

# Sustainable Development Goals 2030: The Impact Of Sophisticated Technology Towards Green Accounting To Improve The Quality Of The Company

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**Abstract:** *This study aims to examine the performance of companies in the era of the industrial revolution 4.0 in achieving the 2030 Sustainable Development Goals through the sophisticated technology. The researchers focused on three main risen technologies that play an important role in improving the operational activities of the company using ERP, Big Data Analytics and Blockchain Technology. Beside it, these three technologies could have a really important role for companies in the communication of information related to green accounting for improving societies life better, helping companies to ensure a harmonious standard of living for the community and the environment. Finally, by carrying out Corporate Social Responsibility (CSR) for areas that have not been reached by technology, companies could encourage public awareness to be opened to changes due to the presence of sophisticated technology so that people could live with technology, to realize Society 5.0 era.*

**Keywords:** *Sustainable Development Goals 2030; Industrial Revolution 4.0; CSR; Society 5.0*

## 1. INTRODUCTION

Change will never stop occurring where the world continues to develop, evolve, and produce various kinds of things that focus on creating a directed future to maintain stability in both life and economic development, and determining the approach to be implemented from the present to design the future and have a long-term plan on how human beings could find solutions to the problems and obstacles that will affect life in the future. The changes that are felt worldwide called as Industrial Revolution 4.0, a change that gives life to be fast and instant with the presence of various advanced technologies such as Big Data, Artificial Intelligence, Blockchain, Internet of Things (IoT), Drones, and others (**Handoko et al., 2019**).

Sustainable Development Goals 2030 (SDGs 2030) are made to replace the previous agenda, namely the *Millennium Development Goals 2015* (MDGs 2015) which were designed

with 8 goals. The SDGs 2030 is a global development agenda that aims to maintain and enhance the well-being of humans and inhabited earth without destroying or disrupting existing facilities (**Wahyuningsih, 2018**). According to the result from **Neves, (2018)**, it is said that the Sustainable Development Goals needed to be further revised to be more integrated into the political economy part. The concept of Sustainable Development Goals (SDG) is a long-term concept that has a global impact from various aspects such as economic, environmental, and social where development aims to maintain stability without damaging the resources. Sustainable development has three main factors, namely: people, planet, and prosperity.

Green accounting is an accounting term that attempts to incorporate environmental cost factors into business operations. The existence of green accounting could help illustrate the efforts of environmental benefits and costs in the company's decision to take future action. Based on the guidelines **Environmental Accounting Guidelines, (2005:3)** published by the Ministry of the Environment of Japan, it establishes that environmental accounting includes the identification of the costs and benefits of environmental conservation activities, providing the best means through quantitative measurements and supporting communication processes that aim to achieve sustainable development, maintaining beneficial relationships with communities and achieving effectiveness and efficiency in environmental conservation activities.

CSR is an action or concept that carried out by a company where the implementation process is in accordance with the capacity and capacity of the company itself as a form of its responsibility towards the social / environmental environment where the company is located / operates. As stated by **Gunawan & Tin, (2019)** CSR is a business operation that is committed not only to the financial increase of corporate profits, but also to the socio-economic development of the region in a holistic, institutionalized, and sustainable way. In the context of empowerment, CSR is part of company policies that are professionally and institutionally carried out.

Based on this this research, the solutions could be created to raise awareness about the environment so that the 2030 Sustainable Development Goals could be achieved where the development process could be carried out without harming or damaging the environment and its people in order to create a better life for future generations. In addition, the development of a new form combining development with increasingly modern technology to increase effectiveness and time efficiency will focus on programs that could help to improve people's lives by raising awareness and combining technology with lifestyle of community activities.

## 2. LITERATURE REVIEW

### Sustainable Development Goals 2030

Various problems are continuing to plague developed countries with each issue that could reduce the capacity of these countries. Therefore, each country has duties to overcome the obstacles that exist such as poverty, ecology, environmental pollution, and other things that could reduce the quality of life. To avoid this phenomenal, the Brundtland report or the World Commission on Environment and Development **WCED, (1987)** first introduced the term sustainable development which defines meeting the needs of the present without sacrificing the needs of future generations. **Neves, (2018)** stated that sustainable development has 3 main factors that are focus on the development process, namely: People, Planet, and Prosperity. With the existence of the five main factors, development must focus on

community harmony, protecting and preserving the environment for the creation of a clean and beautiful green environment and prosperity that could be felt by both the company and the surrounding lives.

