

The impact of green recruitment on environmental and social sustainability: Empirical evidence in Vietnam

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Abstract:

Green recruitment has been applied by many organizations around the world in selecting potential candidates suitable for recruitment positions and committing to long-term companionship with businesses, thereby contributing to building a national green workforce towards global green citizens. This study examines the effects of green recruitment on environmental and social sustainability in green business-oriented organisations in Vietnam. Research data were collected from 450 responses using survey questionnaires at 10 businesses in Vietnam. Through the linear regression analysis method on SPSS 22 statistical analysis software, the research results indicate that green recruitment affects environmental and social sustainability. Specifically, green recruitment has a positive impact on both environmental and social sustainability. This research is helpful in raising awareness among organisations to adopt green recruitment practices to benefit the organisation in all aspects. The research also provides policymakers with a better understanding of how to promote green recruitment practices and enhance sustainability in organisations. Consequently, organisations should establish and develop green recruitment processes to promote environmental and social sustainability.

Keywords: environmental sustainability, green human resources, green recruitment, social sustainability.

Classification numbers: 2.1, 2.2, 7

1. Introduction

Green recruitment is the process of recruiting and selecting candidates based on criteria for sustainable development, including economic efficiency, social responsibility, and environmental protection [1, 2]. Vultus Recruit's statistical report indicates that green recruitment is one of the recruitment trends in 2023. A recent survey conducted by Totaljobs (UK) on quarterly recruitment trends with 1,011 HR decision-makers showed that more than 1/5 (approximately 23%) of organisations are actively expanding their green workforce to address increased demand. For large corporations, this rate increases to more than 2/5 (approximately 43%). Foundit Insights Tracker's analytical data recorded a significant increase in the number of green job postings. It is forecast that by 2030, the need for green recruitment will increase year by year.

Green recruitment has a positive and significant impact on environmental performance, economic performance, and social performance [3]. Reports from the World Commission on Environment and Development (WCED) and the United Nations Conference on Environment and Development (UNCED) identified three components for sustainable development: (1) environmental protection, (2) economic growth, and (3) social equity. Additionally, Totaljobs' report analysing candidate organisational expectations noted that working for a sustainable organisation became a key motivator for employees, as most candidates express higher job satisfaction when working with a sustainable recruitment organisation. Regarding the sustainable development of the environment and society, the International Labour Organization (ILO), the United Nations Environment Programme (UNEP), and the United Nations Children's Fund (UNICEF) have launched initiatives to build green recruitment processes in organisations through

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the Green Jobs for Youth Compact, which aims for a just transition to build sustainable economies and create meaningful opportunities for adolescents by 2030.

In recent years, worldwide research related to aspects of green human resource development in general, and green recruitment in particular, has received increasing attention. In Vietnam, research topics on green recruitment are relatively few in both quantity and quality. Therefore, this study will explore green recruitment and its impact of green recruitment on environmental and social sustainability. Within the scope of this article, we will focus on answering two questions: (1) Does green recruitment have an impact on environmental and social sustainability? (2) How does green recruitment impact environmental and social sustainability? To clarify, in terms of research layout, the study is divided into six parts. The theoretical basis is presented after the introduction. Part 3 constructs the model and research hypotheses. Part 4 provides a description of the research data sample collection and analysis process. The research results and discussion are presented in Part 5. Conclusions and policy implications are presented in Part 6. This research article on the impact of green recruitment on environmental and social sustainability was conducted not only to contribute theoretical value in terms of referencing academic documents but also to provide practical value to the green development orientation in organisational recruitment work, moving towards a quality green workforce.

2. Theoretical background

2.1. Concept of green recruitment

Originating from traditional recruitment, “green recruitment” gradually formed and now plays an increasingly important role in the economy [2, 3]. Green recruitment is the process of attracting and recruiting candidates with green knowledge, skills, and values [2]. In many countries, green recruitment is established in the centralised recruitment system as a crucial element of the organisation’s personnel recruitment policy. Typically, some companies in Germany, such as Siemens, BASF, Bayer, and Mannesmann, use environmental activities and green images to attract and retain high-quality personnel.

Green recruitment is a paperless recruitment process with minimal environmental impact [3]. Recruitment using traditional paper-based tests is gradually being replaced by computer-based exams through various methods. These methods integrate and combine assessments of a candidate’s thinking ability, professional knowledge, working skills, professional experience, and personality.

