



Faculty of Cognitive Sciences and Human Development

**THE RELATIONSHIP BETWEEN GREEN TRAINING &
DEVELOPMENT (T&D) AND ORGANIZATIONAL
SUSTAINABILITY**

Siti Nursuraya binti Md Lazim

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**THE RELATIONSHIP BETWEEN GREEN TRAINING & DEVELOPMENT (T&D)
AND ORGANIZATIONAL SUSTAINABILITY**

SITI NURSURAYA BINTI MD LAZIM

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Received for examination by:

(Profesor Dr. Abdul Halim bin Busari)

Date:

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ABSTRACT

In response to the global demand for sustainability, this study investigates the relationship between Green Training and Development (T&D) and Organizational Sustainability. As a key component of Green Human Resource Management (GHRM), green T&D seeks to encourage employees to be environmental consciousness and act sustainably. The study targeted 86 academicians from two faculties at public university located in Kota Samarahan, Sarawak. The data was gathered using an online survey distributed through Google Forms. Quantitative methods such as descriptive analysis and Spearman's correlation analysis were employed to determine the relationship between green T&D and seven dimensions of sustainability: Continuous Improvement and Learning, Economic Viability, Social Responsibility, Environmental Stewardship, Governance and Ethic, Integration and Alignment and Stakeholder Engagement. The findings indicated statistically significant positive associations between green T&D and six of the seven dimensions, with economic viability and environmental stewardship showing the strongest correlations. However, the relationship between green T&D and social responsibility was not statistically significant. These findings highlight the crucial role of green-oriented training initiatives in promoting long-term sustainability within organizations. Practically, the study provides valuable insights for HR practitioners and policymakers seeking to integrate sustainability in their training programs and organizational culture.

Keywords: Green Training and Development, Organizational Sustainability, Green Human Resource Management (GHRM), Environmental Stewardship, Economic Viability, Stakeholder Engagement, Continuous Improvement, Governance and Ethic, Social Responsibility, Integration and Alignment.

ABSTRAK

Kajian ini menyiasat hubungan antara Latihan dan Pembangunan Hijau (T&D) dan Kelestarian Organisasi sebagai tindak balas kepada permintaan global terhadap kemampanan. Sebagai komponen utama dalam Pengurusan Sumber Manusia Hijau (GHRM), latihan dan pembangunan hijau bertujuan untuk menggalakkan kesedaran alam sekitar dalam kalangan pekerja dan mendorong mereka bertindak secara lestari. Kajian ini menyasarkan seramai 86 orang ahli akademik dari dua fakulti di sebuah universiti awam yang terletak di Kota Samarahan, Sarawak. Data telah dikumpul melalui tinjauan dalam talian menggunakan *Google Forms*. Kaedah kuantitatif seperti analisis deskriptif dan analisis korelasi Spearman telah digunakan untuk menentukan hubungan antara latihan hijau dan tujuh dimensi kelestarian, iaitu: penambahbaikan dan pembelajaran berterusan, kelayakan ekonomi, tanggungjawab sosial, pemeliharaan alam sekitar, tadbir urus dan etika, integrasi dan penjajaran, serta penglibatan pihak berkepentingan. Dapatan kajian menunjukkan hubungan positif yang signifikan secara statistik antara latihan hijau dan enam daripada tujuh dimensi tersebut, dengan kelayakan ekonomi dan pemeliharaan alam sekitar menunjukkan hubungan paling kukuh. Namun begitu, hubungan antara latihan hijau dan tanggungjawab sosial tidak menunjukkan hubungan yang signifikan. Penemuan ini menekankan peranan penting inisiatif latihan berorientasikan hijau dalam mempromosikan kelestarian jangka panjang dalam organisasi. Secara praktikalnya, kajian ini menyediakan panduan berguna kepada pengamal sumber manusia dan pembuat dasar yang ingin mengintegrasikan elemen kelestarian dalam program latihan dan budaya organisasi mereka.

Kata kunci: Latihan dan Pembangunan Hijau, Kelestarian Organisasi, Pengurusan Sumber Manusia Hijau (GHRM), Pemeliharaan Alam Sekitar, Kelayakan Ekonomi, Penglibatan Pihak Berkepentingan, Penambahbaikan Berterusan, Tadbir Urus dan Etika, Tanggungjawab Sosial.

CHAPTER 1: INTRODUCTION

1.0 Introduction

This topic aims to study the relationship between green training and development and organizational sustainability. This chapter will discuss about the background of the research, statement of problem, research objectives and hypotheses, conceptual framework, definition of terms, significance of the study and lastly limitations of the study.

1.1 Background of Research

The idea of sustainability has become one of the most important issues in the world as nations, organizations, and people realize how crucial it is to balance between economic growth, broader social and environmental health for future generations. In an era where environmental concerns are the centre of global discussion, organizations started to recognize the importance of sustainable practices. Environmental Protection Agency echoed that 21% of carbon dioxide emission were released by industries. The rate of consumption and the depletion of non-renewable resources by organizations has increased in recent years, leading to a greater focus on environmental and sustainability issues (Tittle-Ind et al., 2022). Hence, there has been a lot of recognition by organizations to protect the environment while working on their mission and goals. The increasing urgency of environmental sustainability has prompted organizations to adopt variety of tactics aimed at reducing their ecological footprint. Green human resource development (GHRM) is one of the practices that organization started to implement. GHRM is a practice that integrate HR management with eco-friendly practices to enhance sustainability (AlKetbi & Rice, 2024). One of the practices under GHRM that widely being discuss is green training and development practices.

Training and development programs are a critical component of HR management, design to enhance employees' knowledge, skills and ability to improve organizational performance (Fegade & Sharma, 2023). Similarly, to what Peter Senge discussed in his book *The Fifth Discipline*, training is a process of enhancing employee's knowledge, skills and capabilities to perform specific jobs. In green context, training and development (T&D) refer to practices that enables employees to acquire the skills necessary to address the environmental concerns of the company (Bolanle, 2022). The role of green T&D is becoming increasingly critical as organizations seek to align their business strategies with sustainability goals and respond to growing consumer and regulatory demands for more environmentally conscious practices. Research done by Khattak et al. (2023) mentions that green training is crucial in reducing the global warming effects.

In recent years, many organizations are striving to apply the sustainable practices within their organization. A study conducted by Tittle-Ind et al. (2022) mentioned that sustainability in an organization is centred on how they manage their social, economic, and environmental. Furthermore, it is suggested to balance and work collectively on environmental, social, and economic challenges (Nilashi et al., 2023). According to Tittle-Ind et al. (2022), organizational sustainability encompasses the long-term ability of an organization to balance social responsibility, environmental stewardship, and economic performance. The study by Na-Nan et al. (2024) discusses the dimension of organizational sustainability development (OSD) that extending beyond financial gains that align with the Triple Bottom Line framework which evaluates organizational performance across economic, environmental, and social criteria. There are 7 dimensions that being explored in this study which include continuous improvement and learning (CIL), environmental stewardship (ES), social responsibility (SR), governance and ethic (GE), economic viability (EV), integration and alignment (IA), and stakeholder engagement (SE).

1.2 Statement of Problem

Identifying the relationship between green training and development and organizational sustainability in an organization is multifaceted and requires a nuanced understanding of both concepts. Green training and development (T&D) are increasingly recognized as a critical component of green human resource management (GHRM), which aims to enhance environmental performance and promote sustainable practices within organizations (Yafi et al., 2021). However, the relationship between green T&D and organizational sustainability remain inadequately explored. While studies have established that green training can spur corporate sustainability performance in various sectors, the dynamics of the organizations necessitate further investigation (Xie & Zhu, 2020).

Moreover, existing literature suggest a positive relation between green T&D and enhanced employee pro-environmental behavior (Yadav, 2023; Saeed et al., 2019). However, the direct impact of these behaviors on broader organizational sustainability metrics, such as governance and ethic, integration and alignment, and overall environmental performance, is less understood. For instance, while green training is shown to improve stakeholder engagement with environmental initiatives (Memon et al., 2022), the translation of this engagement into measurable sustainability outcomes in organizations remains underexplored.

In conclusion, this study seeks to highlight the gap in understanding green T&D and organizational sustainability by examining the relationship between green T&D and each dimension of organizational sustainability. Addressing these gaps will not only enhance academic understanding but also provide practical guidance for organizations aiming to implement effective green training initiatives that contribute to sustainability.

1.3 Research Objective

1.3.1 General Objective

- i. To examine the relationship between Green Training & Development and Organizational Sustainability

1.3.2 Specific Objective

- ii. To determine the relationship between green training and development and continuous improvement and learning.
- iii. To determine the relationship between green training and development and economic viability.
- iv. To determine the relationship between green training and development and social responsibility.
- v. To determine the relationship between green training and development and environmental stewardship.
- vi. To determine the relationship between green training and development and governance and ethic
- vii. To determine the relationship between green training and development and integration and alignment.
- viii. To determine the relationship between green training and development and stakeholder engagement.

1.4 Research Hypothesis

H01: There is no significant relationship between green training and development and continuous improvement and learning.

H02: There is no significant relationship between green training and development and economic viability.

H03: There is no significant relationship between green training and development and social responsibility.

H04: There is no significant relationship between green training and development and environmental stewardship.

H05: There is no significant relationship between green training and development and governance and ethic.

H06: There is no significant relationship between green training and development and integration and alignment.

H07: There is no significant relationship between green training and development and stakeholder engagement.

1.5 Conceptual Framework

Research framework act as structure that guides the entire research process. It outlines the key concept, variables and theoretical foundations that help to define research inquiry ensuring it align with the research objectives. It is also aids in development of hypothesis or research questions based on the identified variables.

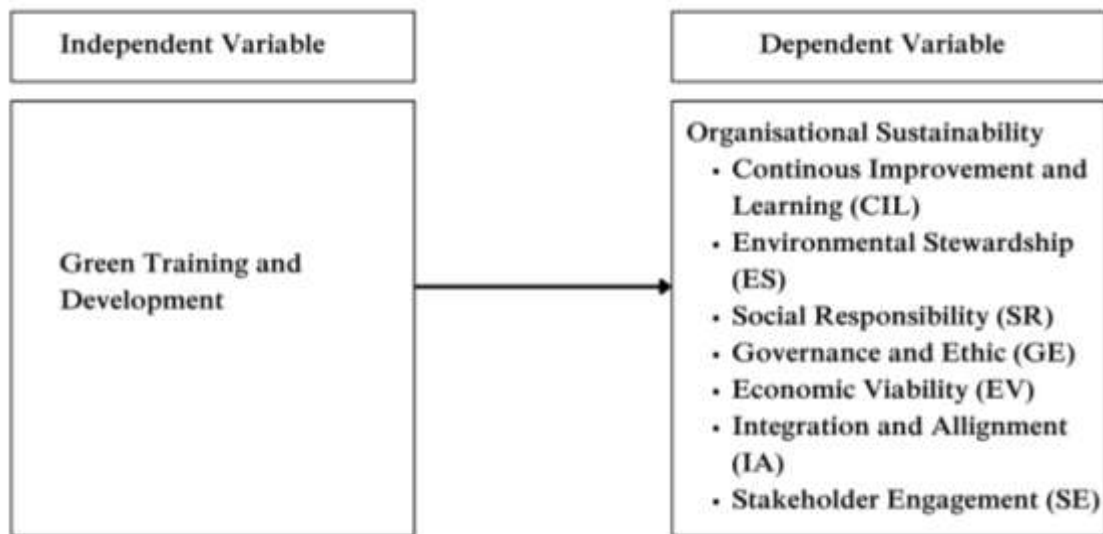


Figure 1: Conceptual framework of the study

1.6 Definition of Terms

1.6.1 Green Training & Development

1.6.1.1 Conceptual Definition

Green training and development are a process that incorporate environmental sustainability goals and objectives into organization's broader agenda while also of designing education and enhance employee awareness (Yusoff et al., 2020).