In September 2000, the United Nations formed an official agenda with the countries in the form of the Millennium Development Goals 2015 (MDG 2015) that aims to achieve a paradigm of social development that could be achieved through 8 goals that must be achieved by 2015, starting with reducing poverty and hunger, overcoming HIV / AIDS, guaranteeing survival and others that help maintain and sustain societies life (**Wahyuningsih, 2018**). According to **Sihombing, (2013)**, it is written that Indonesia has achieved 3 of the 8 MDGs of 2015, there are Goal 2: Achieve basic education for all, the goal 3: Gender E. and goal 4: Reduce infant mortality. After 2015, the UN re-formed a meeting to discuss the progress agendas that had occurred in the last 15 years up to the 2015 MDGs. To continue with some of the unattainable goals, the UN approved the newest goal which is the 2030 Sustainable Development Goals.

The purpose of SDGs 2030 is to replace the Millennium Development Goals of 2015, which have 17 goals to be achieved by 2030 with a document entitled Transforming our world: the 2030 Agenda for Sustainable Development (**Panuluh & Fitri, 2016**). The SDGs 2030 are formed to improve the standard of living in all countries in continuous development to make this goal universal. On July 19, 2014, the United Nations Open Working Group (OWG) submitted the SDG proposal to the UN General Assembly (**United Cities and Local Governments, 2015**). The proposals consist of 17 goals and 169 targets that generally cover all sustainable development issues. On December 5, 2014, the UN General Assembly accepted the proposal, and it was officially endorsed on September 25, 2015 with an agenda document entitled Transforming our world: the 2030 Agenda for Sustainable Development. The Sustainable Development Goals consist of End poverty everywhere, End hunger and achieve food security, ensure healthy lives and support human well-being, achieve gender equality, ensure availability of clean water, support economic growth and others (**Gigliotti et al., 2018**).

### **Industrial Revolution 4.0 Era**

According to **Schwab, (2017)** as president of the World Economic Forum (WEF) in an article **Swarnadwitya, (2019)** the concept of industrial revolution 4.0 is presented that will fundamentally change human life and work. **Karnawati, (2017)** explained that in the next 5 years 35% of types of work will be eliminated and in the next 10 years 75% will be erased. This will certainly have a very large impact on the development of the countries' economic growth and human beings, because according to **Deniswara et al., (2020)** the era of the Industrial Revolution 4.0 will involve work on scientific skills, modern technology, robotic machines, artificial Intelligence, deep machine learning, and the Internet of things (IoT), which will replace human work from manual to automation.

Based on the analysis of **Deloitte, (2019)** the presence of various automations in the form of intelligent automation could change business flows to be more effective by working with various structured nor unstructured data in a short time and minimizing the errors made by humans, so the success rate achieved will be better. PwC has implemented blockchain technology called Friday Services, which focuses on supply chain management and financial services that could help in the process of monitoring and evaluating information flows that are mobile and transparent, making it easier for companies to make decisions (**Medina, 2019**).

## **ERP System (Enterprise Resource Planning)**

A company needs to develop a new way of working activities where the competition is increasing with the use of technology that encourages companies to apply sophisticated technologies to require a new business model that can implement a use of technology that involves strategic planning and control to prevent failures and risks that harm the company. **Boersma & Kingma, (2005)** stated that since the 1990s, many companies had implemented ERP systems as the primary method that led to economic growth which had three main elements, namely enterprise, resources, and planning.

According to **Karsak & Özogul, (2009)** The ERP system is an integrated application that helps make the operational activities of the company more effective and efficient to produce information. Through the ERP system, the scope of the company will undergo changes in which top management will be able to monitor in real time and improve the performance of the company through automation. On the other side, **Wallace & Kremzar, (2001)** in **Karsak & Özogul, (2009)** stated that with the passage of time with globalization and increasingly fierce competition, changes in the business environment are increasing with the implementation of the ERP System.

One of the main factors why ERP is a strategic system for the company is that it could help companies make decisions based on accurate data (**Wallace & Kremzar, 2001**). In addition, ERP handles various processes such as manufacturing and corporate accounting, although each division manages a different system, it could be a single unit to make management easier and more efficient (**Boersma & Kingma, 2005**). **Gargeya & Brady, (2005)** explained that large companies such as Hershey and Samsonite have implemented these types of applications that help them manage their business and avoid losses. Examples of ERP applications that companies could implement are System Application and Product (SAP), Oracle, and Baan (**Gargeya & Brady, 2005**).

