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The Utilization of Artificial Intelligence to Equip Senior High School Students with Knowledge to Build Sustainable Businesses

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ABSTRACT

In today's digital era, artificial intelligence (AI) has become one of the most transformative innovations driving business advancement across various sectors. This workshop introduces high school students to artificial intelligence (AI) as a powerful tool for building and growing sustainable businesses. Through interactive presentations and hands-on activities, students will learn basic AI concepts, explore its applications in business, and understand how AI can enhance efficiency, drive innovation, and increase competitiveness. Real-life case studies and AI simulations will help students identify practical opportunities and challenges in business. Students will also create and present their own AI-based business ideas, enabling them to apply what they've learned to real-world contexts. This experience builds foundational skills in AI and entrepreneurship, encouraging creative and strategic thinking. Aligned with Sustainable Development Goal (SDG) 8, which promotes inclusive economic growth, productive employment, and decent work, the workshop empowers students to become future innovators and encourages sustainable business practices that contribute to economic development that create positive social impact in their communities.

Keywords: *Artificial Intelligence, Sustainable Development Goals 8, Value Proposition, Entrepreneurship*

INTRODUCTION

As one of the largest economies in Southeast Asia, Indonesia is experiencing various economic dynamics. According to the PwC Indonesia Economic Update, as of 2024, the country's economy shows signs of recovery post-COVID-19, with relatively stable economic growth (PwC Indonesia, 2024). Sectors such as manufacturing, technology, and services are demonstrating positive progress, while tourism and exports are still striving to bounce back from the pandemic's impact. The government continues to drive initiatives in digitalization and financial inclusion, which are crucial catalysts for economic growth. However, challenges remain. Global inflation, commodity price fluctuations, and geopolitical uncertainty affect purchasing power and economic stability. In addition to that, economic inequality and high youth unemployment persist as issues that need addressing. The World Economic Outlook that was issued by IMF on April 2024 showed that Indonesia has the highest unemployment rate among other ASEAN countries (IMF, 2024). In this regard, the emergence of new businesses, especially those based on technology, can be a solution to stimulate economic growth and create job opportunities.

The dynamic and challenging economy, including market instability and regulatory changes, demands entrepreneurs to offer unique value propositions to customers, be more innovative, and flexible in managing their businesses. A deep understanding of economic conditions and market trends is essential for making sound decisions. Businesses that can provide solutions relevant to market needs and leverage the latest technology will have a greater chance of success. Given the rapid changes in technology and the global economy, digitalization and technological transformation are key to survival and growth in the competitive market. Furthermore, with increasing internet penetration and technology adoption in Indonesia, opportunities for starting digital-based businesses are expanding. That is why expertise in artificial intelligence (AI) and entrepreneurship is becoming an invaluable asset that can open many opportunities.

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The roles and benefits of AI in starting and growing a business align closely with Sustainable Development Goal 8 (SDG 8), which focuses on promoting sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. AI, as a transformative technology, has the potential to drive economic innovation, create new job opportunities, and improve productivity across industries (Babina et al., 2024). For aspiring entrepreneurs, particularly those in emerging economies or areas with limited resources, AI offers tools and processes that can reduce operational costs, streamline decision-making, and optimize business models that result in higher growth (Gonzales, 2023). These advancements support SDG 8's focus on economic growth and productive employment by making it easier to create and scale small and medium-sized enterprises (SMEs), which are vital to economic resilience and job creation.

AI-powered tools can also support inclusivity in entrepreneurship, enabling access to resources and market insights that were previously limited or costly. For example, AI can be used to analyze large data sets to identify market trends, consumer preferences, and demand patterns, giving entrepreneurs—regardless of their geographic location—a better understanding of their target audience (Kumar et al., 2024). This can level the playing field for small businesses, allowing them to compete with larger organizations by providing personalized experiences, managing inventory efficiently, and predicting market changes. In this way, AI contributes to build a more inclusive economy where businesses of all sizes and in diverse locations can thrive. AI's impact on productivity and efficiency translates directly to creating decent work and supporting economic growth. Businesses can enhance productivity by automating basic operations and shifting human resources to more significant and challenging responsibilities, which frequently pay higher compensation and provide more job satisfaction. This not only aligns with SDG 8's commitment to decent work but also opens up opportunities for workers to develop new skills in technology and data management, thereby fostering a more skilled workforce.

