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## Economic Sustainability and Viability of Industrial Goods Manufacturing Firms in Abia State, Nigeria.

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### Abstract

*This study was done out of the curiosity to restore confidence in customers through reinventing products that meet and satisfy their immediate needs, and also the need to develop employees technically and otherwise so that they can function effectively in their assigned jobs. The main purpose of this study was to examine the effect of economic sustainability on the viability of industrial goods (plastic) manufacturing firms in Abia state, Nigeria. The study made use of the survey research design method which allowed for the collection of primary data from the field via the use of a likert style questionnaire. The population of the study comprised of ten (10) plastic manufacturing firms in Abia State as provided by the Nigerian Directory, while the element of the population was made up of six hundred (600) employees of the plastic firms in Abia state. Due to the homogenous nature of the population, the stratified random sampling technique method was adopted and the population was grouped into different stratum. The validity of the research instrument was authenticated by experts in the field of economics and business, while the reliability of the research instrument was done using the cronbach alpha contained in the statistical package of social sciences (SPSS) version 23 which gave a coefficient of 0.822 which indicated a positive coefficient. The findings of this study revealed that product innovation has a positive significant effect on operating cash flow of industrial goods (plastic) firms; that employee development has a positive significant effect on employee satisfaction of industrial goods (plastic) manufacturing firms in Abia state, Nigeria. Based on the findings on this study, it was recommended that plastic firms should be more proactive by investing on research and development, so as to enable them innovate plastic products that are degradable, and instead of polluting our land and oceans, they will rather decompose and form nutrients for our soil, and also management of plastic firms can also choose to develop its employees' through job rotation techniques, if it doesn't have the resources to invite a human resource expert or it is not able to send its employees out to acquire the training.*

**Keywords:** Economics, Sustainability, Product, Innovation, Employee, Development.

### **1.1 Introduction**

Nigerians from all across the federation are bemoaning the pain and hardships they are experiencing and are pleading with the government to take immediate action at all levels to ease their agony, which is becoming intolerable and terrible (Alao, 2023). They are finding it quite difficult to purchase a reasonable meal for the entire day, and the degree of hunger in the country is truly worrisome and intolerable. Alao noted that as a result, the rise in food cost, social necessities, and people's incapacity to maintain their houses are still present throughout the nation, and that the situation for manufacturers is likewise not getting any better. It is important to remember that the manufacturing sector continues to be one of the most dependable and long-lasting sectors that propels a country's economy toward industrialization, growth, and progress. However, it is regrettable that the Nigerian government has not supplied the necessary equipment to propel this industry toward greater sustainability.

Alao continued, "Governments at all levels must contribute by creating the conducive environment, roads, power, and education for a literate workforce to encourage entrepreneurship investment. Government also needs to address issues that are harming local manufacturers in order to assist them in lowering the cost of production, which is still very high. Furthermore, manufacturers only get 5% of their foreign exchange needs from the legitimate market, with the other 95% coming from the black market. According to Bismarck Rewane in Oji, (2023), this has increased the price of locally manufactured goods and made them less competitive on the global market; if the government were to increase the level of foreign exchange allocated to the productive sector, which includes manufacturing and capitalize on the high and sustained crude oil prices on the international market, the burden on manufacturers could be lessened.

Economic sustainability focuses on achieving economic growth without having a detrimental effect on the environment, society, or culture (Firas, 2021). This is accomplished by limiting or ceasing the usage of scarce resources within a company while preserving open communication with the general public. Revenue growth and carbon footprint reduction are two key components of the optimal economic plan (Futurelearn, 2021). Switching from fossil fuels to renewable energy is a fantastic strategy for addressing economic sustainability, while this can also be accomplished by including research and development programs if it makes more economic sense. It is believed that employees can only put in their best at work, when they derive satisfaction from the job itself either financially, materially and otherwise. The success and growth of manufacturing firms whether industrial, consumable and food/beverages solely depends not only on the huge capital base, customer loyalty nor integrity its integrity, a greater concern which the management of these firms should consider is the effort put in by their employees. In order to streamline and manage the economic hardship faced by employees from time to time, this study was carried out to examine the effect of economic sustainability and viability of industrial goods (plastic) manufacturing firms in Abia state, and to suggest possible remedies to militate against sustainable development therein.

### **1.2 Statement of Problem**

The fact that the earth's resources are few and not all ultimately recoverable, despite the fact that most of them are natural resources, which is one of the economic sustainability difficulties faced by the plastics industry. The excessive and ongoing extraction of this earth resource without its replacement has forced plastic manufacturers into a competitive situation. As a result of the high consumer demand for plastic goods, manufacturing firms are left with no other option but to pay a high price for this raw material (polymer) for production. Rhema (2023) went on to say that making

plastic may be expensive since it requires a variety of resources, including labor, waste, raw materials, and tooling. It might be challenging to find methods to save expenses without compromising quality. Similar to this, there are a number of additional obstacles to attaining economic sustainability that must be removed in order to facilitate a "sustainability transition" (Berg, 2020). Nature and its complexity can be a hindrance to economic sustainability (Apetrei, Caniglia, von Wehrden, and Lang, 2021).