## **Big Data and Internet of Things (IoT)**

The creation of the Internet of Things (IoT) in 1999, which became the basis of technological development, encouraged various parties to increase industrial capacity through a systematization that was able to receive a large amount of data and analyze it into information caused by a network connected to many parties between companies, stakeholders, shareholders, and other parties that create large amounts of data that exceed the capabilities of computers (**Boyes et al., 2018**). According to **Chen et al., (2019)** The Internet of Things brings large-scale changes in all fields, such as work, life, social networks, and others. Therefore, undergoing a systematization could help companies to exchange data on time when necessary. **Deniswara et al., (2020)** stated that today the world has entered the era of zettabytes that encourages industrial companies to use technology. **Krahel & Titera, (2015)** explained that there are four important things in big data, namely Volume, Varieties, Velocity, and Veracities. The volume of data refers to the amount that a system could obtain versus the amount of data that increases over time when the level of data obtained comes from the Internet of things, which creates widespread networks such as social networks, cloud computing and others that are as large as zettabytes. Velocity is the speed of a system in processing data to become information that could increase opportunities for the business. Varieties refers to the diversity of data obtained in a system where data could be both an opportunity and a threat to the business. Lastly, it is Veracities that interprets adverse data. Therefore, **Raguseo, (2018)** explained that by using big data analytics on a large amount of data, it could minimize human error in data processing and increase time efficiency and help

companies find appropriate and quality information as a baseline to determine future performance steps of the company.

One of the supporting theories is related to the fusion of Big Data with the Internet of Things as a long-term solution to pay attention to environmental conditions and preservation. **MacFeely, (2019)** explained that the presence of big data could be an opportunity, as well as a challenge to achieve the objectives of the Sustainable Development Goals 2030, which could be obtained from various elements, such as satellite images, social networks, websites, electronic documents, and others. applications that could help companies determine costs that help maintain the environment around. Beside it, **MacFeely, (2019)** defines that the use of Big Data could increase environmental development activities where it not only focuses on greening, but also on cultivating humans through Corporate Social Responsibility programs in areas that are not yet reached by technology.

### **Blockchain Technology**

The information is an important key that makes many parties believe in the operational activities of the company, especially in raising awareness and attention to the surrounding environment, where the parties that involved are shareholders, employees, the community, and the government. Bitcoin was introduced in 2008 by **Nakamoto, (2008)** that is the beginning of the development of a blockchain technology which has the potential to play an important role in financial transactions in the financial and non-financial industry sector, which could generate 3 to 5 transactions per second and increase to 10 - 15 transactions per second in 2014 when blockchain becomes blockchain 2.0 which is called Ethereum (**Schmitz & Leoni, 2019**).

Blockchain 2.0 creates a smart contract that works to reduce third parties such as banks, lawyers, and the government as a link between the two parties entering into an agreement, so that the two parties do not need to spend more money to pay a third party already. Through smart contracts, they could make the agreement execute, more accurate, and reliable (**Yingli Wang et al., 2019**). The blockchain system is described as a technology that connects networks in an Internet-based peer-to-peer way that could allocate and distribute the same data as other participants, where the blockchain technology becomes a game-changer in accounting's world (**Schmitz & Leoni, 2019**). Blockchain systematization uses cryptocurrency that consists of all transactions recorded in real time and stored in each block that has high security using a unique cryptographic hash code (**Yunsen Wang & Kogan, 2018**). Each block could be connected to each other and it will be difficult to crack without hacking all the data simultaneously (**Woodside et al., 2017**). There are three various of blockchain implemented in the company **Zheng et al., (2019)**, like Private Blockchain, Consortium Blockchain, and Public Blockchain.

### **Sustainability Reporting**

The company operates according to the vision, mission and objectives that have been set as the basis for the company to move towards where these three things must be achieved in order to increase profitability and income to cover the costs that incurred. In addition to support the economy, companies should have a role as a social institution, so that companies could have the potential to develop along with improving the quality of the surrounding harmonious environmental conditions (**Gunawan & Tin, 2019**). The focus on green accounting as a system for the recording of information reports that basically requires companies to care about the environment that has been used to achieve the objectives of the

company, where the recording of expenses in the environment will be included in the company's sustainability report that will be shown to interested parties (**Nikolaeva & Bicho, 2011**). Over time, the level of awareness of the community is increasing towards the problems that threaten their lives, such as climate change, illegal deforestation, natural disasters, the destruction of natural resources, encouraging entrepreneurs and entrepreneurs to produce sustainable reporting as a step for the company movement to gain trust from external parties openly (**Cotter, 2014**).

