

---

# Social Sustainability and Productivity Enhancement of Plastic Firms in Anambra State

**Udodiugwu, Michael Ikenna**

Department of Business Administration

Chukwuemeka Odumegwu Ojukwu University, Igbariam, Anambra State, Nigeria |

[udodiugwu@gmail.com](mailto:udodiugwu@gmail.com)

---

**Abstract:** *The issue of environmental sustainability has becloud the thinking of many, every day we keep reading and listening to national dailies on how much harm the earth have been exposed to, and how mankind has continue to cause more damage to the eco-system and environment. However, little or no attention has been given to the welfare of man at his workplace, yet man continue to salvage the earth by rendering possible and better ways of living in it. Hence, this study was carried out to assess the impact of social sustainability on the productivity of plastic firms in Anambra state. The study adopted the descriptive survey research design method, and considered a total population of 40 employees working in the production department of five (5) selected plastic manufacturing firms under review. Structured questionnaire were used for the collection of data. A likert-style questionnaire was constructed on a scale pattern ranging from 5-strongly agree to 1-strongly disagree, while the questionnaire was validated by a research expert, and the reliability was checked using Crombach Alpha test. The findings from the study revealed a positive significant impact of social sustainability on productivity enhancement of plastic manufacturing firms in Anambra state. Based on the findings the study recommended that training and retraining of an employee on their job or off their job is very necessary for an improved performance, Hence, empowerment of employees through sending them to seminars, workshops and trainings that can help improve their skills on the job is very important, and also Employers should provide a safe and enabling environment for work.*

**Key words:** *Sustainability, Productivity, Enhancement, Empowerment, Health & safety, Training, Satisfaction.*

---

## 1.1 Introduction

An environmentally conscious business will consider more than just profits, rather its impact in the society and the environment where it derive strength and survival to succeed in this present dynamic world. Such a business can be said to be sustainable because, it contributes to the health of the structure within which it operates, thereby helping construct an environment in which the business can thrive over a long period of time (Odewole, Akintoye, Salawu and Adegbe, 2020). The sole aim of every business is to continue to increase its profit volume in perpetuity, while meeting the expectations of all its stakeholders. Hence, management of organizations must engage in business practices that would augur well for the accomplishment of going concern objective (Spiliakis, 2018).Iheanachor (2021) added that organizations are seeking to belong to the universal space by conforming to the basic requirements of stakeholders and global

organizations, by carrying out operations to reflect transparency and sustainability in its published reports and activities.

Olaoye, Nwaohia and Oyekale (2022) stated that Social sustainability practices are contemporary issues and are internationally embraced by organizations to exhibit the significance of its existence in the society. Social sustainability practices are not the company's responsibilities, they are carried out to boost the image of corporate entities in the community where such entities run their business activities (Yekini, Adelojo, Andrikopoulos, & Yekini, 2015). Olaoye *et al.* also emphasized that Social sustainability practices are broader than corporate social responsibilities such as donations and comprise obliging substantial time and other organization's possessions such as fund, competence and proficiency to communal projects and expansions, comprising and not restricted to abolition of poverty, sculptures, house project, environment safety, health and safety, well-being and general enhancements in the standards of living or worth of the life of the members of the society (Global Reporting Initiative, 2020).

Most organizations have now redesigned their goal from meeting only the interest of shareholders to attaining the interests of all stakeholders due to development in the list of organizations that are now involving themselves in social sustainability practices and disclosing same in their periodic annual reports or a standalone sustainability report (Ceulemans, Molderez, & Van, 2015). Many countries have adopted Global Reporting Initiative (GRI) sustainability standards to guide their practices and disclosure of social sustainability practices (Adegbe, Akintoye & Taiwo, 2020; Ceulemans *et al.* 2015).

Bayón and García-Ramos (2021) added that not all organizations currently subscribe to the principles of corporate sustainability, and it is unlikely that all will, at least not voluntarily. However, Mazur (2021) is of the opinion that a significant number of industrial goods, food and beverages manufacturing firms have made public commitments to environmental protection, social justice, equity, and economic development. This trend will be reinforced if shareholders and other stakeholders support and reward companies that conduct their operations in the spirit of sustainability (Calleros, 2021; Lokuwaduge and Heenetigala, 2017; United Nations, 2020).

The United Nations Global Impact in 2020 emphasized that Social sustainability aims to preserve social capital by investing and creating services that constitute the framework of our society. Similarly, Omoike, Uwuigbe, Alege, Uwuigbe, Nosakhare and Asiriwa (2020) assert that the concept of social sustainability accommodates a larger view of the world in relation to communities, cultures and globalization. At the same time, actions to achieve social sustainability may unlock new markets, help retain and attract business partners, or be the source for innovation for new product or service lines. Internal morale, Employee satisfaction and employee engagement may rise, while productivity, risk management and company-community conflict improve (Owolabi and Babarinde, 2020).

It has become expedient that organizations that embrace the practice of social sustainability will consider most importantly the work life balance, conditions of living, health, safety, equity, diversity, empowerment and human rights of its employees that aid it in the generation of its revenue, and creation of wealth that enables it to survive in business (Nwachukwu, Ogundiwin

and Nwaobia, 2015; Okegbe and Egbunike, 2016 and Odewole *et al.* 2020). Therefore, the purpose of this study was to assess the impact of social sustainability on the productivity enhancement of plastic firms in Anambra state.

## **1.2 Statement of Problem**

Plastic use and production have accelerated at breakneck speed, with more than half of all plastics having been manufactured after 2005. The market is controlled by a few major multinational corporations that are collectively investing over 200 billion US dollars in additional capacity to produce even more petrochemicals, the majority of which will become plastic (Ilechukwu, Ndukwe, Mgbemena, and Akandu, 2019). Capitalizing on shale gas from the United States, their plan is to build out more than 300 new production facilities or expansions, in hopes of adding 40 percent more plastic to commerce by 2025. The supply for plastic far outweighs the demand. Arising from these needs, are the obvious reasons employees that work in the plastic industries are subjected to long hours of work, neglect of working conditions, deteriorating health conditions and recurrence of workplace accident that leaves the employees incapacitated to continue work and remain more productive (Babayemi, Ogundiran, Weber, and Osibanjo, 2018).

According to Ilechukwu *et al.* (2019) they stressed that we are only just beginning to understand the effects of global reliance on plastic material. They added that what makes plastic useful is exactly what makes it harmful. However, it is designed to fool nature itself, made from molecular chains that are too resilient to biodegrade in a meaningful timeframe. Indeed, plastic degradation has adverse effects on nature itself and mankind. No matter where scientists go looking for plastic, they find it at the farthest reaches of the earth. It is not just ubiquitous in the environment but also in our own bodies (Geyer, 2019). These challenges and more have become more inevitable. Hence, plastic firms are to recognize the adverse impact of these petrochemicals and its components to the wellbeing of its employees that have one on one contact with the raw materials during production activities and how much they endanger the health of employees.

## **1.3 Objective of the Study**

The broad objective of the study is to assess the impact of social sustainability on the productivity of plastic firms in Anambra state. The specific objectives are to:

1. Assess the extent to which Health & Safety impact on Employees' productivity.
2. Determine the degree to which Employee empowerment impact on Employee satisfaction.