Finding new suppliers can be challenging due to consumer backlash, data risks, and complex business models when investing in corporate sustainability at any scale (Apetrei *et al*, 2021). Additionally, investing in corporate sustainability can result in high costs and expenses and take more time. The COVID-19 pandemic (Ekwebelem *et al.*, 2018), poor infrastructure support to harness renewable resources (Ozili, 2022), high population growth, and insufficient employment opportunities (Ahenkan and Osei-Kojo, 2014), as well as low capacity to adapt to climate change (Tumushabe 2018; Bauer and Scholz, 2010), are some additional challenges that have been identified as undermining efforts towards sustainable development in the African continent. Despite these obstacles, there appears to be general agreement that sustainable development in Africa should start at the local level and be led by local governments (Atisa, Zemrani, and Weiss, 2021). Additionally, it is widely agreed that promoting sustainable development in African nations requires policy coherence and coordination across the local, state, and federal governments (Auriacombe and Van der Walt, 2021). It was against this backdrop that this study intended to examine the effect of economic sustainability and the viability of industrial goods (plastic) manufacturing firms in Abia state, Nigeria.

### **1.3 Objective of the Study**

- i. To ascertain the degree of relationship that exists between Product Innovation and Operating Cash flow of industrial goods (plastic) manufacturing firms in South Eastern, Nigeria.
- ii. To assess the extent to which Employee Development relates with Employee Satisfaction of industrial goods (plastic) manufacturing firms in South Eastern Nigeria.

### **1.4 Research Question**

- i. To what degree does Product Innovation relates with Operating Cash flow of industrial goods (plastic) manufacturing firms in South Eastern Nigeria?
- ii. What is the extent of relationship between Employee Development and Employee Satisfaction of industrial goods (plastic) manufacturing firms in South Eastern Nigeria?

### **1.5 Research Hypothesis**

- Ho<sub>1</sub>: Product Innovation does not improve Operating Cash flow of industrial goods (plastic) manufacturing firms in South Eastern Nigeria.
- Ho<sub>2</sub>: There is no significant positive relationship between Employee Development and Employee Satisfaction of industrial goods (plastic) manufacturing firms in South Eastern Nigeria.

## **Review of Related Literature**

### **2.1 Conceptual Review**

#### **2.1.1 Economic Sustainability**

The ability of an economy to sustain a specific level of economic production over the long term is the broad definition of economic sustainability, and this is essentially how businesses

continue in operation. According to Kola and Fortune, (2022), weak sustainability establishes a relationship between economic sustainability and economic growth. Economic sustainability, then, refers to the use of diverse techniques for making the best use of already-available resources so that a positive and responsible balance may be attained over the long term. The "strong sustainability" posture is highlighted from the outside or stakeholder perspective (Abubakar, 2015).

Considering that economics is the method by which people produce social and environmental consequences, Akinbode, Sokefu and Ebeloku, (2023) defines economic sustainability as the capacity of economic systems to promote sustainable social and environmental outcomes. A consensual agreement has not yet been established because of the diversity of definitions and points of view about economic sustainability, as well as varied values held by individuals and communities. Economic sustainability is a comprehensive collection of decision-making principles and corporate practices that try to achieve economic growth without making the negative environmental trade-offs that traditionally go hand in hand with growth. The goal of sustainable development is to design operational systems that deplete natural capital (often referred to as natural resources) gradually enough to allow for the continued use of those resources by subsequent generations (Paul, 2022). According to Browning and Rigolon (2019), a political entity, such as a nation, experiences economic sustainability when the selected percentage of its population falls below the preferred minimum quality of living. Everyone below the threshold is suffering, either literally from bad health or psychologically, hence the percentage needs to be very low, roughly 5% or fewer.

Paul, (2022) also emphasized that sustainable practices can approach the issue of reducing the depletion of the natural environment or approaching the problem from the opposite direction by figuring out ways to reduce waste, control carbon emissions, and make use of solar energy. Economic sustainability is based on the guiding premise that we should reject wasteful short-term activities and support the long-term health of the world. According to Khan and Quaddus (2015), economic sustainability refers to strategies that promote long-term economic growth without having a detrimental influence on the social, environmental, and cultural facets of the community.

### **2.1.2 Relevance of Economic Sustainability**

For a variety of reasons, from corporate profit to idealistic environmentalism, a sustainable economy is crucial (Spahn, 2018; Ben-Eli, 2015). The following, however, was specified by Paul (2022) as part of the significance of economic sustainability:

**The sustainability of the global economy:** Since the planet's natural resources are finite, the dependence on unsustainable methods must come to an end. Any commercial enterprise that wants to last the long haul needs to invest in new resources and develop new procedures.

**The protection of human life:** The exploitation of fossil fuels has exacerbated the catastrophic situation facing Earth and human habitation. Humans have the chance to protect the earth for future generations by making an effort to reduce energy usage and change how food is produced.

**Untapped discoveries:** Innovation and discovery have historically come from the natural world. Therefore, the chance to discover novel substances and processes that can form the

basis of new goods or other economic advantages is threatened by the ongoing destruction of the natural environment.

### **2.1.3 Implementation of Economic Sustainability**

It takes extensive effort and complete collaboration from the public and commercial sectors to build the infrastructure necessary for economic sustainability (Paul, 2022). Retail investors, however, can allocate their funds to businesses that share their own beliefs and business practices (Atif, Liu and Nadarajah, 2022). According to Shahzalal and Hassan (2019), citizens may also urge their elected authorities to draft economic plans that contain targets for sustainable development and limits on greenhouse gas emissions. In the end, environmental sustainability can only be achieved by widespread action and a restructuring of the financial mechanisms that make up the global economy.