### **Global Reporting Initiative (GRI)**

**Brown et al., (2009)** explained that the Global Reporting Initiative is a conceptual framework that helps and supports the sustainability reporting of information carried out by companies to disseminate or communicate the flow of information on companies' expenditures on the environment, society and ecology to groups of interest. GRI provides various guidance related to the management of surrounding resources in order to maintain the harmonization and sustainability of environmental resources for a better future where information on the surrounding conditions is included in the company's sustainability report (**Nikolaeva & Bicho, 2011**). According to **Brown et al., (2009)** in **Nikolaeva & Bicho, (2011)**, GRI was first started in 1990 in the form of CSR and private governance concepts by Allen White and Robert Massie, who came from CERES (Coalition for Environmentally Responsible Economies) which was finally published in 1999 and currently known as ISO 26000 that complies with GRI standards. GRI has become three main pillars consisting of Social Performance, Economic Performance and Environmental Performance.

### **Green Accounting**

The development of financial accounting records and reports have developed very rapidly over the last 40 years, which has the potential to connect companies with these environmental conditions. (**Gray, 2010**). According to **LAKO, (2018)** green accounting is a record that consists of phenomena, objects, and activities that occurred with the surrounding community and that are related to assets (land, carbon, and water). **Bebbington & Larrinaga, (2014)**, green accounting has been developed every year starting in the 1980s by projecting the scale of human impact on economic growth and sustainable development that affects the environment and recording the costs that have been converted into environmental benefits. In addition, in the 2000s the company contributed to its environment by paying attention to excess spending that could damage environmental conditions, such as in carbon accounting, evaluating the emission of carbon smoke from production activities that could pollute the air, water accounting that focuses on using water not to overdo it (**Bebbington & Larrinaga, 2014**). The purpose of green accounting is to record the costs that incurred by the company on the environment in the financial statements of the company, where these costs are used to improve environmental quality through the implementation of sustainable development, which is a responsibility social for companies that, in addition to financial performance, the success of the company. also measurable from social and environmental aspects (**Meiryani, 2017**).

### **Corporate Social Responsibility**

Corporate Social Responsibility (CSR) is one of the long-term strategies carried out by the company as a concept of responsibility is formed that aims to maintain the stability and sustainability of the internal parts in the form of employees and their families, as well as well as external parties such as suppliers, customers, communities, and shareholders in all

aspects of the company operations that cause various problems in the surrounding industrial environment such as the disposal of production waste, pollution and maintenance of employee safety (**Meiryani, 2019**). Companies are obliged to carry out CSR activities based on the provisions of the integrated international standard ISO 26000 that could help companies to carry out their responsibilities in an effective and relevant manner in accordance with the vision and mission of the company (**Pojasek, 2011**). Based on (ASQ) ISO 26000 applying seven main themes and themes for companies to submit to CSR, which consist of Community Development, Consumers, Employee Training Location, Environment, Employment, Human Rights, and Corporate Governance.

According to **Gunawan & Tin, (2019)**, the development of Corporate Social Responsibility in Indonesia has increased dramatically, thus forming a positive trend in Indonesian companies. The purpose of implementing CSR is to achieve SDGs 2030, which is one of the goals in Indonesia to achieve a better social and environmental life (**Gunawan & Tin, 2019**). Indonesian companies that have implemented CSR in accordance with the provisions of ISO 26000 are Bank Central Asia (BCA) and PT Unilever Indonesia. According to data from (BCA), Bank Central Asia issued a budget that is divided for the environment of Rp. 1,117,803,077 and community development of Rp. 104,443,182,759 (Indonesian rupiah). Activities carried out include helping victims of natural disasters, awarding college scholarships (PPA Scholarships), building a sports hall for employees, and conducting job training to provide knowledge and skills to the workforce. Meanwhile, PT Astra International, in the realization of the common welfare of the nation, has made social contributions through programs of 4 pillars, namely: Health, Education, Environment and Entrepreneurship, where these programs have been implemented in an integrated manner. through coaching 1,698 posyandu, 17,088 schools, planting 4.5 million trees and fostering 11,014 MSMEs (**Astra**).

