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Generation Z's understanding of development sustainability in Indonesia through the perspective of intellectual intelligence

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Abstract

Purpose: The purpose of this study is to determine the contribution of Generation Z to sustainable development in Indonesia, which is based on intellectual intelligence.

Research Methodology: The method used in this study was a descriptive quantitative method that distributes questionnaires. The target of the questionnaire was Generation Z in the Pasuruan district area, which was carried out using random sampling so that as many as 214 respondents were obtained. This study also used the WarpPLS version 22.

Results: The results of this study show that Generation Z, who are intelligent and environmentally conscious, can be the main driver in achieving sustainable development goals in Indonesia. The existence of those who are active and concerned about environmental issues helps create a society that is more aware of the importance of protecting and preserving the environment for future generations.

Conclusions: It can be concluded that with a deep understanding of environmental ethics, Generation Z can influence various aspects of life, including education, business, and public policy.

Limitations: This research is limited to the 2023 research year is limited to the independent variable Environmental Ethic, the dependent variable Sustainable Development and to the mediating variable Intellectual Intelligence, the respondent is Gen Z in the Pasuruan regency area..

Contribution: This study examines the role of Gen Z in realizing sustainable development from the perspective of intellectual intelligence. The study also identified the phenomenon of generation z unemployment in the last two years, which can slow down the sustainability of development in Indonesia by weakening purchasing power, so that the economic growth rate will decline.

Novelty: This study uses environmental ethics as a variable. This study explored the variables of sustainable development, intellectual intelligence, and environmental ethics in generation z. The use of this environmental ethics variable can provide new information about individual awareness and the role of generation z in sustainable development.

Keywords: *Development Sustainability, Environmental Ethics, Intellectual Intelligence*

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1. Introduction

Government activities in sustainable development that are carried out massively involve all those who are expected to contribute the best and support Indonesia to become a modern and advanced country. Educational institutions in Indonesia play an important role in nurturing the intellectual abilities of Generation Z. Schools and universities are increasingly instilling sustainability in their curricula, fostering a generation of thinkers and innovators who master environmental science, policy, and ethics. Seeing the phenomenon of a large number of unemployed in Indonesia, which is dominated by Generation Z, it is feared that it will have an impact on the delay of the sustainable development process in Indonesia. How did Generation Z contribute to sustainable development in Indonesia from the intellectual intelligence perspective? The purpose of this research is to determine the contribution of Generation Z to sustainable development in Indonesia, which is based on intellectual intelligence.

The impact of high unemployment in Gen-Z is the weakening of people's purchasing power and the lace of people's savings, which has an impact on the low circulation of money in the market, which then causes the economic turnover to weaken and makes other vital sectors sluggish, for example, in the banking sector, people who are now spending their savings for consumption. This is clearly because the level of opinion is reduced because there is no income from job hunting. If it is not impossible for unemployment to increase, savings will decline, and inflation will occur because people can no longer save from field data, the average income for the middle class can only be used to meet their living needs for two to three months.

Here, the important role of Gen Z in the sustainability of development in Indonesia with the role of Gen Z in sustainable development in Indonesia is expected to become a country that is able to overcome all economic gaps due to cultural shifts with the contribution of Gen Z as the successor of the nation. It is not difficult to make Indonesia a golden generation, one that is able to compete not only at the local and national levels but also able to compete at the global level. One of the factors that can be explored to foster awareness among Gen Z members about the importance of their contribution to the sustainability of development in Indonesia is the intellectual intelligence factor that can be obtained from education.

The world of education will offer many things that can be explored related to what contribution Gen Z can contribute to the sustainability of development in Indonesia. This will provide a view of how people avoid eating savings, reduce inflation in the market, increase people's purchasing power, and avoid economic sluggishness. This is important for all groups to maintain economic stability in the future. Gen-Z also plays an important role as the nation's guardian in the sustainability of development in Indonesia, and Gen-Z will continue to transform to improve Indonesia’s sustainable development.

