilities among individuals and the acquisition of competencies that are pertinent to technological advancements.
- j) The implementation of policies that facilitate entrepreneurship and innovation has the potential to stimulate the emergence of novel employment opportunities, foster sustainable economic expansion, and enhance the nation's competitiveness on a worldwide scale. Enhancements in entrepreneurship training and education are necessary to foster an entrepreneurial mindset within individuals.
- k) The development of HR should prioritise social and ethical responsibility. It is imperative to provide individuals with the necessary tools to comprehend the societal and ecological ramifications of economic endeavours, and to promote conscientious and sustainable corporate conduct.

Through the adoption of the aforementioned recommendations, nations can enhance comprehensive and enduring human resource development, thereby facilitating equitable, efficient, and sustainable economic expansion. The involvement of pertinent stakeholders, such as governmental bodies, private enterprises, academic establishments, and local communities, is crucial in this undertaking.

#### REFERENCES

- Aslan, & Rimba, A. P. (2020). Pengaruh Tenaga Kerja dan Konsumsi Masyarakat terhadap Pertumbuhan Ekonomi di Provinsi Kalimantan Utara. *JEPEWIL*, 1(2), 1–17.
- Ausat, A. M. A. (2022). Positive Impact of The Covid-19 Pandemic on The World of Education. *Jurnal Pendidikan*, 23(2), 107–117. https://doi.org/10.33830/JP.V23I2.3048.2022
- Ausat, A. M. A. (2023). The Application of Technology in the Age of Covid-19 and Its Effects on Performance. *Apollo: Journal of Tourism and Business*, 1(1), 14–22. https://doi.org/10.58905/apollo.v1i1.8
- Ausat, A. M. A., Al Bana, T., & Gadzali, S. S. (2023). Basic Capital of Creative Economy: The Role of Intellectual, Social, Cultural, and Institutional Capital. *Apollo: Journal of Tourism and Business*, 1(2), 42–54. https://doi.org/10.58905/apollo.v1i2.21
- Ausat, A. M. A., Risdwiyanto, A., Muh. Arfah, & Jemadi, J. (2023). Conflict Management Strategies in Work Teams in the Creative Industry. *KENDALI: Economics and Social Humanities*, 1(3), 139–142. https://doi.org/https://doi.org/10.58738/kendali.v1i3.99
- Ausat, A. M. A., & Suherlan, S. (2021). Obstacles and Solutions of MSMEs in Electronic Commerce during Covid-19 Pandemic: Evidence from Indonesia. BASKARA: Journal of Business and Entrepreneurship, 4(1), 11–19. https://doi.org/10.54268/BASKARA.4.1.11-19
- Ausat, A. M. A., Suherlan, S., & Azzaakiyyah, H. K. (2023). Is ChatGPT Dangerous for Lecturer Profession? An In-depth Analysis. *Jurnal Pendidikan Dan Konseling (JPDK)*, *5*(2), 3226–3229. http://journal.universitaspahlawan.ac.id/index.php/jpdk/article/view/13878
- Ausat, A. M. A., Suherlan, S., Peirisal, T., & Hirawan, Z. (2022). The Effect of Transformational Leadership on Organizational Commitment and Work Performance. *Journal of Leadership in Organizations*, *4*(4), 61–82. https://doi.org/10.22146/jlo.71846
- Ausat, A. M. A., Widayani, A., Rachmawati, I., Latifah, N., & Suherlan, S. (2022). The Effect of Intellectual Capital and Innovative Work Behavior on Business Performance. *Journal of*