1.6.1.2 Operational Definition

From my perspective green training and development is a mindset where individual always look for ways to make a positive impact on the environment until it became a natural habit and practice that not only benefit the organization but also contribute to a healthier planet for future generation. In this study, green training and development will be evaluated through the organization's approach to designing and implementing training programs. Key factors include the program's success in delivering impactful results, its ability to foster environmental awareness, the availability and accessibility of green training materials, and the extent to which employees can apply the training in practical scenarios.

1.6.2 Organization Sustainability

1.6.2.1 Conceptual Definition

Refers to organization's capacity to operate in a manner that can minimize the negative environmental impacts and maximize positive social and economic outcomes (Rahman et al., 2022).

1.6.2.2 Operational Definition

In my own words, organizational sustainability means institution that able to create balance by meeting today's needs without compromising the ability of future generation to thrive and considers in a long-term impact on people, planet, and profitability. In this study, organizational sustainability will be measured using its dimensions which include continuous improvement and learning (CIL), environmental stewardship (ES), social responsibility (SR), governance and ethic (GE), economic viability (EV), integration and alignment (IA), and stakeholder engagement (SE).

1.7 Significance of Research

There are several significances of the study that has been analysed, offering valuable contribution to both academic research and practical applications in sustainability and organizational development. Firstly, this study provides a comprehensive understanding of how green T&D can positively influence the three pillars of sustainability which are economic, environment, and social dimensions. By examining the interconnections, the study clarifies how green T&D initiatives help to improve resource efficiency, reducing environmental impact and create a sustainable corporate culture. This insight is particularly helpful for organizations striving to preserve their financial sustainability while coordinating training initiatives with long-term sustainability objectives.

Next, it can provide evidence-based recommendations for other organizations in the industry to advocate for green initiatives at the workplace training. The result from this study might encourage organizations to adopt and promote sustainable practices by offering practical examples and actionable strategies. From this, it will not only benefit the organizations, but also promotes a cascading effect, where sustainable practices are embraced across various industries thus supporting a broader cultural shift in favour of environmental responsibility.

Lastly, this study aligns with global sustainability initiatives, such as the United Nations' Sustainable Development Goals (SDGs). It advances key goals such as Quality Education (SDG 4), Decent Work and Economic Growth (SDG 8) and Climate Action (SDG 13). Green T&D practices contribute to the development of a more sustainable future by encouraging employees to be socially and environmentally concerned. Furthermore, the study emphasizes the importance of integrating sustainability into workplace practices, demonstrating the growing demand for organizations to be socially and environmentally responsible.

1.8 Limitations of Research

This study is subject to several limitations that ought to be acknowledged to provide an accurate understanding of its scope and potential challenges. Firstly, this study was conducted in a short period of time, which imposes a significant limitation on the scope and depth of analysis. Implementation of green T&D practices is a long-term process, and it frequently takes time for their quantifiable effects on organizational sustainability to become noticeable. Consequently, the limited time frame of this study made it difficult to fully quantify the impact of green T&D on the sustainable performance of organizations.

Other than that, the potential resistance from employee to participate in this study could also be one of the limitations in this research. Employee reluctance could arise simply due to their busy schedules. Employee who are already managing a heavy workload may find it challenging to allocate their time to participate in this study even when they recognize the importance of the study. The data collection procedure might have been impacted by this lack of participation which potentially limiting the variety and depth of the responses, as well as the comprehensiveness of the findings.

Additionally, the scope of this study was confined to academicians in the public sector. While this focus offered insightful information into sector's specific context, it also limits the generalizability of the findings to other industries or private-sector organizations. The dynamics, priorities and challenges in various sectors can differ significantly, thus further research is needed to make the findings more broadly applicable.

Lastly, the time constraint posed another challenge, particularly given the need of measuring multiple research hypothesis. The complexity of addressing multiple hypothesis in a short period of time may led to less detailed analysis of specific variables or relationships.

Future studies with extended time frames for hypothesis testing may yield more robust and detailed insights.

1.9 Summary

This chapter provide an overview to the study on the relationship between green T&D and organizational sustainability. The writing begins with the background, stressing the growing importance of sustainability in organization and the role of green T&D to promote ecologically conscious behavior. The statement of problem highlights the lack of empirical evidence linking green T&D to organizational sustainability outcomes. Furthermore, the primary objective for this study aim to examine the relationship between green T&D and dimensions of organizational sustainability supported by relevant hypothesis. A conceptual framework is provided to show the connection between independent variable and dependent variable. For clarity, key terms like green T&D and organizational sustainability have been defined both conceptually and operationally. Other than that, the significance of study has been discussed for its potential contribution to academic research and practical insights for HR professionals and policymakers. Concurrently, the limitations of the study such as time constraint and its focus on public-sector academicians, are acknowledged.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter serves as critical analysis of existing research on a specific topic. This literature review explores the theoretical and empirical studies linking green T&D with organizational sustainability highlighting existing knowledge and identifying research gaps. Additionally, it also ensures the research is grounded in established theories. Ultimately, this chapter demonstrates a comprehensive understanding of the research area, reinforcing the study's relevance and significance.

2.1 Green Training & Development

Green T&D are becoming increasingly vital as many organizations strive to balance profitability with environmental stewardship and social responsibility. Green T&D refers to the educational and developmental programs aimed at increasing environmental awareness and sustainability practices among employees. These programs typically focus on educating staff about environmental conservation, sustainable business practices, and eco-friendly technologies, with the goal of reducing the environmental footprint of the organization and its operations (Moradeke et al., 2021). Training content should be developed to train the employees on topic relating to waste management, recycling, energy saving and environmental health (Aishwarya & Rishabh, 2020). Similarly, Jasim and Altae (2023) further emphasized that green training is focuses on educating employees about environmental policies and practices in reducing environmental harm and enhancing eco-friendly skills.

Moreover, Yadaz (2023) highlighted that green training and education can develop green skills of employees where later the employees will put extra effort in environmental initiatives and voluntarily participate in green related activities at the workplace. This initiative fosters a collective culture of environmental responsibility within the organization. Besides, green

training can also help in decision making and employ proactive measures to promote sustainability in their daily tasks (Tu et al., 2023).

The current study emphasized green training as a crucial component for green human resource management. Providing sufficient green training to staff members and encouraging working methods that allow for efficient resource use are two efficient ways to raise environmental awareness and encourage eco-friendly practices outside of the workplace (Usman et al., 2022). According to Iftikar et al. (2022), green training should be provided to all employees to enhance their pro-environmental behaviors at the workplace. The training will enhance the employees' capabilities to understand the issues that arise related to environment and leads them to adopt pro-environmental behaviors.

2.2 Organizational Sustainability

Organizational sustainability consists of various components that interconnected with each other. These components play a vital role to help the organization to stay relevant during this era. It helps the organizations towards a future where sustainability becomes one of their fundamental roles for the organization to succeed.

2.2.1 Continuous Improvement and Learning

Education and training on green initiative are essential for developing a workforce that understands sustainability challenges and practices. This process enhances awareness, facilitate knowledge sharing and improve employee experience after the training, ultimately contributing to organizational learning. According to Deshpande and Srivastava (2022), green training contributes to sustainable organizational performance by enhancing emotional intelligence and work-life balance among employees, which are critical for fostering a learning-oriented environment.

To implement continuous learning, organizations should adopt several strategies. Firstly, organizations must set up a transparent sustainability framework that aligns with their overall business objectives. The framework should include measurable objectives and frequent evaluations to monitor the progress (Kordab et al., 2020). Second, cultivate a culture of knowledge sharing and collaboration. Mollah et al. (2023) stated that organizations can achieve this by setting up platforms for employees to exchange their best practices and insights from sustainability initiatives. Finally, integrating sustainability in performance evaluations and reward systems to further motivate the employees to participate in continuous improvement efforts (Saeed et al., 2018).

2.2.2 Economic Viability

Beattie (2024) stated that a business must be profitable to sustain. Long-term financial health is a foundational dimension of organizational sustainability ensuring that economic goals do not compromise the broader sustainability agenda. Economic sustainability emphasizes the need for economic systems that support long-term growth without depleting natural resources or harming the environment. As mentioned by Elsayy and Youssef (2023), economic sustainability defines strategies used to promote economic growth and development without neglecting the needs of future generations to meet theirs. It can be achieved by maintaining sustainable growth and social well-being from establishing a balance between profitability and environmental and social factors. Economic viability involves the efficient use of resources, cost-effective operations and stay resilient in the current market. According to Omoloso et al. (2021), sustainability occurs as a company aims to minimize costs linked to its supply chain operations while increasing the value it offers and provided.

2.2.3 Social Responsibility

Social responsibility is intrinsically linked to organizational sustainability, as it reflects a company's commitment to ethical practices and community well-being. These commitments not only enhance organization's reputation but also contribute to its long-term success. Corporate social responsibility (CSR) is increasingly acknowledged to be essential to sustainable business strategies. Organization that actively practice CSR tend to foster a positive culture that boosts employee satisfaction and engagement. According to Zhang (2024), CSR initiatives are more likely to receive employee support and recognition in an organizational culture that prioritizes social responsibility and sustainable growth, which will increase employee satisfaction. This leads to greater productivity and loyalty, both vital for organizational success. Moreover, community engagement is also a crucial component of CSR that has a direct impact on sustainability. Organization that gives back to their community not only enhance their reputation but also cultivate strong relationship with the stakeholders. This engagement can include partnerships with local organizations, supporting community projects or participating in local events.

2.2.4 Environmental Stewardship

According to Kwok et al. (2024), the primary environmental concerns have been identified as emissions, exploitation of resources and environmental harm. Hence, most organizations are working on reducing environmental harm by reducing environmental harm which include minimizing water usage, packaging waste and carbon footprints (Beattie, 2024). Adamu et al, (2019) indicate that organization can measure their impact on environment by monitoring and enhancing the use of natural resources, managing waste, controlling greenhouse gas emissions, and advancing environmental sustainability in general.

To address these challenges, environmental stewardship plays a crucial role in encouraging the organization to adopt responsible behavior that can lessen the harm toward the environment. According Raynal et al. (2020), environmental stewardship is an ethical obligation to care for the environment and engage in behaviors that promote its health, often require personal sacrifice for the benefits of ecosystem that support communities. These behaviors vary based on the situation or circumstances and can include actions like driving less, consuming less or using renewable energy. It also includes encouraging others within the community to adopt similar practices. This aligns with United Nations' Sustainable Development Goals (SDGs), particularly goals related to climate action, responsible consumption and life on land and water.

2.2.5 Governance and Ethic

Moreover, the ethical and governance aspects of organizational sustainability are reinforced through green training. By instilling a strong ethical framework regarding environmental issues, organizations can cultivate a workforce that is not only aware of but also committed to sustainable practices. This is supported by the work of Wu et al. (2021), which illustrates how green training can lead to increased employee creativity in developing sustainable solutions, thus enhancing the organization's overall ethical stance and governance structures. Besides, Sarma et al. (2024), emphasized that corporate governance is essential in fostering sustainable business practices, thereby enhancing ethical behavior.