## **1.4 Research Questions**

1. To what extent does Health & Safety impact on Employees' productivity?
2. To what degree does Employee empowerment impact on Employee satisfaction?

## **1.5 Research Hypotheses**

1. Ho<sub>1</sub>: There is no significant impact of Health & Safety on Employees' productivity.
2. Ho<sub>2</sub>: There is no significant impact of Employee empowerment on Employee satisfaction

## Review of Related literature

### 2.1 Conceptual Review

#### 2.1.1 Social Sustainability

Sustainability practice is not a self-governing concept and to be successful, it needs to be incorporated with the global goal and the ensuing strategies of the company which is not limited to an effective inter-connectedness concerning social sustainability and productivity of organization (Petra, 2010). Abdel-Mohsen and Evan (2021) defined Social sustainability as specifying and managing both positive and negative impacts of systems, processes, organizations, and activities on people and social life. From the human welfare perspective, Social sustainability (**SocSus**) is defined as *a measure of the human's welfare* which is not a concern regarding simple existence, but a wish to flourish and have the best lifestyle for which could dream (Siddhartha, Koushik, Jyoti and Naba, 2022).

According to the Devika, Maya and Joe (2021) social sustainability should be a critical part of any business because it affects the quality of a business' relationships with stakeholders. However, Social sustainability is a proactive way of managing and identifying business impacts on employees, workers in the value chain, customers, and local communities (Justice and Sandra, 2019). *More so*, the ability of a community to develop processes and structures which not only meet the needs of its current members but also support the ability of future generations to maintain a healthy community. Zhai and Chang, (2019) posited that Social sustainability is a process for creating sustainable successful places that promote wellbeing, by understanding what people need from the places they live and work. Social sustainability combines design of the physical realm with design of the social world infrastructure to support social and cultural life, social amenities, systems for citizen engagement, and space for people and places to evolve.

In corporations, Social sustainability performance issues include human rights, fair labor practices, living conditions, health, safety, wellness, diversity, equity, work-life balance, empowerment, community engagement, philanthropy, volunteerism, and more. Though social sustainability issues are not easily quantifiable or measurable, they are easier to identify (Weitz, Carlsen, Nilsson, and Skånberg, 2017). Wanamaker (2018) stated that Companies that raise the importance of social sustainability recognize the significance of their relationships with people, communities and society. Similarly, World Bank (2017) added that Social responsibility becomes part of their core business strategy and they consider how their activities affect people. There is a human cost to doing business. A socially sustainable business will consider the safety of its workers in a particular location. It will not allow its workers' safety to be compromised by forcing them to work in a building that has been deemed unsafe.

Boström (2012) describes social sustainability as including both substantive and procedural aspects. By substantive, he means that which is required to achieve social sustainability, whereas by procedural aspects, he means how to achieve it. According to Missimer and Mesquita, (2022), "aspects overlap, and it is not always easy to distinguish between substantive and procedural aspects, as they may reinforce one another". Boyer, Peterson, Arora, and Caldwell (2016) classifies the current ideas about the social pillar in what they name five approaches to social sustainability. Firstly, Social sustainability has been approached as a stand-alone objective or third pillar (Reid, Watson, Zakri, and Cropper, 2005). Secondly, the social pillar of sustainability

is all about your company's impact on people, including employees, customers and local communities, a socially sustainable company will take into account equal opportunities, diversity, human rights, and ethical labour. Thirdly, constraint upon economic and environmental imperatives. Fourthly, a precondition for thriving economic and environmental systems or social capital and a causal mechanism of environmental and economic change and a fully integrated, locally rooted, and process-oriented approach to sustainability. The fifth approach is considered by Boyer, Peterson, Arora and Caldwell (2016) to be the most suitable, as it is claimed to provide a more systemic and integrated view of sustainability simultaneously be grounded in local knowledge and experience

### **2.1.2 Productivity Enhancement**

The absolute capacity to produce or the ability to produce is known as productivity. According to Gupta (1990) Productivity refers to the physical relationship between the quantity of materials either in solid, liquid or abstract state produced (output) and the quantity of resources used in the course of production (input). However, it can also be said to be the ratio between the output of goods and services and the input of resources consumed in the process of production. Similarly, Finch (1976) maintained that Productivity is the ratio of resources generated to the resources consumed in producing them, both measures being expressed as an index in which the current position is compared with the position during a base period. Furthermore, Van (2006) emphasized that Productivity is the relationship between output produced and one or more of related inputs used in the production process.

In recent times, productivity has become almost synonymous for progress. The standard of living of a society is determined with the amount and quality of food, clothing, housing, education and social amenities and security (Maheshwari, 2016; Thornhill, 2006). Meanwhile, Maheshwari emphasized that emphasis must be given on more production of these essential goods and services to improve the standard of living. He however posited that there are two ways to increase the amount of goods and services. Firstly, is to employ more resources and secondly is to utilize the existing resources more effectively and efficiently. Higher productivity requires that wastage as far as possible should be minimized by spotting out and eliminating the wastage of materials, machinery, manpower, time, space and other resources (Ukko, Tenhunen and Rantanen, 2008). Linna, Pekkola, Ukko and Melkas (2010) pointed that several resource control techniques such as value analysis, standard quality control, inventory control, ergonomics, work study and more are used for this purpose. Higher productivity provides better wages and working condition, increasing the skill and efficiency of workers, better management and enhanced and regular source of income (Dobni, 2004).

Higher productivity brings lower prices, lower prices for consumers and higher dividend for shareholders. It improves the exports and foreign exchange reserves and makes the country self sufficient in the production of different items. Thus, it leads to social progress and economic growth (Gro'nroos and Ojasalo, 2004). Higher productivity helps in increasing the volume of production at a reduced cost and hence it enables the expansion of market and industrial growth. Mass poverty and mass unemployment have been a great problem in some developing country like Nigeria and others in the West African country. Only higher productivity can help in the elimination of mass poverty and mass unemployment.

### **2.1.3 Health and Safety**

A safe and healthy working environment is vital for overall sustainability, due to the fact that it counteracts opportunities in economic and social development (Nordin, Rizal, Rashid, Che-Omar and Priyadi, 2021). However, according to International Labour Organization (2018) despite the international commitment to Occupational Safety and Health (OSH), via 2030's Sustainable Development Goals (SDGs), work-related accidents and diseases are still far too common. Specifically, according to the ILO, OSH is directly impacting SDG, which aims to secure healthy lives and promote the well-being of all people of all ages. Sotirios, Ioannis, Roido, Antonis, Zorpas and Panagiotis (2022) posit that An accident, in its most often used definition, is defined as “any unplanned event that resulted in injury or ill health of people, or damage or loss to property, plant, materials or the environment or a loss of business opportunity” (Maalouf, Hasle, Vang, and Hamja, 2021).

