THE RELATIONSHIP BETWEEN GREEN HUMAN RESOURCE MANAGEMENT AND LABOR PRODUCTIVITY IN TEXTILE AND GARMENT COMPANIES IN VIETNAM

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ABSTRACT

After the Covid-19 pandemic, environmental factors have received increasing attention from textile and garment companies through green human resource management (GHRM) practices. Previous studies have clarified the role of GHRM in promoting corporate sustainability, yet there remains a gap in determining whether GHRM contributes to improving labor productivity. The objective of this paper is to explore the relationship between green human resource management and labor productivity in textile and garment enterprises in Vietnam, based on the foundational AMO theoretical framework proposed by (Bailey,1993). The dataset was collected by the author through an online survey via Google Drive, conducted between February 2025 and June 2025. A total of 145 valid responses were obtained and used for econometric model testing and analysis. The results indicate that green employee motivation has a positive impact on labor productivity. Based on the empirical findings, the author refines the theoretical framework and proposes solutions to help textile companies enhance labor productivity through green human resource management practices.

1. INTRODUCTION

Green human resource management is a new concept developed according to the trend of business activities of enterprises associated with environmental protection activities. It is a concept started in the early 1990s proposed by Wehrmeyer (1996), a concept perfected in his and his colleagues' research in 2017 (Wehrmeyer, 2017). Basically, green governance is associated with strategies, policies, and implementation plans on recruitment, training, evaluation, payroll, and labor relations,... related to environmental factors. In recent years, the issue of protecting the living and working environment has emerged as an urgent problem to be solved. This issue has created more pressure and motivated business organizations to develop and adopt green management by adopting environmentally friendly processes and practices (Chaudhary, 2020). To achieve this standard, many businesses have implemented a governance system that is tied to environmental activities. This system is a valuable key to achieving sustainable development in the context of a completely new global economy. Environmental management has been included in several departments, such as operations, finance, marketing and other departments.

Human resource management is the activity responsible for activities such as recruiting, training, evaluating, and rewarding the workforce to ensure the sustainable development of the business as well as the satisfaction and engagement of employees. People are the most asset in an organization, the work of attracting and selecting people with qualities and abilities suitable for positions in the organizational apparatus is the most important task of human resource managers today. That role has become increasingly important as researchers have invented a new theoretical framework called AMO (Competencies, Motivations, and Opportunities), a framework built by researchers (Bos-Nehles, Van Riemsdijk, & Kees Looise, 2013). Indeed, studies indicate that employees working in enterprises need to have all three qualities or at least one AMO factor that affects work performance, or the intention to maintain and develop work (Bailey, 1993). (Boxall, Purcell, & Wright, 2007).

In Vietnam, the textile and garment industry is a specialized sector, aiming to meet customer needs for fashion and clothing. Modern industrial production lines generate a wide range of garments and fashion products using sewing technologies that satisfy both quality and aesthetic demands. As a major contributor to export growth, the textile and garment industry plays a crucial role in economic development and provides employment opportunities for thousands of workers. In 2023, Vietnam's textile and garment industry ranked among the country's top four key export sectors, with an export turnover of USD 39.7 billion, accounting for over 11% of the national export revenue. Currently, the industry includes around 7,000 active enterprises, ensuring jobs for more than 3 million direct workers, not to mention related sectors and supporting industries. Therefore, transitioning to green production in this sector will generate numerous sustainable green jobs, improving workers' livelihoods, enhancing work quality, and contributing to national social welfare efforts. By 2024, the textile and garment industry had reached USD 44 billion in sales, marking an 11% growth and positioning Vietnam as the world's second-largest textile exporter, behind China and ahead of Bangladesh. However, one of the industry's biggest limitations is that it is also one of the most polluting industries globally. The supply chain consumes vast amounts of resources and chemicals, generating large volumes of waste and toxic substances that pollute air, water, and soil. The global textile industry's annual carbon emissions over the fashion product life cycle (around 3.3 billion tons of CO_2) are nearly equivalent to the emissions of all 28 EU countries combined (3.5 billion tons). In addition to consuming significant resources, the textile industry accounts for 5% of the world's total waste volume. Environmental impacts occur at varying intensities across different stages of the textile product life cycle, with producers and consumers playing different roles in product creation and usage. Consumers have the most direct and significant impact during the use and disposal stages. As a result, Vietnamese regulatory authorities have implemented timely policies to strike a balance between economic growth goals and environmental protection.