According to the Human Resource Management Institute (HRMI), green recruitment is defined as the process of recruiting individuals with knowledge, skills, approaches, and behaviours consistent with the environmental management system within an organisation [4]. Recruitment activities can support effective environmental management by ensuring that new entrants are familiar with the organisation’s environmental culture, are aware of the company’s environmental policies, and are loyal from the beginning of their employment, thereby upholding the organisation’s environmental values.

In other words, green recruitment is a process of identifying, assessing, and confirming (if necessary) a candidate’s thinking, values, and sensitivity to environmental issues. In terms of evaluation criteria, green recruitment is a method to select candidates with attitudes, behaviours, knowledge, and skills suitable for an organisation’s environmental management (Fig. 1) [5]. This process seeks competent individuals based on criteria and principles associated with environmental protection activities, aiming to select candidates who are highly conscious and responsible for jobs related to the environment.

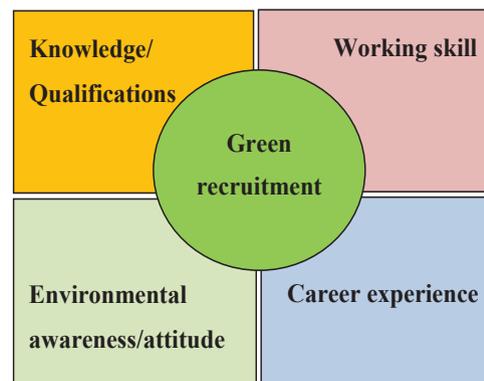


Fig. 1. Criteria framework for green recruitment. Source: Author’s compilation.

In general, green recruitment is considered an effective method of attracting potential candidates to apply for organisational vacancies, helping manufacturing companies easily hire employees with the necessary awareness of environmental conservation, sufficient knowledge to approach basic issues of environmental sustainability, and the skills for activities related to recycling, reusing, and minimising emissions.

2.2. The role of green recruitment

In the context of globalisation and sustainable development, organisations are increasingly interested in recruiting environmentally conscious personnel. Green recruitment plays a significant role in green human resource management [6]. An emerging trend in recruitment is that organisations are looking for candidates with an environmentally friendly mindset [7]. Besides the increasing demand for green products and services, businesses are increasingly invested in sustainable development and developing green human resources policies. Green recruitment helps select candidates who are conscious of environmental and social protection, thereby helping organisations improve environmental emissions, use energy effectively, reduce waste, and raise environmental awareness within the organisation [8]. For example, JSW Group, one of India's largest multinational corporations with strong commitments to sustainable development, has built a green production, green business, and green office strategy to create an environmentally friendly working environment. JSW Group recently applied a subsidy policy for employees to buy electric vehicles to encourage the use of electric vehicles, public transportation, recycling, and energy-saving in daily activities, a policy previously implemented by Google.

Green recruitment positively impacts business performance, supports sustainable economic growth, and reduces environmental impact [2]. Simultaneously, green recruitment helps organisations attract individuals with green behaviours [9]. Organisations that establish an environmentally sustainable human resource management assessment framework

support green recruitment. Conversely, green candidates also choose organisations committed to sustainable environmental management [10]. There is a positive relationship between green recruitment, environmental sustainability, and social sustainability in manufacturing companies [11]. Green recruitment positively impacts employee performance [12]. Adopting green recruitment enhances employee flexibility within the organisation through adaptive capacity and sensitivity to environmental and social sustainability [13, 14].

Success depends on taking positive steps towards "making the world a better place". Both consumers and employees are increasingly looking to brands to take action on social and environmental change. Most candidates are increasingly concerned about the "green reputation" of businesses [14]. Previously, businesses focused heavily on financial potential, but now a green reputation is a bright spot that attracts potential candidates. From awareness and thinking to action, green recruitment impacts the candidate's green behavioural value system [15].

Green recruitment positively impacts the circular economy [16, 17]. Developing a circular economy is included in many countries' development goals to create positive value cycles by increasing resource use efficiency at each stage of the product life cycle, reducing environmental impact, and enhancing human well-being. Green recruitment promotes sustainable activities between businesses and candidates [5, 18, 19]. There is a strong correlation between an organisation's financial performance and implementing green hiring practices. Well-managed green recruitment efforts bring profits to businesses [18]. Typically, green recruitment and green training significantly impact employee performance [19]. From a management perspective, green recruitment improves organisational management performance and contributes to increased sustainability. A statistical report by Blackrock Global Investment on the financial performance of businesses during the pandemic indicates that organisations with better environmental, social, and governance (ESG) records outperform their contemporaries.