2. Literature Review

2.1 Ethic Environmentalism for Sustainable Development

Environmental ethics are very important in guiding the decision-making process towards sustainable development by integrating moral principles with concern for the environment. The relationship between environmental ethics and sustainable development is complex and multifaceted, as supported by various empirical studies. Building sustainable infrastructure to disseminate cancer prevention measures and provide cancer care in transition countries is important for improving global cancer control (Sung et al., 2021). This highlights the link between environmental sustainability and public health, demonstrating how ethical considerations in healthcare can contribute to broader development goals. This sustainable development agenda is contained in the 17 sustainable development goals (SDGs) proclaimed by the United Nations in the 2030 sustainable development agenda2030 (Tang, Millar, & Moore, 2023).

The Sustainable Development Goald (SDGs) is the UN's sustainable development agenda with 17 goals that cover various aspects ranging from social, environmental, and economic aspects that aim to overcome global challenges and encourage the realization of a more sustainable future (Raja Santhi & Muthuswamy, 2023). The SDGs also serve as a blueprint for countries and organizations to strive towards a more sustainable and equitable world by targeting several key areas such as climate, health,

education, and economic growth (Yin et al., 2023). All facets of life must adjust to every change as a result of the times' complex issues. This serves as the foundation for the significance of using new and renewable energy (EBT) at the core of sustainable development (SDGs).As a result of population expansion, energy demand has increased, with fossil fuels accounting for the majority of this demand (Kartika and Medlimo, 2023).

Tourism is an area that can adopt the concept of sustainable development. Environmental conservation, which includes reducing carbon emissions, conserving energy and water, limiting waste, and preserving biodiversity, is one of the fundamental tenets of sustainable tourism. To lessen air pollution, it also encourages environmentally beneficial modes of transportation, including walking and bicycling. Another crucial component is social responsibility, which guarantees that tourism helps local communities by preserving cultural heritage, creating jobs, and supporting small businesses (Apriani, Kamsariaty, Sarinastiti, Yuliastuti, & Sukmayadi, 2023).

Green products are sustainable and eco-friendly goods designed to minimize their impact on the environment over the course of their entire life cycle. The two basic goals of reducing waste and increasing the efficiency of usable resources are widely used to identify green products. They are licensed by recognized organizations such as the Energy Star and Forest Stewardship Council, and have manufactured the use of ecologically friendly practices and toxic-free materials. There is a growing awareness of all things related to the environment, and environmental degradation and sustainability are considered among the most pressing issues facing our planet today (Uddin, 2023). In addition, it warns about the rising problem of plastic pollution, which suggests that the predicted growth of plastic waste could outpace current mitigation efforts, with annual emissions potentially reaching alarming levels by 2030 (Borrelle et al., 2020). Awareness of the impact of plastic pollution is important for the general public. In empirical studies, awareness of the effects of plastic pollution encourages research using technology. This technology is used to detect microplastic particles from various samples, including biological samples. The findings of this study identified microparticles of plastics and pigments in biological samples (Wu et al., 2023). Departing from these findings, the magnitude of the distribution of the impact of plastic pollution can be explained. This explains the importance of ethics in addressing environmental challenges, such as plastic pollution, to ensure the long-term sustainability of ecosystems and human well-being. Responsible waste management practices and preservation of environmental integrity are important aspects of sustainable development.

In the context of this waste management practice, it is necessary to implement efforts that prioritize sustainable development. One of the efforts that can be applied in waste management is to implement 3R (Reduce, Reuse, Recycle). This waste management effort focuses on the product life cycle from production to disposal. Maximum implementation by involving the community in an active role can reduce negative impacts on the environment. This management effort can also take advantage of cross-sector cooperation and policy implementation that supports waste management and prioritizes the environment so that waste management can have a significant impact because it is carried out on a large scale (Pascual et al., 2023).

In addition, it explores the intersection between Industry 4.0, digitalization, and sustainability, highlighting the opportunities presented by digital transformation to advance sustainable practices across various industries (Ghobakhloo, 2020). The use of technology in supporting the integration of environmental ethics can be realized by using flexible sensors in waste management, which can also allow more accurate monitoring of the amount and type of waste produced. The use of this sensor technology can maximize the efficiency of waste management planning oriented towards sustainable development (Luo et al., 2023).

