

Evaluating Productivity Implications and Eco- Friendly Progress in Sustainable Development Goals (SDGs): A Cross-Sectional Study

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The research article has critically investigated the productivity implications for an eco-friendly progress to fulfil sustainable development goals (SDGs). Different aspects of eco-friendly production and their impact on business productivity have been discussed throughout the study. 59 random participants all over the world are selected as respondents of the study's survey. 15 questions have been included in the questionnaire that participants have answered to provide their perspectives. The findings of the study have suggested that the majority of the respondents believe that business productivity can be highly improved with the help of eco-friendly progress. It helps in meeting the social, economic, and environmental goals yet the employees need constant training for accuracy in work. As a result, various perspectives have been obtained by the critical discussions of the study broadening the sustainable landscape.

Keywords: Productivity implications, Eco-friendly progress, Sustainable Development Goals (SDGs), Sustainable consumption.

1. Introduction

1.1 Background

Sustainable development is a concept that has become important to meet socioeconomic and environmental issues worldwide. The significance of green practices can help in understanding sustainable growth and its contribution to business advancement (Pizzi et al. 2020). The implications of sustainable development can be seen by focusing on reducing waste, inequality, pollution, and the respective issues along with the maintenance of economic growth. However, the long-term impact of sustainable approaches will be visible with constant practices in various business fields and industries to observe a visible change in the planet. The inclusion of sustainable practices will also create eco-friendly production and a clean environment as well.

The incorporation of SDGs for productivity is considered to be important as it helps foster collaboration and a sustainable supply chain. The challenging tasks of sustainability can be resolved by allowing collaboration that leverages networks, expertise, and resources as well. As stated by ElAlfy et al. (2020), collaboration among businesses can help in sharing their sustainable supply chain to ensure effective labour and human rights. The importance of SDG is visible with the unprecedented global consensus as 193 countries have participated in an agreement and development agenda for the planet towards 2030 (UNDP, 2024). 169 ambitious targets have been included that can make up 17 SDGs with significant investment in social and economic development.

Despite the need for SDGs in business productivity, the primary challenge to achieving SDGs is the resolution of inequality within various countries. According to Pizzi et al. (2020), inequality in a country is still measured by income, gender, age, ethnicity, religion, disability, and other relevant factors. For instance, South Africa ranks the highest with 66.23%, Namibia with 64.2%, Zambia with 61.74%, Mexico with 57.35%, and the respective (Global Finance, 2022). Other significant challenges are conflicts, economic disparities, unfair access to healthcare and education, socioeconomic status, and discrimination (ElAlfy et al. 2020). Therefore, these challenges need to be resolved effectively to understand their implications for business productivity. Such challenges have caused a temperature rise of 3.2° C, poor air quality for approximately 5 billion people, and a crash in 84% of fisheries (The Nature Conservancy, 2018). Therefore, the perceptions of development must be changed to be counterproductive at all ends.

1.2 Aim and objectives

The study aims to evaluate the implications of productivity and eco-friendly progress in meeting SDGs.

The objectives are mentioned below:

O₁:To critically examine the importance of business productivity with sustainable development goals (SDGs)

O₂:To explore the current state of business productivity and the inclusion of SDGs for eco-friendly progress

O₃:To assess the challenges in evaluating productivity and eco-friendly progress to incorporate

SDGs

O₄: To identify the practices that can help in evaluating productivity and eco-friendly progress to meet SDGs

2. Previous literature on eco-friendly progress in sustainable development goals (SDGs)

2.1 Significance of SDGs in business productivity and eco-friendly progress

SDGs play a vital role in making eco-friendly progress in a business for long-term thinking. It encourages a business to adopt perspectives to allow long-term impact and prioritize sustainability along with profitability (Tu et al. 2023). Moreover, businesses can identify risks within the production activities such as environmental degradation, governance issues, and social inequality. It allows business firms to bring innovation and competitiveness leading to the production of new goods and services that enhance business position in competition. However, as argued by Aithal & Aithal (2022), sustainable steps in a business must be taken to ensure that they are cost-effective and can be adopted in the long run. In this way, brand reputation can also be sustained by building customer loyalty and demonstrating commitment towards sustainability. It can also attract investors by projecting sustainable business practices in production.

2.2 Current eco-friendly progression of global business meeting SDGs

Global businesses have started prioritizing SDGs to eradicate social discrimination and negative environmental impacts. For instance, the United Nations has 169 targets, 3960 events, 1352 publications, and 7857 actions for sustainable development (United Nations, 2024). The UN Member States adopted “The 2030 Agenda for Sustainable Development” in 2015. The focus of these SDGs is on people, poverty, the planet, prosperity, peace, and partnership. Many developing countries are suffering from hunger which is targeted by SDG2 of “Zero Hunger”. Besides, the issue of climate change is supported by SDG13 of “Climate Action” mandating that companies in the countries take urgent actions to combat climate change (Fallah Shayan et al. 2022). Several businesses have started working on Goal 7 of the SDG for “Responsible Consumption and Production” by changing production patterns, promoting eco-friendly products and services, and reducing waste.