Positive economic change can be achieved at a national scale by encouraging businesses to apply green policies in recruitment [8, 19]. The ILO forecasts that green job growth will be insufficient to meet the growing labour force in emerging and developing countries. Recent Manpower statistics show that while nearly 8 out of 10 organisations have developed sustainable green strategies, 94% still lack the necessary skills to realise their goals. Joanna Bonnett, Head of Sustainability and Corporate Treasury at PageGroup and Founder of the Green Jobs Foundation, noted that from 2022 to 2023, the proportion of green hires in the workforce increased by 12.3%, while the proportion of hires requiring at least one green skill increased by 22.4%, indicating that demand will exceed supply by 2026.

Previously attractive fields such as information technology, finance, and banking now face competition from green jobs due to high salaries. Indeed's statistical report indicates that salaries for global green jobs range from USD 45,000 to 100,000 per year. According to Talent.com, the average salary in October 2023 for green personnel in Canada was USD 51,250 per year or USD 26.28 per hour. Entry-level positions have a starting salary of USD 37,781 per year, while most experienced workers earn up to USD 120,602 per year. Along with relatively high salaries, green employees enjoy many accompanying welfare policies. However, the demand for green recruitment is only available for certain occupations aimed at protecting the environment, such as renewable energy and green technology [19].

In Vietnam, Decision No. 687/QĐ-TTg on approving the circular economy development project clearly states the task of building mechanisms and policies to attract and use investment and develop human resources by 2030, vision 2050 [20]. To achieve this goal, strengthening green human resources based on criteria is extremely necessary.

Green recruitment development, in particular, and green human resource development, in general, are increasingly receiving attention and becoming a trend in most countries [21]. Green recruitment is the first

approach and, in the long term, will be the foundation to support human resource development and green jobs. Additionally, individuals and organisations, especially managers, should consider establishing green recruitment processes and ensure that environmentally conscious employees are brought into the organisation. Green recruitment not only helps businesses attract talented candidates but also contributes to environmental and social sustainability. By recruiting environmentally and socially conscious employees, organisations can minimise their negative impact on the environment, building a healthy and sustainable social environment.

2.3. Theoretical framework

Green recruitment and selection practices are key components in the management and development of green human resources in any organization [22]. According to D. Sujata, et al. (2023) [23], green recruitment and selection have an impact on the sustainability of the organization. Additionally, numerous studies have shown that green recruitment and selection have a positive impact on an organization's environmental performance [24, 25].

On the other hand, green recruitment has a positive impact on business performance, supporting sustainable economic growth and reducing environmental impact [2, 6, 12]. Developing green recruitment is both a social need and a means of promoting sustainable economic development. Green recruitment helps raise awareness of environmental protection, contributing to forming a green society with sustainable development. Economically, green recruitment helps businesses improve operational performance, minimise environmental impact, and promote sustainable economic development. Green recruitment also helps businesses attract and recruit high-quality personnel who share the same values and vision as the business. However, some recent studies find that corporate social responsibility (CSR) towards the environment does not influence the link between tax avoidance and corporate sustainability performance [26, 27].

Green recruitment is an assessment trend that helps select candidates who meet the criteria of green personnel [15, 18]. Below is a proposed framework for a green recruitment process in candidate selection (Table 1).

Table 1. Green recruitment process in the organisation.

Process	Content details
Green resource planning	Select strategies to meet forecasted staffing needs (internal recruitment, transfers, or new recruitment). Make a forecast of the number and type of employees needed to recruit.
Green screening plan	Verify the candidate's background to check history related to environmental activities. Check the achievements and awards won to deduce the candidate's capacity and green potential. Check the candidate's statements about sustainable practices (if any). Use LinkedIn and online job portals as external sources to identify candidates and use applicant tracking systems to organize resumes and determine the best fit for the organization.
Green job descriptions	Green recruitment criteria: - Knowledge: Choose candidates with basic knowledge about green jobs. - Skills: Priority is given to candidates who have participated in green activities and careers. - Awareness/Attitude: Looking for candidates with a personal commitment to environmental sustainability. - Experience: Select candidates with environmental knowledge who have participated in green initiatives and related green jobs before. Consider candidates' environmental concerns and interests as selection criteria. Require applicants to be environmentally responsible in preparing application documents.
Green interview plan	Include questions related to environmental aspects in the interview process to evaluate whether the candidate is suitable for the business or not? During the selection process, employers incorporate reflection on environmental issues raised during the interview to verify the candidate's sensitivity and fit with the company's perspective.
Green probation plan	Confirm acquired green competencies and qualities such as environmental knowledge and green attitude during the probationary process.
Green assessment plan	Observe candidate behaviour during the assessment process to determine the candidate's environmentally friendly attitudes and values. Make environmental responsibilities and qualifications part of the job role.
Green selection plan	The process of hiring candidates who have green consciousness, conscientiousness, and agreeableness.