Historically, since the early days, work-related accidents have been regarded as anatural aspect of life. Accidents do happen at work, and working feeds the life cycle (Olcay, Temur, and Sakalli, 2021). However, due to insufficient proof or biased witnesses, early thinking about how an accident occurred was that these were random Acts of God (Vaquero, Cubero, Martínez, Vaquero, Redel and Aparicio, 2020). Later on, in very early modern times the most controversial theory of accident causation was the ‘accident proneness theory’ (Xu, Wang, Wang, Guo, Han, Xu, Chen, and Zhu, 2020). This theory assumed that a small proportion of people are much more likely to get involved in accidents than others (Browning and Rigolon, 2019). To ensure the sustainability of the entire supply chain, then, related firms must work together to build safe working environments (Donhee, 2018). To assist those in the supply chain that are working towards achieving overall sustainability, the impact of the company's activities on employee safety, health, and the environment should be assessed. However, Strategic measures to improve the company's sustainability can then be formulated. While firms strive to provide workers with safe and healthy workplaces, such efforts may not always be successful (Lee and Schniederjans, 2017). Businesses need to encourage, control, and participate in sustainable activities, particularly when core business activities have spread to various industries because of the extended supply chain (Guiras, Turki, Rezg and Dolgui, 2018).

In many studies, effective management of occupational safety and health found to play a pivotal role in running a successful business (Garretti, 2012). The global issue for sustainable development of the citizen is the health and safe working groups at their workplace (Shahzalal and Hassan, 2019). In order to achieve this, one of them is the development of sustainable occupational safety and health environments (Pierobon, 2019). Having this challenges, it is mandatory to answer the questions of how workplace safety and health innovation results in sustainable development of citizens and forwards the roads toward sustainable development in industrial occupational safety and health (Abubakar, 2015). Kassu and Daniel (2017) are of the opinion thatthe dynamism of socio-economic development has brought change on all aspects of the expansion. Dynamical change on workplace health and safety innovation, high prevalence of occupational diseases and accidents registration are the initial factors of sustainable development.

#### **2.1.4 Employee Productivity**

Productivity, according to Mathis & John (2003), is a measure of the quantity and quality of work completed while taking into account the cost of the resources used, the higher a company's productivity, the greater its competitive advantage. This is due to the efficiency with which the resources were employed. McNamara (2005) goes on to say that the employee's final and specified outputs are usually the results. They could be measured in terms of monetary gains or community effect, and their outcomes are measured in terms of cost, quality, quantity, or time. According to McNamara, assessing productivity entails determining the amount of time it takes an average worker to produce a certain level of output. It could also refer to how much time a group of employees spends on specific activities like manufacturing, travel, or idle time spent waiting for materials or fixing broken equipment. The method can identify whether employees are devoting too much time away from productivity to tasks that are within the company's control (Matui, 2017)

Productivity is a measure of the quantity and quality of work completed, while taking into account the cost of the resources utilized in the course of an action or a process, the higher a company's productivity, the greater its competitive advantage (Nosike and Okerekeoti, 2022; Mathis and John, 2003). This is due to the efficiency with which the resources were employed. McNamara (2005) goes on to say that the employee's final and specified outputs are usually the results. They could be measured in terms of monetary gains or community effect, and their outcomes are measured in terms of cost, quality, quantity, or time. According to McNamara, assessing productivity entails determining the amount of time it takes an average worker to produce a certain level of output. It could also refer to how much time a group of employees spends on specific activities like manufacturing, travel, or idle time spent waiting for materials or fixing broken equipment (Nosike and Okerekeoti, 2022).

The method can identify whether employees are devoting too much time away from productivity to tasks that are within the company's control (Matui, 2017). Although employee productivity is difficult to quantify, it has a direct impact on a company's profits. During the initial job interview, an employer can assess a worker's capabilities and fill his crew with productivity in mind. However, there are a number of elements at work that might assist a person get the most out of their work (Lake, 2007). Many of the tasks carried out by an HR system are intended to influence individual or organizational productivity. HR activities that directly affect productivity include pay, appraisal systems, training, selection, job design, and compensation (Nosike and Okerekeoti, 2022).

Furthermore, Bernardin (2007) asserts that reducing labor expenses and enhancing productivity through the formation of clearer pay performance links are critical components of human resource management (HRM) in order to attain competitive advantage. However, rising worries about productivity and fulfilling customer demands have sparked fresh interest in techniques that encourage staff to be more focused on meeting (or exceeding) client demands and enhancing productivity. Turnover can affect motivation, which in turn can affect an employee's productivity and performance. The direct expenses of turnover, which include severance and the recruitment and training of new staff, are a negative effect of turnover (Okorochoa, Okorochoa and Ezejiofor, 2021). Nonetheless, Nosike and Okerekeoti (2022) added that turnover is linked to a number of

indirect expenses, such as operational interruption caused by significant personnel departures. This could be due to the loss of firm-specific human capital in departing employees, or the loss of social capital entrenched in workers' relationships with one another and the company.

Employees who stay with a company may become demoralized as a result of the loss of a respected colleague or the fact that turnover may necessitate additional labor to be absorbed by remaining employees whose capacity is already stretched. Conversely there are positive effects on turnover, which suggests that turnover reflects the beneficial aspects of worker mobility, such as the improvement of matches between employees and the firm over time (Okorocho et. al. 2021). Organizations must protect their investment in their workforce by keeping workers and their intellectual capital, according to Ezejiofor and Ezekwesili (2021) as supported by Nosike and Okerekeoti (2022), in order to ensure business continuity and the ability to accomplish important business objectives.

### **2.1.5 Employee Empowerment**

Empowerment is defined as a process whereby a culture of empowerment is developed, information is shared, competency is developed, resources and support are provided. The benefits of employee empowerment are obvious, and objections to it are addressed (Tanjeen, 2013). This is the reason the apprenticeship model suggests that employees should be viewed first as apprentices while their skills and knowledge within a given task set are developing, then as journeypersons through continual development, and finally as masters of their craft. However, Heathfield (2012) defined empowerment as the process of enabling and authorizing individuals to think, behaves, take action, decision and control work autonomously. While Vogt and Murrel (1990) explained empowerment as an act of building, developing and increasing power by working with others, which he terms as which he calls as “self empowerment”. Another Scholar, namely Conger and Kanungo (1988) believed that empowerment is a process of enhancing feelings of self- efficacy among organizational members through the determination of conditions that foster powerlessness and through their removal by organizational adjustments.

AndiKele (2020) the idea of empowerment is based on the upper management granting authority and confidence to workers to perform their duties in their comfort zone at ease, which contributes to creating an atmosphere of peace and a sense of competence, while increasing responsibility and creating a positive and healthy relationship among workers, which also serves as an important motivation for work (Jocelyne and Kariuki, 2020). Thus, Sulaiman and Muhamad (2020) argued that empowerment is giving employees the necessary strength and will power to create the necessary means to enable them to control their respective responsibilities. From Obi, Leggett and Harris (2020) perspective about empowerment, it was found that empowerment is the sharing of power and responsibility by delegating them to the different levels within the organizational structure, while Khan,Ur-Rehman, Ahmed and Rahman (2020) viewed empowerment as sharing information, changing organizational structures, strengthening workforce and teams, encouraging and motivating individuals to improve initiative and accept risks.Employee’s participation and self-determination (Greasley, 2005).According to “interactive empowerment” and having the ability to influence one’s own behavior.