2.3 Challenges faced by global companies to approach eco-friendly progress to meet SDGs

Global companies are facing significant challenges in incorporating eco-friendly and sustainable practices. The higher upfront cost can be considered to be one of the major challenges to implementing sustainable practices (Mahmood et al. 2023). Moreover, various companies lack in using standardized metrics and have difficulties in measuring SDG progression and making reports. It is accompanied by regulatory barriers due to inconsistent regulations in different countries and industries.

Table 1: Sustainable consumption based on generational differences; Source: Strategy Business, 2021

	Generation Z	Young millennials (age 23-26)	Core millennials (age 27-32)	Mature millennials (age 33-36)	Generation X	Baby boomers
I choose products with a traceable and transparent origin	47%	59%	60%	62%	56%	48%
I buy from companies that are conscious and supportive of protecting the environment	49%	60%	61%	58%	53%	47%
I intentionally buy items with eco-friendly packaging or less packaging	48%	55%	60%	55%	55%	51%
I am buying more biodegradable/eco-friendly products	48%	56%	59%	58%	52%	47%
When shopping for products, I check the labeling/ packaging for sustainability certification(s)	47%	57%	58%	53%	51%	43%

Table 1 presents the adoption rate of sustainable products due to the perspectives of the consumers which is one of the main challenges. It has been shown that 60% of people from the age group of 23-26 prefer products from companies that support protection for the environment (Strategy Business, 2021). On the other hand, mature people in the age group of 33-36 years prefer products that are packaged with eco-friendly materials. Thus, these crucial challenges are essential to be addressed to mitigate them.

2.4 Sustainable practices that can be approached for eco-friendly progress

Global companies can adopt several strategies to address sustainability issues and to make eco-friendly progress in the business environment. As per the view of Mariotti et al. (2020), renewable energy can be used by focusing on transitioning to solar, hydro, wind, and geothermal energy. It can help in using energy efficiently by implementing LED lights, energy-efficient equipment, and smart grids. It can further be accompanied by sustainable product usage that is made from reduced, reused, or recycled materials. In contrast, as contrasted by Agarwal et al. (2020), sustainable transportation during production is predominant which can be done by promoting electric vehicles and carpooling. As a result, the carbon emission rate can be significantly reduced by prediction procedures, shipments, and travel.

3. Method

A primary quantitative method has been approached to conduct the study to critically examine the implications of productivity and eco-friendly progress to be made. A survey has been conducted among relevant participants so that their perspectives on the SDGs and eco-friendly production can be obtained (Strijker et al. 2020). A survey questionnaire has been made with 15 questions which has been distributed through social media and email. A total of 59 professionals across the world have been selected as respondents to collect survey responses from them. Participants are all professionals from various business sectors from different regions who have a brief or in-depth idea about SDGs and their inclusion in business productivity.

Table 2: Advantages and disadvantages of qualitative and quantitative research; Source: Influenced by Taherdoost, 2022

Type of Research	Advantages	Disadvantages
Qualitative	<ul style="list-style-type: none">• The possibility of achieving in-detail and in-depth information regarding feelings, events, etc.• Obtaining the real meanings of the actions.• Discovering individuals' experiences in different situations historically.• Ideographic research.• The possibility of interacting with the participants during the data collection procedures.• Addressing complex issues due to the flexible structures and giving freedom to the participants.	<ul style="list-style-type: none">• Lack of concentration on contextual sensitivities concentrated more on experiences and meanings.• Being based on phenomenological methods.• Low credibility is an important limit in some fields such as policy makers.• Findings are not generalizable since sample sizes are small.• Difficult interpretation and analysis processes.• Time-consuming data analysis processes.
Quantitative	<ul style="list-style-type: none">• The possibility of generalizing results.• The findings represent the population due to the large sample sizes.• The possibility of sharing and replicating the documentation of methods and frameworks.• The possibility of replicating the study over time due to the standardized methods.• Being time efficient.	<ul style="list-style-type: none">• Limits in providing hidden reasons in individuals' feelings, acts, etc.• Time-consuming sampling processes.• Facing limits of deep and in-detail explanation.• Failing to describe the way social realities are shaped.• Taking snapshots of phenomena and obtaining data using objective methods.

Table 2 presents the pros and cons of the qualitative and quantitative research process to understand the reasons behind choosing the quantitative method for this study. This has shown that a study can achieve detailed information to address complex issues with a quantitative method that justifies its selection for the current study (Taherdoost, 2022). Hence, the survey questionnaire has been made based on the points of view of respondents regarding the importance of SDGs, eco-friendly progress, and challenges while implementing SDGs. Informed consent has been taken from individual participants before the survey to consider the ethics of conducting the quantitative research.

4. Results and analysis

The data analysis of the study has been done with graphical analysis that has represented data in a presentable way. A critical analysis of this information and the graphs can help provide accurate data and interpret them.

Count of 1. Which region do you belong to?