2.2.6 Integration and Alignment

The integration of sustainability practices into business models is vital for achieving long-term sustainability goals. The integration will help the organization to achieve long-term success along with contribution toward social and environment, thus become more resilient and sustainable in the future (Na-Nan et al., 2024). Research indicates that organizations that align

their sustainability objectives with their overall business strategy are more likely to succeed in implementing effective green training programs (Preghenella & Battistella, 2021). On the other hand, Roscoe et al. (2019) mentioned that integrating green training into organizational process can significantly enhance a firm's environmental performance. Furthermore, Vitale et al. (2019) proposed a shift from merely overlapping traditional management tools with sustainability-oriented practices to a more strategic alignment of tools which is crucial for effective sustainable management. This notion is echoed in the study of Băndoi et al. (2021) who stressed that integration of sustainable reporting practices into corporate management enhances economic performance through harmonizing process that aligns various management practices.

2.2.7 Stakeholder Engagement

Stakeholder engagement facilitates dialogue and collaboration among various parties where not only the shareholders that involved in sustainability effort. Effective stakeholder engagement practices not only enhance transparency but also contribute to the legitimacy of sustainability reporting (Ferrero-Ferrero et al., 2018). Engaging a diverse range of stakeholder including employees, suppliers, customers and community allows the organizations to address complex sustainability challenges collaboratively resulting in more innovative solutions (Matikainen, 2022). According to Oktaviana & Miranti (2023), understanding stakeholder perspective is crucial in measuring sustainability performance, which enable organizations to adapt to a rapidly changing environment. Additionally, stakeholder engagement is essential for identifying material sustainability issues which influences the content of sustainability reports and improves accountability (Ngu & Amran, 2018). Furthermore, the study done by Attanasio et al. (2021) discuss how stakeholder value flow model emphasize that organization must consider stakeholder perspectives when designing sustainability initiatives.

2.3 Related theory

Resource-Based View (RBV) theory is a suitable theoretical framework to study relationship between green T&D and organizational sustainability. This theory highlights the significance of organizational resources and capabilities in improving performance and gaining a competitive advantage. To support this, recent study by Lashari et al. (2022) applies RBV to support the idea that business can attain environmental sustainability by fostering environment specific skills through HRM practices such as green T&D. Then, a study conducted by Al-Shammari et al. (2022) also explain the relationship between green HRM practices and sustainable performance using RBV theory highlighting green training enhances employees' environmental skills which serve as valuable organizational resources that contribute to better sustainability outcomes.

Other than that, Social Exchange theory proposed by Emerson (1976), posits that social behavior is a result from exchange process where individual weigh the risk and potential benefits from their actions. This theory emphasized that an organization and its workers have a good connection based on mutual trust and obedience to the laws of exchange, and that workers who are aware of their surroundings and have learned how to maintain them will be rewarded. In organizational context, employee is likely to reciprocate with positive behaviors when organization invest in their development such as through green training initiatives leading to organizational sustainability. Because management has made significant investments in environmentally friendly HR procedures, staff members will be more inclined to work with the company to prevent environmental deterioration (Moradeke et al., 2021).

2.4 Previous studies related to IV & DV

Green T&D fosters a culture of continuous improvement and learning by educating the employees to adopt sustainable practices and encourage the employee to generate idea on how lessen the environmental degradation (Barakat et al., 2023). Similarly, a study by Alhemimah et al. (2024) emphasize that organization that prioritize green training not only enhance employee skills but also cultivate a mindset focused on sustainability. The ongoing learning process also enables the organization to adapt to evolving environmental standard while improving their operational efficiency.

Environmental stewardship is fundamentally linked with green T&D. By equipping employees with training that help to understand and mitigate environmental impacts, organization can foster a sense of responsibility towards natural resources. A recent study conducted by Barakat et al. (2023) underline the importance of integrating green T&D into organizational strategies to achieve sustainability. The study found that organizations implementing green training programs reported significant reductions in energy consumption and waste generation, alongside increased employee engagement in environmental activities. These findings highlighted that green T&D not only benefits to the environment but also enhance organizational performance. Besides, Usman et al, (2022) stressed that organizations that aim to achieve competitive advantage and foster sustainability should prioritize the development and implementation of green training initiatives because that effort can enhance employees' connection with nature and promote environmentally friendly practices.

Then, a study done by Ferri and Pini (2019) found that higher level of CSR correlate with increased green investment, suggesting that socially responsible organization are more inclined to adopt sustainable practices. This finding further supported by Zhang et. al (2022), emphasize that CSR enhances the green value of enterprises by integrating sustainable practices into their operations.

Other than that, economic viability of an organization is significantly impacted by its commitment to green T&D. A study done by Jasim and Altae (2023) at Ministry of Environment emphasize that implementation of green training and development at Ministry have a significant impact on their economic performance. In addition, previous studies mentioned that green training plays a crucial role in enhancing employee's knowledge and skills regarding green practices which result a positive impact on environmental and financial performance of the organization (Hattali et al., 2023).

Besides, previous studies emphasize that there is significance relationship between diverse stakeholder participation in sustainable development and enhance green training and tdevelopment initiatives (Singha, 2024). Similarly, a study done by Pinzone et. al (2019) stressed that green training result in greater employee engagement in sustainability efforts.

Furthermore, a prior study indicate that green training prepared a diverse and multitalented worker by enhancing their knowledge, competencies and abilities resulting in better organizational performance (Sheeba et al., 2020). Also, according to Malik (2021), there is an increment of employees' awareness toward environmental protection at the workplace and improved their ability to adapt with it resulted from green training practices.

2.5 Summary

In summary, this chapter discussed in depth the existing studies on the relationship between green T&D and dimensions of organizational sustainability. In addition, related theories, model and key findings from previous research are also examined in this chapter.

CHAPTER 3: METHODOLOGY

3.1 Introduction

Research methodology explain how the study is designed and conducted. A comprehensive methodology chapter encompasses several essentials components such as research design, research subjects, research instruments and research procedures. Additionally, this chapter provides a clear roadmap for the data collection and analysis, ensuring the research design is robust and the methodology is appropriate. This study employs a quantitative research approach concertededly with questionnaires as a source of data collection.

3.2 Research Design

Research design can be used to examine the appropriateness of a study. According to Khanday and Khanam (2023), research design is a structured plan involving the selection of methods and techniques by a researcher in order to organize the aspects of the study ensuring the research problem is addressed efficiently. It offers insights on “how” to carry out research using a specific methodology. A good research design can yield maximum data without collecting unnecessary data.

This study utilized a quantitative method to determine the relationship between independent variable namely green T&D and the dependent variable specifically organizational sustainability which has 7 dimensions. Every dimension was measured to determine their relationship with green T&D. Quantitative research approach is normally a theory driven where the variables that researcher want to control, and measure are known in advance. This method gathers numeric data and relies on that data to observed and measured the sample population. This research is a cross-sectional study involving employees at UNIMAS.

3.3 Research Subject

3.3.1 Population

Population refers to the complete set of individuals, items, or events of interest that a researcher aims to study. This encompasses all elements sharing specific characteristic pertinent to the research question. According to Eldredge et al. (2014), it is essential to accurately define the population since it affects the design of the study, sampling methods and the validity of the results. The target population for this research comprised academicians from two faculties: the Faculty of Social Sciences and Humanities (FSSH) and the Faculty of Cognitive Sciences & Human Development (FCSHD), who are currently working in Universiti Malaysia Sarawak (UNIMAS). The total population of academicians from these two faculties is 117.

3.3.2 Sample Size

According to Eldredge et al. (2014), to make inferences, researchers usually choose a sample which is a representative subset of the population, given that examining the entire population can be challenging. Thus, this study determines the sample size of the selected population by using the sample size table created by Krejcie and Morgan (1970). For a population of 117, the targeted sample size would be 86 for confidence level of 95% with margin of error of 5%.

3.3.3 Sampling Procedure

Sampling techniques are essential for selecting a subset of individuals from a larger population to participate in the study. The sampling technique used in this study is simple random sampling. This technique involves selecting participants in such a way that every individual in the population has an equal chance of being chosen (Simkus, 2023). According to Noor and Golzar (2022), this method provides opportunity to the researchers to randomly select

the participants without bias. Furthermore, simple random sampling frequently used in surveys and quantitative research design (Rahi, 2017).

3.4 Research Instrument

Questionnaire is a primary tool that used to acquire the data for this study. It was developed based on two primary relevant paper, Na-Nan et al. (2024) and Alqudah (2024). The questionnaire comprises of nine sections; Section one covered the demographic profile; section two covered green training and development; section three until nine covered the dimensions under organizational sustainability which include, continuous improvement and learning, economic viability, social responsibility, environmental stewardship, governance and ethic, integration and alignment and lastly stakeholder engagement. The questionnaire items in section two until section nine was rated using a Five-Point Likert Scale as shown in table 1 below.

Table 1: Likert-scale using in the section two until nine in the questionnaire.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

3.5 Validity & Reliability

Validity refers to the degree to which a study accurately measures what is intends to measure (Andersson et al., 2024). In this study, validity refers to the capability of the questionnaire to assess the objective and hypothesis of the research. Meanwhile, according to Karnia (2024), reliability refers to the ability of an instrument to produce the same measurement value when repeatedly exposed to the same state of nature.

3.5.1 Face Validity

Face validity is the extent to which a research instrument appears to measure the desired variables based on subjective assessment. The respondents or experts believe that the items are acceptable and relevant.

To ensure the strong face validity, the questionnaire was evaluated by experts in human resource management, sustainability, and organizational development. The feedback will be used to refine the wording, clarity, and relevance of the items to make sure they align with the objectives of the study.

3.5.2 Content Validity

Content validity describes the degree to which a research instrument comprehensively assesses every pertinent facet of the intended constructs. The questionnaire was developed based on the extensive review of existing literature on green T&D and organizational sustainability.

To ensure the instruments accurately covered all significant facets of the research variables, the items were carefully selected to encompass the essential aspects of both constructs. The items were adapted from two relevant papers by Khahan Na-Nan et al. (2024) and Alqudah (2024). The subject matter experts will evaluate the questionnaire to assess its completeness, relevance and clarity. Items that were irrelevant were either changed or eliminated.

3.5.3 Reliability

Reliability refers to the ability of the research instrument to measure the intended constructs consistently and steadily over time. To determine the reliability of the questionnaire, a statistical test such as Cronbach's Alpha was used. For this study, the reliability test's alpha value must be 0.70 or higher, indicating an acceptable level of questionnaire consistency.

Table 2: Adapted from Gliem and Gliem (2003): The Cronbach's Alpha Coefficient

<i>Cronbach's Alpha Coefficients</i>	<i>Interpretation</i>
≥ 0.9	Excellent
≥ 0.8	Good
≥ 0.7	Acceptable
≥ 0.6	Questionable
≥ 0.5	Poor
< 0.5	Unacceptable

3.6 Pilot Study

Pilot study was conducted with a small sample respondent to confirm that the questions were easily understood and appropriately captured the intended constructs. According to Johanson and Brooks (2010), in quantitative research, it is normally recommended to do a pilot study with a sample size of 10-30 respondents, or at least 10% of the target population. In this pilot study, 30 respondents from another organizations were randomly selected to participate in the survey and the pilot study was completed within two weeks. Then, after conducting the pilot study and analysed the data, below is the Cronbach's Alpha yielded for each section:

Table 3: Cronbach's Alpha Value for each variable

<i>Variables</i>	<i>Number of items</i>	<i>Cronbach's Alpha value</i>
Green Training & Development	12	.942
Continuous Improvement and Learning	6	.898
Economic Viability	6	.949
Social Responsibility	6	.909
Environmental Stewardship	7	.920
Governance and Ethic	5	.913
Integration and Alignment	6	.933
Stakeholder Engagement	5	.931
	53	

3.7 Ethic of Study

This study implemented a strict ethical standard to guarantee the protection and dignity of all participants. The participation is voluntary and provided with informed consent form that explain the purpose of the study, procedures and any potential risks. The data will be securely stored, and the identity of the participations are protected to maintain the confidentiality and anonymity.