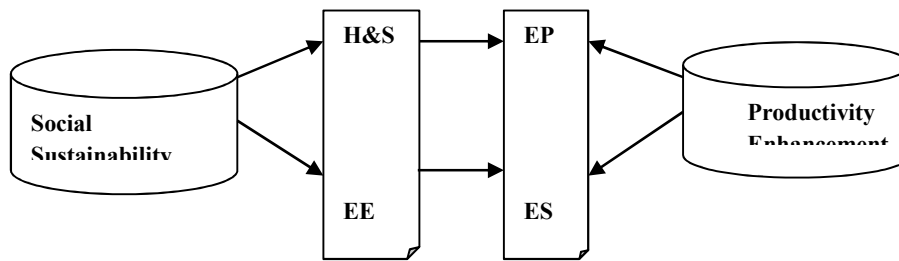
### **2.1.6 Employee Satisfaction**

An employee is a vital element that forms part of an organization structure, this why they are considered and rated very relevant in the process of implementing the enterprise's mission and vision, especially in the production area (Dziuba, Ingaldi and Zhuravskaya, 2020). Employees should meet the performance requirement set by the organization to ensure that they meet up with the quantity and quality of their work. To meet organizational standards, employees need a work environment that allows them to work freely without problems that can stop them from reaching their full potential (Raziq and Maulabakhsh, 2015). They also need appropriate superior that will provide them with this environment, but above all, he will motivate them to work in the right way, make them feel satisfied with their work.

Employee satisfaction can be defined as a sense of employee achievements and successes (Dziuba *et. al.* 2020). It is believed to be directly related to productivity and work performance, as well as to personal well-being. Employee satisfaction means doing the work one likes, doing it well and being rewarded for own efforts (Kaliski, 2007; Aziri, 2011). Employees can also have different approach to various aspects of their work, such as the type of work they are doing, colleagues, superiors or subordinates and their salary (George and Jones, 2008). Different motivation style and leadership style can work in different way on every employee, resulting in increased work performance and job satisfaction. Therefore, job satisfaction is an essential element motivating employees and encouraging them to achieve better results (Raziq and Maulabakhsh, 2015).

Mueller and Kim (2008) identified two types of Employee job satisfaction; firstly, the overall feeling about the job, and secondly, the feelings about the aspects of the job, such as benefits, salary, position, growth opportunities, work environment, and the relationships among employees. The considerable time spent by employees at the work place makes job satisfaction a significant factor since dissatisfaction can have an adverse impact on the individual's personal life. Saari and Judge (2004) posit that the relationship between employee job satisfaction and performance is more important for those doing difficult jobs than for those in less demanding jobs. Mueller and Kim (2008) identified two types of job satisfaction; firstly, the overall feeling about the job, and secondly, the feelings about the aspects of the job, such as benefits, salary, position, growth opportunities, work environment, and the relationships among employees. The considerable time spent by employees at the work place makes job satisfaction a significant factor since dissatisfaction can have an adverse impact on the individual's personal life. Saari and Judge (2004) indicate that the relationship between job satisfaction and performance is more important for those doing difficult jobs than for those in less demanding jobs.

### 2.1.7 Conceptual Framework



*Source: Researcher's Conceptual Model 2022*

## 2.2 Theoretical Review

### 2.2.1 Stakeholder Theory

Stakeholder theory has been described by Edward Freeman and other Scholars as the mirror image of Sustainable development or say corporate social responsibility. Instead of starting with a business and looking out into the world to see what ethical obligations are there, stakeholder theory starts in the world. It can also be said that, stakeholder theory affirms that those whose lives are touched by a corporation hold a right and obligation to participate in directing it affairs.

Keremidchiev (2021) posit that Stakeholder theory has appeared in the mid-1980s. It builds on the recognition of the role of stakeholders in the development of the corporation. Unlike other theories, stakeholder theory is majorly interested in what happens, not only in the principal and agent, or rather in employer and employee relationship (Schwab, 2019), but also outside it, which also includes other stakeholders such as personnel, customers, banks, suppliers, the state, local authorities, trade unions and others. Hence, new participants appear in corporate social sustainability, whose place and importance have not been previously taken into considerations (Bakardjieva, 2009).

Bringing our day activities to understanding how much relevance the stakeholder theory is to organizations that are into production processes. Let's say for instance, when a factory produces industrial waste, a CSR perspective attaches a responsibility directly to factory owners to dispose of the waste safely (Keremidchiev, 2021). By contrast, a stakeholder theorist begins with those living in the surrounding community who may find their environment poisoned, and begins to talk about business ethics by insisting that they have a right to clean air and water (Evan and Freeman, 2001). Therefore, they're stakeholders in the company and their voices must contribute to corporate decisions. It's true that they may own no stock, but they have a moral claim to participate in the decision-making process. This is a very important fact, at least in theoretical form; those affected by a company's actions actually become shareholders and owners, by the virtue of the fact that they are touched by a company's actions, they have a right to participate in managing it.

## 2.3 Empirical Review

Sroufe and Gopalakrishna-Remani (2018) conducted a study on Management, Social Sustainability, Reputation, and Financial Performance Relationships: An Empirical Examination

of U.S. Firms. The research in this study uses a sample of *Fortune* 500 firms simultaneously listed in the Newsweek Green rankings. The Corporate Knights Global 100 and the 100 Best Corporate Citizens lists. The analysis from this purposeful sample of leading firms reveals positive relationships between the management of sustainability practices leading to improved social sustainability performance and firm financial performance constructs. The results of this study advance construct and item development involving sustainability management and social sustainability practices while testing relationships to measures of financial performance. Further advances in the field and opportunities for future research involve testing larger cross-sector samples, the development and measurement of social sustainability practices from secondary sources, longitudinal studies, and the evolving nature of organizational performance measurement.

Partridge (2005) carried out a research on the concept of 'social sustainability' with a view to assessing a) its value as a theoretical framework with implications for policy and politics, and b) the potential contribution that social and political theorists might make to the field of sustainability by exploring and further developing the concept of 'social sustainability'. The study considered the emergence of the sustainability discourse generally, and recent attempts to define the social dimensions of the concept in particular. Social sustainability is the least developed of the oft-cited 'three dimensions' of sustainability (environmental, economic and social) and the relative lack of understanding of the social dimension provides an opportunity for social and political theorists to contribute to defining and refining the term. Their study suggested that there is great scope to harness some of the currency and 'clout' of sustainability discourse in order to progress issues of social justice and equity by using it as a tool for framing progressive social policies that, in a conservative political climate, may otherwise not be easy to advance.

Patricia and Missimer (2021) investigated on how social sustainability is currently included in PD organizations and what their motivations are to do so. Results from a comparative case study approach with three organizations included rich descriptions across four dimensions. The scope of their work and their view of interdependencies with other social systems, their definition of social sustainability and the issues they work with, what guides strategic decisions, and how this internal work is structured. The results from their study revealed that the three product development organizations are heterogeneous in their approaches to social sustainability and that the more advanced approach shows a better understanding of the complexity of social sustainability and a broader perspective of its interdependencies, which goes hand-in-glove with a way of organizing, that overcomes traditional hierarchies and allows for more collaborative and strategic work in this area. Finally, their study shows that social sustainability impacts connected to products' lifecycles, when addressed, are done so by functions outside design activities, as opposed to product developers.