Source: Author's compilation.

Recognising the gap in existing research, the author aimed to conduct a study to clarify the impact of green recruitment on environmental and social sustainability in the Vietnamese context.

2.4. Hypothesis development

The impact of green recruitment on environmental sustainability

Besides enhancing employee performance, green recruitment has a positive influence on perceptions of environmental sustainability [28]. Environmental sustainability is a conscious effort and responsive interaction with the environment to conserve natural resources through the development of alternative energy sources, reducing pollution or any negative impacts that may erode environmental quality.

Green recruitment is not only a way to attract and recruit talent but also a means to demonstrate a business's commitment to the environment [18, 28]. In green recruitment, organisations use technology to reduce paperwork, which is an environmentally friendly action and solution. Green recruitment is a critical concern in discussions about environmental sustainability. A healthy and sustainable working environment will encourage and create conditions for employees to engage in environmental protection activities [29].

Green recruitment helps raise awareness of candidates and the community about the importance of sustainable environmental development [3, 6, 29]. When candidates know that businesses care about sustainable environmental commitments, they will tend to pay more attention and actively contribute to the development of the corporate environment. Recruitment trends of organisations will increasingly look for candidates who are conscious of environmental protection. In addition to the concern of individuals in the community, environmental protection is recognised as an important strategy in green recruitment, especially in large corporations such as McDonald's, General Electric, Google, and Microsoft.

Hypothesis 1: Green recruitment has a positive impact on environmental sustainability.

The impact of green recruitment on social sustainability:

Green recruitment has implications for social sustainability [30]. Social sustainability is an essential component of economic growth and poverty reduction. It is seen as a fundamental and core principle that must be achieved before addressing environmental sustainability concerns.

Green employee behaviour and CSR have facilitated improved corporate sustainability performance [20]. Implementing green projects and transparently disclosing information about emissions reduction activities not only makes businesses more attractive to employees, investors and customers, but also improves their employer brand, attracting more potential candidates. Based on survey results from the British Carbon Trust, more than 75% of employees expressed a desire to work with organisations that have strong carbon emission reduction strategies.

Nowadays, businesses do not simply provide a quality product or service but need to look further. The relationship between CSR and corporate sustainability performance is moderated by green capabilities. In addition to creating a positive image for the business in the eyes of partners and customers, green recruitment is also meaningful in attracting talented people who are highly conscious and responsible for the environment [31]. Many studies show that employees tend to stay long-term with businesses that have good environmental protection policies. Additionally, green recruitment will help businesses increase employee retention and bring higher profits. From the recruitment and training process of human resources, when green recruitment is done well, it creates favourable conditions for subsequent stages in the organisation,

including green training and development, towards the participation of green personnel.

Green recruitment positively impacts the social sustainability of manufacturing organisations. Green recruitment activities are aligned with the CSR goals of businesses. Corporate sustainability is the transformation of CSR and corporate citizenship to define fair and ethical corporate practices [32]. To transition to green production and business activities, organisations require the recruitment of green staff who are aware of social sustainability, especially for older employees [33].

Recruitment activities in green human resource management impact social sustainability through green innovation, green culture, and green employee behaviour [34]. Green recruitment helps organisations attract and recruit employees who share common values with sustainable social development. These employees will actively contribute to building a sustainable working environment, including minimising environmental impact, protecting the health and well-being of workers, and promoting equality and inclusion.

Hypothesis 2: Green recruitment has a positive impact on social sustainability.

3. Research model and hypothesis

3.1. Research model

Based on previous studies by B.L. Don, et al. (2021) [11], and T.M. Fapohunda, et al. (2022) [14], the author designed a research model. Specifically, the research model is shown in Fig. 2.

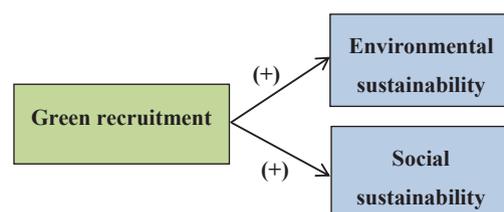


Fig. 2. Research model. Source: Author's research model.