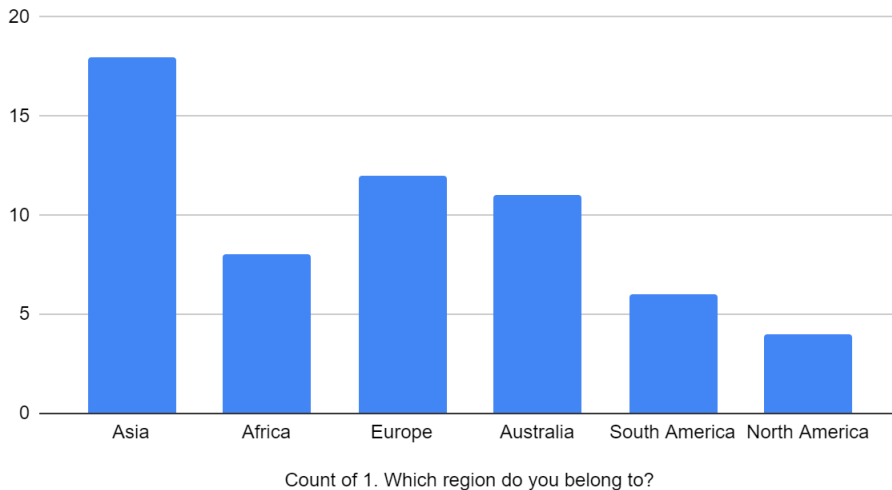


Figure 1: Demography of respondent's region

Count of 2. How many years of working experience do you have?

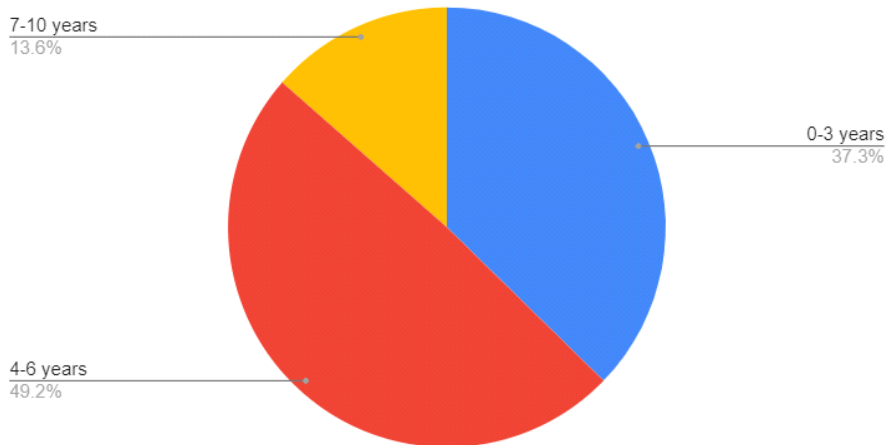


Figure 2: Demography of respondent's working experience

Count of 3. In which industry do you work?

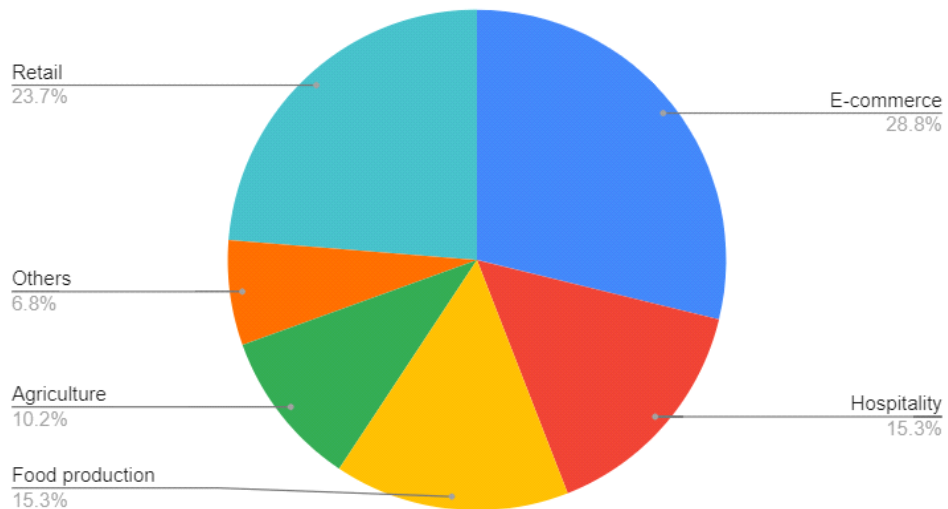
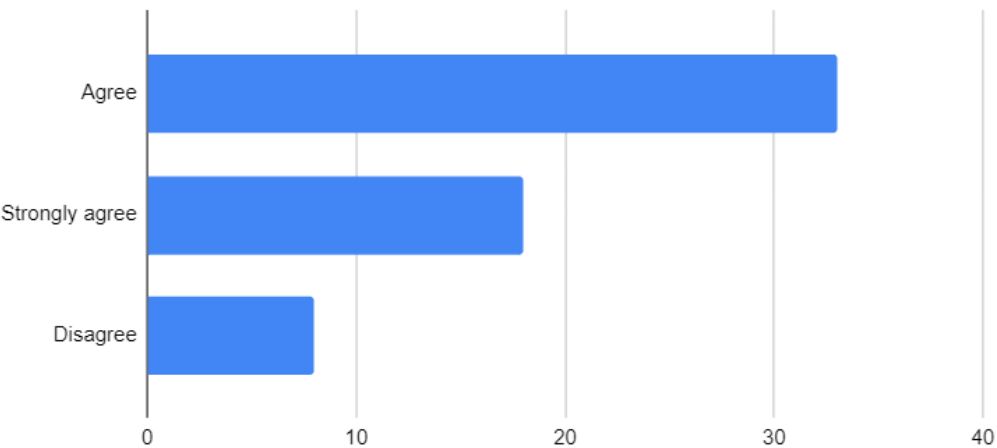