This empirical study explains how ethical considerations, such as resource efficiency and environmental impact, are an integral part of the adoption of digital technologies in promoting sustainable development. Aligning technological advancements with environmental ethics allows organizations to optimize processes, reduce their ecological footprint, and contribute to a more sustainable future. The principles of environmental ethics encourage the community to feel responsible for the management of

natural resources and the environment. Through the implementation of environmental ethics, the government can ensure environmental protection and encourage environmentally responsible business practices. In addition, with the regulation of the implementation of environmental ethics, it is not only demanded as a moral guide but can also be the foundation of sustainable development that is inclusive and resilient to environmental changes on a global scale (Liu, Zafar, Sinha, & Khan, 2023).

Another empirical study explains the ethical implications of using AI in sustainable development efforts, emphasizing the importance of transparency, accountability, and governance so that it is used to ensure that technological advances are aligned with environmental ethics. Leveraging AI responsibly allows stakeholders to leverage its capabilities to address complex sustainability challenges, while upholding ethical standards and promoting environmental stewardship. The alignment of sustainable development and environmental ethics with the rapid development of technology can provide greater potential for creating solutions to existing environmental problems. The use of artificial intelligence as a new breakthrough technology can support the acceleration of transformation towards sustainability through various programs, such as applications that manage natural resources, climate change mitigation, and energy efficiency improvement. AI technology can be one of the means to analyze environmental data in real time, predict change patterns, and so on, which can later be used as a basis for decision-making regarding policies and breakthroughs to overcome various environmental problems (Alahi et al., 2023).
H1. Environmental Ethic has a Positive Effect on Sustainable Development

2.2 Environmental Ethics Against Intellectual Intelligence

Environmental ethics and intellectual intelligence are interconnected in various ways, influencing decision-making processes, innovation strategies, and organizational behavior toward sustainable development. According to Keraf and Imam (1998), ethics are divided into two, namely general ethics, which explains how ethical decisions are made, and ethical theories and basic moral principles, which are a guide for humans to act. Then, it is special ethics explaining the application of basic moral principles in a special field of life. Special ethics consist of individual ethics, environmental ethics, and social ethics. Environmental ethics has several theories, one of which is anthropocentrism, which views humans as the center of the universe. Humans and their interests are considered the most fundamental in the order of ecosystems and in policies taken in correlation with nature, either directly or indirectly. Here, it appears that human selfishness in actions towards nature, so it is not surprising that many natural damages are caused by human activities. Such a thing is not narrated because nature has natural rights. Living beings, such as animals and plants, also have rights, even though they cannot act based on obligations. They were created for the preservation of nature, and they also have the right to life and the right to be respected.

Environmental ethics have principles such as respect for the intrinsic value of nature, interdependence of species and ecosystems, ecological sustainability, human responsibility, human equality, the principle of prudence, and the right to participate. In this case, responsibility and sustainability were considered. In this case, the principles of responsibility and ecological sustainability are fundamental foundations. Because these two principles are not emphasized, what happens is environmental damage due to unethical actions against the environment. Studies such as Aftab, Abid, Sarwar, and Veneziani (2022) and Guo, Wang, and Yang (2020) emphasize the importance of ethical considerations in encouraging green innovation and sustainable practices in organizations. In an era where the demand for and usage of clean energy is rising, green innovation (GI) has steadily come to be recognized as both a potent instrument for fostering sustainable economic development and a factor in lowering carbon emissions. Zimbabwe is among several nations stepping up their efforts to protect the environment (Mabhanda, 2024). Green innovation can be interpreted as a concept that encourages the development of sustainable solutions to overcome various environmental challenges that exist today. In the last few years, green innovation has become a very popular concept, along with the global warming problem and environmental damage that poses a threat to life. Green innovation consists of green product innovation and green process invasion designed to reduce energy use and pollution, recycle waste, and utilize sustainable resources. Eco-friendly products involve the creation of goods or services that do not have negative impacts or reduce waste. However, in fact, based on data from the National

Waste Management Information System or SIPSN in 2023, data input is carried out by 336 districts/cities throughout Indonesia as much as 37,327,099.68 tons/year. From the data, it can be observed that the waste problem is the main highlight of the environment. Household waste is the largest source of waste. Thus, the emphasis is on the shared responsibility to increase awareness of environmental ethics so that nature remains sustainable.