First of all, it is necessary to define that green recruitment is different from green selection. The similarity between green recruitment and selection are both activities to look for candidates with green thinking makes it easier for companies to hire professionals who are knowledgeable about sustainable processes, familiar with basics like recycling, conservation and creating a more equitable world. However, there are fundamental differences between green recruitment and green selection. While green selection is the process of selecting people with green systems behaviors, knowledge, and skills within an organization, green recruitment involves selecting and hiring individuals with knowledge, abilities, skills, and attitudes that are compatible with a particular organization's environmental management system [18]. In this study, the author only focuses on evaluating the impact of green recruitment on environmental and social sustainability.

In addition, there are two forms of employment that organisations often choose to recruit employees, including: permanent recruitment and temporary jobs [35]. According to N. Goetz, et al. (2022) [35], permanent recruitment is a form of recruitment in which the organization seeks candidates to become official employees of the organization, work long-term and have a stable position in the organization. In terms of labor welfare, green recruits are signed with long-term labor contracts, with indefinite or long-term terms. In addition, employees enjoy all the benefits prescribed by the organization. Unlike permanent recruitment, temporary jobs are a form of recruitment in which the organization seeks candidates to work for a certain period of time, which can be a few weeks, a few months and usually less than a year. Temporary jobs serve the purpose of meeting the organization's short-term human resource needs, such as special projects, replacing employees on leave,... In some cases, temporary jobs are used for trial work before deciding to officially recruit. The green recruitment process in this study is understood as permanent recruitment.

3.2. Research hypothesis

Through the research model and arguments about the impacts of green recruitment related to environmental and social sustainability, the study proposes two research hypotheses as follows:

H_0 : Green recruitment has a positive impact on environmental sustainability.

H_1 : Green recruitment has a positive impact on social sustainability.

4. Research methods

4.1. Research data

Data used in the study were collected through survey questionnaires conducted at 10 enterprises with green recruitment policies in Vietnam, including: Vietnam Dairy Products Joint Stock Company (Vinamilk), Nestlé Vietnam Ltd., C.P. Vietnam Livestock Corporation, Coca-Cola Beverages Vietnam Ltd., TNG Investment And Trading JSC, Dau Tieng Rubber Corporation (DRC), Phu Nhuan Jewellery Joint Stock Company (PNJ), Imexpharm Corporation (IMP), Vietnam Joint Stock Commercial Bank for Industry and Trade (Vietinbank), and Saigon Thuong Tin Commercial Joint Stock Bank (Sacombank). According to preliminary assessment, these are enterprises that have had green human resource development policies in the last 3 years in Vietnam. Therefore, the author decided to choose these enterprises to represent research data.

For example, Vinamilk, a leading enterprise in Vietnam in the food and beverage industry, has made a long-term and challenging commitment: "Net Zero 2050 - Net Zero Emissions". By 2050, sustainability will no longer be a choice but a necessity for businesses. Accordingly, Vinamilk determined that the fastest and best way to transform green is to raise the awareness of the entire staff. When all employees proactively practice green transformation, Vinamilk's sustainable development goals will be quickly achieved. To

select good personnel for the business, Vinamilk has focused on two key activities: recruitment and training and development. In terms of recruitment, Vinamilk’s human resources management team has organised a strict recruitment process, prioritising factors related to environmental awareness/attitude, and is committed to aligning with the business’s sustainable development goals. In terms of training and development, Vinamilk has continuously developed internal training courses since 2012 with a commitment to building and developing a “Brand attached to the community”. Specifically, in Vinamilk’s 2023 sustainable development report “We care we do Net Zero 2050”, Vinamilk recorded ten annual training classes for workers to raise awareness of animal welfare, with 100% of workers in all farms participating in periodic training classes (Table 2). Currently, Vinamilk has three farms that meet EU Organic standards certification, three green farms following the ecological farm model, and 100% of farms strictly comply with GlobalGAP standards [36].

Table 2. Vinamilk’s training and development indicators.

Training	2021	2022	2023
Number of training courses organised	585	584	523
Number of participants in training courses	25,267	28,101	30,221
Average training hours			
Management	26.5	24.1	31.1
Staff	41.1	40.3	49.1
Male	42.1	41.1	50.5
Female	33.5	32.4	39.0

Source: Vinamilk’s 2023 sustainable development report.

4.2. Design a survey table

Referring to the questionnaire content in previous research by B.L. Don, et al. (2021) [11], the author set up a survey for the study on an adjusted basis, specifically as follows (Table 3):

Table 3. Survey questionnaire.