Furthermore, participants can withdraw at any moment without facing any consequences. Additionally, this study will adhere to legal and institutional guidelines to maintain transparency, equity and integrity throughout the study. Lastly, to uphold the ethical standards, all contributions will be duly acknowledged, and the study will be impartial.

3.8 Research Procedure

3.8.1 Data collection technique

The data collection process for this study was conducted in three key phases: pilot testing, actual data collection, and data entry and analysis.

To begin, a pilot test was administered to evaluate the questionnaire's clarity, reliability, and validity prior to full-scale distribution. This phase mirrored the actual data collection process, utilizing an online survey distributed to a small, representative subset of the target population. Feedback from the pilot participants was used to refine the wording of questions, estimate completion time, and ensure that the items effectively captured the intended constructs. Reliability was assessed using Cronbach's Alpha to determine internal consistency.

Following the successful completion of the pilot test, the final version of the questionnaire was distributed to the main sample using Google Forms. A total of 86 respondents were targeted for this phase. This approach was chosen for its effectiveness, accessibility, and capacity to reach a wide audience. The survey link was shared via email, along with a consent form, a description of the study's purpose, assurances of confidentiality, and clear instructions for completion. Follow-up reminders were sent to encourage participation and increase the response rate.

3.8.2 Data Analysis Procedure

This study utilized IBM Statistical Package for the Social Sciences (SPSS) software version 26 as the primary tool to analyze the data collected from respondents. The analysis was carried out in three main phases: descriptive analysis, normality testing, and inferential analysis. These phases ensured that the data was systematically analyzed and that meaningful conclusions could be drawn regarding the relationship between green training and development (T&D) and organizational sustainability.

Descriptive analysis was first conducted to summarize the key characteristics of the dataset. Each questionnaire item was analyzed to compute the mean, standard deviation, and percentage of responses. The results were presented in a table format, providing a clear overview of respondent tendencies for each item. This tabular presentation allowed for easy comparison and interpretation of response patterns. Measures of central tendency, such as the mean, highlighted general trends in the data, while the standard deviation indicated the variability of responses. This analysis helped identify patterns and provided insight into the respondents' perceptions regarding green T&D and sustainability practices.

Following this, normality testing was performed to determine whether the dataset followed a normal distribution, an important assumption for many statistical techniques. Both the Kolmogorov-Smirnov and Shapiro-Wilk tests were applied, with the former suited for larger samples and the latter for smaller ones. In this study, the p-values obtained were less than 0.05, indicating that the data did not follow a normal distribution. Therefore, non-parametric tests were deemed more appropriate. Skewness and kurtosis values were also examined to further support the assessment of distribution patterns.

Finally, inferential statistical techniques were used to examine the relationships between green T&D and the dimensions of organizational sustainability. Given the non-normal distribution of the data, Spearman's rank correlation analysis was employed. This method assessed the strength and direction of the associations between variables. A positive Spearman correlation coefficient (r) close to +1 indicated a strong positive relationship, while a negative value signified an inverse relationship.

3.9 Summary

In conclusion, this chapter outlines the methodology employed in this study, emphasizing the design, data collection technique and analysis procedures used to examine the relationship between variables. This study adopts a quantitative method with a cross-sectional approach. Data was collected through an online survey using a structured questionnaire. Moreover, prior to the actual data collection, a pilot study was conducted to assess the clarity, reliability, and validity of the questionnaire, allowing for necessary revision. The full-scale data collection was carried out using online survey and the data collected will be analyse using IBM SPSS Statistic Version 26. Lastly, inferential statistical techniques such as correlation were used to test the hypotheses.

CHAPTER 4: FINDINGS & DISCUSSION

4.0 Introduction

This chapter presents the data collected from the survey and analyzed using descriptive and inferential statistical methods. The hypothesis structured from the study serves as the framework for the discussion. Additionally, this chapter includes the demographic information of the respondents.

4.1 Demographic Information of Respondents

This part consists of demographic profile of the respondents including gender, age, experience, educational qualification and academic rank. The following demographic information summarizes the characteristics of the 86 respondents who participated in the survey.

Table 4: Summary of Demographic Information

Item	Category	Frequency	Percentage (%)
Gender	Male	24	27.9
	Female	62	72.1
Age	20-29	3	3.5
	30-39	26	30.2
	40-49	33	38.4
	50-59	24	27.9
	60 and above	-	-
Experience (Years)	0-5	26	30.2
	6-10	14	16.3
	11-15	18	20.9
	16-20	17	19.8
	20 and above	11	12.8
Educational Qualification	Degree	-	-
	Master	28	32.6
	PhD	58	67.4
Academic Rank	Lecturer	31	36.0
	Dr	49	57.0
	Associate Professor	6	7.0
	Professor	-	-

4.1.1 Gender

Table 5: Gender

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	24	27.9	27.9	27.9
	Female	62	72.1	72.1	100.0
	Total	86	100.0	100.0	

Table 5 presents the gender distribution of the respondents who participated in the survey. Based on the table, the majority of the respondents were female, comprising 72.1% (62 individuals) of the total. In contrast, only 27.9% (24 individuals) of the respondent were male. This indicates that there were more female participants than male in this survey.

4.1.2 Age

Table 6: Age

Age (Years)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-29	3	3.5	3.5	3.5
	30-39	26	30.2	30.2	33.7
	40-49	33	38.4	38.4	72.1
	50-59	24	27.9	27.9	100.0
	Total	86	100.0	100.0	

Table 6 represented the age of the respondents who was participated. The result shows majority of the respondents fall within the 40-49 age group, representing 38.4% (33 individuals) of the total. This followed by the 30-39 age group at 30.2% (26 individuals) and the 50-59 age group at 27.9% (24 individuals). The age group of 20-29 accounted for only 3.5% (3 individuals) of the respondents. This indicate that the survey was predominantly participated by the individuals

aged between 30-59 years old, indicating that more experienced or senior staff were more involved in the survey process.

4.1.3 Experience

Table 7: Experiences

Experiences (Years)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-5	26	30.2	30.2	30.2
	6-10	14	16.3	16.3	46.5
	11-15	18	20.9	20.9	67.4
	16-20	17	19.8	19.8	87.2
	20 and above	11	12.8	12.8	100.0
	Total	86	100.0	100.0	

Table 7 outlines the years of work experience among respondents. The majority of respondents reported having 0-5 years of experience, comprising 26 individuals (30.2%). This is followed by those with 11-15 years (20.9%), 16-20 years (19.8%) and 6-10 years (16.3%). 11 respondents (12.8%) of the respondents had more than 20 years of experience. While data shows that most of the respondents are older (30 years and above), the experience data reveals a more even distribution across various experience levels, with a significant number of 30.2% being relatively new to their roles (0-5 years). This could suggest instances of mid- or late-career changes, internal promotions or mature hires entering the workforce after a career break or industry shift.

4.1.4 Educational Qualification

Table 8: Educational Qualification

Educational Qualification					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Master	28	32.6	32.6	32.6
	PhD	58	67.4	67.4	100.0
	Total	86	100.0	100.0	

Table 8 presents the educational qualification of the 86 respondents who participated in the survey. The majority of the respondents hold a PhD, accounting for 67.4% (58 individuals), while the remaining of 32.6% (28 individuals) possess a Master. This distribution indicates that all respondents hold postgraduate qualifications. The dominance of PhD holders suggests that many are involved in advanced academic, research or leadership roles. Meanwhile, Master's holder may have a significant number of journal publications as a means to remain relevant and competitive within the academic environment where it often closely tied to professional advancement and institutional expectations.

4.1.5 Academic Rank

Table 9: Academic Rank

Academic Rank					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Lecturer	31	36.0	36.0	36.0
	Dr	49	57.0	57.0	93.0
	Associate Professor	6	7.0	7.0	100.0
	Total	86	100.0	100.0	

Table 9 illustrates the academic rank distribution among the sample respondents. The majority of participants hold the title of Dr where it typically indicating a PhD holder or senior academic

without a professorial title, accounting for 57.0% (49 individuals). This is followed by Lecturers who make up 36.0% (31 individuals). The lecturers includes both newly appointed and senior staff, many of whom are actively involved in teaching and research activities as part of their professional development. Only 7.0% (6 individuals) are at rank of Associate Professor, suggested fewer senior academic staff participated in the survey.

4.2 Descriptive Analysis

4.2.1 Green Training and Development

Table 10: The findings for 12 items in Green T&D section. Adapted from Alqudah (2024).

Statement	SD	D	N	A	SA	Mean	Std
At my organization, green training enables me to do my job effectively.	0.0	0.0	11.6	62.8	25.6	4.14	0.597
At my organization training is imparted based on environmental competency.	0.0	5.8	24.4	54.7	15.1	3.79	0.769
The organization provision of continuous training programs.	0.0	1.2	10.5	34.9	53.5	4.41	0.726
The organization provision of knowledge on matters concerning the environmental development	0.0	4.7	16.3	58.1	20.9	3.95	0.750

At my organization, the green knowledge acquired from green training can be applied at the workplace.	0.0	1.2	20.9	52.3	25.6	4.2	0.719
At my organization, the green skills acquired from green training can be applied in the workplace.	0.0	1.2	17.4	55.8	25.6	4.06	0.692
The organization's availability of training materials online for academicians.	0.0	2.3	23.3	62.8	11.6	3.84	0.648
Environmental training is a priority over the types of training at my organization.	3.5	4.7	57.0	31.4	3.5	3.27	0.758
My organization is holding workshops and seminars to increase the environmental awareness of academicians.	0.0	1.2	9.3	65.1	24.4	4.13	0.610
My organization provides continuous environmental education to change the attitudes and behaviors of academicians within the organization.	0.0	1.2	11.6	65.1	22.1	4.08	0.618

My organization provides academician training for green workplace analysis.	0.0	1.2	20.9	61.6	16.3	3.93	0.647
My organization identifies the training needs of the academician to determine their green needs.	0.0	3.5	18.6	65.1	12.8	3.87	0.665

4.2.2 Continuous Improvement and Learning

Table 11: The findings for 6 items in Continuous Improvement and Learning section. Adapted from Na-Nan et al. (2024).

Statement	SD	D	N	A	SA	Mean	Std
The organization evaluates operations for continuous improvement.	0.0	0.0	5.8	41.9	52.3	4.47	0.608
Organizations learn from their experiences to enhance their operations.	0.0	0.0	5.8	50	44.2	4.38	0.597
Measurable goals are set for tracking improvement progress.	0.0	0.0	4.7	32.6	62.8	4.58	0.583
The organization conducts consistent audits for result measurement and improvement identification.	0.0	0.0	3.5	39.5	57	4.53	0.568

Practices support sustainable, continuous operational improvements.	0.0	0.0	16.3	58.1	25.6	4.09	0.644
The organization applies knowledge and experience to develop operational processes	0.0	0.0	9.3	61.6	29.1	4.20	0.591

4.2.3 Economic Viability

Table 12: The findings for 6 items in Economic Viability section. Adapted from Na-Nan et al. (2024).