Volume 12, Nomor 2, Juni 2023

DOI: https://doi.org/10.33395/jmp.v12i2.12491 p-ISSN: 2089-9424

e-ISSN: 2797-3298

- *Economics*, *Business*, & *Accountancy Ventura*, 24(3), 363–378. https://doi.org/10.14414/jebav.v24i3.2809
- Azzaakiyyah, H. K. (2023). An Entrepreneur's Character from Professor Musa Asy'arie's Perspective. *Apollo: Journal of Tourism and Business*, 1(1), 6–13. https://doi.org/10.58905/apollo.v1i1.7
- Az-zaakiyyah, H. K., Hidayat, F., Almaududi Ausat, A. M., & Suherlan, S. (2022). Islamic Rural Bank Employee Performance: Role of Motivation, Compensation, and Work Environment. *EkBis: Jurnal Ekonomi Dan Bisnis*, 6(1), 44–58. https://doi.org/10.14421/EkBis.2022.6.1.1551
- Beauchamp, M. K., Harvey, R. H., & Beauchamp, P. H. (2012). An Integrated Biofeedback and Psychological Skills Training Program for Canada's Olympic Short-Track Speedskating Team. *Journal of Clinical Sport Psychology*, 6(1), 67–84. https://doi.org/10.1123/jcsp.6.1.67
- Bosse, H. M., Mohr, J., Buss, B., Krautter, M., Weyrich, P., Herzog, W., Jünger, J., & Nikendei, C. (2015). The benefit of repetitive skills training and frequency of expert feedback in the early acquisition of procedural skills. *BMC Medical Education*, 15(1), 22. https://doi.org/10.1186/s12909-015-0286-5
- Bueno, N. (2022). From Productive Work to Capability-Enhancing Work: Implications for Labour Law and Policy. *Journal of Human Development and Capabilities*, 23(3), 354–372. https://doi.org/10.1080/19452829.2021.1951186
- Cahyono, A. S., Tuhuteru, L., Julina, S., Suherlan, S., & Ausat, A. M. A. (2023). Building a Generation of Qualified Leaders: Leadership Education Strategies in Schools. *Journal on Education*, 5(4), 12974–12979. https://jonedu.org/index.php/joe/article/view/2289
- Curran, V., Gustafson, D. L., Simmons, K., Lannon, H., Wang, C., Garmsiri, M., Fleet, L., & Wetsch, L. (2019). Adult learners' perceptions of self-directed learning and digital technology usage in continuing professional education: An update for the digital age. *Journal of Adult and Continuing Education*, 25(1), 74–93. https://doi.org/10.1177/1477971419827318
- De Vos, A., De Hauw, S., & Van der Heijden, B. I. J. M. (2011). Competency development and career success: The mediating role of employability. *Journal of Vocational Behavior*, 79(2), 438–447. https://doi.org/10.1016/j.jvb.2011.05.010
- Diawati, P., Gadzali, S. S., Mahardhani, A. J., Irawan, B., & Ausat, A. M. A. (2023). Analysing the Dynamics of Human Innovation in Administration. *Jurnal Ekonomi*, *12*(02), 537–540. https://ejournal.seaninstitute.or.id/index.php/Ekonomi/article/view/1652
- Fallah Shayan, N., Mohabbati-Kalejahi, N., Alavi, S., & Zahed, M. A. (2022). Sustainable Development Goals (SDGs) as a Framework for Corporate Social Responsibility (CSR). *Sustainability*, *14*(3), 1222. https://doi.org/10.3390/su14031222
- Fauzi, F., Tuhuteru, L., Sampe, F., Ausat, A. M. A., & Hatta, H. R. (2023). Analysing the Role of ChatGPT in Improving Student Productivity in Higher Education. *Journal on Education*, *5*(4), 14886–14891. https://doi.org/10.31004/joe.v5i4.2563
- Fitriah, D., Agustin, E., Warmasih, W., Gadzali, S. S., & Ausat, A. M. A. (2023). Analysis of the Effect of No Work No Pay Policy on Employees of PT Taekwang Industrial Indonesia during the Covid-19 Pandemic. *Journal on Education*, *5*(3), 10312–10317. https://jonedu.org/index.php/joe/article/view/1927
- Gadzali, S. S. (2023). Determinants of Consumer Purchases in the Perspective of Business Psychology. *Apollo: Journal of Tourism and Business*, 1(1), 23–28. https://doi.org/10.58905/apollo.v1i1.9
- Gadzali, S. S., Harahap, M. A. K., Tarigan, I. M., Nasution, A. A., & Ausat, A. M. A. (2023). Women's Entrepreneurship: An Examination of Government Support and the Role of Knowledge Skills. *Community Development Journal: Jurnal Pengabdian Masyarakat*, 4(1), 713–717. https://doi.org/10.31004/cdj.v4i1.12464
- Ginting, A. M., & Rasbin. (2010). Pengaruh Pertumbuhan Ekonomi terhadap Tingkat Kemiskinan di Indonesia Sebelum dan Setelah Krisis. *Jurnal Ekonomi & Kebijakan Publik*, 2(1), 279–312.