Factor	Observed variables	Original content	Edited content
Green recruitment	GR1	This company aids an environmentally harm-free exercise in the conduct of its recruitment/selection practices.	The organisation supports environmentally sound practices in conducting its recruitment activities.
	GR2	This company attracts and hires candidates with knowledge, skills, and behaviours that conform to environmental management.	The organisation attracts and recruits candidates with knowledge, skills, and behaviours appropriate to environmental management.
	GR3	Selecting applicants who are sufficiently aware of greening to fill job vacancies.	The organisation selects candidates with enough awareness about greening to fill job vacancies.
Environmental sustainability	ES1	The organisation possesses environmental policies tied to its strategic planning, management, and processes.	The organisation has environmental policies embedded in its strategic planning, management, and processes.
	ES2	The organisation seeks environmental quality throughout its productive.	The organisation seeks environmental quality throughout the production process.
	ES3	Environmentally harm-free practices are encouraged throughout the production process to sustain sustainability.	Environmentally friendly practices are encouraged throughout the production process to maintain sustainability.
Social sustainability	SS1	My organisation considered the basic values of equity, namely: education, quality of life, social capital, and sense of place within and outside the organisation.	The organisation considers the fundamental values of equity oriented towards education, quality of life, social capital, and sense of place within and outside the organization.
	SS2	My organisation provides basic needs which focus on physical aspects of society and human life, such as health, housing and food.	The organisation provides basic needs that focus on the material aspects of society and human life such as health, services, housing, and food.
	SS3	We give the highest priority and support to social homogeneity and access to goods within the host communities.	The organisation gives the highest priority and support to social uniformity and access to goods and services in the community.

Source: Author’s survey table.

4.3. Analytical methods

The research method employed a combination of qualitative and quantitative methods as follows:

Qualitative method: The study applies a Likert scale with five levels of assessment (1: Strongly disagree; 2: Disagree; 3: Neutral; 4: Agree; 5: Strongly agree). The subjects selected for the qualitative research survey are middle-level managers at businesses.

Quantitative method: The study uses a quantitative analysis method, including Cronbach’s Alpha analysis to test the scale, and EFA exploratory factor analysis to group and eliminate variables. A regression function is used to evaluate the impact between the independent variable and the dependent variable.

4.4. Research sample

Research data were collected from survey forms. Specifically, out of a total of 500 surveys sent in March 2024, 477 surveys were returned. Twenty-seven surveys were removed for various reasons, such as unclear markings, continuous identical answers, incomplete answers, or no responses. The final result was 450 valid responses for research data analysis.

When applying EFA exploratory factor analysis, according to J.F. Hair, et al. (2009) [37], the minimum sample size must be 100 or more. Additionally, the number of observed variables, also known as sample size, in determining sample size for regular EFA factor analysis must be at least five times the number of variables in factor analysis. On the other hand, according to S.B. Green (2016) [38], the sample size for performing linear regression and evaluating the general model through R2 and F-test needs to be at least $50 + 8 \cdot m$, where m is the number of independent variables.

The number of valid survey samples after screening, used as data for the study, is 450. The survey model in this study includes two independent factors and nine observed variables, indicating that the necessary number of samples according to J.F. Hair, et al. (2009) [37] and S.B. Green (2016) [38] is 100 or more to

run regression data. Overall, the 450 samples in this study are appropriate and ensure the reliability of the research sample. Details of the survey data are shown in Table 4.

Table 4. Survey rates at 10 Vietnamese enterprises.

Company's Name	Field of operations	Number	Percentage (%)
Vietnam Dairy Products Joint Stock Company (Vinamilk)	Food and Beverage industry	43	9.56
Nestlé Vietnam Ltd.	Food and Beverage industry	41	9.11
C.P. Vietnam Livestock Corporation	Industrial Food Animal Production	36	8
Coca-Cola Beverages Vietnam Ltd.	Food and Beverage industry	50	11.11
TNG Investment and Trading JSC	Garment industry	48	10.67
Dau Tieng Rubber Corporation (DRC)	Rubber industry	37	8.22
Phu Nhuan Jewellery Joint Stock Company (PNJ)	Jewellery retail industry	50	11.11
Imexpharm Corporation (IMP)	Pharmaceutical industry	45	10
Vietnam Joint Stock Commercial Bank for Industry and Trade (Vietinbank)	Banking industry	50	11.11
Saigon Thuong Tin Commercial Joint Stock Bank (Sacombank)	Banking industry	50	11.11

Source: Data collected by the author.