As in the lyrics of a Javanese song or song where the song has a moral message to increase awareness and concern for the environment, namely, the title of the song Kidung Ati Tangise Bumi, each lyric reminds us to always maintain the harmony of nature. One of the words at the end of the lyrics is Cancut gumregut together to build a projo'. (Spirit of building the country together). Lestarekno alam murih bumine ra murko (Preserve nature so that the earth does not wrath). The lyrics give a message to build the country by maintaining the harmony of nature and the environment, as in the theory of environmental ethics, namely anthropocentrism.

When environmental ethics becomes porous, there are many environmental problems, both in the form of pollution and natural disasters. In the context of the environment, Karl Marx's opinion that changes in quantity can result in changes in quality can be applied. For example, if one tree is cut down, it does not cause problems; however, if hundreds of hectares of forest are cleared in the shortest possible time, the area will experience natural damage in the form of erosion. Thus, human activities and business activities must not violate environmental ethics in order to realize the sixth mission of the National Long-Term Development Plan or RPJN 2005-2024, which is to realize a beautiful and sustainable Indonesia by emphasizing the development paradigm on economic, social, and ecosystem carrying capacity.

Environmental ethics must be proclaimed early because, with the development of the era of degradation, morality and ethics are increasingly visible. It is the impact of globalization, westernization, and modernization that teaches modern business without paying attention to environmental ethics. According to the Theory, the main factor of individual actions is that actions are influenced by the intention of a particular action. Meanwhile, intentions themselves are influenced by attitudes, subjective norms, and perceived behavioral control. The three factors that affect these actions can be helpful, one of which is education. In this case, education can start from the level closest to the individual, namely the family. In this case, the family plays a fundamental role in shaping the character of ethical individuals. Then, it is supported by formal education that teaches character education so that it has quality human resources as stated in the National Long-Term Development Plan (RPJPN) 2005-2025 which sets the direction of development priorities in order to improve quality and competitive human resources, namely forming healthy and intelligent, adaptive, innovative, skilled, and characterful human resources.

Education is the initial foundation for creating various generations with characters. According to Humasa, the National Population and Family Planning Agency (BKKBN), Indonesia will enter the demographic bonus phenomenon in a press release on October 6, 2017. According to the 2017 BPS National Socio-Economic Survey (Susenas), the number of millennials reached 88 million. According to data from the Central Statistics Agency (BPS), in 2023, the population of generation Z is around 60 million people. Based on this, the quality of human resources should be improved by forming characters with ethics and intelligence.

With the use of Intellectual Intelligence, it takes on the role of petning to carry out various programs related to the environment, such as procurement and adoption of technology, through the analysis process of recycling programs for waste management. In addition to countering existing environmental problems, green innovation supported by intellectual intelligence can develop environmentally friendly products and technologies in accordance with environmental ethics. One example of the procurement of environmentally friendly products and technologies is the recycling of biodegradable plastics from food waste. Plastics cannot be separated from life activities. Plastics have many benefits, one of which is practical in packaging food or drinks. Although it has benefits that have a great impact on plastic life, it is very threatening to damage the environment. According to data from the Indonesian Plastic Industry

Association (INAPLAS) and the Central Statistics Agency (BPS), plastic waste in Indonesia reaches 64 million tons per year. According to the Ministry of Environment and Forestry (MoEF), the level of public concern Indonesia has for waste, especially plastic waste, is as low as 72%. Using food waste as a raw material for making plastics can support the use of more sustainable materials (Asiaei, O'Connor, Barani, & Joshi, 2023). Based on the various alternative solutions offered to confront existing environmental problems, environmental ethics and intellectual intelligence are closely interrelated.