Ismail, Saad, Lode and Kustiningsih (2022) from Indonesia and Malaysia conducted a research on Corporate Sustainability Reporting and Firm's Financial Performance in Emerging Markets; the study was carried out to investigate whether corporate sustainability reporting is associated with high firm performance in emerging markets. Using a sample of 24,029 firm-year observations from 14 emerging markets, including China, Egypt, Greece, Hungary, India,

Malaysia, Pakistan, the Philippines, Poland, Russia, South Africa, Thailand, Turkey and the United Arab Emirates, the study revealed that firms with corporate sustainability reporting is associated with high firm performance. However, the results were robust even after including the firm-level controls of firm size, leverage, litigation risk, market-to-book ratio, firm age, industry-level control of market competition, and country-level control of the gross domestic product. The findings from this cross-country study provided significant implications for the regulators in promoting sustainability reporting and assisting investors in making better decisions.

Odugbesan and Rjoub (2019) from Nigeria and India assessed the relationship between sustainable development and HIV/AIDS prevalence, along with other determinants of sustainable development, such as good governance and human capital in 26 sub-Saharan Africa countries over a 27-year period from 1990—2016. The pooled mean group (PMG) estimator was employed for analysis after it was confirmed by the Hausman test for the estimation of the relationship among the variables. The results from the study revealed a unidirectional long-run and significant relationship between HIV/AIDS prevalence and sustainable development, human capital and good governance, and human capital and sustainable development. Also, a bidirectional long-run relationship was found between good governance and HIV/AIDS prevalence. Estimation of subgroups provides a robustness check for our findings. They concluded that there is a significant relationship between HIV/AIDS prevalence and sustainable development, and between human capital and sustainable development.

### **3.1 Methodology**

The study adopted the descriptive survey research design method. A population of 40 employees working in the production department of five (5) selected plastic manufacturing firms in Anambra State, namely Chicason Plastic Manufacturing Ltd, Ezenwa Plastic Industries Nigeria Ltd, Innosam Plastic Industries Limited, Millennium Industries Limited and Ozalla Plastics Enterprises Ltd. Structured questionnaire were used for the collection of data. However, the questionnaire was divided into two sections vis A and B. Section A contained demographic data of the respondents, while Section B contained data relating to the research questions.

The measurement construct for Social Sustainability (Health & Safety and Employee Empowerment) were raised from the extant literature of (Abdel-Mohsen and Evan, 2021; Siddhartha, Koushik, Jyoti and Naba, 2022; Devika, Maya and Joe, 2021), while the measurement construct for Productivity Enhancement ( Employee Productivity and Employee Satisfaction) were gotten from (Finch, 1976; Van, 2006; Maheshwari, 2016; Thornhill, 2006). A likert-style questionnaire was constructed on a scale pattern ranging from 5-strongly agree to 1-strongly disagree, while the questionnaire was validated by a research expert, and the reliability was checked using Crombach Alpha test.

The coefficient of the reliability text was considered acceptable at a value that ranged between 75-95 (0.75-0.95), which shows that the instrument was highly reliable according to Pallant (2001) and Nunnally and Bernstein, (1994), benchmark for testing reliability of a research instrument. Data were analyzed using descriptive statistics (frequencies and tables), and also hypotheses were tested using Anova Model contained in the statistical package for social

sciences (IBM SPSS, Version 23), this was necessary to elicit the collaboration between Social Sustainability and Productivity Enhancement.

**4.1 Data Presentation and Analysis**

From the questionnaire issued to the respondents of the 5 Plastic manufacturing firms in Anambra State under investigation, data were collated, sorted, gathered, analyzed and interpreted. The descriptive statistic was used to analyze the research questions, while the linear Regression analysis was used to interpret collected data and testing of the hypotheses. The interpretation and analyses which started up with the research questions and afterwards hypotheses are therefore presented below.

**4.2 Presentation and Interpretation of Research Questions 1 & 2**

1. To what extent does Health & Safety impact on Employees’ productivity?
2. To what degree does Employee empowerment impact on Employee satisfaction?

**Table 1 Descriptive Statistics**

		Statistic	Bootstrap <sup>a</sup>			
			Bias	Std. Error	95% Confidence Interval	
					Lower	Upper
Health & Safety	N	40	0	0	40	40
	Minimum	1.00				
	Maximum	5.00				
	Mean	2.6500	.0000	.0000	2.6500	2.6500
	Std. Deviation	1.00128	.00000	.00000	1.00128	1.00128
Employees’ productivity	N	40	0	0	40	40
	Minimum	1.00				
	Maximum	5.00				
	Mean	2.8500	-.0044	.0434	2.7508	2.9492
	Std. Deviation	1.21000	.00030	.02300	1.15422	1.25558
Employee empowerment	N	40	0	0	40	40
	Minimum	2.00				
	Maximum	5.00				
	Mean	4.1250	.0019	.0701	3.9750	4.2983
	Std. Deviation	.75744	-.00359	.02602	.69445	.80975
Employee satisfaction	N	40	0	0	40	40
	Minimum	1.00				
	Maximum	5.00				
	Mean	4.2000	-.0094	.0434	4.1000	4.2750
	Std. Deviation	1.06699	.00024	.02703	1.01285	1.13552
Valid N (listwise)	N	40	0	0	40	40

a. Unless otherwise noted, bootstrap results are based on 40 stratified bootstrap samples

The table above indicates the response numerical values from the field of study, stating from the glance the relationship status between the nexus in the first and second research questions. However, question one which was formulated to know how effectively health and safety of workers are interrelated with each other, and as proved with a mean of 2.65, while maintaining same positive significance at a maximum level of 0.05%. More so, the second research question which was formulated to know the how effective empowerment of employees can affect their satisfaction proved a positive relevance at a high mean value at 4.12 at average. This illustration

will therefore be hypothesized using linear regression to test the extent at which social sustainability affects productivity enhancement in the plastics firms.

### 4.3 Test of Hypotheses I and 2

**H<sub>01</sub>: There is no significant impact of Health & Safety on Employees’ productivity.**

**Table 2** Linear Regression

Model		Sum of Squares	df	Mean Square	F	Sig. Result
1	Regression	32.962	1	32.962	51.891	.034”
	Residual	24.138	38	.635		
	Total	57.100	39			

- a. Dependent Variable: Employees’ productivity
- b. Independent Variable: (Constant), Health & Safety

**H<sub>02</sub>: There is no significant impact of Employee empowerment on Employee satisfaction**

**Table 3** Linear Regression

Model		Sum of Squares	df	Mean Square	F	Sig. Result
1	Regression	2.190	1	2.190	1.972	.0168”
	Residual	42.210	38	1.111		
	Total	44.400	39			

- a. Dependent Variable: Employee satisfaction
- b. Independent Variable: (Constant), Employee empowerment

### 4.4 Discussion of findings

1. Table 2 shows a linear regression effect at .034”in the sequence shows a Positive significant impact between the nexus Health & Safety and Employees productivity. Thus, this implies that there is a significant relationship between the variables Health & Safety and Employees productivity, and as the rule guiding the acceptance or rejection of the null hypothesis, which states that where the P-value of the computed linear Regression is greater than or equal to 0.05, the null hypotheses should be accepted, but where it is lesser than 0.05 the null hypothesis should be rejected. Hence, for the purposes of this present analysis, the null hypothesis was rejected, following the conclusion from the findings that there exist significant positive impacts of Health & Safety on Employees Productivity of selected plastic manufacturing firms in Anambra state, Nigeria.