Figure 3: Demography of respondent’s industry of working

The above three figures present the demographic profiles of the respondents chosen for the survey of this study. It has shown that the majority of the participants belong to Asia by 30.5% followed by 20.3% of them from Europe. 49.2% of the total participants have a working experience of 4-6 years and 37.3% of them have an experience of 0-3 years. Besides, 23.7% work in the retail sector, 28.8% work in the e-commerce sector, and 15.3% work in the hospitality sector with others working in different business sectors.

Count of 4. Do you feel that sustainable development goals (SDGs) are important for business productivity?

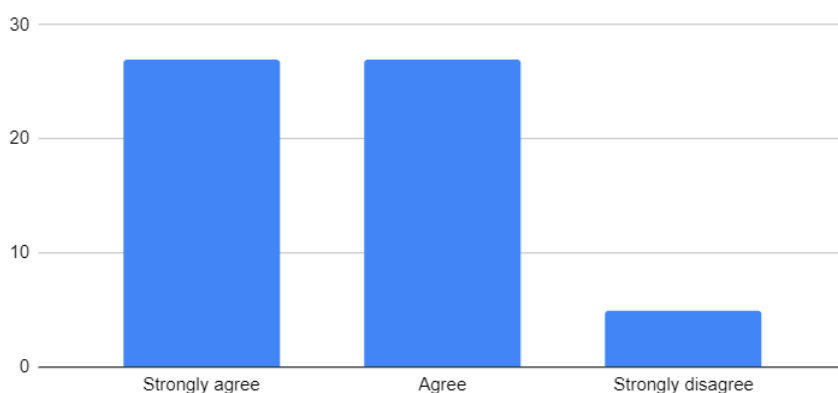


Count of 4. Do you feel that sustainable development goals (SDGs) are important for bu...

Figure 4: Importance of SDGs for business productivity

The above graphical representation has depicted that 55.9% of respondents have agreed along with 30.5% strongly agreed that SDGs are significant for business productivity. As mentioned by Lutfi et al. (2022), sustainability in business can help in enhancing production with the implementation of innovation and creativity. However, only 13.6% of the respondents disagreed with the question due to their different experiences.

Count of 5. Do you agree that the inclusion of SDGs can help in having eco-friendly progress in your organization?



Count of 5. Do you agree that the inclusion of SDGs can help in having eco-friendly progress in yo...

Figure 5: Inclusion of SDGs to have an eco-friendly progress

In the discussion of SDGs in helping organizations to progress in an eco-friendly manner, 45.8% out of 59 respondents agreed. Another 45.8% participants of in the survey strongly agreed with the statement mentioned in the question. Meeting SDGs can be beneficial in having an eco-friendly production process in the business environment. On the other hand, 8.5% of the participants strongly disagreed with the idea presented in this question.

Count of 6. Do you think that having the opportunity to evaluate productivity on the basis of SDGs is important?

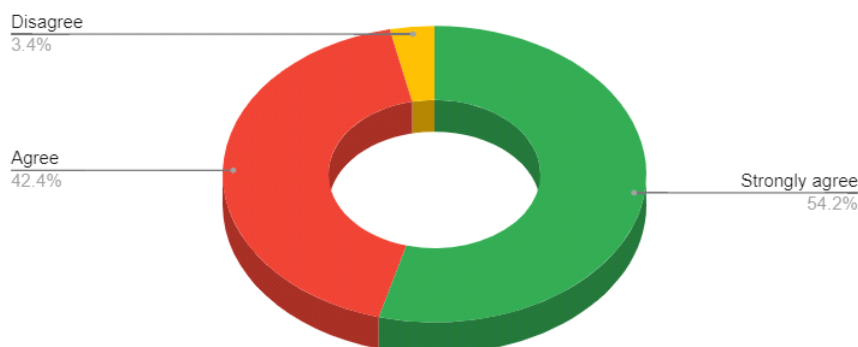


Figure 6: Opportunity to evaluate productivity

The above figure shows the responses regarding the opportunity that SDGs provide to business firms in evaluating business productivity. It has been demonstrated that 54.2% strongly agreed and 42.4% agreed with this idea as they have experienced such notions in their business firm. The inclusion of SDGs is important to make the production process cost-effective and impactful in the long term. In contrast, only 3.4% out of 59 participants disagreed as they have felt otherwise which has added value to this discussion.