The younger generation represent a large and growing segment of the global workforce yet often face high unemployment rates. The literature indicates that youth unemployment can have long-lasting social and economic consequences, including poverty, social exclusion, and lower lifetime earnings (Bell & Blanchflower, 2011). To address these challenges, researchers emphasize the importance of fostering youth entrepreneurship to create jobs and stimulate economic growth. By encouraging young people to start their own businesses, countries can create new employment opportunities and foster innovation (Schøtt et al., 2015). As AI-driven businesses expand, they contribute to the local economy, drive demand for new skill sets, and create a cycle of learning and development that promotes sustainable economic growth.

This workshop aims to equip students with the skills to innovate and adapt to an ever-changing market. The combination topic about AI and Entrepreneurship aims to inspire students to become future leaders who not only master technology but can also lead with a vision focused on growth and innovation. Integrating AI with entrepreneurship in high school training enables students to understand and leverage AI's potential in solving real-world problems and creating new business opportunities. With AI, students learn to optimize processes, understand complex data patterns, and develop more innovative and efficient solutions with economic, social, and environmental effects (Mitchell, 2019). Meanwhile, entrepreneurship education provides them with tools to think creatively, develop sustainable business models, and face market challenges with courage and innovative strategies (Neck, Greene, & Brush, 2014). That is why, UPH Faculty of Business in collaboration with Faculty of Information Technology held a workshop for BPK Penabur Bogor Senior High School Students

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entitled “The Utilization of Artificial Intelligence to Equip Senior High School Students with Knowledge to Build Sustainable Businesses”.

LITERATURE REVIEW

Sustainable Development Goals (SDG) 8

SDG 8 is a global commitment to promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. This goal is essential for reducing poverty, improving standards of living, and ensuring economic security, as economic growth drives opportunities that can lift people out of poverty and create long-term societal benefits. SDG 8 targets the creation of jobs that respect labor rights, offer fair wages, and provide safe and secure work environments. Achieving this goal requires attention to both macroeconomic policies that stimulate growth and microeconomic initiatives that create quality jobs and economic opportunities for all demographics, especially marginalized and vulnerable populations.

One key aspect of SDG 8 is its emphasis on inclusive economic growth. Inclusivity ensures that economic progress benefits not just a select few but all members of society, particularly women, youth, and persons with disabilities who often face barriers to employment (Jabbie et al., 2019). For example, youth unemployment is a persistent issue globally, as young people often struggle to find stable jobs, and in many regions, gender inequality restricts women’s access to the labor market (Kabeer, 2016). SDG 8 aims to bridge these gaps by promoting policies and practices that eliminate discrimination and provide equal opportunities. This not only supports individuals’ livelihoods but also creates a more resilient economy by tapping into the potential of a diverse workforce.

Another crucial focus of SDG 8 is sustainable economic growth that respects environmental limits. However, as scholars note, traditional economic growth models often lead to environmental degradation and resource depletion (Jackson, 2017). The concept of sustainable economic growth aims to balance growth with the responsible use of resources and environmental protection. To support sustainability, SDG 8 encourages responsible production, innovation in green technology, and shifts towards sectors that minimize environmental impact, such as renewable energy and circular economies. Sustainable growth ensures that economic benefits are not achieved at the expense of the environment, thus securing a prosperous future for the next generations.

SDG 8 also underscores the importance of entrepreneurship and innovation, recognizing that small and medium-sized enterprises (SMEs) and startups are often key drivers of job creation and economic growth. Young individuals demonstrate a strong interest and ambition in entrepreneurship. Across the Organization for Economic Co-operation and Development (OECD), more than 15% of young people (18-30 years old) who establish and manage new businesses expect their enterprises to create at least 19 jobs over the next five years, a larger proportion than the general population of new entrepreneurs (OECD, 2023). Despite better training and support in entrepreneurship, young people continue to encounter barriers including limited access to finance, inadequate training, and a lack of supportive networks. Between 2018 and 2022, more than half of young people reported a lack of critical business abilities, while 52% of adults believed they possessed the requisite entrepreneurship skills and knowledge. SDG 8 promotes an innovative culture by fostering entrepreneurship, empowering individuals to create their own chances and contribute to the economic growth. SMEs not only create jobs but also promote regional development, support local supply chains, and bring innovative solutions to market. With the rise of digital technologies, SDG 8 advocates for policies that

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support digital entrepreneurship, which can unlock new economic potential, particularly in underserved areas.