Statement	SD	D	N	A	SA	Mean	Std
The organization integrates social and environmental principles into its business strategy.	0.0	2.3	10.5	70.9	16.3	4.01	0.604
The organization assesses economic risks and opportunities to support sustainable development	0.0	0.0	7.0	66.3	26.7	4.20	0.549
The organization fosters innovation and efficiency for long-term economic growth.	0.0	0.0	2.3	51.2	46.5	4.44	0.545

The organization supports activities related to economic viability.	0.0	1.2	9.3	46.5	43.0	4.31	0.690
The organization improves processes or strategies for long-term economic viability.	0.0	0.0	9.3	53.5	37.2	4.28	0.626
The organization assesses and evaluates sustainable economic development.	0.0	1.2	11.6	53.5	33.7	4.20	0.683

4.2.4 Social Responsibility

Table 13: The findings for 6 items in Social Responsibility section. Adapted from Na-Nan et al. (2024).

Statement	SD	D	N	A	SA	Mean	Std
The organization engages employees for positive societal contributions.	0.0	0.0	1.2	52.3	46.5	4.45	0.524
The organizations collaborate with communities for sustainable development.	0.0	0.0	2.3	33.7	64.0	4.62	0.535
The organization emphasizes human rights in its activities.	0.0	0.0	1.2	37.2	61.6	4.60	0.515

The organization has social projects that impact the community's well-being.	0.0	0.0	2.3	30.2	67.4	4.65	0.526
The organization ensures ethical hiring aligned with societal values.	0.0	0.0	5.8	33.7	60.5	4.55	0.607
The organization supports impactful employee-driven social activities.	0.0	1.2	5.8	37.2	55.8	4.48	0.664

4.2.5 Environmental Stewardship

Table 14: The findings for 7 items in Environmental Stewardship section. Adapted from Na-Nan et al. (2024).

Statement	SD	D	N	A	SA	Mean	Std
The organization has policies in place to encourage eco-friendly practice.	0.0	1.2	11.6	69.8	17.4	4.03	0.583
Organizations motivate and support environmental behavior.	0.0	0.0	10.5	70.9	18.6	4.08	0.536
The organization encourages employees to share their environmental experiences.	0.0	3.5	29.1	50	17.4	3.81	0.759

The organization assesses environmental responsibility's efficacy.	0.0	1.2	20.9	66.3	11.6	3.88	0.602
The organization creates environmental responsibility plans and trains employees.	0.0	0.0	10.5	60.5	29.1	4.19	0.604
Organizations environmental efforts affect workers.	0.0	1.2	15.1	69.8	14.0	3.97	0.583
The organization monitors and advises on greener conduct.	0.0	0.0	30.2	60.5	9.3	3.97	0.596

4.2.6 Governance and Ethic

Table 15: The findings for 5 items in Governance and Ethic section. Adapted from Na-Nan et al. (2024).

Statement	SD	D	N	A	SA	Mean	Std
The organization ensures ethical governance for sustainable business.	0.0	0.0	4.7	53.5	41.9	4.37	0.575
The organization promotes transparent decision-making for compliance.	0.0	0.0	11.6	45.3	43	4.31	0.673

The organization supports collaborative operational practices.	0.0	1.2	8.1	47.7	43	4.33	0.676
The organization encourages ethical conduct in business.	0.0	0.0	5.8	52.3	41.9	4.36	0.592
The organization prevents corruption by upholding integrity.	0.0	1.2	1.2	24.4	73.3	4.70	0.555

4.2.7 Integration and Alignment

Table 16: The findings for 6 items in Integration and Alignment section. Adapted from Nan et al. (2024).

Statement	SD	D	N	A	SA	Mean	Std
The organization integrates social and environmental principles into its overall strategies and operations.	0.0	0.0	10.5	73.3	16.3	4.06	0.517
The organization aligns social and environmental goals with core business objective.	0.0	0.0	8.1	66.3	25.6	4.17	0.557
The organization instils social and environmental	0.0	0.0	9.3	72.1	18.6	4.09	0.523

values into its organizational culture							
The organization's methods encompass sustainability considerations in decision- making processes.	0.0	0.0	12.8	65.1	22.1	4.09	0.587
The organization has a system to assess social and environmental sustainability outcomes.	0.0	1.2	33.7	54.7	10.5	3.74	0.654
The organization compiles reports on its social and environmental sustainability performance.	0.0	0.0	9.3	64.0	26.7	4.17	0.578

4.2.8 Stakeholder Engagement

Table 17: The findings for 5 items in Stakeholder Engagement section. Adapted from Na-Nan et al. (2024).

Statement	SD	D	N	A	SA	Mean	Std
The organization employs methods to foster involvement and collaboration with stakeholders in decision- making process.	0.0	2.3	7	55.8	34.9	4.23	0.680

The organization employs methods to establish confidence with stakeholders to support sustainable economic viability.	0.0	2.3	8.1	65.1	24.4	4.12	0.640
The organization utilizes methods to jointly identify goals with stakeholders to support sustainable development.	0.0	1.2	11.6	54.7	32.6	4.19	0.678
The organization evaluates and adjusts the economic impacts of business decisions to foster long-term, sustainable economic viability.	0.0	1.2	12.8	51.2	34.9	4.20	0.700
The organization communicates openly with stakeholders to build trust and transparency.	0.0	0.0	10.5	47.7	41.9	4.31	0.656

4.3 Normality Test

To assess whether the data follows a normal distribution, both the Shapiro-Wilk and Kolmogorov-Smirnov tests were conducted for all variables. However, given the sample size ($n = 86$), greater emphasis was placed on the Shapiro-Wilk test, as it is generally more reliable for samples smaller than 2000. The results of the normality test are summarized in the table below.

Table 18: Normality Test

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
MEAN GTD	.126	86	.002	.978	86	.156
MEANCIL	.121	86	.004	.965	86	.019
MEANEV	.128	86	.001	.968	86	.029
MEANSR	.176	86	<.001	.876	86	<.001
MEANES	.146	86	<.001	.958	86	.006
MEANGE	.125	86	.002	.938	86	<.001
MEANIA	.160	86	<.001	.962	86	.012
MEANSE	.171	86	<.001	.940	86	<.001
a. Lilliefors Significance Correction						

Based on the table, the result indicate that green training & development (T&D) data was normally distributed, as evidence by the p-value of 0.156, which is above the 0.05 threshold. This suggests that variable does not significantly deviate from a normal distribution. In contrast, the continuous improvement and learning variable showed a p-value of 0.019, indicating a significant deviation from normality. Similarly, with a p-value of 0.029, economic viability also fell below the 0.05 threshold, suggesting a non-normal distribution. The social responsibility variable recorded low p-value of <0.001 indicate a significant departure from normality. In addition, environmental stewardship also deviated from normality with a p-value of 0.006. Besides, both governance and ethic and stakeholder engagement displayed p-values

of < 0.001 , indicating non-normal distribution. Lastly, integration and alignment variable had a p-value of 0.012, further supporting the use of non-parametric methods.

In conclusion, as only green T&D shows a normally distributed data and all other dependent variables were not, the use of non-parametrics tests particularly Spearman's rank correlation was appropriate for examining correlations between variables.

4.4 Hypothesis Testing

Based on the normality test, Spearman's correlation test was done to determine the relationship between green T&D and dependent variables. The results of seven hypothesis were confirmed. These findings are shown in table below.

4.4.1 Green Training & Development and Continuous Improvement and Learning (CIL)

H01: There is no significant relationship between green training and development and continuous improvement and learning.

Table 19: Spearman's rank correlation between green T&D and CIL

Correlations				
			MEAN GTD	MEAN CIL
Spearman's rho	MEAN GTD	Correlation Coefficient	1.000	.314**
		Sig. (2-tailed)	.	.003
		N	86	86
	MEAN CIL	Correlation Coefficient	.314**	1.000
		Sig. (2-tailed)	.003	.
		N	86	86

** . Correlation is significant at the 0.01 level (2-tailed).

Table 19 indicated that there was a weak, positive correlation between green T&D and continuous improvement and learning, which was statistically significant at the 0.01 level ($r = .314$, $p = .003$). Therefore, we reject the null hypothesis, and this proves that green T&D has a

positive relationship with continuous improvement and learning. This indicates that organizations that invest in green training are more likely to promote a culture of ongoing development and sustainable learning practices.

4.4.2 Green Training & Development and Economic Viability (EV)

H02: There is no significant relationship between green training and development and economic viability.

Table 20: Spearman's rank correlation between green T&D and EV

Correlations				
			MEAN GTD	MEAN EV
Spearman's rho	MEAN GTD	Correlation Coefficient	1.000	.432**
		Sig. (2-tailed)	.	<.001
		N	86	86
	MEAN EV	Correlation Coefficient	.432**	1.000
		Sig. (2-tailed)	<.001	.
		N	86	86
**. Correlation is significant at the 0.01 level (2-tailed).				

The input from table 20 recorded a moderate, positive and statistically significant correlation between green T&D and economic viability ($r = .432$, $p < 0.001$). Therefore, based on the statistical significance, the null hypothesis is not supported. This finding implies that as organization enhance their green training initiatives, perceptions or outcomes pertaining to economic viability increase in tandem.

4.4.3 Green Training & Development and Social Responsibility (SR)

H02: There is no significant relationship between green training and development and social responsibility.

Table 21: Spearman's rank correlation between green T&D and SR

Correlations				
			MEAN GTD	MEAN SR
Spearman's rho	MEAN GTD	Correlation Coefficient	1.000	.210
		Sig. (2-tailed)	.	.053
		N	86	86
	MEAN SR	Correlation Coefficient	.210	1.000
		Sig. (2-tailed)	.053	.
		N	86	86

Based on table 21, the analysis revealed a weak positive correlation ($r = .210$, $p = 0.053$). However, the result was not statistically significant at the conventional 0.05 level despite the direction of the relationship indicates that greater levels of green training may be linked to increased perceptions of social responsibility. As p-value slightly exceeds the threshold for significance, there is insufficient evidence to reject the null the hypothesis.

4.4.4 Green Training & Development and Environmental Stewardship (ES)

H02: There is no significant relationship between green training and development and environmental stewardship.

Table 22: Spearman's rank correlation between green T&D and ES

Correlations				
			MEAN GTD	MEAN ES
Spearman's rho	MEAN GTD	Correlation Coefficient	1.000	.451**
		Sig. (2-tailed)	.	<.001
		N	86	86
	MEAN ES	Correlation Coefficient	.451**	1.000
		Sig. (2-tailed)	<.001	.
		N	86	86

** . Correlation is significant at the 0.01 level (2-tailed).

The data from the table 22 recorded a moderate, positive and statistically significant correlation ($r = 0.451$, $p < 0.001$) between green T&D and environmental stewardship. Given that the p-value is below the 0.05 threshold, there is sufficient evidence to reject the null hypothesis, proving that there is a significant correlation between variables. This findings implies that organization's commitment to environmentally responsible practices increase as they increase their efforts in green training.

4.4.5 Green Training & Development and Governance and Ethic (GE)

H02: There is no significant relationship between green training and development and governance and ethic.

Table 23: Spearman's rank correlation between green T&D and GE

Correlations				
			MEAN GTD	MEAN GE
Spearman's rho	MEAN GTD	Correlation Coefficient	1.000	.375**
		Sig. (2-tailed)	.	<.001
		N	86	86
	MEAN GE	Correlation Coefficient	.375**	1.000
		Sig. (2-tailed)	<.001	.
		N	86	86
**. Correlation is significant at the 0.01 level (2-tailed).				