5. Research analysis

5.1. Cronbach's alpha

Before entering into exploratory factor analysis, the study tested the scale using the Cronbach’s alpha tool in SPSS software to assess the reliability of the component scales in the research model. After processing the scales and testing Cronbach’s alpha, the results are as follows (Table 5):

Table 5. Cronbach’s alpha test.

“Green recruitment” scale. Cronbach’s alpha: 0.888				
	Scale mean if item deleted	Scale variance if item deleted	Corrected item-total correlation	Cronbach’s alpha if item deleted
GR1	18.59	9.518	0.693	0.871
GR2	18.57	9.536	0.699	0.870
GR3	18.57	9.294	0.694	0.871
“Environmental sustainability” scale. Cronbach’s alpha: 0.818				
	Scale mean if item deleted	Scale variance if item deleted	Corrected item-total correlation	Cronbach’s alpha if item deleted
ES1	8.19	1.889	0.687	0.736
ES2	8.17	1.831	0.673	0.748
ES3	8.24	1.781	0.657	0.767
“Social sustainability” scale. Cronbach’s alpha: 0.761				
	Scale mean if item deleted	Scale variance if item deleted	Corrected item-total correlation	Cronbach’s alpha if item deleted
SS1	8.26	1.710	0.623	0.654
SS2	8.25	1.570	0.592	0.680
SS3	8.43	1.521	0.571	0.709

Source: Data analysed via SPSS 22.

In general, the variables in the research model are all reliable scales, with Cronbach’s alpha values greater than 0.6. Additionally, based on the results of EFA exploratory factor analysis, the average grouping of variables command is used to group variables that meet the requirements with factor loading coefficients (factor loading >0.5) into three factors: GR, ES, and SS.

5.2. Regression analysis

Test hypothesis 1:

H₀: Green recruitment has a positive impact on environmental sustainability.

The result in Table 6 shows that the value of the Durbin-Watson coefficient is 1.319, which is in the acceptable range from 1 to 3, indicating no correlation

Table 6. Durbin-Watson test and ANOVA analysis.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	F	Sig.
1	0.028 ^a	0.037	0.026	0.10302	1.319	10.184	0.000
2	0.177 ^a	0.031	0.025	0.62716	2.239	3.613	0.001

Source: Data analyzed via SPSS 22.

Table 7. Regression results.

Model	Dependent variable	Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	Beta		
1	ES	0.010	0.022	0.009	0.475	0.000
2	SS	0.017	0.017	0.013	0.994	0.001

Source: Data analyzed via SPSS 22.

between the residuals [39]. Thus, the assumption of no correlation between residuals is not violated. Results from the ANOVA analysis of variance table with sig.=0.000 (<0.05) show that the built multiple linear regression model is suitable for the data set and can be used.

The regression results in Table 7 show that the Sig. value of the ES variable is less than 0.05. Therefore, with a significance level of 5%, it can be concluded that the independent variable GR (Green Recruitment) influences the dependent variable ES (Environmental Sustainability).

Test hypothesis 2:

H₁: Green recruitment has a positive impact on social sustainability.

The result in Table 6 shows that the value of the Durbin-Watson coefficient is 2.239, which is in the acceptable range from 1 to 3, indicating no correlation between the residuals [34]. Thus, the assumption of no correlation between residuals is not violated. Results from the ANOVA analysis of variance table with value sig.=0.001 (<0.05) show that the built multiple linear regression model is suitable for the data set and can be used.

The regression results in Table 7 show that the Sig. value of the SS variable is less than 0.05. Therefore, with a significance level of 5%, it can be

concluded that the independent variable GR (Green Recruitment) influences the dependent variable SS (Social Sustainability). The Variance Inflation Factor (VIF) coefficient of independent variables (common limit $1/VIF$), tolerance value is 0.10, equivalent to a VIF value of 10. This value must be less than 10; if greater, the risk of multicollinearity is high. According to the multiple regression results, there is no multicollinearity phenomenon [40].

5.3. Results and discussion

Through the regression results, we have the following hypothesis testing results (Table 8):

Table 8. Results of testing research hypotheses.

Symbolise	Hypothesis	Result
H_0	Green recruitment has a positive impact on environmental sustainability.	Accept
H_1	Green recruitment has a positive impact on social sustainability.	Accept

Source: Statistics from research results.

The study found answers to two research questions. First, the impact of green recruitment is statistically significant on environmental and social sustainability. Second, green recruitment has a positive impact on environmental sustainability and social sustainability. Although there are differences in research space and time, the research results align with previous studies by B.L. Don, et al. (2021) [11] and T.M. Fapohunda, et al. (2022) [14]. Despite differences in research contexts, studies consistently show significant and positive impacts of green recruitment on environmental and social sustainability.