### **2.1.4 Product Innovation**

Innovation is the culmination of efforts made to increase one's knowledge or understanding and to utilize that information to create practical products, tools, and processes. Innovation, according to Stephen (2019), is the creation of new knowledge. It is a task that businesses carry out in order to create new goods, methods, or services, or to enhance ones that currently exist. Businesses frequently assume risk in order to achieve this. This is due to the fact that it is unclear if what they are doing is technologically doable or, more typically, because they are unsure of how they will actually accomplish their goals (Martins, 2015a).

It is widely acknowledged that new ideas have the power to reduce any activity, any link in the value chain, any product, or any service to nothing more than the visible tip of the iceberg. Many businesses won't last very long if they don't reevaluate how to better present their goods and services to customers in order for them to understand their true value. In order to preserve and enhance the brand reputation of the relevant company, some items are modified to better suit the needs and expectations of consumers today. The thought that a current product no longer satisfies client needs or that the product itself has carried a specific image or packaging for a long time and is no longer competing favorably in the market might lead to the need to develop products. A company's innovation strategy needs to be competitive and advantageous (Ismanu, Kusmintarti, and Riwijanti, 2021). Since innovation is crucial for manufacturing organizations, Gaynor (2002) claims that corporate innovation can boost growth, manage the implementation of strategies for future success, and act as a catalyst for further business growth and the maintenance of a company's viability in a globalized economy.

Innovation is a specific kind of change, a fresh concept used to enhance a good, service, or method (Pham and Quddus, 2021). This definition supports the idea that innovation may change the nature of an existing product or the motivation for developing a new product in order to meet a customer demand or generate a new one. However, "product innovation" refers to creative ideas that aim to improve products. Product innovation is the creation of goods or services that differ considerably from the company's earlier offerings in terms of their qualities or intended uses (Meeus, 2006; Maier, 2018; Maier, Olaru, Weber and Maier, 2014).

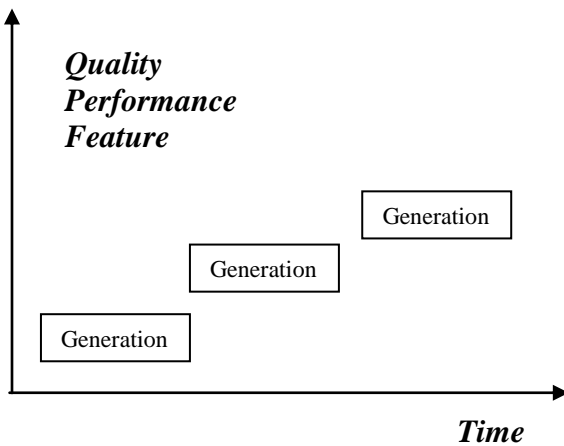


Figure 1 - Evolution of a new product (Meeus, 2006)

According to Meeus, product innovation frequently satisfies client wants, expectations, aspirations, and wishes through innovative goods and services that incorporate the most recent and cutting-edge information in the industry. Product innovation has been the focus of numerous studies, according to Maier (2018). She added that Calleros, (2021) proposal for a product innovation model demonstrated how product design is integral to the innovation process and how it interacts with production development and marketing planning.

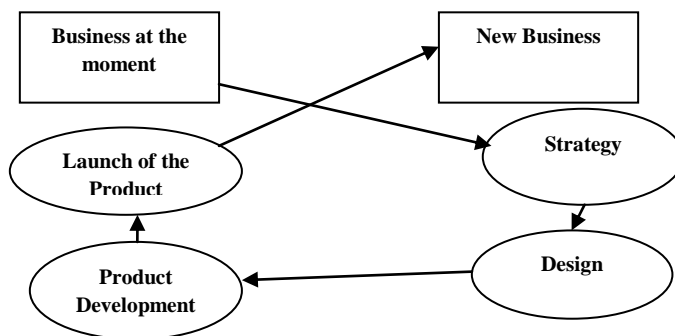


Figure 2: Product Innovation Model (Buijs, 2000)

According to Maier (2018), creating a new product will result in success; as a consequence, these actions are appropriately adjusted. The forming of the strategy (for instance, the formulation of policies and strategies), designing (finding the concept), product development (development), and finally, launching and utilizing the product (its manifestation) are the four phases of the product innovation model. Additionally, the goal of the product innovation process is to satisfy customer demands by creating and releasing new goods on the market that satisfy consumers' wants and needs. The innovation process will come to a stop when products are used, but it also serves as the catalyst for the development of new items.

### 2.1.5 Employee Development

Ezeuwa (2009) defines development as the use of human resources to quantitatively alter the physical and biological environments of man for his benefit. Development can also refer to the introduction of new ideas into the social structure that alter the patterns of the organization and social structure. Daniel (2015) viewed development as a way to accelerate both employee and corporate progress so that qualified candidates may fill open higher positions within their capabilities. Development focuses on enhancing interpersonal and

human relationships (Iwuoha, 2009). In the present corporate climate, employee development is becoming a more crucial and strategic needs for firms (Abdul-Hameed, 2011). In order to sustain personnel and the success of the firm, organizations must engage in ongoing employee development (Khawaja and Nadeem, 2013). According to Garavan, Costine and Heraty (1995), development is a process that aims to increase an organization's or community's capacity to attain and maintain a new intended state that benefits both parties.