Applied Artificial Intelligence (AI)

AI is a technology that allows computers and machines to mimic human learning, comprehension, problem solving, decision making, creativity, and autonomy (Stryker and Kavlakoglu, 2024). The application of AI in business enhances operational efficiency by automating routine tasks, freeing up human resources for higher-value activities. AI-driven insights improve decision-making accuracy, helping companies respond quickly to changes in the market and customer needs. AI also enhances personalization, allowing companies to provide tailored experiences that increase customer satisfaction and loyalty. Finally, AI's predictive capabilities enable proactive problem-solving, reducing risks and potential losses associated with unanticipated challenges (Huang & Rust, 2018).

As AI technology advances, its applications in business are expected to become more sophisticated, expanding opportunities across sectors. For instance, the development of explainable AI aims to improve transparency in AI-driven decisions, addressing concerns around trust and accountability. AI is also anticipated to play a crucial role in sustainability efforts, such as optimizing energy consumption, reducing waste, and improving resource management in supply chains. Additionally, AI's role in enhancing workplace productivity and innovation will continue to grow, enabling businesses to operate more sustainably and create more value for society.

Value Proposition

A value proposition is a statement that captures the unique value a business's product or service provides to its customers, explaining why it's the best choice to meet their needs. This value proposition addresses the specific problem that the product or service solves, what benefits customers can expect, and why it stands out from competitors (Turner, 2024). According to (Payne & Frow, 2014), an effective value proposition captures not only the functional benefits of a product but also its emotional and social value. A clear, compelling value proposition is crucial for businesses to attract and retain customers, as it provides a reason for customers to choose one brand over another in an increasingly crowded marketplace.

The value proposition concept has also evolved to include the creation of value for stakeholders beyond customers, particularly as sustainability concerns have grown in importance. In sustainable business contexts, value propositions often encompass environmental and social benefits, positioning companies as responsible contributors to society (Bocken et al., 2014). As a result, businesses are increasingly expected to provide value to a broader range of stakeholders, including employees, communities, and the environment.

The Value Proposition Canvas is a tool developed by Alexander Osterwalder to help businesses systematically design, test, and refine their value propositions. This canvas is divided into two main sections: the customer profile and the value map (Osterwalder et al., 2014). The customer profile helps businesses identify customer jobs (tasks customers want to accomplish), pains (challenges or problems they face), and gains (desired outcomes or benefits). The value map, meanwhile, outlines how a product or service addresses these elements through specific features, pain relievers, and gain creators. By aligning the two sides of the canvas, businesses can better identify misalignments between their products and customer expectations, allowing them to make adjustments early in the development process (Liedtka, 2015). Consequently, the canvas is particularly valuable for startups and new ventures, which often face limited resources and high uncertainty.

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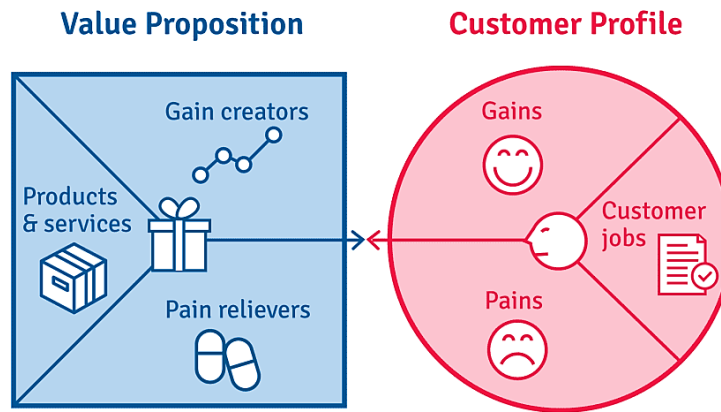


Figure 1. Value Proposition Canvas
Source: Osterwalder et al. (2014)

In sustainable business practices, value propositions increasingly address environmental and social aspects alongside financial performance. Bocken et al. (2014) highlight that sustainable businesses integrate eco-friendly practices, such as renewable materials or energy-efficient production, into their value propositions to appeal to environmentally conscious consumers. This alignment with sustainability goals can enhance brand reputation, build customer trust, and reduce operational risks by aligning with societal values. Creating a compelling value proposition is critical for building a sustainable business, as it enables companies to develop strong relationships with customers, gain competitive advantage, and establish long-term viability. A well-defined value proposition also enables businesses to enter competitive markets with confidence, as they can effectively communicate their uniqueness and demonstrate their relevance to customers.