The National Green Growth Strategy 2012, the National Green Growth Strategy for the period 2021–2030, with a vision to 2050, the National Action Plan on Green Growth for the period 2014–2020, and the National Action Plan on Green Growth for the period 2021–2030 are Vietnam's key policies aimed at fulfilling its commitment to achieving net-zero emissions by 2050, as pledged at COP26. As a result, over the past decade, Vietnam has made significant progress and achieved notable accomplishments in implementing the green growth strategy. The country's strong commitment to green growth has elevated its international standing, attracted foreign investment, and strengthened partnerships with international stakeholders. Between 2017 and 2021,

approximately USD 9 billion in foreign direct investment (FDI) was mobilized into green sectors in Vietnam, focusing mainly on renewable energy and the production of equipment and machinery for green growth projects. In terms of international rankings, according to the 2023 edition of the Green Growth Index, Vietnam ranked 73rd out of 245 countries globally and 16th out of 50 Asian countries, with an index score of 56.44. Vietnam performed well in the areas of natural capital protection and social inclusion, but faced challenges related to resource efficiency and green economic opportunities.

According to the 2023 Green Future Index, Vietnam ranked 53rd out of 76 economies globally and 9th out of 16 economies in Asia, with an index score of 4.13. The country placed in the mid-range for energy transition but needs to improve its ranking in the carbon emissions and climate policy categories.

However, one of the major challenges in promoting green human resource management is the lack of widespread financial capacity, especially since many textile companies are still operating at a loss. Table 1 shows that out of the 34 largest textile and garment enterprises, 7 companies (or 20%) reported financial losses in 2024. These include: Tien Son Thanh Hoa Group JSC; Everpia JSC; Hanoi Textile and Garment Corporation (Hanosimex); Garmex Saigon JSC; MPT Group JSC; Export Footwear and Garment JSC; Thang Loi International Garment JSC.

Table 1: Current Status of Asset Scale and Profitability of Textile and Garment Companies In Vietnam In 2024 Unit: Billion VND.

No.	Textile & Garment Company	Year Established	Total Assets	Revenue	Net Profit After Tax
1	Vietnam National Textile and Garment Group (Vinatex)	1995	19,265.85	17,325.83	655.44
2	TNG Investment and Trading JSC	1979	5,816.88	7,655.75	314.82
3	Viet Tien Garment JSC	1977	5,292.05	9,753.09	363.61
4	Saigon 3 Group Investment and Development JSC	2018	5,263.42	1,569.30	2.21
5	Song Hong Garment JSC	1988	4,523.19	5,280.40	442.49
6	Thanh Cong Textile Garment Investment Trading JSC	1967	3,895.53	3,810.45	278.07
7	Binh Thanh Import Export Production and Trade JSC	1982	3,262.22	710.89	27.63
8	Nha Be Garment Corporation – JSC	1975	3,096.39	4,632.18	134.23
9	Garment 10 Corporation – JSC	1946	2,615.83	4,646.64	97.79
10	Tien Son Thanh Hoa Group JSC	1995	1,334.27	583.01	(8.31)
11	Everpia JSC	1993	1,284.19	741.24	(29.09)
12	Hanoi Textile and Garment JSC	1984	1,205.65	1,114.89	(78.26)
13	Hue Textile Garment JSC	1988	1,136.86	1,953.40	109.40