Employee development, according to Obisi (2011), enables and boosts workers' market worth, earning potential, and job stability. Activities that result in the acquisition of new information or skills for the aim of development are referred to as development. In order to improve employees' capabilities, organizations provide development programs to them. According to Ezeuwa (2009), development can be defined as the use of human resources to quantitatively alter the physical and biological environments of man for his benefit. Development can also refer to the introduction of new ideas into the social structure that alter the patterns of the organization and social structure.

Activities that result in the acquisition of new information or skills for the aim of development are referred to as development. In order to improve their capabilities, organizations provide development programs to their staff. According to Ezeuwa (2009), development can be defined as the use of human resources to quantitatively alter the physical and biological environments of man for his benefit. Development can also refer to the introduction of new ideas into the social structure that alter the patterns of the organization and social structure. According to Ezeani and Oladele (2013), development is a way to boost both individual and corporate growth so that qualified candidates may fill open higher-level positions within their capabilities. Development focuses on enhancing interpersonal and human relationships (Iwuoha, 2009).

In order to increase both employee competency and organizational performance, firms must engage in ongoing employee development (Khawaja and Nadeem, 2013). According to Garavan (1991), development is a process that aims to increase an organization's or community's capacity to attain and maintain a new intended state that benefits both parties. Employee development enables and boosts their market worth, earning potential, and job stability, according to Obisi (2011). Activities that result in the acquisition of new information or skills for the aim of development are referred to as development. In order to improve employees' competencies, organizations provide development programs to them (Isaac, Fabian and Nkechi, 2020).

According to Alo (2000), the word "human capital" or "employee development" refers to actions aimed at enhancing staff members' knowledge, honing their skills, instilling their values, and promoting the behaviors they need to perform to the best of their abilities. According to Felix and Francis (2021) it is the process of acquiring new competences via ongoing training and development both on and off the work. For a business to grow into one that is robust and dynamic, such training that aims to improve employees' technical aptitude, abilities, judgment, and talents is essential (Eletu and Ukoha, 2017). Employee development therefore includes options like training, career development, coaching, and mentoring as well as performance management and development (Hanaysha, 2016).

People naturally learn new things as a result of their profession, which is beneficial. However, it is debatable how much of such learning was brought about by an organization's deliberate staff development initiatives (Heathfield, 2020). Not all examples of employee

learning are necessarily included in employee development. Employee development is a term used to describe a coordinated collection of planned programs that are offered throughout time to ensure that all people have the skills needed to work to the best of their abilities in support of the objectives of the business (Sharma and Sharma, 2014). Employee development is a process that includes the learning of all people in an organization, whether they are managers, professionals, or front-line workers. It can be delivered using a variety of strategies, including job rotations, self-study materials, mentoring programs, educational programs, and seminars (Njoku and Onyegbula, 2017).

In reality, employee development may be determined by the employee level being serviced and the means utilized to offer programs to the employees, according to Ojokuku and Adegbite (2014). By expanding its conceptual boundaries beyond technical or management training alone, such a broad scope aids practitioners. However, this scope also makes it more challenging for studies to pinpoint the specific connection between employee development and organizational success (Zahid, Sareeta and Manisha, 2015). No matter if the enhanced competence is employed to do present-day work or work in the future, the ultimate goal of employee development programs is to provide a systematic path for enhancing the employees' competence (Samson, Ibeh and Emerole, 2016).

## **2.2 Theoretical Review**

### **Self-Determination Theory**

The study was anchored upon the self-determination theory which was propounded by renowned Scholars of the early century, Deci and Ryan (2000), this theory was however founded on the principles of perseverance which helps organizations in promoting employee/s who continuously enhance processes, services, and products for a wide variety of concerned stakeholders. The most vital applications of this theory relates to eco-innovation (Arranz *et al.*, 2020; Fernando and Wah, 2017); new product development (Malek *et al.*, 2020; Cooper, 2019; Kalish *et al.*, 2018); and cleaner production (Leong *et al.*, 2021; Haines-Gadd *et al.*, 2021). It impact on a company's long-term sustainability which augurs well for business continuity despite significant obstacles, greater capability to produce competitive performance, and continuing market dominance. Accordingly, self-motivation among organizational members is the most important aspect of business that can boost economic sustainability. It also continues to emphasize a vision of sustainability, perseverance values, and social and environmental responsibility.

## **2.3 Empirical Review**

Ismail, Saad, Lode and Kustiningsih (2022) from Indonesia and Malaysia conducted a study on Corporate Sustainability Reporting and Firm's Financial Performance in Emerging Markets. The aim of the study was to determine whether high firm performance in emerging markets is related to corporate sustainability reporting. The study found that companies with corporate sustainability reporting are associated with high firm performance 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 results of this international study had important ramifications for regulators in encouraging sustainability reporting and helping investors make wiser choices.

Saudi Arabian researcher Wafa, (2022) looked at how corporate sustainability affects a company's financial success. Using variables like return on investment, return on equity, sales growth, leverage, tangible assets, CEO tenure, CEO education, firms' size, and CSR index, it



specifically examines the effectiveness of CEO characteristics as a moderator on corporate social responsibility (CSR)-firm financial performance linkages. The study used a correlation matrix and descriptive statistics to test its hypotheses. According to the study's findings, businesses that practice corporate social responsibility typically perform better financially.