2. Table 3 above shows a linear regression effect at .0168”in the sequence shows a Positive significant impact between the nexus Employee empowerment and Employees satisfaction. Thus, this implies that there is a significant relationship between the variables Employee empowerment and Employees satisfaction, and as the rule guiding the acceptance or rejection of the null hypothesis, which states that where the P-value of the computed linear Regression is greater than or equal to 0.05, the null hypotheses should be accepted, but where it is lesser than 0.05 the null hypothesis should be rejected. Hence, the null hypothesis was rejected, following the conclusion from the findings that there exists a significant positive impact of Employee

empowerment on Employees satisfaction of selected plastic manufacturing firms in Anambra state, Nigeria.

### **5.1 Conclusion**

Based on the results from the linear regression analysis, it was evident that Health & Safety of workers should be of greater priority for management of the plastic firms; this is because an unsafe environment could lead to hazard and disasters at work place. Hence, employees who may have sustained injury at work is likely not to perform well, and where such employee doesn't perform well, the productivity level of the organization will continue to drop exponentially. Furthermore, a trained and equipped employee is likely to perform effectively and efficiently, thus the findings reveals the impact of employee empowerment, and how much an empowered employee feels satisfied and motivated to do better.

### **5.2 Recommendations**

1. The study recommends that Employers should provide a safe and enabling environment for work.
2. Emergency medical care, first aid facility and Ambulance should be made available and kept stand by in the event of factory accident.
3. Employees should be regularly trained on the best methods to handle and operate sophisticated machines at work place.
4. Employers should make available health insurance schemes, where employees can enroll with, so that in the event of unforeseen health conditions their health insurance scheme can be utilized.
5. A well trained employee is an asset to the any organization, therefore training and retraining of an employee on the job or off the job is very necessary for an improved performance. Hence, empowerment of employees through seminars, workshops and trainings that can help improve their skills is very important.

### **References**

- Abdel-Mohsen, O. M., & Evan, K. P. (2021). Pollution Assessment for Sustainable Practices in Applied Sciences and Engineering, Retrieved from <https://www.sciencedirect.com/topics/engineering/social-sustainability>.
- Abubakar, U. (2015). An Overview of the Occupational Safety and Health Systems of Nigeria, UK, USA, Australia and China: Nigeria being the Reference Case Study. *American Journal of Education Research* 3, 11: 1350 – 1358.
- Adegbe, F. F., Akintoye, I. R., & Ashaolu, A. O. (2019). Corporate governance and financial stability of Nigeria quoted deposit money banks. *International Journal of Business and Management Review*, 7(5), 38-60.
- AndiKele, A. T. (2020). Employee empowerment in luxury hotels in East Malaysia (Doctoral dissertation, The University of Waikato).

- Aziri, B., (2011). Job satisfaction: a literature review, *Management Research and Practice*, 3(4), 77-86.
- Babayemi, J.O., Ogundiran, M.B., Weber, R. & Osibanjo, O. (2018). Initial Inventory of Plastics Imports in Nigeria as a Basis for More Sustainable Management Policies. *Journal of Health and Pollution* 8 (18): 6–20, 2018.
- Bakardjieva, R. (2009). Corporate Social Responsibility of the Firms in Bulgaria. – *Ikonomicheski Izsledvania*, N 2, pp. 33-62.
- Bayón, A. S. & García-Ramos, M.Á. (2021). Caso de RSC 3.0 paraganar-ganar en la auténtica economía de bienestar personal: Divisas digitales como herramienta para mejorar la renta del personal, *el respeto ambiental y el bienestar general*. *REVESCO Rev. Estud. Coop.*, 138, 1–11.
- Bernardin, H. J. (2007). *Human Resource Management. An Experiential Approach*. Tata McGraw Hill.
- Boström, M. A (2012). *Missing Pillar? Challenges in Theorizing and Practicing Social Sustainability*: Introduction to the Special Issue. *Sustain. Sci.* 2012, 8, 3–14.
- Boyer, R.H., Peterson, N.D., Arora, P., & Caldwell, K. (2016). *Five Approaches to Social Sustainability and an Integrated Way Forward*. *Sustainability* 2016, 8, 878.
- Browning, M., & Rigolon, A. (2019). School green space and its impact on academic performance: A systematic literature review. *International Journal of Environmental Research and Public Health*, 16(3), 429.
- Calleros, A.I. (2021). *Sustainability frameworks: Their influence on the operational capacity of sustainability*. *Rev. Int. Sostenibilidad Tecnol. Hum.* 7, 9–26.
- Ceulemans, K., Molderez, I., & Van, L. L. (2015). Sustainability reporting in higher education: A comprehensive review of the recent literature and paths for further research. *Journal of Cleaner Production*, 106, 127-143.
- Conger, J. & Kanungo R. (1988). “The empowerment process: integrating theory and practice”, *Academy of Management Journal*, Vol.13:471-482.
- Devika, A., Maya, F., & Joe, G. (2021). *What Is Social Sustainability?* Network for Business Sustainability.
- Dobni, D. (2004). “A marketing-relevant framework for understanding service worker productivity”, *Journal of Services Marketing*, Vol. 18 No. 4, pp. 303-17.



- Donhee lee (2018). The Effect of Safety Management and Sustainable Activities on Sustainable Performance: Focusing on Supplies. *Sustainability Journal*.10(12):4796.DOI:[10.3390/su10124796](https://doi.org/10.3390/su10124796).
- Dziuba, S. T., Ingaldi, M., & Zhuravskaya, M. (2020).Employees' Job Satisfaction and Their Work Performance as Elements Influencing Work Safety.CzOTO 2020, vol 2, issue 1, pp. 18-25. doi: 10.2478/czoto-2020-0003.
- Evan, W. M., & Freeman, R. E. (2001).A Stakeholder Theory of the Modern Corporation. – In: Snoeyenbos, Almeder and Humber. (eds.). Business Ethics. 3rd ed.
- Ezejiolor, R. A. &Ezekwesili, T. P. (2021). Organizational structure and employee performance: evidence from pharmaceutical companies in Anambra state, Nigeria. *Journal of Innovations*.Vol. 67. PP-76-89.
- Finch,F. (1976), A Concise Encyclopedia of Management Techniques, (William Heinemann Limited, London),p.198.
- Garetti, M.M. T., (2012). Sustainable manufacturing: trends and research challenges Prod. Plan. Control Management Operations. 23 (2–3) (2012), pp. 83-104.
- George, J.M., Jones, G.R., 2008. Understanding and Managing Organizational behaviour, Pearson/Prentice Hall, New Jersey, USA.
- Geyer, R. (2019). Production, use, and fate of synthetic polymers. In: Letcher, T.M. (ed.): Plastic waste and recycling, Academic Press, Cambridge, MA, 2019 (in press, Oct 2019. data available to publishers in Sep 2019.
- Global Reporting Initiative (2020). Consolidated set of GRI sustainability reporting standards 2020, retrieved on 8th November, 2022 from <https://www.globalreporting.org/how-to-use-the-gri-standards/resourcecenter/?g=6e919188-829e-4910-8054-6c5ddde4c95a&id=5983>
- Groenroos, C. & Ojasalo, K. (2004). Service productivity: towards a conceptualization of the transformation of inputs into economic results in services, *Journal of Business Research*, Vol. 57 No. 4, pp. 414-23.
- Guiras, Z. Turki, S. Rezg, N. & Dolgui, A. (2018). Optimal maintenance plan for two-level assembly system and risk study of machine failure. *Int. J. Product. Res.* 2018, 1–18.
- Gupta,C.B. (1990), Production, Productivity and Cost Effectiveness, (Sultan Chand &Sons, New Delhi),p.4.3.
- Heathfield, S. M., (2012). Empowerment Definition and Examples of Empowerment. Retrieved on July 27, 2022. from: [http://humanresources.about.com/od/glossary/a/empowerment\\_def.htm](http://humanresources.about.com/od/glossary/a/empowerment_def.htm)