Volume 12, Nomor 2, Juni 2023

DOI: https://doi.org/10.33395/jmp.v12i2.12491 p-ISSN: 2089-9424

e-ISSN: 2797-3298

- Harahap, M. A. K., Ausat, A. M. A., Rachman, A., Riady, Y., & Azzaakiyyah, H. K. (2023). Overview of ChatGPT Technology and its Potential in Improving Tourism Information Services. *Jurnal Mininfo Polgan*, *12*(2), 424–431. https://doi.org/10.33395/jmp.v12i2.12416
- Harahap, M. A. K., Ausat, A. M. A., & Suherlan, S. (2023). Analysing the Role of Religious Education in Improving the Work Ethic of MSME Owners. *Journal on Education*, *5*(4), 15050–15057. https://doi.org/10.31004/joe.v5i4.2591
- Harahap, M. A. K., Ausat, A. M. A., Sutrisno, S., Suherlan, S., & Azzaakiyyah, H. K. (2023). Analyse the Role of Family in Entrepreneurship Education: Effective Support and Assistance. *Journal on Education*, *5*(4), 14563–14570. https://doi.org/10.31004/joe.v5i4.2510
- Harahap, M. A. K., Kraugusteeliana, K., Pramono, S. A., Jian, O. Z., & Ausat, A. M. A. (2023). The Role of Information Technology in Improving Urban Governance. *Jurnal Minfo Polgan*, 12(2), 371–379. https://doi.org/10.33395/jmp.v12i2.12405
- Harahap, M. A. K., Suherlan, S., Rijal, S., & Ausat, A. M. A. (2023). Defining the Business Philosophy Foundation for Sustainable Business Education. *Journal on Education*, *5*(4), 15776–15783. https://doi.org/10.31004/joe.v5i4.2690
- Harahap, M. A. K., Sutrisno, S., Fauzi, F., Jusman, I. A., & Ausat, A. M. A. (2023). The Impact of Digital Technology on Employee Job Stress: A Business Psychology Review. *Jurnal Pendidikan Tambusai*, 7(1), 3635–3638. https://jptam.org/index.php/jptam/article/view/5775
- Harini, H., Wahyuningtyas, D. P., Sutrisno, S., Wanof, M. I., & Ausat, A. M. A. (2023). Marketing Strategy for Early Childhood Education (ECE) Schools in the Digital Age. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 7(3), 2742–2758. https://doi.org/10.31004/obsesi.v7i3.4454
- Kamar, K., Lewaherilla, N. C., Ausat, A. M. A., Ukar, K., & Gadzali, S. S. (2022). The Influence of Information Technology and Human Resource Management Capabilities on SMEs Performance. *International Journal of Artificial Intelligence Research*, 6(1.2), 1. https://doi.org/https://doi.org/10.29099/ijair.v6i1.2.676
- Kington, A., Gates, P., & Sammons, P. (2013). Development of social relationships, interactions and behaviours in early education settings. *Journal of Early Childhood Research*, 11(3), 292–311. https://doi.org/10.1177/1476718X13492936
- Kraugusteeliana, Surjati, E., Ausat, A. M. A., Pramono, S. A., & Prabu, H. K. (2022). A Literature Review on the Application of Technology During Covid-19 and Its Relationship to Performance. *International Journal Of Artificial Intelligence Research*, 6(1.2), 1. https://doi.org/https://doi.org/10.29099/ijair.v6i1.2.765
- Kumari, R., Kwon, K.-S., Lee, B.-H., & Choi, K. (2019). Co-Creation for Social Innovation in the Ecosystem Context: The Role of Higher Educational Institutions. *Sustainability*, *12*(1), 307. https://doi.org/10.3390/su12010307
- Muhamad, L. F., Bakti, R., Febriyantoro, M. T., Kraugusteeliana, & Ausat, A. M. A. (2023). Do Innovative Work Behavior and Organizational Commitment Create Business Performance: A Literature Review. Community Development Journal: Jurnal Pengabdian Masyarakat, 4(1), 713–717. https://doi.org/10.31004/cdj.v4i1.12479
- Persky, A. M., & Robinson, J. D. (2017). Moving from Novice to Expertise and Its Implications for Instruction. *American Journal of Pharmaceutical Education*, 81(9), 6065. https://doi.org/10.5688/ajpe6065
- Rembulan, G. D., Tannady, H., Al Haddar, G., Ausat, A. M. A., & Pratiwi, E. Y. R. (2023). Entrepreneurs Preference in Choosing Payment Method. *Jurnal Pendidikan Dan Kewirausahaan*, *11*(2), 415–423. https://doi.org/https://doi.org/10.47668/pkwu.v11i2.743
- Rukman, W. Y., Urath, S., Harini, H., Ausat, A. M. A., & Suherlan, S. (2023). Philosophy Education as a Means of Developing Student Soft Skills. *Edumaspul: Jurnal Pendidikan*, 7(1), 281–286. https://doi.org/https://doi.org/10.33487/edumaspul.v7i1.5458
- Rustiawan, I., Gadzali, S. S., Suharyat, Y., Iswadi, U., & Ausat, A. M. A. (2023). The Strategic Role of Human Resource Management in Achieving Organisational Goals. *Innovative: Journal Of Social Science Research*, 3(2), 632–642. https://doi.org/10.31004/innovative.v3i2.345