A global study on sustainability and sustainable development was undertaken by Nigerian researcher Ozili (2022). Utilizing social, economic, resource, technological, and environmental indices, the research assessed sustainable development. The study evaluated the body of knowledge on global sustainability and sustainable development. The notions of sustainability and sustainable development were first defined. According to the report, there are social, political, structural, institutional, and economic aspects to the difficulties. Additionally, although the notion of sustainable development is largely accepted in academics, its applicability in policy circles has been questioned. Incorporating sustainability or sustainable development considerations into company or environmental management, the study's final finding stated, has some good outcomes. Finally, some potential study directions are put out.

The study revisiting the Influence of Corporate Sustainability Practices on Corporate Financial Performance was conducted by Indian researchers Kumar, Gupta, and Das in 2022 with the aim of theoretically and empirically extending the debate over the linearity assumption of the relationship between corporate sustainability performance and its reporting practices (CSPR) and corporate financial performance (CFP). To achieve their goal, their study concentrated on the financial and non-financial measures of the top global energy corporations from 2006 to 2018. The balanced panel of 3211 firm-year data in the study was subjected to an estimated generalized least squares approach. By rejecting the linearity assumption, the study's findings support the presence of a curvilinear relationship. Additionally, the study's findings showed a noteworthy inverted U-shaped link between CSPR and CFP.

Researchers Dordum, Oladele and Gbarako from Nigeria studied sustainability accounting and market-based performance in 2022. All of the manufacturing companies that are listed for quotation on the Nigerian Stock Exchange made up the study's population. Ten (10) manufacturing businesses that are publicly traded on the Nigerian Stock Exchange were arbitrarily chosen as the sample size based on the availability of profits per share, social, environmental, and economic data within the study's time frame. Descriptive statistics and the Panel Data approach of econometrics were employed. According to the study, economic, social, and environmental responsibilities have a small but favorable impact on shares' profits per share.

Indian researchers Maji and Kalita (2022) looked at the patterns of climate change-related disclosure made by publicly traded Indian companies and how it affected corporate performance. They used content analysis to examine 22 chosen companies from the energy sector's annual reports and/or sustainability reports for the years 2018–2019 and 2019–2020. In order to determine the overall and individual climate-change disclosure ratings, they computed the performance of the organizations using governance, strategy, risk management, and target indicators. In order to assess the effect of such disclosure on the performance of the businesses, a panel data regression model was utilized. Their regression results showed a correlation between climate change-related financial disclosure and business performance that was favorable, showing that firms' financial performance may be enhanced by providing more information on climate change.

Researchers from the Czech Republic and France, Balogh, Srivastava and Tyll (2022), examined the corporate sustainability reporting and the variables affecting significant Czech firms' ESG (Economic, Social, and Governance) disclosures. Using censored regression models for 100 big Czech enterprises. This study discovered that the overall ESG disclosures were favorably impacted by revenue, personnel count, and profitability. According to this study, revenue had a positive influence on environmental and governance disclosures, whereas the number of workers had a positive influence on social and governance disclosures. Additionally, profitability had a favorable impact on social and governance disclosures for big Czech enterprises. However, our analysis failed to find a meaningful connection between board characteristics and ESG disclosures.

In a Jordanian business setting, Alshirah, Malek, Faraj, Alfawareh, Alshira'h, Tareq and Moh'd (2022) from Jordan investigated the impact of managerial/board gender diversity and corporate governance structure on company performance. From 2018 to 2020, data were gathered from non-financial firms registered on the Amman Stock Exchange. Data analysis was done using the random-effects estimator, which was thought to be the most appropriate for their study. They emphasized that while board size and family ownership both had detrimental effects on performance, the moderating effect of corporate governance structure had no bearing on the associations between CEO duality, institution ownership, government ownership, independent directors, and firm performance. Their findings showed that, as evaluated by return on equity, the percentage of women on the boards of directors of Jordanian corporations had a favorable but negligible impact on corporate performance, proving that this variable had little bearing on the success of Jordanian businesses.

Researchers from China and Hong Kong, Weiping, Jiashun, Chang and Xue (2022), looked at the connection between share pledges and corporate social responsibility (CSR). The CSR score evaluated a company's social responsibility in five different areas: society, the environment, workers, suppliers and customers, and shareholders. CSR data was gathered from the website "Hexun's" social responsibility report database, while other financial data came from the Chinese Stock Market and Accounting Research Database (CSMAR). For the analysis of the gathered data, they employed the regression model and descriptive statistics. Their conclusion suggested that share pledges by controlling shareholders restrict enterprises' CSR investments, which negatively impacts company performance.

Gamal, Wahba and Correia (2022) from Egypt looked explored how different stages in a company's life cycle affected business operations, particularly sustainability efforts and CSR spending. In order to investigate the relationship between corporate social responsibility (CSR), as measured by the corporate sustainability performance (CSP) index, and firm life cycle for companies included in the S&P/EGX ESG index, this study analyzed 420 company-year data samples from 2013 to 2018. Their research demonstrates a strong correlation between CSP and firm life cycle stages. The findings also demonstrate that the business life cycle has more predictive value for CSP levels than was previously believed. To guarantee long-term value and growth, firms should identify and implement CSR activities based on their life cycle stage.