Moreover, this research contributes significantly to the literature. The novelty of the research lies in the fact that there are not many studies on green recruitment in Vietnam, especially quantitative research. The results provide evidence about the impact of green recruitment on social and environmental responsibility in Vietnam and suggest solutions to develop green recruitment in the context of deep global economic integration. The significance of the research results increases awareness of the benefits of green recruitment

concerning corporate responsibility, in both social and environmental aspects. Overall, the research results will impact business practices and policy development in Vietnam in the future.

6. Conclusions and policy implications

Research indicates that green recruitment positively impacts environmental and social sustainability. Green recruitment is an important solution contributing to the sustainable development of society. Organisations interested in green recruitment will orient production and business development towards environmental and social sustainability.

The uniqueness of the research lies in exploring the impact of green recruitment on the goal of sustainable business development, a very new research topic in Vietnam. Except for some large-scale and/or listed businesses, most businesses in Vietnam have not approached green recruitment. Small and medium enterprises often do not pay enough attention to sustainable development, particularly environmental and social sustainability issues. Many business managers are not clearly aware of the long-term value that green recruitment brings, and related policies for green development from state agencies are not particularly attractive. The research results are important empirical evidence for state agencies and organisations to proactively implement green recruitment in businesses, contributing to promoting the development of the national green economy.

First, most organisations and businesses need to prepare for tasks related to green recruitment development. Regarding state agencies, the government and relevant sectors need to focus on building development policies for green recruitment. In the national green growth action plan for the period 2021-2030, developing human resources and green jobs is one of the important tasks outlined in Decision No. 882/QD-TTg [41]. Organisations and businesses should develop green job descriptions and establish specific criteria for green candidates. Such descriptions

will actively support the search and selection of candidates with an awareness of green knowledge, skills, and attitudes. Businesses need to clearly state their commitments to environmental protection during the recruitment process, specifically through recruitment newsletters that highlight environmental protection knowledge. This demonstrates the desire to find candidates with abilities and qualities suitable for green recruitment needs. Besides green recruitment criteria, businesses also need to establish green training standards. For example, analysing training needs to identify environmentally friendly training types, encouraging employees to create green, safe, energy-saving workspaces. Individuals should proactively equip themselves with green knowledge and skills suitable for their jobs, with the most important aspect being awareness of environmental protection to become truly green personnel.

Second, organisations need to change from awareness, thinking to action through lifestyle activities and daily work organization to create a “transformation” in green recruitment policies in those organisations. In terms of awareness, leaders and management teams of organisations and businesses need to understand the importance of green recruitment for sustainable development. Green recruitment helps organisations attract and recruit high-quality personnel, contributing to building a healthy working environment and promoting environmental protection activities within businesses and the community. In terms of thinking, organisations and businesses. Therefore, organisations must change their mindset about green recruitment from focusing only on candidates’ professional qualifications to paying more attention to environmental factors such as candidates’ views, attitudes and actions towards protecting the environment in general.

Third, in addition to changing mindsets, organisations must also implement appropriate and effective operational policies when implementing green recruitment. First of all, organisations determine

green recruitment criteria that are consistent with the business’s sustainable development goals and strategies, building. Accordingly, build a green recruitment process with steps such as green source planning, green screening plan, green job description, green interview plan, green probation plan, green assessment plan, and green employee orientation plan (if the employee is selected). Furthermore, promoting awareness of green recruitment among employees and candidates is essential. Businesses should also develop and implement green welfare policies and incentives for green activities among employees. These measures will help businesses attract and select candidates with high awareness and responsibility for environmental protection, contributing to sustainable development.

The study still has limitations. First, research on green recruitment is quite new in Vietnam, with few published studies related to green recruitment, especially concerning its impact on social and environmental responsibility. Therefore, the theoretical basis for evaluating businesses in Vietnam is limited. Second, the research data were collected from 10 businesses in Vietnam. A broader or more in-depth sample size across different industries or regions in Vietnam could provide a more comprehensive view of the impact of green recruitment on environmental and social sustainability. Future studies could focus on specific industries. Third, the research only focuses on the impact of green recruitment on two aspects: environmental sustainability and social sustainability. In reality, green recruitment can impact many other areas such as local culture and economic cooperation. Lastly, different businesses may face unique challenges or advantages in implementing green recruitment. Subsequent research should consider these differences to analyse, compare, and identify the impacts on each business.

COMPETING INTERESTS

The author declares that there is no conflict of interest regarding the publication of this article.

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