Count of 7. Do you believe that companies can face production challenges while incorporating SDGs in business production?

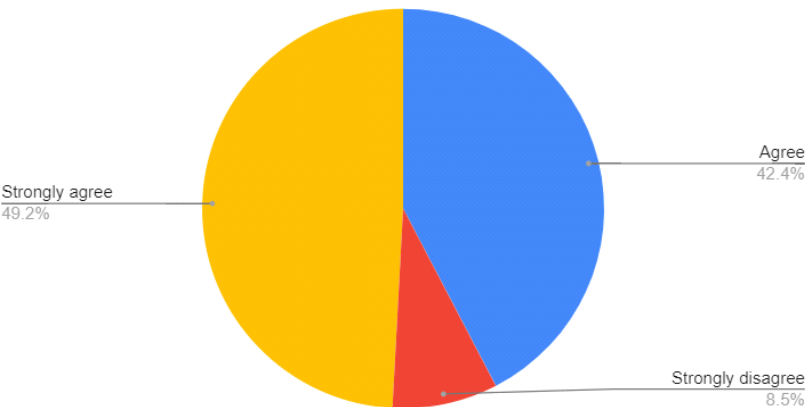


Figure 7: Production challenge with SDGs

The above graphical presentation is based on companies facing challenges in production to incorporate SDGs in the production procedure. In this case, it has been recorded that 49.2% of the participants strongly agreed followed by 42.4% agreed to this question. Therefore, it clearly shows that the majority of the respondents have agreed to the fact that SDGs can bring significant challenges due to various reasons. This idea has been denied by only 8.5% of the chosen respondents as they have not gone through any significant challenges.

Count of 8. Do you agree that companies can have a satisfactory production with eco-friendly progress by includin...



Figure 8: Satisfactory production of companies with eco-friendly progress

In the context of obtaining a satisfactory production outcome from eco-friendly production, 45.8% out of 59 participants strongly agreed with this notion. Besides, 54.2% of them agreed indicating that the eco-friendly progress of business firms can be influential in meeting SDGs and improving production at the same time. Thus, companies can be motivated to work for greater social causes to meet SDGs and enhance the company's production.

Count of 9. Do you feel that employees are achieving greater production with eco-friendly methods to meet SDGs?

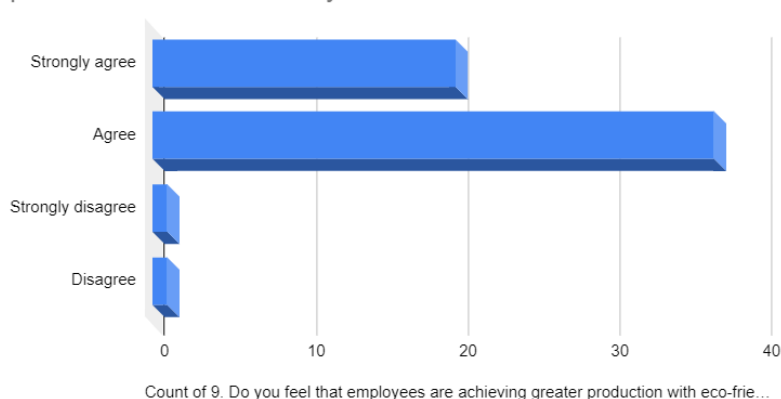


Figure 9: Greater production by employees with eco-friendly methods

62.7% among 59 respondents agreed along with 33.9% strongly agreeing to the fact that employees can come up with a greater production by applying eco-friendly methods. In this case, it can be mentioned that employees need to be aware of and understand the importance of meeting SDGs that they can apply in the production procedure (Gatto, 2020). On another note, 1.7% of the respondents disagreed and strongly disagreed individually as per the survey responses.

Count of 10. Do you believe that SDGs can resolve production issues in companies to have eco-friendly progress?

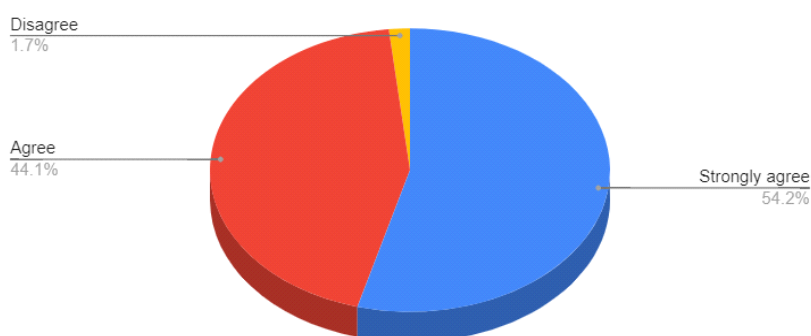


Figure 10: SDGs in resolving production issues for an eco-friendly progress

The above figure depicts that production issues can be resolved effectively with the application of SDGs. In this context, 54.2% strongly agreed and 44.1% agreed with this fact asked the respondents. In this way, participants have agreed that production issues can be reduced by applying SDGs and companies can have eco-friendly progress (Okafor et al. 2020).