A study on corporate social responsibility and its overall effects on financial performance was conducted by Indian researchers Bag and Omrane in 2022. The study's goal was to examine the statistical relationship between CSR and corporate financial performance (CFP) of the top 100 companies listed on the National Stock Exchange (NSE) of India. After gathering the necessary financial information from each of these firms' annual reports, factor

analysis and multivariate regression analysis were conducted. The results provide firm evidence of the association between CSR and CFP. The relationship between CSR and financial success is, in fact, moderately favorable even though CSR activities have a major influence on financial performance. According to the outcomes, it is advised that Indian business enterprises engage in CSR efforts to improve their financial performance.

This study was conducted by Ali, Sami, Senan, Baig and Khan (2022) from Saudi Arabia and India in order to clarify the function of sustainability performance assessment and management in sustainability management based on prior research and examples of advanced businesses that have implemented SBSC, such as the General Group. It also looked at management tools. The study's conclusions showed that the SBSC is a useful management tool for enhancing sustainability performance and putting sustainability policies into practice.

Saudi Arabian researcher Ghardallou (2022) looked at how corporate sustainability affects a company's financial performance, especially the usefulness of CEO traits as a moderator on CSR-firm financial performance links. A sample of 34 Saudi publicly listed firms from 2015 to 2020 was taken into account for the study. Data on accounting, financial, and sustainability factors are gathered from the annual reports of the chosen corporations as well as the Bloomberg database. According to research, companies that practice corporate social responsibility perform better financially. More crucially, it is discovered that CEO tenure and education function as beneficial moderators in the link between company financial success and corporate sustainability. Results specifically show that CEOs with engineering or science-related degrees have a beneficial impact on the association between CSR and financial performance.

Researchers Nader, El-Khalil, Nassar and Hong (2022) from Lebanon and the United States of America looked at organizational performance, sustainability practices, and pandemic planning. The study evaluated and confirmed the correlations between the hypothesized factors using a large-scale survey in order to test a research model that identifies critical variables. Global food, pharmaceutical, and medical manufacturing businesses were used to choose their responders (n = 301). They responded to surface analysis by employing a polynomial regression technique. According to study findings, the food, pharmaceutical, and medical industries' organizational performance measures (such as sales, net profit, on-time deliveries, and quality) are favorably correlated with aspects of pandemic emergency preparation in the context of the COVID-19 pandemic. The response surface study further demonstrates that wise organizations adopt the triple sustainability practices of economic development, social responsibility, and environmental protection to maintain their company reputation and market competitiveness in challenging times.

Mohammad, Murad, Gema, Antonio, Hengky, Imran and Shakir (2022), who are from Saudi Arabia, Spain, the United Kingdom, Indonesia, and the United States of America, studied how environmental behavior and adaptive capabilities impact a company's financial and sustainability performance. The study analyzed the data gathered from 311 Saudi Arabian companies that have achieved ISO 14001 certification using the partial least squares-structural equation modeling (PLS-SEM) method. The results of the empirical study of the data show that both environmental behavior and adaptive capability have a positive and significant impact on the financial performance and sustainability performance of corporations.

Kenyan researchers Mbutia and Gatawa (2022) looked at the corporate sustainability procedures and results of companies whose shares are quoted on the NSE. The study used a

descriptive research approach, and the target audience was made up of finance managers working for the 56 companies listed on the NSE. A census sampling method was used to get a sample size of 56 respondents. Before beginning the data collecting procedure, a pilot study was undertaken to make sure the instrument is valid and trustworthy. Drop and pick later was used to get primary data. Standard deviation, frequencies, and percentages were used in a descriptive statistical analysis. The ordinary least squares model was also used for inferential statistics. The study found a substantial correlation between environmental, social, and economic sustainability and performance outcomes. Therefore, corporate sustainability strategies significantly impacted financial performance.

A study on the contribution of technology to organizational performance of food processing firms in Nairobi, Kenya, was done by Kenyan researchers Ndirangu and Karanja in 2022. Finance officials and directors from the county treasuries in the counties were among the responders for the research. The businesses' yearly audited financial statements were the source of secondary data, while a questionnaire was used to gather primary data. The analysis of the qualitative data, which produced both descriptive and inferential statistics, was done using the Statistical Package for Social Science Version 21. The impact of green supply chain management methods on the organizational performance of food processing businesses in Nairobi County, Kenya, was determined using multiple linear regression analysis. The study comes to the conclusion that organizational performance of food processing enterprises in Nairobi County is positively and significantly impacted by green manufacturing technology.

The influence of Covid-19 on corporate sustainability and company performance of South African listed firms was explored by Nigerian researchers Kola and Fortune (2022) in their study. Secondary data that was obtained from the annual reports of the chosen firms was used in the study. The Traditional Theory of Economics and Finance and Stakeholder Theory were both used in the study. With the use of a convenience sample technique, data collected from 40 firms for the years 2010–2021 were analyzed using panel completely modified ordinary least squares (FMOLS) and dynamic ordinary least square (DOLS) techniques, representing all sectors. The results showed a significant correlation between corporate sustainability performance and firm success when additional explanatory factors were included. This study also revealed that the Covid-19 pandemic's impact on South African businesses was extremely sensitive, and businesses needed to pay close attention to the recovery techniques advised in order to lessen the damage and guarantee a speedy recovery.