According to Spearman's correlation test, the analysis showed there was a weak, positive correlation between the variable which was statistically significant ($r = 0.375$, $p < 0.001$). Hence, the null hypothesis is rejected since the p-value is less than 0.05 level, suggesting a significant correlation between green T&D and governance and ethic. This result suggests that organizations that invest more on green training have a tendency to demonstrate more ethical conduct, transparency and governance procedures aligned with sustainability principles.

4.4.6 Green Training & Development and Integration and Alignment (IA)

H02: There is no significant relationship between green training and development and integration and alignment.

Table 24: Spearman's rank correlation between green T&D and IA

Correlations				
			MEAN GTD	MEAN IA
Spearman's rho	MEAN GTD	Correlation Coefficient	1.000	.213*
		Sig. (2-tailed)	.	.049
		N	86	86
	MEAN IA	Correlation Coefficient	.213*	1.000
		Sig. (2-tailed)	.049	.
		N	86	86

*. Correlation is significant at the 0.05 level (2-tailed).

Table 24 show the result of Spearman's correlation conducted from SPSS to identify the relationship between green T&D and integration and alignment. The result indicated that there is sufficient evidence to reject the null hypothesis as the result revealed a statistically significant weak correlation in the positive direction ($r = 0.213$, $p = 0.049$).

4.4.7 Green Training & Development and Stakeholder Engagement (SE)

H02: There is no significant relationship between green training and development and stakeholder engagement.

Table 25: Spearman's rank correlation between green T&D and SE

Correlations				
			MEAN GTD	MEAN SE
Spearman's rho	MEAN GTD	Correlation Coefficient	1.000	.345**
		Sig. (2-tailed)	.	.001
		N	86	86
	MEAN SE	Correlation Coefficient	.345**	1.000
		Sig. (2-tailed)	.001	.
		N	86	86

** . Correlation is significant at the 0.01 level (2-tailed).

From table 25, the correlation analysis yielded a weak, positive correlation that was statistically significant ($r = 0.345$, $p = 0.001$). Because the p-value is less than the conventional level of 0.05, we reject the null hypothesis and implying a positive association between green T&D and stakeholder engagement.

4.5 Discussion on Findings

The discussion aims to explore potential explanations for the observed patterns and relationships, drawing links to relevant theoretical frameworks and existing research. This section offers a critical understanding of how the findings support, extend or contrast with the previous studies. It also emphasizes the relevance of the findings to the research objectives.

4.5.1 Green Training & Development and Continuous Improvement and Learning (CIL)

Spearman's correlation test revealed a weak but statistically significant positive relationship between these two variables. According to this finding, organizations that invest in green training have a higher chance of fostering a culture of continuous learning and sustainability-focused development. This is supported by Barakat et al. (2023), who emphasized that green training empowers employees not only to comply with environmental standards but enables the staff to actively participate in identifying and promoting environmental goals. A workforce that is responsive and flexible plays a key role in driving this learning-oriented strategy. Similarly, the findings from Alhemimah et al. (2024) emphasized that organizations prioritizing green training help their staff develop a more sustainable, introspective, and growth-oriented mindset.

However, the weak relation might indicate that while green training helps with learning and progress, its impact could be indirect or influenced by other organizational factors. For instance, the effectiveness of a learning culture depends not only on training but also on

leadership support, feedback mechanisms, and recognition of new ideas. Employees may not significantly contribute to continuous improvement if they receive green training but lack the opportunity or motivation to apply what they have learned. As discussed by Yadav (2023), the weak correlation might result from the requirement for a more comprehensive integration of green practices into organizational strategies, since training alone might not be sufficient to produce behavioral changes or sustained learning outcomes.

4.5.2 Green Training & Development and Economic Viability (EV)

The findings recorded a moderately positive correlation between green T&D and economic viability. This aligns with the theoretical perspectives of resource based view (RBV), which highlights the significance of developing internal resources such as employees with environmental skills in order to achieve a competitive advantage and sustain long-term performance (Lashari et al., 2022). In this context, green training helps the company to run effectively and sustain profitability over time in addition to encouraging environmental responsibility.

This finding is further supported by several studies showing similar outcomes across different organizational contexts. For example, Jasim and Altae (2023) found that green training programs implemented by the Ministry of Environment had a significant impact on improving financial outcomes and resource efficiency. Similarly, Hattali et al. (2023) reported that employees who had received environmental training were better equipped to implement green practices that improved the organization's financial stability and reduced production costs.

4.5.3 Green Training & Development and Social Responsibility (SR)

The relationship between Green T&D and social responsibility appears to be slightly positive but not statistically significant. This finding is consistent with Ali (2024), who emphasizes that managerial support plays a critical role in translating green initiatives into

effective corporate social responsibility (CSR) outcomes. This suggests that without strong managerial engagement, the impact of green training may not be fully realized.

Additionally, this finding aligns with Usman et al. (2022), who noted that while green training encourages eco-friendly behavior among employees, its effects outside the workplace remain underexplored, potentially limiting its contribution to CSR. Moreover, based on my findings, the limited impact of green training on CSR may be due to the exclusion of important psychological drivers from the survey. This aligns with previous studies suggesting that the impact of CSR on green service behavior often depends on underlying elements such as employees' organizational pride and environmental passion, which were not included in this analysis (Antika & Suryani, 2024).

To conclude, these findings imply that the weak correlation may reflect a more complex dynamic, where the effectiveness of green training in promoting CSR is significantly influenced by managerial involvement and individual psychological factors.

4.5.4 Green Training & Development and Environmental Stewardship (ES)

Based on the findings, the results revealed a significant and moderately positive correlation between the variables. This finding aligns with the study by Barakat et al. (2023), which highlighted the importance of embedding green T&D into broader organizational strategy. According to their findings, organizations that adopted green training programs showed measurable reductions in waste production and energy use, along with increased staff involvement in eco-friendly projects. Similarly, Jehan et al. (2020) noted that green training enhances employees' environmental awareness and commitment, which in turn fosters sustainable practices within organizations.

However, the moderate correlation may reflect the influence of additional factors beyond training itself. For example, the extent to which leadership, corporate culture, and

infrastructure support green training likely determines how effectively employees implement what they have learned. This supports the claim made by Usman et al. (2022), who argued that green training must be strengthened by broader institutional support if organizations are to achieve sustainability and gain a competitive edge. They emphasized that such training fosters pro-environmental values and enhances employees' connection with nature, but only when organizations provide enabling environments for action.

4.5.5 Green Training & Development and Governance and Ethic (GE)

Examination of the data using Spearman's correlation test revealed a weak, positive, and statistically significant correlation between green T&D and governance and ethics. Therefore, the null hypothesis is rejected. This finding suggests that green training contributes positively to the development of ethical behavior and good governance practices among employees. This association aligns with findings reported by Wu et al. (2021), which demonstrated that green training enhances employee creativity in developing sustainable solutions. Consequently, it improves the moral standing of the organization and facilitates the establishment of stronger governance frameworks. By promoting critical thinking about ethical and environmental issues among employees, green training lays the foundation for a values-based culture that supports sustainability-driven governance.

Despite the significant relationship, the correlation is weak, indicating that ethical governance may be influenced by other factors besides green training. This interpretation is supported by the fact that elements such as leadership style, legal frameworks, and the enforcement of ethical standards often influence ethical conduct and governance performance. This is further supported by the findings of M et al. (2024), who highlighted that ethical behavior is shaped by the interplay between governance, organizational culture, and leadership factors that collectively enhance overall organizational performance.

4.5.6 Green Training & Development and Integration and Alignment (IA)

The results of the analysis suggested a weak but statistically significant positive correlation between Green T&D and integration and alignment. This finding are consistent with prior studies highlighting the importance of strategic integration for successful sustainability initiatives. Preghenella and Battistella (2021) noted that organizations are more likely to adopt effective green training initiatives when their sustainability goals are closely aligned with their broader corporate strategy. This alignment ensures that sustainability is embedded across all functions of the organization rather than being treated as a standalone initiative. Roscoe et al. (2019) also reinforced this perspective by emphasizing that integrating green training into routine organizational processes enhances environmental performance. Employee adoption and organizational commitment are more likely when training on sustainability practices is closely connected to operational procedures and strategic objectives.

Although the correlation was significant, its weak strength warrants further explanation. Effective integration and alignment require more than just awareness and training, but also strong leadership involvement, cross-departmental collaboration, and structural commitment. The potential of green training to drive integration is limited if delivered in isolation or without connection to core business functions. Supporting this view, a study conducted by Yoo (2024) found that the effectiveness of Green Human Resource Management (GHRM) practices such as training and performance management in promoting organizational commitment and environmental citizenship is significantly reduced when implemented in isolation. This strengthens the idea that while training helps raise awareness and foster initial alignment, more comprehensive and strategic efforts are necessary to ensure that sustainability goals are fully integrated across all organizational levels.

4.5.7 Green Training & Development and Stakeholder Engagement (SE)

The results recorded a statistically significant weak positive correlation between the variables, suggesting that as organizations increase their commitment to green training initiatives, they are more likely to engage stakeholders including external partners, government bodies, employees, and communities in sustainability-related discussions, actions, and decision-making processes. Pinzone et al. (2019) corroborated this finding by emphasizing that green training increases employee involvement in environmental initiatives, which in turn promotes broader stakeholder engagement. Similarly, Singha (2024) emphasized that the success of green training programs is directly linked to the involvement of diverse stakeholders in sustainable development.

Additionally, Lyulyov et al. (2023) highlighted that stakeholder engagement plays a critical role in enhancing green competitiveness, stressing the importance of effective collaboration and communication between stakeholder groups and organizational management. The findings of this study support these perspectives, demonstrating that green training is a significant motivator for stakeholder involvement in sustainability activities.

Despite the significant relationship, the weak correlation warrants further explanation. This finding may suggest that while green training contributes to stakeholder engagement, it is not the sole determining factor. The complexity of stakeholder engagement also relies on elements such as institutional trust, leadership openness, and organizational communication strategies. Supporting this view, a study by Srivastava and Shree (2019) noted that the complexity of stakeholder relations shaped by factors such as external pressures and organizational culture can diminish the immediate impact of training programs.

4.6 Summary of Hypothesis Result

Table 26: Summary of hypothesis result

No.	Hypothesis	Result
1	H01: There is no significant relationship between green training and development and continuous improvement and learning.	Hypothesis rejected and there is weak positive relationship.
2	H02: There is no significant relationship between green training and development and economic viability.	Hypothesis rejected and recorded a moderately positive relationship.
3	H03: There is no significant relationship between green training and development and social responsibility.	Insufficient evidence to reject the hypothesis. However, weak positive correlation found.
4	H04: There is no significant relationship between green training and development and environmental stewardship	Hypothesis rejected and revealed a moderate, positive association.
5	H05: There is no significant relationship between green training and development and governance and ethic.	Hypothesis rejected and showed a weak, positive relationship.
6	H06: There is no significant relationship between green training and development and integration and alignment.	Hypothesis rejected and revealed a weak, positive correlation.
7	H07: There is no significant relationship between green training and development and stakeholder engagement.	Hypothesis rejected and yielded a weak, positive association.

4.7 Summary

To conclude, this chapter provides a comprehensive presentation, interpretation and discussion of the data collected from the survey. The demographic data of the respondents offered insights into the background characteristic of the sample. Spearman's correlation analysis was employed to determine the strength and direction of the relationship between the variables, as the data did not meet the assumptions of the normality. Then, the discussion of the key findings was linked to the study's objectives and hypothesis, while exploring possible explanations for the patterns observed in the findings, grounded in relevant literature.