14	Binh Duong Garment JSC	1989	1,132.62	1,816.53	175.63
15	Duc Giang Corporation – JSC	1989	966.13	1,533.99	26.48
16	Huu Nghi Garment JSC	1993	758.73	1,182.13	105.90
17	JSC 26	1978	722.66	1,138.13	32.77
18	JSC X20	1962	689.07	1,301.77	45.22
19	TDT Investment and Development JSC	2011	615.18	563.13	14.79
20	Hung Yen Garment Corporation – JSC	1966	607.91	678.36	64.23
21	29/3 Textile Garment JSC	2007	544.25	785.99	23.35
22	Garment 7 JSC	1992	540.04	868.16	54.69
23	Dap Cau Garment Corporation JSC	1976	478.12	731.88	41.95
24	Vinatex Da Nang JSC	2004	470.16	706.63	2.42
25	Garmex Saigon JSC	1993	375.95	2.13	(29.88)
26	Nam Dinh Garment JSC	1960	367.06	804.89	11.90
27	Phan Thiet Export Garment JSC	1994	363.68	488.15	52.47
28	Binh Minh Garment JSC	1975	178.47	275.98	13.13
29	MPT Group JSC	2008	177.58	-	(17.46)
30	Tu Hai Ha Nam JSC	2010	175.60	134.73	6.46
31	JSC 28.1	1991	151.54	337.51	8.63
32	Northern Textile and Garment Fabric JSC	1957	118.97	23.54	4.92
33	Export Footwear and Garment JSC	1986	78.93	38.56	(33.13)
34	Thang Loi International Garment JSC	2007	35.58	52.55	(0.98)

Source: Compiled By The Author Of Financial Statement.

There are multiple reasons behind the above results, but from a strategic perspective, labor productivity among workers remains relatively low, products are not yet aligned with green transformation, and they fail to meet the growing environmental expectations of customers. Consumers today are increasingly environmentally conscious. Therefore, greening the textile and garment industry would help address many environmental issues currently caused by the sector. Enterprises in the industry need to adopt green production methods and select eco-friendly materials to create more sustainable textile and garment products, as consumer trends are increasingly focused on sustainability and environmental friendliness. Consumers are becoming more aware of the necessity and importance of small actions in contributing to the resolution of major global challenges such as environmental pollution, which in turn influences corporate business ethics. Businesses have come to realize that achieving these green objectives not only helps the environment but also enhances brand image and provides a competitive advantage.

Recent studies have clarified the relationship between green employee qualifications and green human resource management in textile companies (Hamilton, Nickerson, & Owan, 2003), (Napathorn, 2022), (Tsai, 2018), (Malik et al., 2020), (Napathorn, 2022), (Ribeiro, 2024), (S. R. Ali, Hossain, Islam, &

Alam, 2024), (Nigatu, Degoma, & Tsegaye, 2024), (Nart, Bilgili, & Orgut, 2024). The relationship between green employee motivation and labor productivity in textile companies (Collins, 2002), (Franco, 2017), (Muster & Schrader, 2011), (Franco, 2017), (Mandip, 2012), (Malik et al., 2020), (Amin, Asaduzzaman, Debnath, Rahaman, & Oláh, 2024), (Sharif & Malik, 2025). Relationship between Green Employee Opportunities and Labor Productivity in Textile Companies (Haddock-Millar, Sanyal, & Müller-Camen, 2016), (Leitão, Pereira, & Gonçalves, 2019), (Oliveira Neto et al., 2020), (Amjad et al., 2021), (Bag & Pretorius, 2022), (S. S. Ali, Torğul, Paksoy, Luthra, & Kayikci, 2024), (Naqvi et al., 2024).

2. OVERVIEW OF RESEARCH AND THEORETICAL BASIS

On the basis of applying the AMO (Ability - Motivation - Opportunity) theoretical framework proposed by (Bailey, 1993) in the early 1990s. The article clarifies the following relationships:

The relationship between green staff qualifications and green human resource management in textile and garment companies

According to Napathorn (2022), a survey was conducted to evaluate the education and skills training system of employees in Thailand. As a result, according to the authors, all professions in Thailand must be responsible and support workers to acquire the necessary green knowledge and skills for green jobs, to meet advanced human resource management activities. Thailand's education system is not enough to produce a workforce that is fully knowledgeable, skilled and green, and motivated to be ready in the industry. The shortage of skilled workers in the labor market in Thailand is becoming more and more serious. The curricula at current vocational schools and universities in Thailand do not meet the needs of businesses, causing difficulties in implementing green governance activities and improving labor productivity (Napathorn, 2022).