Relationship among AI, Value Proposition, and SDG 8

AI is widely noted in the literature for its ability to strengthen value propositions through efficiency, personalization, and innovation (Huang & Rust, 2018). For instance, AI-driven data analytics enables companies to gain insights into customer behaviors and preferences, which in turn allows for highly personalized product offerings that meet specific customer needs (Kietzmann et al., 2018). This customer-centric approach, facilitated by AI, has become a critical component in designing compelling value propositions. Researchers argue that the use of machine learning and predictive analytics enables companies to anticipate market trends and adjust their offerings, thus allowing businesses to continuously align with customer expectations (Davenport & Ronanki, 2018).

In addition to enhancing customer experience, AI contributes to operational efficiency, a core aspect of the value proposition in many industries. AI applications in automation allow companies to streamline repetitive tasks, reduce costs, and allocate resources more effectively (Brynjolfsson & McAfee, 2017). The resulting productivity gains contribute to a stronger value proposition by improving service quality, reducing lead times, and allowing businesses to offer competitive prices (Wilson & Daugherty, 2018). Consequently, AI enables businesses to offer differentiated value to customers, making it a powerful tool in competitive markets.

AI plays a role in stimulating economic growth by boosting productivity and enabling companies to create better customer value. (Sestino et al., 2020) argue that companies utilizing AI are more likely to scale quickly and contribute to the broader economy by generating employment and

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new business opportunities. Furthermore, as AI enables firms to innovate more efficiently, it drives competitiveness in industries and contributes to economic resilience—an essential aspect of sustained growth.

METHODS AND IMPLEMENTATION

Methods

The ADDIE model—Analyze, Design, Develop, Implement, and Evaluate—is used in designing and developing the materials as it provides a structured framework for delivering the workshop. In the Analyze phase, the needs and knowledge levels of the students are assessed to ensure the content aligns with their understanding and interests. For the Design phase, interactive sessions are planned, including presentations, hands-on activities, and relevant examples, aimed at introducing AI concepts and demonstrating their practical applications in business. During Development phase, materials such as slides, real-world case examples, and simulation exercises are created to support student engagement and foster understanding. The Implementation phase involves delivering the workshop, emphasizing interactive discussions, group activities, and opportunities for students to create and present their own AI-based business ideas. Finally, in the Evaluation phase, feedback is collected through assessments and reflections, enabling the organizers to measure knowledge gains and adjust future workshops to better support students in building sustainable business practices with AI.

Implementation

The AI utilization to build sustainable businesses workshop was conducted in person in August 2024 at Universitas Pelita Harapan, with 27 senior high school students from BPK Penabur Bogor participating. This workshop focused on educating students about AI technology and its potential for creating sustainable business opportunities when utilized effectively. The workshop also covered the concept of value propositions design, guiding students in developing business ideas that align with market needs and preferences.

To reinforce the alignment with Sustainable Development Goal (SDG) 8, “Decent Work and Economic Growth,” the workshop emphasized the role of AI in promoting economic productivity, fostering innovation, and supporting sustainable entrepreneurship. By encouraging students to explore AI’s potential, the workshop aimed to equip them with tools to create businesses that are economically viable, socially responsible, and environmentally aware—thereby contributing to inclusive and sustainable economic growth.

The workshop concluded with a question-and-answer session and participant presentations, which provided students the opportunity to demonstrate their understanding of the material and showcase how they might practically apply AI and value propositions using relevant tools in business contexts. This interactive approach ensured that students not only grasped the theoretical concepts but also gained insights into how these can be implemented in real-world scenarios, supporting the development of future sustainable entrepreneurs.