In the general context, being a good neighbor can be considered an important part of a company's sustainability strategy. Positive interactions with neighbors and the local community are crucial, as businesses work to accomplish long-term objectives involving environmental, social, and economic factors. The business can freely and honestly discuss its activities, environmental effects, development plans, and mitigation initiatives with its neighbors. Building strong communication lines with neighbors can reduce tension and increase confidence. Additionally, indocement must reduce the adverse effects of its activities on the environment. This could entail measures for environmental conservation, waste management, and prudent use of natural resources. Additionally, through corporate social responsibility initiatives, businesses can support the growth of their local communities. Support for education, job training, healthcare, and community infrastructure are examples (Afnan, Wijaya, Kartono, & Wibowo, 2024).

Some corporate activities only pay attention to financial profits without considering social and environmental consequences. This is what causes environmental damage. In fact, the development of this term at first did not reflect a for-profit organization, as evidenced by the Roman Empire, showing a legal entity established in the public interest. These ethical principles guide the decision-making process and shape the organizational culture towards environmentally responsible behavior. For example, waste disposal from corporate activities should not be dumped in rivers because it is an unethical and irresponsible treatment. In parallel, intellectual intelligence, which includes cognitive abilities, problem-solving skills, and critical thinking, can play a complementary role in understanding and applying environmental ethics in an organizational environment.

By integrating intellectual intelligence with environmental ethics, organizations can increase their capacity to analyze complex environmental challenges, develop innovative solutions, and adapt to changing sustainability requirements. Intellectual intelligence in the field of economics is intangible capital that is the basis for the mastery of possible knowledge. Intellectual intelligence enables individuals to understand the implications of environmental ethics on business operations, anticipate future trends, and drive strategic initiatives towards sustainable development goals. Apart from understanding environmental ethics through intellectual intelligence, the opposite is also considered important, where environmental ethics limits various innovations in the future to continue to pay attention to the seven aspects of sustainability. Economic development will develop rapidly by adhering to a sustainable development system and paying attention to the environment or green innovation.

In addition, Akhtar, Sultana, Masud, Jafrin, and Al-Mamun (2021) highlight the influence of consumer environmental ethics on green consumerism, indicating that ethical considerations have an impact on consumer behavior and purchase decisions. Awareness must be grown in the community through manifestations of consumption patterns for daily products and services. In this case, it can have an impact on consumers who will buy products or services to reduce adverse impacts on ecology. Based on the Global Sustainability Study Survey in 2021, with 10,281 respondents from 17 countries, 34% of consumers are willing to pay more for environmentally friendly products. In this context, intellectual intelligence can play a role in understanding consumer preferences, conducting market research, and developing sustainable products and services aligned with ethical values. By leveraging intellectual intelligence to interpret and respond to consumer demands shaped by environmental ethics, organizations can improve their competitiveness and sustainability performance.
H2. Environmental Ethic has a Positive Effect on Intellectual Intelligence

2.3 Intellectual Intelligence for Sustainable Development

Intellectual intelligence is a key factor in sustainable development that includes critical thinking, problem-solving, and informed decision-making based on knowledge and reasoning. Sustainable development aims to meet current needs without sacrificing future generations (Mikunda et al. 2021; Thalib, Kuntuamas, Umar, and Sulastri 2023). By incorporating intellectual intelligence into decision-making processes related to sustainable development, individuals and organizations can better assess the long-term impact of their actions and make choices that support environmental preservation, social equity, and economic prosperity (Karta, Ramanita, Aprilia, & Awan, 2021; Pratiwi, Su, & Wardani, 2023). The process of determining a policy to achieve sustainable development certainly requires intellectual intelligence. The role of intellectual intelligence, which includes the process of critical, rational, and based on knowledge and reasoning in analyzing and determining solutions to a problem**.** Intellectual intelligence is a core player in the journey towards a sustainable and environmentally friendly future.