CHAPTER 5: IMPLICATIONS, RECOMMENDATION & CONCLUSION

5.0 Introduction

This chapter is divided into four sections: research summary, implications of the study, recommendations for future research, and conclusion. It concludes the study with a comprehensive summary of the key findings and insights. In addition to summarizing the overall results, it also highlights the theoretical and practical implications and provides recommendations. This chapter serves as an essential component of the research, ensuring that the study makes a meaningful contribution to both academic understanding and practical application in the fields of organizational sustainability and green T&D.

5.1 Research Summary

The purpose of this study was to examine the relationship between green T&D and the dimensions of organizational sustainability in the public sector, specifically among academicians at public university. The study concentrated on seven key dimensions of sustainability: continuous improvement and learning, economic viability, social responsibility, environmental stewardship, governance and ethic, integration and alignment and stakeholder engagement.

Using a quantitative approach and data collected from 86 respondents, Spearman's correlation analysis was employed due to the non-normal distribution of the data. The results revealed significant positive relationships between green T&D and six out of the seven dimensions of organizational sustainability. Moderate correlations were found with economic viability and environmental stewardship, while the correlation with social responsibility was weak and not statistically significant.

The results of this study indicate that organizations that invest in green training initiatives are more likely to see improvements in sustainability-related outcomes, particularly in areas

related to economic and environmental performance. This study fills a gap in the literature by linking specific dimensions of sustainability to green T&D and highlights the importance of sustainable HR practices in driving long-term organizational success.

5.2 Implication

5.2.1 Theoretical

This study contributes to the existing literature on organizational sustainability and green T&D, offering important theoretical implications. Grounded in the Social Exchange Theory and Resource-Based View (RBV), the study demonstrates that internal resources especially employee training and skills play a key role in determining long-term outcomes. The RBV theory suggests that organizations can achieve a competitive advantage by utilizing unique, valuable, and inimitable resources. In the context of this study, green training serves as a strategic internal capability that enhances employee competencies related to sustainability, which in turn strengthens long-term organizational performance and adaptability. By providing regular and targeted green training, organizations can develop a workforce that not only complies with environmental regulations but also actively supports environmental innovation and resilience.

Moreover, the study strengthens the applicability of Social Exchange Theory by demonstrating that when employees perceive a genuine organizational commitment to their professional and personal development such as through green training initiatives, they are more inclined to respond with positive, sustainability-oriented behaviors and increase organizational loyalty. Employees are more inclined to adopt eco-friendly practices, actively participate in sustainability programs, and align their actions with the organization's green values when they receive green training and observe a sincere commitment to ethical and environmental principles. This reciprocal relationship fosters a culture of trust, accountability, and shared long-term commitment, all of which are essential for sustainable organizational success. Therefore,

the study extends theoretical frameworks by connecting green T&D practices with ethical behavior, stakeholder engagement, and overall organizational performance in a sustainability-driven context..

5.2.2 Practical

From a practical perspective, the findings offer useful insights for policymakers, organizational leaders, and HR practitioners. The study demonstrates that investing in green T&D activities provides tangible benefits across several sustainability dimensions, such as governance, economic viability, stakeholder engagement, and continuous learning. For HR practitioners, the study highlights the importance of integrating sustainability into existing training programs and aligning it with organizational culture, career development plans, and performance monitoring systems.

Furthermore, the implications for organizational leaders are equally clear. Green training plays a crucial role in achieving environmental objectives and promoting ethical governance, and sustainability must be embedded at the strategic level. The strong associations identified in this study suggest that organizations prioritizing green training are better equipped to meet public expectations, comply with regulatory requirements, and address global sustainability challenges such as climate change.

Therefore, organizations that aim to enhance their image, reduce environmental impact, and achieve long-term viability must recognize green training as a vital component of their sustainability strategy. In summary, this study offers organizations both a roadmap and a rationale for implementing green training as a standard practice rather than an optional initiative.

5.3 Recommendations

Based on the findings of this study, several recommendations are proposed to enhance the implementation and efficacy of green T&D practices within organizations.

5.3.1 Recommendation for HR Practitioners

For HR practitioners, integrating green practices into fundamental HR tasks including leadership development initiatives, job training, and onboarding is essential. Building a continuous green culture requires embedding environmental knowledge throughout the employee lifecycle, rather than treating green training as a separate or one-time event. Additionally, HR professionals are encouraged to align green T&D with performance management systems by incorporating sustainability-focused Key Performance Indicators (KPIs) into employee evaluations and reward structures. This ensures that pro-environmental behaviors are recognized and rewarded.

Moreover, green training should be tailored to the specific roles and responsibilities of employees. For example, research- and teaching-related sustainability modules may be beneficial for academic staff, while technical or administrative staff may require more practical guidance on resource management. Furthermore, HR departments can identify and develop green ambassadors within each department to serve as internal role models and promote green initiatives. These individuals can help sustain engagement and support the ongoing implementation of green practices at the departmental level.

5.3.2 Recommendation for Organizations

Recommendations for organizations involve embedding sustainability into their strategic vision and operational planning. To develop sustainability as a shared value across the organization, leadership must demonstrate visible commitment by actively supporting and participating in green activities. To ensure long-term impact, sustainability should also be

institutionalized by aligning green training with broader organizational objectives, policies, and resource allocation. Additionally, establishing clear metrics such as reductions in energy or material usage, increased employee involvement in sustainability initiatives, and compliance with environmental regulations is recommended to evaluate the effectiveness of green training programs.

Furthermore, as the study indicated a slight correlation between social responsibility and green T&D, organizations could strengthen their efforts in this area by combining training with effective community outreach and corporate social responsibility (CSR) activities. Encouraging employee participation in environmental volunteering, local development projects, and collaborations with NGOs can enhance the social pillar of sustainability and foster a sense of unity and purpose among employees.

5.3.3 Recommendation for Future Researchers

Finally, several directions are suggested for future researchers to build on this study's findings. Longitudinal study designs should be explored to evaluate the long-term impacts of green training on organizational sustainability outcomes. Since this study was cross-sectional, it could not capture the evolution of behavioral change over time. Additionally, broadening the research scope to include private-sector companies or other industries such as manufacturing, technology, or hospitality would help improve the generalizability of the findings.

A mixed-methods approach that incorporates qualitative interviews or focus groups alongside quantitative data may provide more in-depth insights into how green training influences organizational culture and employee behavior. Furthermore, additional investigation into specific sustainability dimensions such as social responsibility is warranted, particularly given the insignificant relationship found in this domain. Future studies should consider examining potential mediating factors that may influence how green training impacts social

responsibility outcomes, including employee values, organizational culture, and leadership style.

5.4 Conclusion

In conclusion, the study reveals that green T&D is an effective strategic initiative for promoting sustainable practices within organizations. With the exception of social responsibility, the majority of sustainability dimensions demonstrated a positive relationship with green T&D, highlighting its impact on enhancing stakeholder engagement, ethical governance, and economic resilience. Although the correlations were generally weak to moderate, they were statistically significant, underscoring the importance of integrating sustainability into training programs.

This study contributes to the growing body of research supporting the integration of environmental principles into human resource practices. Additionally, it offers practical guidance for organizations particularly in the academic sector on how to incorporate sustainability into their training and development strategies. Future studies may explore the long-term effects of green training on employee behavior and organizational culture. Researchers could also broaden their focus to include private-sector firms or other industries to improve the generalizability of the findings.

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Appendix A: Questionnaire

ONLINE SURVEY QUESTIONNAIRE

The Relationship between Green Training & Development (T&D) and Organizational Sustainability

Assalamualaikum & Salam Sejahtera.

My name is Siti Nursuraya binti Md Lazim (72686), a final year student of Human Resource Development at Universiti Malaysia Sarawak and I am currently conducting a research titled "**The Relationship between Green Training & Development (T&D) and Organizational Sustainability**" as part of my Final Year Project (FYP). This study aims to explore how educational and developmental programs aimed at increasing environmental awareness and sustainability practices among employees may influence organizational sustainability.

In this regard, I would like to invite you to participate in my survey. All information provided will be kept strictly confidential, and your responses will remain anonymous. Please be assured that your personal information will not be disclosed, and all data collected will be used solely for academic purposes.

Your participation and cooperation are greatly appreciated.

Saya Siti Nursuraya binti Md Lazim (72686), pelajar tahun akhir dalam bidang Pembangunan Sumber Manusia di Universiti Malaysia Sarawak. Saya sedang menjalankan satu kajian bertajuk "Hubungan antara Latihan dan Pembangunan (T&D) Hijau dengan Kelestarian Organisasi" sebagai sebahagian daripada Projek Tahun Akhir (FYP) saya. Kajian ini bertujuan untuk meneroka bagaimana program pendidikan dan pembangunan yang memfokuskan kepada peningkatan kesedaran alam sekitar dan amalan kelestarian dalam kalangan pekerja boleh mempengaruhi kelestarian organisasi.

Sehubungan itu, saya ingin menjemput anda untuk mengambil bahagian dalam kaji selidik ini. Segala maklumat yang diberikan akan dirahsiakan sepenuhnya, dan maklum balas anda akan kekal tanpa nama. Anda juga boleh yakin bahawa maklumat peribadi tidak akan didedahkan dan semua data yang dikumpul akan digunakan semata-mata untuk tujuan akademik.

Segala kerjasama dan penyertaan anda amat saya hargai.

This questionnaire consists of sections, which are:

Section 1 : Demographic

Section 2 : Green Training & Development

Section 3: Organisational Sustainability

Section 3.1: Continuous Improvement and Learning

Section 3.2: Economic Viability

Section 3.3: Social Responsibility

Section 3.4: Environmental Stewardship

Section 3.5: Governance and Ethic

Section 3.6: Integration and Alignment

Section 3.7: Stakeholder Engagement

Section 2 until section 3.7 will use Likert Scale where the scale:

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Please complete all sections in the questionnaire. If you have any questions or require further clarification, please feel free to contact me at [72686@siswa.unimas.my].

Section 1: Demographic Profile

Please answer all of the following questions.

a) Gender

() Male

() Female

b) Age

() 20-29

() 30-39

() 40-49

() 50-59

() 60 and above

c) Experiences (Years)

- ☐ 0-5
☐ 6-10
☐ 11-15
☐ 16-20
☐ 20 and above

d) Educational Qualification

- ☐ Degree
☐ Master
☐ PhD

e) Academic rank

- ☐ Lecturer
☐ Dr.
☐ Associate Professor
☐ Professor

Section 2: Green Training & Development

Please answer all of the following questions.

Statement	1	2	3	4	5
At my organization, green training enables me to do my job effectively. <i>(Di organisasi saya, latihan berkaitan isu hijau membolehkan saya melakukan tugas saya dengan efektif.)</i>					
At my organization training is imparted based on environmental competency. <i>(Di organisasi saya, latihan diberikan berdasarkan kompetensi alam sekitar.)</i>					
The organization provision of continuous training programs.					

<i>(Organisasi menyediakan program latihan secara berterusan.)</i>					
The organization provision of knowledge on matters concerning the environmental development. <i>(Organisasi menyediakan pengetahuan mengenai hal-hal yang berkaitan dengan pembangunan alam sekitar.)</i>					
At my organization, the green knowledge acquired from green training can be applied at the workplace. <i>(Di organisasi saya, pengetahuan berkaitan isu hijau yang diperoleh daripada latihan isu hijau boleh diterapkan di tempat kerja.)</i>					
At my organization, the green skills acquired from green training can be applied in the workplace. <i>(Di organisasi saya, kemahiran berkaitan isu hijau yang diperoleh daripada latihan isu hijau boleh digunakan di tempat kerja.)</i>					
The organization's availability of training materials online for academicians. <i>(Organisasi menyediakan bahan latihan secara dalam talian untuk ahli akademik.)</i>					
Environmental training is a priority over the types of training at my organization. <i>(Latihan alam sekitar menjadi keutamaan berbanding jenis latihan lain di organisasi saya.)</i>					
My organization is holding workshops and seminars to increase the environmental awareness of academicians. <i>(Organisasi saya menganjurkan bengkel dan seminar untuk meningkatkan kesedaran alam sekitar dalam kalangan ahli akademik.)</i>					
My organization provides continuous environmental education to change the attitudes and behaviours of academicians within the organization.					