### 3. RESEARCH METHODOLOGY

#### Research Method

Research method is the most important basis that aims to describe the form of research to be carried out depending on the subject to be studied (**Marvasti, 2018**). Through research methods, researcher could consider and decide the type of data collection necessary as research resources to process them into appropriate information related to the research they wish to conduct. There are three types of research methods, namely quantitative research, qualitative research, and mixed methods (**Creswell, 2007**).

**Wijaya, (2018)** explain qualitative research methods is a study that provides an explanation of the results of the analysis in the form of words that describe the problems that occur related to the research topic. Meanwhile, **Marvasti, (2018)** explained that through the use of qualitative methods, researchers could perform various activities where **Bowen, (2009)** Explain the activities that carried out by researcher is through the analysis of documents that could be obtained physically (paper) and electronic documents by observing a target population, giving several open questions through interviews and questionnaires, and conducting a conceptual framework that helps researchers in compiling any discussion of problems from previous studies to find a new solution to the research.

## Data Collection and Analysis

Data collection is used by researchers to find the essence of the problems that are presented for analysis, which results in information that becomes a solution and knowledge for those who want to know more deeply about the topic. According to **Arfini et al., (2019)**, conceptual framework is a process of collecting data from previous research sources that support research topics where each of the previous studies provides a different point of view, discussion, and perspective. As it is explained in **Jabareen, (2009)**, a concept that is based on a factual discussion that could connect several supporting research sources to become a single unit that could be developed through qualitative research methods, so through a conceptual framework you could create a new solution according to the latest developments.

## 4. RESEARCH AND DISCUSSION

### Company's Planning and Strategy based on Technology

According to a survey report **PwC, (2015)**, 90% of respondents from the public expect companies to incorporate the SDGs into their strategies to create a life of peace and harmony. The strategy requires collaboration between the company and stakeholders as a form of shared responsibility to safeguard relevant resources in the long term by adhering to ISO 26000 standards in accordance with the objectives of the SDG 2030 (**Pojasek, 2011**).

Company should pay attention to the conditions of the stakeholders that play an important role in determining the future steps of the company (**GRI, 2013**). **Gigliotti et al., (2018)** explained that companies could create plans according to the SDG 2030 agenda, considering the conditions of employees such as improving guarantees and a healthy standard of living, quality education through training and workshops, and gender equality. This encourages the company's initiative to carry out SDG activities in Indonesia that pay attention to companies and related external parties such as the community, shareholders, and the government (**Panuluh & Fitri, 2016**). This could improve the performance of the company to train and compete with surrounding companies that are not only focused on the economic growth of the company, but on improving the relevant environmental conditions. To implement systematization, companies must provide employees with systems that support performance and provide adequate training so that employees could update themselves and achieve company objectives.

### ERP System, Big Data Analytics, and Blockchain Technology to Support Company and Environmental.

Technology has an important role in the operation of a modern company that implements advanced technology in its activities that helps productivity levels, transmit information, increase profits and achieve company objectives in a short time (**Deniswara et al., 2020**). To undergo an integrated system, companies could adopt an ERP system (**Gargeya & Brady, 2005**). Through ERP, companies could manage business activities to be more effective and qualified in production and develop production and planning activities, accounting systems and improve resource management (**Costa et al., 2016**). The success of a company is determined based on a plan that is elaborated as a reference point for the generation of profits and the achievement of the objectives of the company where the strategic steps could be implemented by the company through the use of ERP (**Law & Ngai, 2007**). Through Strategic planning could help allocate costs, especially for spending activities that companies incur, such as environmental costs, improving environmental conditions, and improving

people's lives through programs of CSR, blood donations, and donations could be targeted through ERP programs that have proven capable of automatic data integration in the accounting division (**Law & Ngai, 2007**). Finally, companies could improve the quality of resources by understanding technology and hiring the right employees based on the information the company needs (**Gargeya & Brady, 2005**). SAP could ensure that the operational flow works well, which could improve the monitoring function of the control section of each division because each division of the company will deal with Big Data obtained through an expanding network, so it is you need a system that could help control all activities within the company (**Boyes et al., 2018**).