SOLUTIONS AND OUTCOME

Solutions

High school students can leverage various learning resources available both online and offline to address their limited business experience and knowledge. They may participate in free or paid courses, offered either online or in-person, covering fundamental topics such as entrepreneurship, financial management, marketing, human resource management, and emerging technologies impacting

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business (e.g. AI, blockchain, and digital marketing tools). Additionally, joining a business club at school or a local entrepreneurship community can provide valuable opportunities for experiential learning, whether through collaborative projects, business simulations, or entrepreneurship competitions. Hands-on experience using value proposition canvas—such as identifying consumer needs and preferences, developing creative and innovative solutions to solve problems, finding opportunities, and generating ideas—can give students practical insights and enhance their confidence in business management.

Designing an effective value proposition presents several challenges. One of the primary difficulties is achieving a deep understanding of the customer. It requires thorough market research and empathy to genuinely grasp the problems customers face and the solutions they seek. In facing the competitive nature of the digital marketplace, high school students should focus on product or service innovation and differentiation. Conducting in-depth market research to discover untapped or underserved market niches can help them position themselves effectively against larger competitors. Another challenge is balancing ambition with practicality—a value proposition needs to promise real benefits that the business can reliably deliver. Applying a lean startup approach, such as developing a Minimum Viable Product (MVP) and testing business ideas with target audiences, can enable students to adapt swiftly based on customer feedback. Furthermore, students can utilize social media and digital marketing strategies to build brand awareness and reach a broader audience cost-effectively. Finally, as markets and customer needs evolve, businesses must continually refine their value propositions to remain relevant, which requires ongoing research and adaptability. By addressing these challenges, companies can create a value proposition that is not only compelling but also aligned with their customers' evolving expectations.

The combined education and training in AI and entrepreneurship for high school students are not only relevant but essential (Seldon, 2018). Studies shows that it can foster digital entrepreneurship skills and increase entrepreneurial intentions among students (Hamburg et al., 2019; Dabbous & Mallah Boustani, 2023). Recent research underscores the growing importance of integrating AI and entrepreneurship education in high schools to enhance students' career readiness in the digital era. AI-driven strategies in entrepreneurship education can improve market analysis, product development, and customer engagement (Usman et al., 2024). Incorporating AI tools in teaching methods enhances students' critical thinking, entrepreneurial acumen, and tech literacy (Winkler et al., 2023). Research also emphasizes that AI can enhance the development of 21st century skills, such as communication and collaboration, to improve work and entrepreneurship readiness (Putra et al., 2021). Various training approaches, including digital entrepreneurship and simulation business training, have positively fostered entrepreneurial spirit among high school students (Gultom, 2021). AI-powered learning experiences can enhance student engagement, improve academic outcomes, and develop critical thinking skills (Gakhar & Chindak, 2023).

Outcome

The workshop on AI utilization to build sustainable businesses aims to enhance students' understanding and skills in integrating artificial intelligence (AI) into business concepts. Following the workshop, students are expected to identify opportunities where AI can be applied to improve business efficiency, innovation, and competitiveness. They gain foundational knowledge of AI mechanics and its applications across various business functions, such as marketing, data analysis, and customer service. Moreover, students will be more confident in exploring technology-driven business ideas and prepared to develop entrepreneurial projects aligned with the digital era.

This outcome aligns with SDG 8 by fostering critical and creative thinking skills, as well as

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increasing students' awareness of technology's role in creating added value in the modern business landscape. The workshop encourages students to pursue sustainable, technology-enabled entrepreneurship, contributing to economic growth and employment opportunities, thereby supporting SDG 8's objectives of promoting inclusive and sustainable economic growth, productive employment, and decent work for all.

CONCLUSION

The AI Utilization to Build Sustainable Businesses workshop provided high school students with crucial insights into the role of AI in modern entrepreneurship. By engaging in hands-on learning about AI applications and business concepts, students developed a foundational understanding of how AI can drive innovation, enhance operational efficiency, and create competitive advantages. The workshop empowered students to think critically and creatively about potential AI-driven business solutions, equipping them with essential skills to navigate the evolving digital economy.