<i>(Organisasi saya menyediakan pendidikan alam sekitar secara berterusan untuk mengubah sikap dan tingkah laku ahli akademik dalam organisasi.)</i>					
My organization provides academician training for green workplace analysis. <i>(Organisasi saya menyediakan latihan kepada ahli akademik untuk analisis tempat kerja hijau.)</i>					
My organization identifies the training needs of the academician to determine their green needs. <i>(Organisasi saya mengenal pasti keperluan latihan ahli akademik bagi menentukan keperluan hijau mereka.)</i>					

Section 3: Organisational Sustainability

Section 3.1: Continuous Improvement and Learning

Please answer all of the following questions.

Statement	1	2	3	4	5
The organization evaluates operations for continuous improvement. <i>(Organisasi menilai operasi untuk penambahbaikkan berterusan.)</i>					
Organizations learn from their experiences to enhance their operations. <i>(Organisasi belajar daripada pengalaman mereka untuk meningkatkan operasi.)</i>					
Measurable goals are set for tracking improvement progress. <i>(Matlamat yang boleh diukur ditetapkan untuk mengesan kemajuan penambahbaikkan.)</i>					
The organization conducts consistent audits for result measurement and improvement identification.					

<i>(Organisasi menjalankan audit secara konsisten untuk mengukur hasil dan mengenal pasti penambahbaikan.)</i>					
Practices support sustainable, continuous operational improvements. <i>(Praktis yang dijalankan menyokong penambaaian operasi yang berterusan dan lestari.)</i>					
The organization applies knowledge and experience to develop operational processes. <i>(Organisasi menggunakan pengetahuan dan pengalaman untuk membangunkan proses operasi.)</i>					

Section 3.2: Economic Viability

Please answer all of the following questions.

Statement	1	2	3	4	5
The organization integrates social and environmental principles into its business strategy. <i>(Organisasi mengintegrasikan prinsip sosial dan alam sekitar ke dalam strategi perniagaannya.)</i>					
The organization assesses economic risks and opportunities to support sustainable development. <i>(Organisasi menilai risiko dan peluang ekonomi untuk menyokong pembangunan mampan.)</i>					
The organization fosters innovation and efficiency for long-term economic growth. <i>(Organisasi menggalakkan inovasi dan kecekapan pertumbuhan ekonomi jangka panjang.)</i>					
The organization supports activities related to economic viability. <i>(Organisasi menyokong aktiviti yang berkaitan dengan daya maju ekonomi.)</i>					

The organization improves processes or strategies for long-term economic viability. <i>(Organisasi menambah baik proses atau strategi demi daya maju ekonomi jangka panjang.)</i>					
The organization assesses and evaluates sustainable economic development. <i>(Organisasi menilai dan mengkaji pembangunan ekonomi yang lestari.)</i>					

Section 3.3: Social Responsibility

Please answer all of the following questions.

Statement	1	2	3	4	5
The organization engages employees for positive societal contributions. <i>(Organisasi melibatkan pekerja untuk menyumbang secara positif kepada masyarakat.)</i>					
The organizations collaborate with communities for sustainable development. <i>(Organisasi bekerjasama dengan komuniti untuk pembangunan mampan.)</i>					
The organization emphasizes human rights in its activities. <i>(Organisasi menekankan hak asasi manusia dalam aktiviti.)</i>					
The organization has social projects that impact the community's well-being. <i>(Organisasi mempunyai projek sosial yang memberi kesan kepada kesejahteraan komuniti.)</i>					
The organization ensures ethical hiring aligned with societal values.					

<i>(Organisasi memastikan pengambilan pekerja secara beretika selaras dengan nilai-nilai masyarakat.)</i>					
The organization supports impactful employee-driven social activities. <i>(Organisasi menyokong aktiviti sosial yang berimpak tinggi yang digerakkan oleh pekerja.)</i>					

Section 3.4: Environmental Stewardship

Please answer all of the following questions.

Statement	1	2	3	4	5
The organization has policies in place to encourage eco-friendly practice. <i>(Organisasi mempunyai dasar untuk menggalakkan amalan mesra alam.)</i>					
Organizations motivate and support environmental behaviour. <i>(Organisasi memotivasikan dan menyokong tingkah laku yang menjaga alam sekitar.)</i>					
The organization encourages employees to share their environmental experiences. <i>(Organisasi menggalakkan pekerja untuk berkongsi pengalaman mereka berkaitan alam sekitar.)</i>					
The organization assesses environmental responsibility's efficacy. <i>(Organisasi menilai keberkesanan tanggungjawab terhadap alam sekitar.)</i>					
The organization creates environmental responsibility plans and trains employees.					

<i>(Organisasi merangka pelan tanggungjawab terhadap alam sekitar dan melatih pekerja.)</i>					
Organizations environmental efforts affect workers. <i>(Usaha organisasi terhadap alam sekitar memberi kesan kepada pekerja.)</i>					
The organization monitors and advises on greener conduct. <i>(Organisasi memantau dan memberi nasihat mengenai amalan yang lebih hijau.)</i>					

Section 3.5: Governance and Ethic

Please answer all of the following questions.

Statement	1	2	3	4	5
The organization ensures ethical governance for sustainable business. <i>(Organisasi memastikan tadbir urus beretika untuk kelestarian perniagaan.)</i>					
The organization promotes transparent decision-making for compliance. <i>(Organisasi menggalakkan proses membuat keputusan yang telus demi pmatuhan.)</i>					
The organization supports collaborative operational practices. <i>(Organisasi menyokong amalan operasi yang bersifat kolaboratif.)</i>					
The organization encourages ethical conduct in business. <i>(Organisasi menggalakkan tingkah laku beretika dalam perniagaan.)</i>					

The organization prevents corruption by upholding integrity. <i>(Organisasi mencegah rasuah dengan menegakkan integriti.)</i>					
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Section 3.6: Integration and Alignment

Please answer all of the following questions.

Statement	1	2	3	4	5
The organization integrates social and environmental principles into its overall strategies and operations. <i>(Organisasi mengintegrasikan prinsip sosial dan alam sekitar ke dalam strategi dan operasi keseluruhannya.)</i>					
The organization aligns social and environmental goals with core business objective. <i>(Organisasi menyelaraskan matlamat sosial dan alam sekitar dengan objektif utama perniagaan.)</i>					
The organization instils social and environmental values into its organizational culture. <i>(Organisasi menerapkan nilai sosial dan alam sekitar dalam budaya organisasinya.)</i>					
The organization's methods encompass sustainability considerations in decision-making processes. <i>(Kaedah organisasi merangkumi pertimbangan kelestarian dalam proses membuat keputusan.)</i>					
The organization has a system to assess social and environmental sustainability outcomes.					

<i>(Organisasi mempunyai sistem untuk menilai hasil kelestarian sosial dan alam sekitar.)</i>					
The organization compiles reports on its social and environmental sustainability performance.					
<i>(Organisasi menyusun laporan mengenai prestasi kelestarian sosial dan alam sekitar.)</i>					

Section 3.7: Stakeholder Engagement

Please answer all of the following questions.

Statement	1	2	3	4	5
The organization employs methods to foster involvement and collaboration with stakeholders in decision-making process. <i>(Organisasi menggunakan kaedah untuk menggalakkan penglibatan dan kerjasama dengan pihak berkepentingan dalam proses membuat keputusan.)</i>					
The organization employs methods to establish confidence with stakeholders to support sustainable economic viability. <i>(Organisasi menggunakan kaedah untuk membina keyakinan dengan pihak berkepentingan bagi menyokong daya maju ekonomi yang lestari.)</i>					
The organization utilizes methods to jointly identify goals with stakeholders to support sustainable development. <i>(Organisasi menggunakan kaedah untuk mengenal pasti matlamat bersama dengan pihak berkepentingan bagi menyokong pembangunan mampan.)</i>					

The organization evaluates and adjusts the economic impacts of business decisions to foster long-term, sustainable economic viability. <i>(Organisasi menilai dan melaraskan kesan ekonomi daripada keputusan perniagaan bagi menyokong daya maju ekonomi jangka panjang yang lestari.)</i>					
The organization communicates openly with stakeholders to build trust and transparency. <i>(Organisasi berkomunikasi secara terbuka dengan pihak berkepentingan untuk membina kepercayaan dan ketelusan.)</i>					

Appendix B: Permission Letter for Organization

Fakulti Sains Kognitif dan Pembangunan Manusia
Faculty of Cognitive Sciences and Human Development

UNIMAS
UNIVERSITI MALAYSIA SARAWAK

UNIMAS/NC-16.03/04-13/01 Jld.43 (83)

08 Mei 2025

Dr Hana Hamidi
Dekan
Fakulti Sains Kognitif dan Pembangunan Manusia,
Universiti Malaysia Sarawak,
94300 Kota Samarahan,
Sarawak

Dr,

Permohonan Menjalankan Kajian/Soal Selidik Bagi Projek Tahun Akhir

Dengan segala hormatnya perkara di atas dirujuk,

Dengan ini disahkan bahawa pelajar Siti Nursuraya binti Md Lazim (72686) adalah pelajar **Program Pembangunan Sumber Manusia**, Fakulti Sains Kognitif dan Pembangunan Manusia, Universiti Malaysia Sarawak (UNIMAS). Beliau sedang menjalankan kajian untuk menyiapkan Projek Tahun Akhir bagi memenuhi syarat bergraduasi program tersebut.

Maklumat lanjut tentang pelajar dan kajian adalah seperti berikut:

Tajuk Kajian	: <i>"The Relationship Between Green Training & Development (T&D) And Organizational Sustainability"</i>
Penyelia	: Profesor Dr. Abd Halim bin Busari
No.Telefon Penyelia	: 082-581648/592687
E-mel Penyelia	: bhalim@unimas.my
No.Telefon Pelajar	: 013-3036937
E-mel Pelajar	: 72686@siswa.unimas.my

Sehubungan itu, sukacita kiranya pihak Dr dapat memberikan kerjasama kepada pelajar berkenaan untuk mendapatkan maklumat yang diperlukan. Segala maklumat yang diperolehi akan hanya digunakan untuk tujuan akademik semata-mata dan dijamin akan kerahsiaannya.

Di atas kerjasama yang diberikan oleh pihak Dr, kami dahului dengan ucapan setinggi-tinggi terima kasih.

Sekian,

Yang benar,



Julia Anak Clifton Akoi@Empadeng
Penyelaras
Program Pembangunan Sumber Manusia

Ketua Program Pendaftaran FSKPM

94300 Kota Samarahan, Sarawak
Tel + 60 92 581 578

Community Driven University For a Sustainable World

UNIMAS/NC-16.03/04-13/01 Jld.43 (81)

08 Mei 2025

Dr Kiky Kirana binti Abdillah
Dekan
Fakulti Sains Sosial dan Kemanusiaan,
Universiti Malaysia Sarawak,
94300 Kota Samarahan,
Sarawak

Dr,

Permohonan Menjalankan Kajian/Soal Selidik Bagi Projek Tahun Akhir

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