Count of 11. Do you agree that employees need additional guidance or training to work for eco-friendly progress and pro...

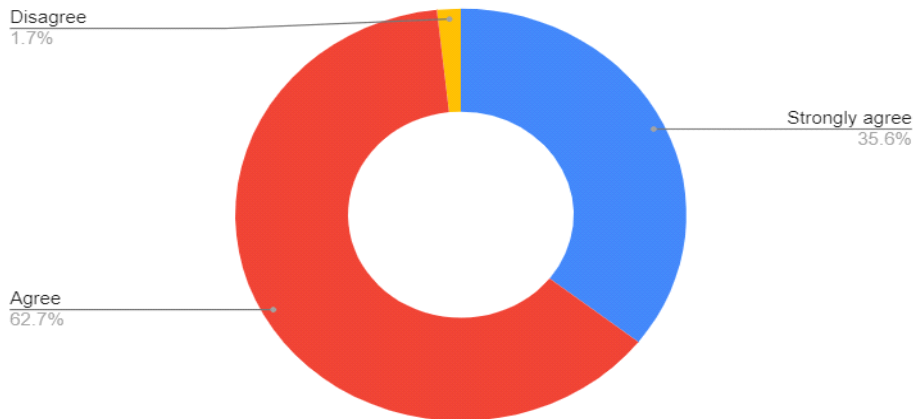


Figure 11: Additional guidance for employees for eco-friendly progress

The above graph presents information in terms of the points of view of participants regarding the need for guidance and training for employees. The responses have shown that 35.6% strongly agreed followed by 62.7% of the participants agreeing to the question asked. Moreover, only 1.7% of the respondents disagreed with this statement and thought otherwise. Thus, it can be suggested that proper training and guidance can be beneficial for employees to cope with the changed production process to progress with eco-friendly methods.

Count of 12. Do you feel that sustainability can be positively impactful on the production development of the company?

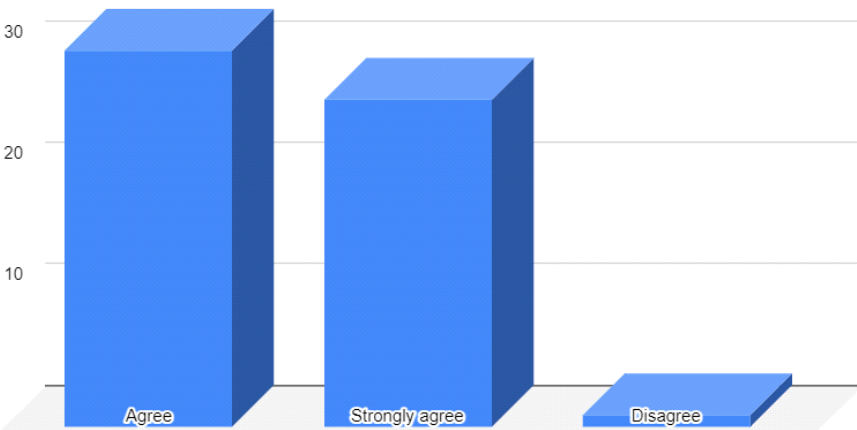


Figure 12: Positive impact of sustainability on production development

The above figure concerns the positive impact of sustainability in the production development process. It has demonstrated that 52.5% agreed and 45.8% strongly agreed that sustainability can improve the production of a company positively. In contrast, 1.7% of the respondents disagreed indicating that they are yet to experience such impact.

Count of 13. Do you think that SDGs can fulfil the need of sustainable production in business firms?

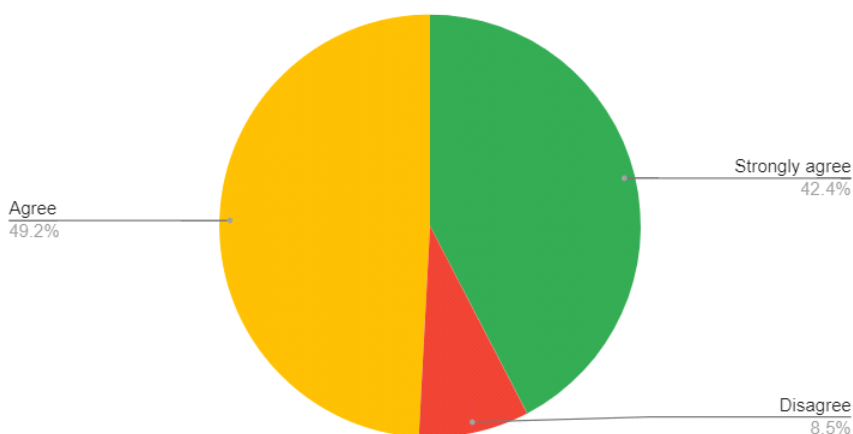


Figure 13: SDGs in fulfilling the needs of sustainable production

In terms of the requirement for sustainable production, 49.2% agreed along with 42.4% strongly agreed. It suggests that the majority of the participants feel that the production of business firms can be improved effectively by setting goals and aligning them to SDGs (Mahaputra & Saputra, 2021). Contrastingly, 8.5% of the chosen respondents disagreed due to their point of view on the importance of focusing on sustainable methods to fulfill SDGs.