The effect of sustainability strategic planning and management (SSPM) on organizational sustainable performance in a developing nation environment was thoroughly detailed by Yousef and Jaaron (2022) from Palestine and the United Kingdom. Data were gathered via an interview and a survey that were directed to 126 businesses working in the most polluting Palestinian manufacturing private sectors as part of a mixed technique approach. Thematic analysis and Partial Least Squares Structural Equation Modeling (PLS-SEM) were used in the analyses. The findings of the data analysis show that SSPM had a favorable impact on the social, ecological, and economic aspects of organizational sustainability. The research also created a framework to make it easier to include SSPM into manufacturing businesses' business plans in developing nations.

#### **2.4 Gap in Knowledge**

There has been a ton of material written about how sustainability may impact business success in this aspect. Studies on the connection between these entities lack clarity. After reviewing a number of academic papers on the connection between sustainability and

business performance, several inconsistencies were found and noted in the conclusions put out by various Authors. Bhaskaran, (2023); Park, (2023); Kola and Fortune (2022); Mbuthia and Gatawa (2022); proposed a positive correlation between corporate sustainability and firms' performance, whereas Dhanda & Shrotryia (2020); Henry, Buyl and Jansen (2019); Gamal, Wahba and Correia (2022); Bag and Omrane (2022).

### 3.1 Methodology

This study made use of the survey research design method which allowed for the collection of primary data from the field via the use of a likert style questionnaire. The population of the study comprised of ten (10) plastic manufacturing firms located in Abia State as provided by the Nigerian Directory while the element of the population was made up of six hundred (600) employees of the plastic firms in Abia state; Blessed Gozie Investment, Aba: Chester Plastics Nigeria Limited, Aba: Continental Plastic (W.A.) Ltd, Aba: Double Diamond Plastic Conglomerates Ltd, Aba: Junction Plastics Nigeria Ltd, Aba: Lilivines Global Enterprises, Umuahia: Obieze Plastic Industries, Aba: Paul Grace Manufacturing Company, Abayi: Pet and Sons Plastics Mil, Aba: Ceeplast Ind. Limited, Abayi in Abia State. Due to the homogenous nature of the population stratified random sampling technique method was adopted and the population was grouped into different strata as can be found in table 1 below:

Table 1 Sample Size Strata

S/n	Position	N-%	n-Sample size
1	Maintenance & Production Managers	1.79 (0.0179)	11 (0.0179 × 600)
2	Supervisors	4.55 (0.0455)	27 (0.0455 × 600)
3	Foremen & Ficcers	21.14 (0.2111)	127 (0.2111 × 600)
4	Personnel & Admin	28.28 (0.2828)	170 (0.2828 × 600)
5	Operators	44.23 (0.4423)	265 (0.4423 × 600)
	Total	100	600

**Source:** Researcher's Field Survey, 2023

However, the independent variable Economic Sustainability was measured with product innovation and employee development, whereas the dependent variable Viability was measured using operating cash flow and employee satisfaction. The validity was of the research instrument was authenticated by experts in the field of economics and business, while the reliability of the research instrument was done using the Cronbach alpha contained in the statistical package of social sciences (SPSS) version 23 which gave a coefficient of 0.822 which indicated a positive coefficient as shown on table 2 below;

Table 2 Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.822	.827	29

**Source:** Researcher's computation using SPSS version 23, 2023

**Table 3 Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q1	115.76923	82.418	.062		.868
Q2	115.36538	84.024	.130		.830
Q3	115.03462	81.037	.028		.843
Q4	115.71154	81.843	.096		.816
Q5	113.02308	87.961	.197		.808
Q6	112.30000	81.879	.009		.825
Q7	112.22692	80.524	.208		.810
Q8	112.96923	85.914	.192		.857
Q9	112.12308	82.162	.057		.818
Q10	112.01923	80.930	.198		.812
Q11	112.23077	89.530	.292		.806
Q12	112.28846	82.523	.013		.824
Q13	112.30769	89.341	.199		.809
Q14	112.17692	82.887	.036		.824
Q15	113.11923	81.982	.325		.890
Q16	113.19615	86.336	.501		.859
Q17	112.38077	85.403	.516		.885
Q18	112.60385	83.422	.563		.876
Q18	112.12308	86.317	.122		.874
Q20	112.34615	86.590	.493		.891
Q21	112.32308	86.698	.438		.892
Q22	112.26538	85.763	.558		.886
Q23	112.13846	88.792	.258		.805
Q24	112.76154	84.399	.413		.886
Q25	112.61538	80.400	.089		.818
Q26	112.21538	88.301	.387		.899
Q27	112.55000	82.642	.538		.874
Q28	112.32308	80.181	.233		.809
Q29	112.26154	81.051	.071		.819

Source: Researcher's computation using SPSS version 23, 2023

**Table 4 Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
116.88462	82.882	8.103976	29

Source: Researcher's computation using SPSS version 23, 2023

Similarly, the paired sample test analysis was used to test the effect of the independent variable (Economic sustainability) on the dependent variable (Viability of industrial goods manufacturing firms).