- Iheanachor, N. (2021). Sustainable Business Practices by Nigerian Organizations .Etrieved<https://www.infotechopne.com/chapters/7326>.
- Ilechukwu, I., Ndukwe, G. I., Mgbemena, N. K., & Akandu, A. U. (2019). Occurrence of microplastics in surface sediments of beaches in Lagos, Nigeria. *European Chemical Bulletin*, 2019, 8:11, 371-375.
- International Labour Organization. (2018). *Improving the Safety and Health of Young Workers*; International Labour Organization: Geneva, Switzerland.
- Ismail, W. A. W., Saad, S. M., Lode, N. A., & Kustiningsih, N. (2022). Corporate Sustainability Reporting and Firm's Financial Performance in Emerging Markets. *International Journal of Academic Research in Business and Social Sciences*, 12(1), 396–407
- Jocelyne, S., & Kariuki, M. (2020). Human capital, employee empowerment and organization performance. *International Academic Journal of Human Resource and Business Administration*, 3(9), 319-332.
- Justice, M., & Sandra, R. C., (2019). Sustainable development: Meaning, history, principles, pillars, and implications for human action. *Cogent Social Sciences*. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/23311886.2019.1653531>.
- Kaliski, B.S., (2007). *Encyclopedia of Business and Finance*, Thompson Gale, Detroit, USA
- Kassu, J. & Daniel, K., (2017). Industrial Occupational Safety and Health Innovation for Sustainable Development. *Engineering Science and Technology, An International Journal*. Volume 20, Issue 1, Pg 372-380.
- Keremidchiev, S. (2021). Theoretical Foundations of Stakeholder Theory 1. Volume 30 (1), 2021. Retrieved on July 23, 2022 from <https://www.researchgate.net/publication/349494309>.
- Khan, R., Ur Rehman, Z., Ahmed, M. S., & Rahman, A. (2020). Employee Empowerment and Its Influence on Employee Performance: A Case of Hazara University. *Sarhad Journal of Management Sciences*, 6(1), 1-14.
- Lake, S. (2000). Low Cost Strategies for Employee Retention: Compensation and Benefits Review. 32(4),65-72.
- Lee, D., & Schniederjans, M. (2017). How corporate social responsibility commitment influences sustainable supply chain management performance within the social capital framework: A propositional framework. *Int. J. Corp. Strategy & Soc. Responsib*, 1, 208–233.

- Linna, P., Pekkola, S., Ukko, J., & Melkas, H. (2010). Defining and measuring productivity in the public sector: Managerial perceptions. *International Journal of Public Sector Management*. Vol -23. DOI - 10.1108/09513551011058493.
- Lokuwaduge, C.S.D.S. & Heenetigala, K. (2017). Integrating environmental, social and governance (ESG) disclosure for a sustainable development: An Australian study. *Bus. Strategy Environ.* 2017, 26, 438–450.
- Maheshwari, M. (2016). Productivity: A Conceptual Framework. *Indian Journal of Research* ISSN - 2250-1991 | IF : 5.215 | IC Value : 77.65. Vol: 5: 10
- Mathis, Robert, L., & John, H. J. (2003). *Human Resource Management*. (11th ed). Mason, OH: Thomson/South-Western
- Matui, J. K. (2017). Employee productivity on organizational performance in the kenyan banking sector: a case of Kenya commercial bank. Unpublished research project submitted to the school of business in partial fulfillment of the requirements for the award of master of business administration degree (strategic management option) of Kenyatta University.
- Mazur-W, E. (2021). E-communication and CSR-a new look at organizations' relations with stakeholders in the time of digitalization. *ProcediaComput. Sci.*, 192, 4619–4628.
- McNamara, C. (2005). *Field Guide to Leadership and Supervision for Nonprofit Staff*.(2nd ed.). Amazon.
- Missimer, M. & Mesquita, P.L. (2022). Social Sustainability in Business Organizations: A Research Agenda. *Sustainability Journal*, 14, 2608. <https://doi.org/10.3390/su14052608> <https://www.diva-portal.org/smash/get/diva2:1643723>
- Mueller, C.W. & Kim, S. W., (2008). The contented female worker: Still a paradox?. In *Justice* (pp. 117-149). Emerald Group Publishing Limited.
- Nedelchev M. (2017). Corporate governance and conflicts "principal-principal" on the example of the banking system in Bulgaria – *Ikonomicheskilzsledvania*, N1, p.117-135 (in Bulgarian).
- Nordin, S. M., Rizal A.R.A., Rashid, R.A., Che-Omar, R., & Priyadi, U. (2021). Incidents and Disaster Avoidance: The Role of Communication Management and the Organizational Communication Climate in High-Risk-Environments. *-Sustainability*.2021; 13(18):10138. doi:10.3390/su1318 10138.
- Nosike, C. J., & Okerekeoti, C. U.(2022). Employee Productivity and Organizational Performance: Evidence from Pharmaceutical Firms in Nigeria. Published in *International Journal of Trend in Scientific Research and Development (ijtsrd)*, ISSN: 2456- 6470, Vol-6:4, June 2022, pp.108-116,