Volume 12, Nomor 2, Juni 2023

DOI: https://doi.org/10.33395/jmp.v12i2.12491 p-ISSN: 2089-9424

e-ISSN: 2797-3298

- Saputra, A., Ilmi, D., Angelina, W., Gadzali, S. S., & Ausat, A. M. A. (2023). PT Pos Indonesia Public Service Innovation in Maintaining Existence and Competitiveness in the Industrial Era 4.0 (Case Study of PT Pos Indonesia KC Subang). *Journal on Education*, *5*(3), 10302–10311. https://jonedu.org/index.php/joe/article/view/1926
- Satriadi, S., Almaududi Ausat, A. M., Heryadi, D. Y., Widjaja, W., & Sari, A. R. (2022). Determinants of Entrepreneurial Intention: A Study on Indonesian Students. *BISNIS & BIROKRASI: Jurnal Ilmu Administrasi Dan Organisasi*, 29(3), 151–165. https://doi.org/10.20476/jbb.v29i3.1323
- Septianti, R., Wahab, A., Hastuti, R., Purnama, Y., & Ausat, A. M. A. (2023). Re-examining the Impact of Covid-19 on Education. *Jurnal Pendidikan Tambusai*, 7(1), 3934–3940. https://jptam.org/index.php/jptam/article/view/5872
- Sima, V., Gheorghe, I. G., Subić, J., & Nancu, D. (2020). Influences of the Industry 4.0 Revolution on the Human Capital Development and Consumer Behavior: A Systematic Review. *Sustainability*, 12(10), 4035. https://doi.org/10.3390/su12104035
- Sudirjo, F., Ausat, A. M. A., Rijal, S., Riady, Y., & Suherlan, S. (2023). ChatGPT: Improving Communication Efficiency and Business Management of MSMEs in the Digital Age. *Innovative: Journal Of Social Science Research*, *3*(2), 643–652. https://doi.org/10.31004/innovative.v3i2.347
- Sutrisno, S., Kuraesin, A. D., Siminto, S., Irawansyah, I., & Ausat, A. M. A. (2023). The Role of Information Technology in Driving Innovation and Entrepreneurial Business Growth. *Jurnal Minfo Polgan*, *12*(2), 586–597. https://doi.org/https://doi.org/10.33395/jmp.v12i2.12463
- Touriano, D., Sutrisno, S., Kuraesin, A. D., Santosa, S., & Ausat, A. M. A. (2023). The Role of Information Technology in Improving the Efficiency and Effectiveness of Talent Management Processes. *Jurnal Minfo Polgan*, 12(2), 539–548. https://doi.org/https://doi.org/10.33395/jmp.v12i2.12454
- Tuhuteru, L., Ausat, A. M. A., Pratiwi, E. Y. R., & Suherlan, S. (2023). The Role of Civic Education in Promoting Diversity and Tolerance in Schools. *Edumaspul: Jurnal Pendidikan*, 17(1), 275–280. https://doi.org/https://doi.org/10.33487/edumaspul.v7i1.5456
- Wikansari, R., Ausat, A. M. A., Gadzali, S. S., Suherlan, & Azzaakiyyah, H. K. (2023). Understanding the Meaning of Well-Being in the Perspective of Psychological Science: A Literature Review. *Community Development Journal: Jurnal Pengabdian Masyarakat*, *4*(1), 702–707. https://doi.org/10.31004/cdj.v4i1.12455