Count of 14. Do you agree that the inclusion of SDGs has improved the overall productivity and its implications?

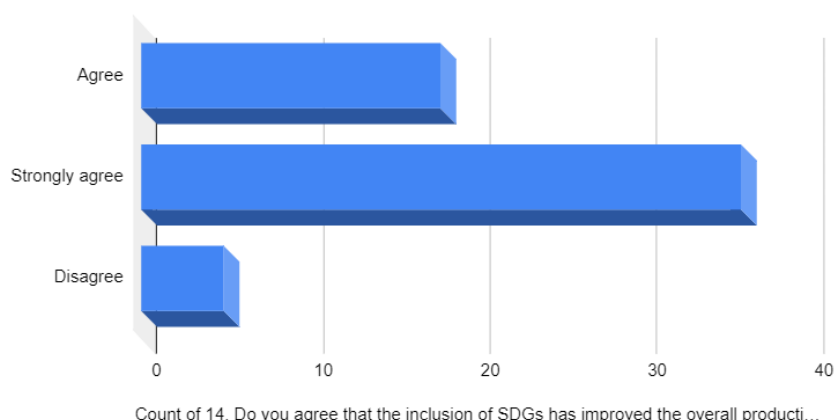


Figure 14: Inclusion of SDGs in improving overall productivity

The above shown figure demonstrates that 61% strongly agreed coupled with 30.5% agreeing to the fact that SDGs help in enhancing overall productivity. In this case, it can be said that productivity implications can be seen through the eco-friendly progress of companies (Yusuf et al. 2022). Thus, the inclusion of the SDGs can help meet the social, economic, and environmental responsibilities of companies.

Count of 15. Do you feel that continuing eco-friendly progress to meet SDGs will change production process of your compa...

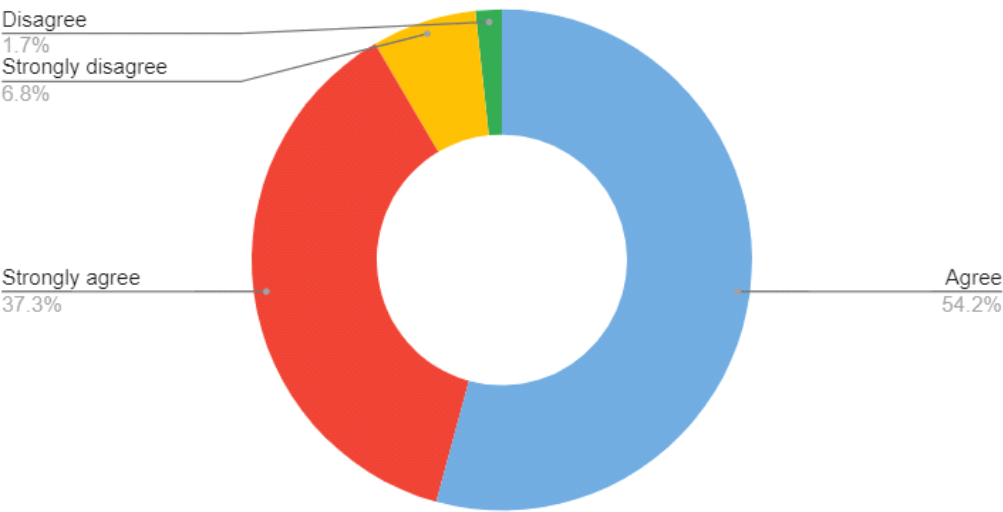


Figure 15: Continuation of eco-friendly progress to meet SDGs changing the production process

37.3% strongly agreed and another 54.2% agreed to the question related to the continuous practices of eco-friendly production to improve the production process. It has also suggested that progressing in an eco-friendly manner can help companies meet SDGs (Ibrahim, 2023). Therefore, continuous development in the production process can support companies in achieving excellence.

5. Discussion

The results of the study have suggested that the production performance of a company must be changed in terms of eco-friendly progress. It can lead companies towards sustainability fulfilling SDGs so that socioeconomic and environmental issues can be significantly reduced. As suggested by Surya et al. (2021), SDGs must be aligned with business objectives to work effectively toward them and achieve accuracy in productivity. Companies can set goals and align them with SDGs to increase their efficiency in eco-friendly progression. Sustainable business practices can be adopted by business firms such as using recycled products, natural resource conservation, and waste management. However, as argued by Menne et al. (2022), working for climate action has become evident in reducing the carbon footprint of the environment. As a result, companies can prioritize such targets to progress rapidly toward

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sustainability.

The results of the research have assisted in meeting its aim as the responses have indicated that productivity can be improved by including SDGs. Respondents believe that production issues can be overcome by initiating sustainable practices. As discussed by Obrenovic et al. (2020), SDGs work as a comprehensive framework that identifies critical ethical issues and initiates solutions. It considers economic, social, and environmental aspects that provide an upper hand to the production process of companies and reduce complexities as well. Companies must prioritize identifying such complex issues so that early measures can be taken against them. In contrast, Hernita et al. (2021) have argued by saying that training and development programs for employees must be arranged to increase awareness of sustainability among them. In this way, such a discussion has supported meeting the study's aim.