**Raguseo, (2018)** stated that big data is a challenge faced by various companies in the technological age that could be an opportunity or a threat to the progress of the company. To handle large amounts of data, companies could not use humans to process the data with limited time, but companies could implement big data analytics such as R Software, Hadoop, Data Mining, and Artificial Intelligence (**Kibria et al., 2018**). According to **Wielki, (2013)** There are several technologies that could help companies evaluate and produce information, such as R-Programming, which helps to verify the data that is presented in graphs and statistics. This helps the company find the information necessary to carry out the development of the surrounding environment and cultivate the community through education. As the example, in **GRI, (2013)** explaining through a data schema that is recorded in the form of tables and statistics could help companies discover what stakeholders and other external parties need to create a better life. to process large amounts of data, so the data that has been processed into information will be very necessary for the public and stakeholders to invest their funds as a form of trust in the company.

According to **Zheng et al., (2019)**, companies could implement blockchain technology based on big data which helps the business flow to be more difficult to experience fraud where the data will be more accurately integrated into the ERP system via cloud-based SAP (**Gargeya & Brady, 2005**). Through the public blockchain, data could be piped to a block where each participant connected to the company could see the results of a reliable and real-time data analysis so that interested parties could know the movements of the company. Looking further, **Wang et al., (2019)** explained that blockchain could provide data sources in the form of expenses made by companies, especially to increase awareness of surrounding environmental conditions and help people in need, such as improving education through scholarships, avoiding littering to ensure clean water. , harmonize the environment and pay attention to natural resources. in line with the SDGs 2030 (**Neves, 2018**).

## **The Advantages by Using Modern Technologies in the Company**

### **Reducing Cost and Increase Effectivity during Operational Activities**

**Holsapple & Sena, (2005)** explain that the implementation of technology could help reduce operating costs, size, and ensure the economic growth of the company through the ERP system. On the other side, **Wang et al., (2019)** explained that through advanced technology in the form of blockchain, it can help generate information in real time, so that each stakeholder can receive up-to-date and valid output results where the processing of large amounts of data provides accurate results. Then, by implementing the system in the activities of the company fosters a higher level of success when competing with other businesses. (**Law & Ngai, 2007**). **Chen et al., (2019)** stated that the combination of technology could regulate the operation of the company and build relationships widely through the Internet network. As an example, **Boersma & Kingma, (2005)** explain in manufacturing companies where the use

of technology is adapted to the environmental conditions of the company could increase effectiveness by facilitating control between connected divisions that would help maximize the business goals.

### **Decision-Support and Assured Time Efficiency.**

The decision is very important for the company to determine how the prospects for future performance. **Holsapple & Sena, (2005)** explained that technology can increase competition in business and reduce costs when determining a decision. **Yingli Wang et al., (2019)** stated that modern technology could help companies to provide adequate and quality information where the evaluation of all stages of production can be analyzed in a quick time, so that it could help the decision-making process to be more efficient and reliable.

### **Adaptable, Management Control, and Being Innovative to Improve the Company's Quality**

According to **Law & Ngai, (2007)**, The success factor in the company is determined by the creativity that is possessed to carry out innovations that configure a new paradigm in the business world that can stimulate the growth of the company's income. By using integrated technology, the operational activities can be faster and more consistent in processing and evaluating data (**Kibria et al., 2018**). On the other side, **Boersma & Kingma, (2005)** stated that the application of the system can be adapted to the environmental conditions of the company in all fields where technology can be the main platform that can combine to better the performance of all employees. One way to be able to use technology is to work with IT division so that the skills of employees can be developed and be able to work with machines (**Krahel & Titera, 2015**).

## **The Disadvantages by Using Modern Technologies in the Company**

### **Highly Cost for Using Technology and Disruptive**

According to (**Schmitz & Leoni, 2019**) using advanced technology requires high costs to operate it for business transactions and activities. Therefore, many companies are currently still in the testing phase to implement automated systematization, which can be a great risk if it is not implemented (**Handoko et al., 2019**). One of the biggest risks you face is that technology causes disruptive changes that can damage the existing order, such as a reduction in the workforce, software that is always up-to-date, and more (**Deniswara et al., 2020**). Therefore, a mature strategy is needed by evaluating the information obtained, conducting training, preparing a budget and always being up-to-date to face rapid changes in order to maintain the sustainability of the company and human resources (**Gigliotti et al., 2018**).