#### 4.1 Results

Table 5 Information on Distribution of Questionnaire

s/n	Options	No of Respondents	Percentage %
1	Questionnaire Distributed	600	100%
2	Questionnaire Returned	560	93%
3	Questionnaire Completed	560	93%
4	Questionnaire Not Duly Completed	28	5%
5	Questionnaire Missing	12	2%

Source: Field Survey, 2023

Table 5 showed that a total number of six hundred (600) copies of questionnaire were distributed to the respondents, five hundred and sixty (560) copies which represented 93% were completed and returned, and twenty-eight (28) copies which represented 5% were not duly completed by the respondents, while twelve (12) copies which represented only 2% of the total questionnaire were missing. Hence, the analysis for this study was based on the five

hundred and sixty (560) copies of questionnaire which represented 93% of the sample population.

### Hypothesis One

Ho<sub>1</sub>: Product Innovation does not improve Operating Cash flow of industrial goods (plastic) manufacturing firms in South Eastern Nigeria.

**Table 6 Paired Samples Test**

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
PI vs OCF								
Pair 1 PI vs OCF	1.01923	1.81893	.11281	.79710	1.24136	9.035	259	.003

The paired sample t-test showed that operating cash flow level increased significantly when the perceived product innovation was adopted. A t-test value of perceived outcome is said to be significantly high when it is above 1.00 (t-value > 1.00), but when the t-value is less than 1.00 (t-value < 1.00), it is concluded that the perceived outcome within the paired sample has no significant relationship. In conclusion to this result, the t-value was obtained at 9.035 which is significant high. The study therefore concluded that there is a significantly high positive relationship between product innovation and operating cash flow of plastic manufacturing firms in south eastern, Nigeria.

**Decision Rule:** Accept the null hypothesis if the p-value is greater than 0.05, otherwise, reject.

**Decision:** We reject the null hypothesis, since the p-value is 0.003\*\* which is less than the critical value 0.05, this study reveals that product innovation has a positive significant relationship with operating cash flow of industrial goods (plastic) firms in Abia State, Nigeria.

### Hypothesis Two

Ho<sub>2</sub>: There is no significant positive relationship between Employee Development and Employee Satisfaction of industrial goods (plastic) manufacturing firms in South Eastern Nigeria.

**Table 7 Paired Samples Test**

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
ED vs ES								
Pair 1 ED vs ES	2.8077	1.9555	.05926	-.39747	-.16407	4.738	259	.022

The paired sample t-test showed that Employee satisfaction level increased significantly when the perceived Employee development scheme was adopted to address the social sustainability issue of welfare. A t-test value of perceived outcome is said to be significantly high when it is above 1.00 (t-value > 1.00), but when the t-value is less than 1.00 (t-value < 1.00), it is concluded that the perceived outcome within the paired sample has no significant relationship. In conclusion to this result, the t-value was obtained at 4.738 which is significant high. The study therefore concluded that there is a significantly high positive

relationship between employee development and employee satisfaction of plastic manufacturing firms in south eastern, Nigeria.

**Decision Rule:** Accept the null hypothesis if the p-value is greater than 0.05, otherwise, reject.

**Decision:** We reject the null hypothesis, since the p-value is 0.022\*\* which is less than the critical value 0.05, this study reveals that employee development has a positive significant relationship with employee satisfaction of plastic manufacturing firms in Abia state, Nigeria.

#### 4.2 Research Findings

The first hypothesis was designed to test the relationship between product innovation and operating cash flow and it indicated a result of a p-value of 0.003 and a t-value of 9.035. It was observed that innovation which has become a trending issue, and has a greater impact on the operating cash flows of the industrial goods (plastic) firms in Abia State, Nigeria. Thus, many firms are thinking sustainable green manufacturing for increased economic impact, and the best measure to attaining this height was becoming innovative with it plastic products which it intends to offer to its customers. The outcome of this study supports the findings of Sardana, Gupta, Kumar and Terziovski (2020) and Iheanacho, (2021) which revealed a significant positive relationship between corporate sustainability and financial performance of organization.

The second finding revealed a significant positive relationship between Employee Development and Employee Satisfaction at a p-value of 0.022 and a t-value of 4.738. This result depicts that employee development have a greater impact on their job, it improves skills and techniques on how to go about their job, and it also equips them with the required skills needed to function effectively and efficiently with assigned task. Employees from the field of study are positive that personal development through training, seminars and workshop will expose them to new information and help them grow their career progressively.

#### 5.1 Conclusion

Economic sustainability can take many forms depending on how an organization is willing to adapt, and these forms can include; Innovating ways to reduce land use or make supply chains more efficient; cut down on the resources needed to produce a good or bring it to market; Investing time and money in sustainable businesses to create a waste-free world is necessary for shifting concentrations of capital and momentum for the future economy. Converting operations to run on energy produced by solar or wind power rather than fossil fuels is one way an organization can prioritize the future.

#### 5.2 Recommendations

1. **Product Innovation:** Plastic firms that refuse to embrace technological advancement in their production processes will face out over night. This study is requesting plastic firms to be more proactive by investing on research and development, so as to enable them to innovate plastic products that are degradable, and instead of polluting our land and oceans, they will rather decompose and form nutrients for our soil.
2. **Employee Development:** A trained employee will always remain an asset to his/her organization. Management of plastic firms should incorporate a monthly training or seminar programs that can engage their employees, and equip them with more advanced skills, techniques and information on how to master and better their routine task. Management of plastic firms can also choose to develop its employees' through job



rotation techniques; if it doesn't have the resources to invite a human resource expert or it is not able to send its employees out to acquire the training.

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