Empirical studies have shown that intellectual intelligence is closely related to higher-order thinking skills, which are crucial for addressing complex sustainable development challenges (Purwoko et al., 2023). Individuals with strong intellectual intelligence are more likely to engage in critical analysis, innovative problem-solving, and strategic planning, which are essential for creating sustainable solutions (Widiani & Istiqomah, 2021). In addition, intellectual intelligence positively affects learning achievement, suggesting that individuals with higher levels of intellectual intelligence may be better equipped to understand and overcome the complexities of sustainable development (Widiani & Istiqomah, 2021). One area that can have a significant impact through intellectual intelligence is the use of technology. The latest discoveries in the field of technology that support waste management include the use of nanotechnology to reduce adverse impacts on the environment so that they can contribute to achieving sustainable development goals (Pascual et al., 2023; I. K. G. Sutama, Dewi, & Rahayu, 2024). In addition to creating the latest technology to support sustainable development, the implementation of technology still requires intellectual intelligence, so that it can be used appropriately and optimally. The available technology is not necessarily able to solve this problem without human assistance. This technology can work well if used appropriately and optimally. The ability to solve problems through data and analysis supported by this technology is still being developed. The determination of the best solution to a problem still depends on the intellectual intelligence of policymakers. This is what makes intellectual intelligence considered crucial, even though technology has developed rapidly.

Emotional intelligence also significantly contributes to sustainable development outcomes. Empirical studies have also shown that a combination of intellectual and emotional intelligence, along with transformational leadership, can improve the success of projects in public initiatives related to sustainable development (Fareed et al., 2021). Emotional and intellectual intelligence must be aligned. Emotional intelligence allows a person to respond to emotions, empathize, and manage conflicts in a situation, while intellectual intelligence requires a person to formulate strategies, analyze, and so on. Insulating intelligence is closely related to logic and reasoning, which is in line with rationality.

Emotional intelligence helps individuals understand and manage their emotions, navigate social relationships, empathize with others, and encourage collaboration, stakeholder engagement, and community participation in sustainable development projects (Fareed et al., 2021). In addition, integrating spiritual, intellectual, and emotional intelligence has an impact on ethical behavior, which is crucial for promoting sustainability in various contexts (Andreana & Putri, 2020). Spiritual intelligence involves relating to a higher purpose, demonstrating compassion and integrity, and acting in harmony with values and beliefs that are essential for making ethical decisions that prioritize the well-being of current and future generations (Andreana & Putri, 2020; Sutama, Dewi, & Rahayu, 2023).

Considering the interconnectedness between intellectual, emotional, and spiritual intelligence allows for a holistic approach to sustainable development, comprehensively considering environmental, social, and ethical considerations. This perspective enhances the effectiveness of sustainability initiatives and fosters the culture of responsibility, innovation, and resilience needed for a more sustainable and equitable future (Hughes, 2022).

H3. Intellectual Intelligence has a positive effect on Sustainable Development

3. Methodology

The method used in this study was a descriptive quantitative method that distributes questionnaires. The target of the questionnaire was Generation Z in the Pasuruan district area, which was conducted using random sampling so that as many as 214 respondents were obtained. This study also used the WarpPLS version 22.