### **Minimize Experience and Facilitating to Support the Users of Technology**

Wielki, (2013) stated that the company is the main factor that can encourage workers to switch to technology at work because it requires very high costs to operate these systems, companies need to raise large amounts of funds. Moreover, **Alawadhi & Morris, (2008)** stated that lack of experience in the use of technology can be an obstacle for companies to ensure better job prospects. Therefore, technology should play a role as a distributor of humanitarian workers to improve the standard of living of people outside the company (**Woodside et al., 2017**). **Gunawan & Tin, (2019)** explained that Indonesia is still lacking respond to the changes taking place, especially in rural areas where even electricity remains elusive.

## Collaboration of Technology with Humans to Achieve SDGs 2030 and Improve Life's Quality Through CSR Program

**Deniswara et al., (2020)**, it is stated that it is time for human beings to work together with technology to improve people's quality of life and create a harmonious life that produces superior resources and enriches the environment. To support it, **Fukuyama, (2018)** explained that currently Japan has created a new vision called Society 5.0 where the vision focuses on human development in mindset and life. Society 5.0 is the latest solution to answer the problems that occur due to technological developments in the era of industrial revolution 4.0 that resulted in a massive reduction in human labor (**Handoko et al., 2019**). **MacFeely, (2019)** mentioned that technology could foster positive change in society if used correctly, which could be an opportunity to achieve the 2030 SDG targets. Businesses could provide education, aid funds and apply the use of technology in areas where technological knowledge is lacking through CSR programs **Gunawan & Tin, (2019)**, so that this could support the spirit of SDG implementation, which consists of three main pillars, namely people, planet and Prosperity (**Neves, 2018**).

The operation of the system could be more resilient to internal business in the form of stakeholders and external parties such as stakeholders, society, and government. Technology operations could be carried out properly to achieve maximum benefits if properly managed through a planning strategy prepared by the company (**Gargeya & Brady, 2005**). First, companies could use the ERP system as a new paradigm model that adapts to the work environment of each division to obtain adequate information that could be a source of decision-making on the future performance of the company (**Holsapple & Sena, 2005**). This information is obtained through the combination of data analysis and blockchain technology that evaluates all transaction activities in the form of expenses and income in real time, which improves quality and guarantees to avoid fraud (**Woodside et al., 2017**). Then, the data presented will be stored in the block of each participant and they will be able to connect with the previous block and guarantee security using cryptographic hashes to avoid fraud (**Yingli Wang et al., 2019**).

Through programs of concern for the community and the environment **Gunawan & Tin, (2019)**, Companies could explore the use of machines such as conducting educational training on technology, such as teaching computer systems, using drones to deliver packages, applying controlled artificial intelligence-based robots through the Internet of Things (IoT) that aim to be able to remotely use and reforest felled forests for business purposes that could be obtained through analytical data in the form of statistics and graphs of the use of natural resources (**Kibria et al., 2018**). The introduction of technology into society and work could further the realization of the Society 5.0 era in Indonesia where in life everyone has become completely technological so that they could build a smart society and the Indonesian economy through the goals of SDG 2030 through three main pillars, such as people who identify with society, the planet on the realization of beautiful and harmonious environmental conditions, and prosperity is an environment where people live (**Gigliotti et al., 2018; Neves, 2018**).

### 5.

### CONCLUSION

This study aims to analyze the achievement of the 2030 Sustainable Development Goals amid the presence of technology in the era of the industrial revolution 4.0, where this technology could help companies achieve the 2030 sustainable development goals through three main pillars, namely: people, planet and prosperity. One of the main thing is that

companies need to do is formulate long-term and careful planning to ensure a quality standard of living and increase awareness of the surrounding environmental conditions through CSR (**Gunawan & Tin, 2019; Holsapple & Sena, 2005**). The plan that is prepared includes the company's ability to operate, maintain data and information security, and incur costs that aim to generate social awareness, where in this research it focuses on three main technologies consist of ERP systems , Big Data Analytics and Blockchain Technology that aims to accelerate the flow of business, win the trust of stakeholders and ensure that stakeholders work.

To encourage Indonesia in society 5.0 that focuses on developing human capacity for the use of technology (**Fukuyama, 2018**). Collaboration between humans and machines could generate superior and advanced resources at work, which also results in a reliable and innovative performance. This could be done through CSR, which helps develop community growth by increasing awareness and knowledge and assisting in daily activities with technology playing an important role. Through the development of these three technologies, it is hoped that you could improve the operational activities of the company, gain confidence by producing real-time information that is tight and secure, and ensure a life that could last in the long term so that Indonesia's quality could be better.

## 7. REFERENCES

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