To maximize the impact of this workshop, it is recommended that similar programs be conducted regularly, allowing students to deepen their knowledge and stay updated on technological advancements. Integrating follow-up sessions focused on specific AI applications, such as AI in customer service or data analytics, could further enrich their learning experience. Establishing a mentorship network involving professionals in AI and business could also provide students with ongoing guidance and industry insights, helping them to develop more sustainable, innovative business ideas. Lastly, creating opportunities for students to apply their knowledge through entrepreneurial projects or internships would strengthen their practical skills and support their future success in building technology-driven, sustainable businesses.

ACKNOWLEDGMENTS

The authors would like to extend their sincere gratitude to all parties supporting the implementation of this workshop including the leadership of Faculty of Business and Economics and Faculty of Information Technology Universitas Pelita Harapan. Our appreciation also goes to BPK Penabur Senior High School who has given us the opportunity and entrusted us to deliver the workshop. Also, thanks to the students who have actively engaged in this workshop.

REFERENCES

- Babina, T., Fedyk, A., He, A., & Hodson, J. (2024). Artificial intelligence, firm growth, and product innovation. *Journal of Financial Economics*, *151*, 103745. <https://doi.org/https://doi.org/10.1016/j.jfineco.2023.103745>
- Bell, D. N. F., & Blanchflower, D. G. (2011). Young people and the Great Recession. *Oxford Review of Economic Policy*, *27*(2), 241–267. <http://www.jstor.org/stable/43744473>
- Bocken, N. M. P., Short, S. W., Rana, P., & Evans, S. (2014). A literature and practice review to develop sustainable business model archetypes. *Journal of Cleaner Production*, *65*, 42–56. <https://doi.org/https://doi.org/10.1016/j.jclepro.2013.11.039>
- Brynjolfsson, E., & McAfee, A. (2017). The Business of Artificial Intelligence: What it Can – and Cannot – Do for Your Organization. *Harvard Business Review*.

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- Dabbous, A., & Mallah Boustani, N. (2023). Digital Explosion and Entrepreneurship Education: Impact on Promoting Entrepreneurial Intention for Business Students. *Journal of Risk and Financial Management*, 16, 27. <https://doi.org/10.3390/jrfm16010027>
- Davenport, T. H., & Ronanki, R. (2018). Artificial Intelligence for the Real World. *Harvard Business Review*, 96(1).
- Gakhar, N., & Chindak, S. (2023). AI-POWERED LEARNING: THE NEXT FRONTIER IN EDUCATION. *INTERANTIONAL JOURNAL OF SCIENTIFIC RESEARCH IN ENGINEERING AND MANAGEMENT*, 07, 1–11. <https://doi.org/10.55041/IJSREM26016>
- Gonzales, J. T. (2023). Implications of AI innovation on economic growth: a panel data study. *Journal of Economic Structures*, 12(1), 13. <https://doi.org/10.1186/s40008-023-00307-w>
- Gultom, D. K., Arif, M., Yusnandar, W., & Radiman, R. (2023). Student Entrepreneurial Intention Based on Proactive Personality, Self-Efficacy and Anticipatory Entrepreneurial Cognitions. *International Journal of Business Economics (IJBE)*, 4(2), 65-78.
- Hamburg, I., O'Brien, E., & Vladut, G. (2019). Entrepreneurial Learning and AI Literacy to Support Digital Entrepreneurship. *Balkan Region Conference on Engineering and Business Education*, 1, 132–144. <https://doi.org/10.2478/cplbu-2020-0016>
- Huang, M.-H., & Rust, R. T. (2018). Artificial Intelligence in Service. *Journal of Service Research*, 21(2), 155-172. <https://doi.org/10.1177/1094670517752459>
- Jabbie, M., Barrie, A. S. I., & Tamuke, E. (2019). Inclusive Employment: A Global Concern. In W. Leal Filho, A. M. Azul, L. Brandli, P. G. Özuyar, & T. Wall (Eds.), *Decent Work and Economic Growth* (pp. 1–11). Springer International Publishing. https://doi.org/10.1007/978-3-319-71058-7_14-1
- Jackson, T. (2017). *Prosperity without growth: Foundations for the economy of tomorrow*. Routledge.
- Kabeer, N. (2015). Gender Equality, Economic Growth, and Women's Agency: the “Endless Variety” and “Monotonous Similarity” of Patriarchal Constraints. *Feminist Economics*, 22(1), 295–321. <https://doi.org/10.1080/13545701.2015.1090009>
- Kietzmann, J., Paschen, J., & Treen, E. R. (2018). Artificial intelligence in advertising: How marketers can leverage artificial intelligence along the consumer journey. *Journal of Advertising Research*, 58(3). <https://doi.org/10.2501/JAR-2018-035>
- Kumar, V., Ashraf, A. R., & Nadeem, W. (2024). AI-powered marketing: What, where, and how? *International Journal of Information Management*, 77, 102783. <https://doi.org/https://doi.org/10.1016/j.ijinfomgt.2024.102783>
- Liedtka, J. (2015). Perspective: Linking design thinking with innovation outcomes through cognitive bias reduction. *Journal of Product Innovation Management*, 32(6)
- IMF (2024). *Steady but Slow: Resilience Amid Divergence*. World Economic Outlook April 2024. <https://www.imf.org/en/Publications/WEO/Issues/2024/04/16/world-economic-outlook-april-2024>
- Mitchell, M. (2019). *Artificial Intelligence: A Guide for Thinking Humans*. Pantheon.
- Neck, H. M., Greene, P. G., & Brush, C. G. (2014). *Teaching Entrepreneurship: A Practice-Based Approach*. Edward Elgar Publishing.
- OECD. (2023). Inclusive Entrepreneurship. [www.oecd.org](https://www.oecd.org/en/topics/sub-issues/inclusive-entrepreneurship.html). Retrieved November 7, 2024, from <https://www.oecd.org/en/topics/sub-issues/inclusive-entrepreneurship.html>
- Osterwalder, A., Pigneur, Y., Papadakos, P., Bernarda, G., Papadakos, T., & Smith, A. (2014). *Value proposition design*. John Wiley & Sons.