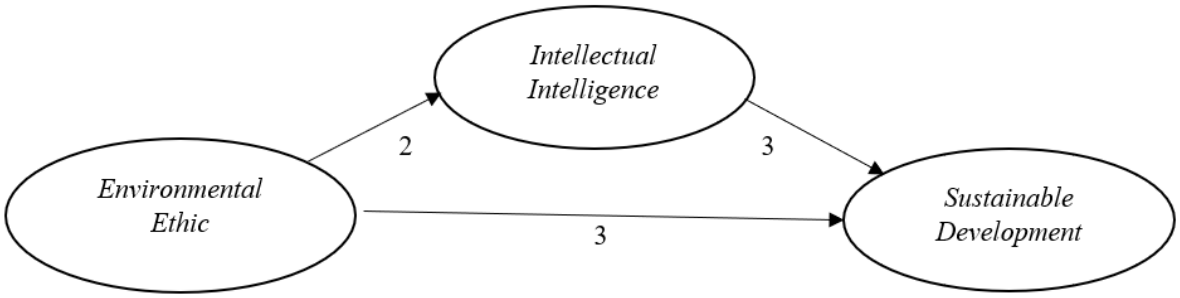

Figure 1. conceptual framework

4. Result and discussions

Table 1. Respondent's Identity

Description	Freq	%	Total (%)
Gender			
Male	70	32,7	32,7
Female	144	67,3	100,0
Age			
16-19	44	20,6	20,6
20-23	100	46,7	67,3
24-27	70	32,7	100,0
Educational Background			
Bachelor	48	22,4	22,4
High School Equivalent	121	56,5	79,0
Junior High School Equivalent	45	21,0	100,0
Work Background			
Private Employees	54	25,2	25,2
High Student	72	33,6	58,9
Student	37	17,3	76,2
Entrepreneurial	51	23,8	100,0

Table 1 shows that 67.3% (144) of respondents are female while 46.7% (100) of respondents are aged 20-23 years and respondents with High school education is equivalent to 56.5% (121) and students

are the largest respondents with 33.6% (72) respondents. Table 1 shows that 67.3% or as many as 144 respondents are female while 32.7% or as many as 70 respondents are male. From the table above, the most gender is women with a percentage of 67.3% or as many as 144 respondents. Then, respondents aged 16-19 years were 20.6% or as many as 44 respondents, respondents aged 20-23 years were 46.7% or as many as 100 respondents, and those aged 24-27 years were 32.7% or as many as 70 respondents. From the table, the age of the most respondents is 20-23 years old with a percentage of 46.7% or as many as 100 respondents. The educational background of the respondents with a bachelor's education background was 22.4% or as many as 48 respondents, high school education was 56.5% or as many as 121 respondents, junior high school 21.0% or as many as 45 respondents from the table, the most respondents were those with a high school education background of 56.5% or as many as 121 respondents. The work background of private employees was 25.2% or as many as 54 respondents, students were 33.6% or as many as 72 respondents. Students were 17.3% or as many as 37 respondents. And entrepreneurship amounted to 23.8% or as many as 51 respondents. From the table, the most work backgrounds are students with 33.6% or as many as 72 respondents

Table 2. Hypothesis Test

Hypotheses	Path	Std. Beta	SE	P - Value	Result
H1	EE > SD	0.10	0.11	<0.001	Accepted
H2	EE > II	0.89	0.06	<0.001	Accepted
H3	II > SD	0.76	0.07	<0.001	Accepted

The results showed that environmental ethics had a direct influence on Sustainable Development (B: 0.10; $p < 0.001$), meaning that H1 was accepted. This is because Environmental Ethics are fundamental in sustainable development, such as natural resource management, where environmental ethics spur responsible management by not overexploiting. Development that pays attention to ecological aspects helps ensure that natural systems function very well. Thus, it can reduce negative impacts and minimize pollution. Furthermore, Environmental Ethic was also proven to have an influence on Intellectual Intelligence (B: 0.89; $p < 0.001$), meaning that H2 is accepted. This is because environmental ethics often requires knowledge from various disciplines. Starting from law, which studies regulations related to the environment, then economics, which discusses more in the direction of economic benefits but also emphasizes ecological aspects and other disciplines. Therefore, environmental ethics have a great influence on intellectual intelligence, as in green consumerism and ethical awareness, by considering the impact on the environment to consume products or services. This shows the ability to analyze information and attract logical premises to raise awareness and empathy for the environment.

The results of the study also explained that Intellectual Intelligence has an influence on Sustainable Development, as evidenced by (B: 0.76; $p < 0.001$), meaning that H3 is accepted. Intellectual intelligence plays an important role in every aspect of sustainable development, from innovation and planning to education and policy. Critical and analytical thinking skills enable individuals and organizations to embrace challenges and make decisions that support sustainability.