- Nunnally, J.C. & Bernstein, I. R. (1994). *Psychometric theory*, Ed. ke-3, McGraw-Hill, New York.
- Nwachukwu, J. N., Ogundiwin, A. O., & Nwaobia, A. N. (2015). *Anthology of theories and their applications in social and management sciences* (1st ed.). Lagos, Nigeria: Jamiro Press Link.
- Obi, C. N., Leggett, C., & Harris, H. (2020). National culture, employee empowerment and advanced manufacturing technology utilization: A study of Nigeria and New Zealand. *Journal of Management and Organization*, 26(4), 460-482.
- Odewole, O. B., Akintoye, R. I., Salawu, R. O., & Adegbe, F. F. (2020). Environmental sustainability and stakeholder's value of listed manufacturing companies in Nigeria. *African Journal of Accounting and Financial Research*, 3(1), 25-43.
- Odugbesan, J. A., & H. Rjoub. (2019). 'Relationship among HIV/AIDS prevalence, human capital, good governance, and sustainable development: empirical evidence from Sub-Saharan Africa.' *Sustainability* 11 (5): 13-48.
- Okegbe, T. O., & Egbunike, F. C. (2016). Corporate social responsibility and financial performance of selected quoted companies in Nigeria. *NG-Journal of Social Development*, 5(4), 168-189.
- Okorochoa, B. C., Okorochoa, C. & Ezejiofor, R. A. (2021). Effect of institutional policy on employee performance of academic staff of public universities in Nigeria. *International Journal of Research in Education and Sustainable Development*. 1(4) | ISSN: 2782-7666
- Olaoye, S., Nwaohia, A., & Oyekale, P. (2022). Corporate Governance, Financial performance and social Sustainability Practices of Consumer Goods Companies Listed in Nigeria. *International Journal of Business & Management*. Vol 10.
- Olcay, Z. F., Temur, S., & Sakallı, A.E.A. (2021). Research on the Knowledge Level and Safety Culture of Students Taking Occupational Health and Safety Course. *Cypriot J. Educ. Sci.* 2021,16,187–200. <https://doi.org/10.18844/cjes.v16i1.5519>.
- Omoike, O., Uwuigbe, U., Alege, P., Uwuigbe, B., Nosakhare, O. P., & Asiriwa, O. (2020). Firm performance and corporate social environmental initiatives in the wake of a health pandemic. *International Journal of Financial Research*, 11(6), 211-218.
- Owolabi, S. A., & Babarinde, T. A. (2020). Effect of Corporate Governance on Audit Quality in Nigerian Banks. *International Journal of Multidisciplinary and Current Educational Research*, 2(5), 290-296.
- Pallant, J. (2001). *SPSS Survival Manual - A step by step guide to data analysis using SPSS for windows* (version 10), Buckingham Open University Press.

- Partridge, E. (2005) 'Social sustainability': A useful theoretical framework? Paper presented at the *Australasian Political Science Association Annual Conference 2005*, Dunedin, New Zealand, 28-30 September 2005.
- Patricia, L. M., & Missimer, M. (2021). Social Sustainability Work in Product Development Organizations: An Empirical Study of Three Sweden-Based Companies. *Journal of Sustainability*, vol - 13. DOI - 10.3390/su13041986.
- Petra F. A. (2010). Sustainability reporting in a global context: What are the characteristics of corporations that provide high quality sustainability reports: An empirical analysis. *International Business & Economics Research Journal*, 9(1), 19-30.
- Pierobon, C. (2019). Promoting Sustainable Development through Civil Society: A case study of the EU's NSA/LA thematic programme in Kyrgyzstan. *Development Policy Review; Wiley*, 37. doi:10.1111/dpr.12411.
- Qiu, Q., Peng, J., Yu, & Chen, F. (2015). Occurrence of Microplastics in the Coastal Marine Environment, first observation on sediment of China. *Marine Pollution Bulletin*, 2015, 98(1-2) 274 -280.p. 29.
- Raziq, A., & Maulabakhsh, R. (2015). Impact of Working Environment on Job Satisfaction. *Procedia Economics and Finance*, 23, 717-725, DOI: 10.1016/S2212- 5671(15)00524-9
- Reid, W.V, Watson, R, Zakri, A.H, & Cropper, A. (2005). Mooney, H. *Ecosystems and Human Well-Being: Biodiversity Synthesis*; Island Press: Washington, DC, USA, 2005.
- Saari, L.M. & Judge, T.A., (2004). Employee Attitudes and Job Satisfaction. *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management*, 43(4), pp.395-407.
- Schwab, K. (2019). *Davos Manifesto 2020: The Universal Purpose of a Company in the Fourth Industrial Revolution*, WEF
- Shahzalal, M. D., & Hassan, A. (2019). Communicating Sustainability: Using community media to influence rural people's intention to adopt sustainable behaviour. *sustainability*, 11(3), 812.
- Siddhartha, B., Koushik, M., Jyoti, P. S., & Naba, K. M. (2022). Cognitive Data Models for Sustainable Environment. Published by Elsevier B.V. Retrieved from <https://www.sciencedirect.com/book/9780128240380/cognitive-data-models-for-sustainable-environment>
- Sotirios, K., Ioannis, V., Roido, M., Antonis, A., Zorpas & Panagiotis, K. (2022). Occupational Health and Safety Scope Significance in Achieving Sustainability. *Sustainability* 2022, 14, 2424. <https://doi.org/10.3390/su14042424>. [www.mdpi.com/journal](http://www.mdpi.com/journal)

- Spiliakis, A. (2018). What does Sustainability mean in business?. Retrieved from <https://online.hbs.edu/blog/post/what-is-sustainability-in-business>.
- Stroufe, R & Gopalakrishna-Remani, V. (2018). Management, Social Sustainability, Reputation, and Financial Performance Relationships: An Empirical Examination of U.S. Firms. *Vol: 32. Issue:3*, page(s):331362.
- Sulaiman, N. A., & Muhamad, R. (2020). CSR and Employee Empowerment: Scale Development and Validation. *Academic Journal of Business and Social Sciences*, 4(1), 1-13.
- Tanjeen, E. (2013). Employee Empowerment: A Critical Review. *Dhaka University Journal of Management*, Vol 5, Nos. 1.
- Thornhill, D. (2006). "Productivity attainment in a diverse public sector", paper presented at the Institute of Public Administration Seminar on Promoting Productivity in a Diverse Public Sector, Dublin, 21 April.
- Ukko, J., Tenhunen, J. & Rantanen, H. (2008). "The impacts of performance measurement on the quality of working life", *International Journal of Business Performance Management*, Vol. 10 No. 1, pp. 86-98.
- United Nations, (2020). Leadership for the Decade of Action: A United Nations Global Compact-Russell Reynolds Associates Study on the Characteristics of Sustainable Business Leaders; United Nation-Russell Reynolds Associates, Global Compact, Russell Reynolds Associates: New York, NY, USA.
- Van Ark, B. (2006). Mind the gap! A comparison of services productivity in Europe and United States, paper presented at the Services and Innovation Conference, Helsinki, 10-11 October.
- Vaquero-Álvarez, E. Cubero-Atienza, A., Martínez-Jiménez, M.P. Vaquero-Abellán, M., Redel-Macías, M.D., & Aparicio-Martínez, P. (2020). Occupational Safety and Health Training for Undergraduates Nursing Students: A Spanish Pilot. *Int. J. Env. Res. Public Health*2020, 17, 8381.
- Vogt, J. F., & Murrel, K. L. (1990). Empowerment in organizations: how to spark exceptional performance, University Associates, San Diego, CA.
- Weitz, N., Carlsen, H., Nilsson, M., & Skånberg, K. (2017). Towards systemic and contextual priority setting for implementing the 2030 agenda. *Sustainability Science*, 13(2), 531–548.
- World Bank (2017). Atlas of sustainable development goals 2017. *World Development Indicators*, doi:10.1596/978-1-4648-10.

- Xu, S., Wang, L., Wang, B., Guo, H., Han, L., Xu, S. Chen, H. & Zhu, B. (2020). Occupational Safety and Health in China: Junior College Students' Knowledge from a Large Cross-Sectional Survey in Jiangsu Province. *J. Public Health Pol.*2020, 41, 375–385.
- Zhai, T.T., & Chang, Y. C. (2019). Standing Of Environmental Public-Interest Litigants in China: Evolution, Obstacles and Solutions. *Journal of Environmental Law*, 30, 369–397.