According to Ali et al. (2024), to clarify the impact of green human resource management (GHRM) and green supply chain management on the sustainable performance of Bangladeshi textile companies. The data was collected by the authors from 450 workers at these companies. By using the Amos 24 software. The results have shown that the implementation of green human resource management and green supply chain management helps improve the productivity and efficiency of textile and garment companies (S. R. Ali et al., 2024). The authors pointed out the important mediating role of labor performance and the environment that is evident in

the research results, helping companies develop more sustainable and effective initiatives.

According to Nigatu et al. (2024), the authors explored the structural relationship between activities such as green production, green marketing, green human resource management, and green investment of textile and garment companies in Ethiopia through green innovation. With a database of 201 surveys from senior managers and general managers of companies using the stratified sampling method. There is evidence that green production, green marketing, and green investment have a positive impact on the economic performance of companies. However, the green HR management factor has not had a significant direct impact. It is recommended that companies should increase green practices because investing in lower costs will boost labor productivity (Nigatu et al., 2024).

According to Nart et al. (2024), the authors examine the impact of green human resource management on the sustainable development of textile companies in Turkey. In addition, the indirect impacts of the organization's environmental performance (EP) and employees' commitment to sustainability are also considered. Database 129 observations were collected by the authors for analysis. New findings show that green HR management has a positive effect on the sustainable development of the company. However, employee engagement shows no effect (Nart et al., 2024).

Recent studies show a positive or inverse relationship between employee qualifications and company productivity, those studies are (Hamilton et al., 2003), (Tsai, 2018), (Malik et al., 2020), (Napathorn, 2022), (Ribeiro, 2024).

Based on the theory, the paper proposes the following hypothesis:

H1: The green competency level of employees has a positive impact on green human resource management in textile and garment companies.

The relationship between green employee motivation and labor productivity in textile companies

According to Muster & Schrader (2011), green human resource management can only be effective when considered in the consumer and manufacturing sectors. Employees improve their qualifications when kchir works in a workplace where life is private. The interaction between work and life creates a new concept of balance, proposed for eco-friendly behavior and life. This concept provides opportunities not only for the environment but also for both companies and workers by increasing work motivation and job retention. Even

so, it is necessary to address challenges such as employee dissatisfaction with allowing the company to have solutions related to private life (Muster & Schrader, 2011).

According to Franco (2017), the circular economy is seen as a promising approach to ecological integration and sustainable economic growth. The concept of circular production systems lies at the intersection of various fields such as sustainable production design, sustainable supply chains, and logistics, but the knowledge of incorporating or hindering the transformation of the circular model to the green model is problematic. By studying the textile industry in Europe, the author has identified a plethora of factors along the textile value chain, from product design to recall and recycling, that play a critical role in accelerating or delaying a company's aspiration to develop circular products. There has been evidence of a dynamic understanding of how some elements of collaborative innovation between suppliers and buyers combine with complex aspects of product design, namely in terms of basic materials, architecture and functionality, which combine to determine the rate of output and the number of circular products sold, recovery and finally regeneration (Franco, 2017)

According to Malik et al. (2020), green human resource management activities help businesses achieve competitive advantages and customize business strategies in accordance with the constantly changing environment. This requires environmental awareness and strict implementation of environmental regulations and corporate sustainability. Green human resource management activities and green intellectual capital are the main factors of sustainability in business. According to the authors, there are two aspects of green human resources, namely green recruitment and reward as well as green intellectual capital that have a positive impact on the sustainability of companies. Green human resource management activities play a positive role in improving labor efficiency (Malik et al., 2020).