On another note, the objectives of the study have been fulfilled as the results have focused on emphasizing the importance of sustainable production for the eco-friendly progress of companies. It has also found that respondents have shared that they face challenges while implementing sustainable practices in business production (Surya et al. 2021). The results meet another objective of mitigating challenges of sustainable and eco-friendly practices for production by showing that employees agree to have proper guidance. The authentic information from the points of view of the participants has further strengthened such views. Thus, individual objectives have been met by projecting the answers of the survey and interpreting them concerning meeting SDGs.

6. Conclusion

The research has focused on critically explaining the importance of sustainable practices and eco-friendly progress in the productivity of a business. The study found that 17 SDGs have been initiated that can be incorporated by business firms based on the nature of the business. It can help resolve the ethical dilemmas of the business and their work towards productivity sustainability. The major focus of the study has relied on exploring the importance of eco-friendly and sustainable productivity for business firms. A survey has been conducted among 59 random participants across the world who has answered 15 questions to provide their insights into this research. Their answers have provided the idea that sustainability is significant to enhance productivity due to its impact on the environment. Therefore, the significance of eco-friendly progress with the help of SDGs has been proved throughout the execution of the research.

7. Future scope and limitation

The number of participants has worked as a significant limitation in this research which has produced a rather generalized outcome. Besides, focusing on a particular country could have produced more accurate knowledge of the productivity of its business firms and their sustainable approaches (Ahirwar et al. 2020). Similarly, there is a chance of biased information as the data covers answers of respondents chosen from various regions where points of view differ.

The research has opened various areas of exploration for future studies in similar backgrounds. Future research can approach longitudinal methods or interviews to obtain more in-depth knowledge about SDGs and their implementation in business production (Mahmood et al. 2023). Focusing on a specific group of people from a particular country will also support representing more accurate information. In this way, bias from the collected data and information can also be avoided by future studies to fulfil their aims.

Acknowledgement

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Appendix: Survey questions

1. Which region do you belong to?

- (i) Asia
- (ii) Africa
- (iii) Europe
- (iv) Australia
- (v) South America
- (vi) North America

2. How many years of working experience do you have?

- (i) 0-3 years
- (ii) 4-6 years
- (iii) 7-10 years

3. In which industry do you work?

- (i) Retail
- (ii) E-commerce
- (iii) Hospitality
- (iv) Food production
- (v) Agriculture
- (vi) Others

4. Do you feel that sustainable development goals (SDGs) are important for business productivity?

- (i) Strongly agree
- (ii) Agree
- (iii) Neutral
- (iv) Disagree

(v) Strongly disagree

5. Do you agree that the inclusion of SDGs can help in having eco-friendly progress in your organisation?

(i) Strongly agree

(ii) Agree

(iii) Neutral

(iv) Disagree

(v) Strongly disagree

6. Do you think that having the opportunity to evaluate productivity on the basis of SDGs is important?

(i) Strongly agree

(ii) Agree

(iii) Neutral

(iv) Disagree

(v) Strongly disagree

7. Do you believe that companies can face production challenges while incorporating SDGs in business production?

(i) Strongly agree

(ii) Agree

(iii) Neutral

(iv) Disagree

(v) Strongly disagree

8. Do you agree that companies can have a satisfactory production with eco-friendly progress by including SDGs?

(i) Strongly agree

(ii) Agree

(iii) Neutral

(iv) Disagree

(v) Strongly disagree

9. Do you feel that employees are achieving greater production with eco-friendly methods to meet SDGs?

(i) Strongly agree

- (ii) Agree
- (iii) Neutral
- (iv) Disagree
- (v) Strongly disagree

10. Do you believe that SDGs can resolve production issues in companies to have eco-friendly progress?

- (i) Strongly agree
- (ii) Agree
- (iii) Neutral
- (iv) Disagree
- (v) Strongly disagree

11. Do you agree that employees need additional guidance or training to work for eco-friendly progress and production?

- (i) Strongly agree
- (ii) Agree
- (iii) Neutral
- (iv) Disagree
- (v) Strongly disagree

12. Do you feel that sustainability can be positively impactful on the production development of the company?

- (i) Strongly agree
- (ii) Agree
- (iii) Neutral
- (iv) Disagree
- (v) Strongly disagree

13. Do you think that SDGs can fulfil the need of sustainable production in business firms?

- (i) Strongly agree
- (ii) Agree
- (iii) Neutral
- (iv) Disagree
- (v) Strongly disagree

14. Do you agree that the inclusion of SDGs has improved the overall productivity and its

implications?

Strongly agree

(i) Strongly agree

(ii) Agree

(iii) Neutral

(iv) Disagree

(v) Strongly disagree

15. Do you feel that continuing eco-friendly progress to meet SDGs will change production process of your company?

(i) Strongly agree

(ii) Agree

(iii) Neutral

(iv) Disagree

(v) Strongly disagree