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The 4th International Conference on Entrepreneurship

- Payne, A., & Frow, P. (2014). Deconstructing the value proposition of an innovation exemplar. *European Journal of Marketing*, 48(1/2), 237–270. <https://doi.org/10.1108/EJM-09-2011-0504>
- Putra, R., Widiyanti, W., Sutadji, E., & Nurhadi, D. (2021). Work and Entrepreneurship Readiness through 21st Century Skills in Vocational School Students. *Universal Journal of Educational Research*, 9, 497–503. <https://doi.org/10.13189/ujer.2021.090309>
- PwC Indonesia (2024). *PwC Indonesia Economic Update – First Quarter 2024*. PwC. <https://www.pwc.com/id/en/publications/general/indonesia-economic-update-2024-q1.pdf>
- Schött, T., Kew, P., & Cheraghi, M. (2015). *Future Potential: A GEM Perspective on Youth Entrepreneurship 2015*.
- Seldon, A. (2018). *The Fourth Education Revolution: Will Artificial Intelligence Liberate or Infantilise Humanity*. University of Buckingham Press.
- Sestino, A., Prete, M. I., Piper, L., & Guido, G. (2020). Internet of Things and Big Data as enablers for business digitalization strategies. *Technovation*, 98, 102173. <https://doi.org/https://doi.org/10.1016/j.technovation.2020.102173>
- Stryker, C., & Kavlakoglu, E. (2024). *What is Artificial Intelligence (AI)?* www.ibm.com; IBM. Retrieved November 8, 2024, from <https://www.ibm.com/topics/artificial-intelligence>
- Turner, C. (2024). *Value Proposition: Key to Business Success in Competitive Markets*. thorntonandlowe.com. Retrieved November 7, 2024, from <https://thorntonandlowe.com/value-proposition-key-to-business-success-in-competitive-markets/>
- Usman, F. O., Eyo-Udo, N. L., Etukudoh, E. A., Odonkor, B., Ibeh, C. V., & Adegbola, A. (2024). A critical review of ai-driven strategies for entrepreneurial success. *International Journal of Management & Entrepreneurship Research*, 6(1), 200-215.
- Winkler, C., Hammada, B., Noyes, E., & Van Gelderen, M. (2023). Entrepreneurship Education at the Dawn of Generative Artificial Intelligence. *Entrepreneurship Education and Pedagogy*, 6(4), 579–589. <https://doi.org/10.1177/25151274231198799>