According to Sharif & Malik (2025), clarifying the relationship between green psychology, green behavior, and green creativity in textile and garment companies of different sizes. The results show that green human resource management has a positive impact on green psychology and green creativity. Green human resource management activities include employee participation, green compensation and benefits, green recruitment and selection, and green assessment. In addition, intellectual capital significantly and positively regulates the relationship between human resource management and green creativity but not green psychology, helping to improve green creative behavior in textile companies (Sharif & Malik, 2025).

Recent studies show that the relationship is largely positive between green employee motivation and labor productivity, namely: (Collins, 2002), (Franco, 2017), (Mandip, 2012), (Malik et al., 2020), (Amin et al., 2024).

Based on the theory, the paper proposes the following hypothesis:

H2: Green employee motivation has a positive impact on green human resource management in textile and garment companies.

The relationship between green employee opportunities and labor productivity in textile companies

According to Amjad et al. (2021), research strategies to improve business sustainability. Based on the theory of strategic selection and the attribution model, it is shown that green human resource management plays an important role in the environment and sustainability of the organization. By investigating the impact of training and development activities, employee evaluations, rewards, and welfare compensation on sustainability, through field performance and employee productivity. The survey questionnaire method was used to collect data; The data was collected from 165 managers in Pakistan's textile industry. The new findings show the significant impact of green human resource governance on the sustainability and productivity of textile and manufacturing companies in Pakistan. The new findings of the intermediary model study are hypothesized and suggest that the role of employees is extremely important (Amjad et al., 2021).

According to Naqvi et al. (2024), the textile and garment industry employs a large number of workers and issues of human rights, gender equality, welfare, legality, and sustainability. Textile workers in underdeveloped countries face a lack of opportunities for work, violations of labor laws, low wages, long working hours, difficult conditions, and limited access to public health. The life of workers is imbalanced between work and life, financial equality as well as health. However, environmental factors also have significant impacts on them. Measures to reduce environmental impact such as fulfilling social responsibility to promote community welfare, applying circular economy principles, exploring advanced production techniques, improving energy efficiency, reducing air pollution, deploying floating wetland systems for wastewater treatment, and use

1677

THE RELATIONSHIP BETWEEN GREEN HUMAN RESOURCE MANAGEMENT AND LABOR PRODUCTIVITY IN TEXTILE AND GARMENT COMPANIES IN VIETNAM

biological and radiation treatment technology to manage solid waste. Or green strategies to make the environment better. These strategies aim to reduce the industry's ecological footprint, enhance social and environmental responsibility, and use fewer resources (Naqvi et al., 2024).

Several recent studies have indicated a relationship between green employee empowerment and labor productivity (Haddock-Millar et al., 2016), (Leitão et al., 2019), (Oliveira Neto et al., 2020), (Bag & Pretorius, 2022), (S. S. Ali et al., 2024).

Based on these empirical studies, this research proposes the following hypotheses:

H3: Green employee opportunities have a positive impact on green human resource management in textile and garment companies.

H4: Green human resource management has a positive impact on labor productivity in textile and garment companies.

III. Methods and models of research materials

The study uses a combination of qualitative and quantitative methods. With the quantitative method of survey authors to perform analytical tasks such as descriptive statistical analysis, quality analysis of each scale, factor discovery analysis, correlation regression analysis, and testing of variance and autocorrelation phenomena to test the hypothesis and evaluate the relationship between green human resource management and labor productivity at textile and garment companies in Vietnam.