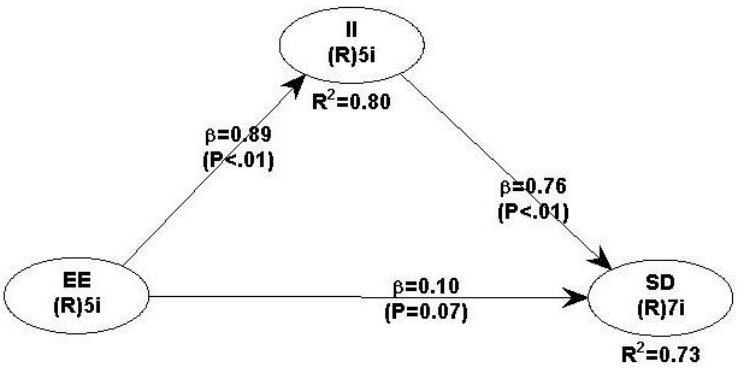

Figure 2. Result Framework

Table 3. Hypothesis Test

Hypotheses	Path	Indirect Effect	P - Value	Result
H4	EE > II > SD	0.68	<0.001	Accepted

Table 2 explains that Intellectual Intelligence can affect EE on Sustainable Development, so H4 is accepted because, based on anthropocentrism theory, environmental policies or ethics are focused on humans. Because humans are equipped with reason, it is hoped that they can make the most of their intelligence to increase awareness of and concern for environmental welfare. Intellectual intelligence can create new innovations to be more aware of environmental ethical priorities.

5. Conclusion

5.1. Conclusion

From the above discussion, it can be concluded that, with a deep understanding of environmental ethics, Generation Z can influence various aspects of life, including education, business, and public policy. They will tend to encourage the application of environmental and supported by the ease of technology of Generation Z, who are compulsive with social media, so that it has the potential to encourage the socialization of environmental ethics by starting a simple habit, namely throwing garbage in its place and trying to reduce plastic bags. Simple things, when usually done within a small scope, will have a meaningful impact on the nation and the state by preventing environmental damage. friendly practices in every aspect of daily life and prefer products and services that support sustainability. For example, green consumerism emphasizes the consideration of ecological impacts before deciding to buy products or services.

This understanding and awareness have a significant impact on the sustainability of development in Indonesia. Generation Z, with its intellectual intelligence, is able to provide innovative solutions to the environmental challenges faced by the country. They will also be more involved in social movements that support sustainable development policies, either through activities on social media, participation in environmental organizations, or even through their professional careers.

These actions can be actualized in real life or through socialization on social media to provide environmental ethical values, such as creating content that contains environmental ethics. Generation Z can then create a community starting from a small scale to create an extension project program related to education related to environmental ethics. This concrete action is the basis for launching environmental ethics from an early age. Thus, Generation Z, who is intelligent and environmentally conscious, can be the main driver in achieving sustainable development goals in Indonesia. The existence of those who are active and concerned about environmental issues helps create a society that is more aware of the importance of protecting and preserving the environment for future generations. This provides new hope for sustainable development in Indonesia, where economic, social, and environmental well-being can go hand in hand.

In this case, of course, Generation Z cannot run alone but also needs synergy between various generations and the government as a form of responsibility of all elements of society to love and maintain independence and the government pays attention to Generation Z as the capital for the development of the nation and state to realize as stated in the 2005-2024 RPJPN, namely realizing a beautiful and sustainable Indonesia by emphasizing the development paradigm of economic priorities, social and ecosystem carrying capacity. Therefore, through environmental ethics and intellectual intelligence, it is hoped that preservation of the nature of the motherland will be supported.

5.2. Limitation

This research is limited to the 2023 research year is limited to the independent variable Enviromental Ethic, the dependent variable Sustainable Development and to the mediating variable Intellectual Intelligence, the respondent is Gen Z in the Pasuruan regency area.

5.3. Suggestion

As Generation Z, they should be able to support sustainable development in Indonesia.

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