The author adheres to a rigorous testing process including: (i) Scale Test, Corrected item – total correlation >> 0.3 Anderson et al. (1988), (Anderson & Gerbing, 1988); (ii) Exploratory Factor Analysis (EFA): the appropriateness of the measure $0.5<=KMO<=1$, the Bartlett linear correlation test with the meaning level (Sig) $<=0.05$, the >50% extraction variance test, and the Eigenvalues >1, the load factor with a sample size greater than 145 requires >0.3 (Hair, Black, Babin, Anderson, & Tatham, 2006). The factor analysis method used in this study is Principal Component Analysis with Varimax with Kaiser Normalization rotation. Kaiser-Meyer-Olkin Index (KMO): is an indicator used to consider the appropriateness of factor analysis. In a thesis with the values of KMO large enough (between 0.5 and 1) it is sufficient for factor analysis to be appropriate, and if this value is less than 0.5, the factor analysis is likely to be inappropriate with the data and is not eligible for analysis. The sig of Bartlett's test < 0.05 proves that the variables are correlated in the overall - this is a necessary condition for applying factor analysis (Hoang Trong and Chu Nguyen Mong Ngoc, 2008). Variance explained

criteria: the total variance must be greater than 50% to ensure the analysis of appropriate factor discovery.

The author's proposed research equation is: GHRM = β1* SQUA + β2* EMOT+ β3* EOPP; LPRO = β4* SQUA + β5* EMOT+ β6* EOPP; LPRO = β7* GHRM

Where:

Dependent variables: GHRM represents green human resource management, and LPRO represents labor productivity.

Independent variables:
- Staff qualifications – SQUA
- Employee motivation – EMOT
- Employee opportunities – EOPP
- Green human resource management – GHRM

Labor productivity – LPRO

The basis for constructing the observations included in each scale is measured by the author using a 5-level Linkert (Likert, 1932). According to the principle of a quantitative study, the scales for each factor should be interval or scale scales, and the more points the scale, the more accurate the point, however, in his study, the author chose the 5-point Likert scale to easily phrase the question in an easy-to-understand manner, simply do not cause confusion for the subject to be investigated. The Likert scale is 5 points with 1 level of complete disagreement and 1 level of complete agreement to make it easier for the person to be investigated.

First of all, the author conducted in-depth interviews via phone and in person with 5 experts in the field of garments, on this basis completed the questionnaire and put it into the google drive form. Next, the author conducted a survey of workers and managers of textile and garment companies. The survey period is from 02/2025 to 06/2025. The author entered the survey data into an excel spreadsheet, and counted 14 observation sheets and classified them as follows: If classified by gender, there were 30 males accounting for 20.69%, 115 females accounting for 79.31%; if classified by age, there were 65 people aged from 18 to 26 years old, accounting for 44.83%, people aged 27 to 35 years accounting for 24.14%; 30 people aged from 35 to 40 years old accounted for 20.69%, the rest over the age of 40 accounted for 10.34%; In terms of educational level, there are 74 people with high school education accounting for 51.03%, 55 people with intermediate education accounting for 37.93%, 15 people with college degree accounting for 10.35%, postgraduate only 1 person accounting for 0.69%; In terms of income, there are 15 low-income people under 5 million VND, accounting

for 10.34%, these are usually apprentice and probationary positions, there are 80 people with incomes from 5-14 million VND, accounting for 55.17%; there are 35 people with an income of 14-25 million VND, accounting for 24.14%; over 24 million VND accounted for 10.35%; In terms of position, 3 sample designers accounted for 2.07%, 15 purchasing employees accounted for 10.34%, 96 tailors accounted for 66.21%, 26 supervisors accounted for 17.9%, and the rest were managers accounting for 3.45%.

Table 2: Descriptive Statistical Analysis Of Survey Participants.

No.	Category	Number of Respondents	Percentage (%)
Gender			
1	Male	30	20.69
2	Female	115	79.31
Age group			
1	18–26 years old	65	44.83
2	27–35 years old	35	24.14
3	35–40 years old	30	20.69
4	Over 40 years old	15	10.34
Educational level			
1	High school graduate	74	51.03
2	Vocational/Technical diploma	55	37.93
3	College/University degree	15	10.35
4	Postgraduate degree	1	0.69
Monthly income			
1	Under VND 5 million	15	10.34
2	VND 5–14 million	80	55.17
3	VND 14–25 million	35	24.14
4	Over VND 25 million	15	10.35
Job position in company			
1	Pattern designer	3	2.07
2	Purchasing staff	15	10.34
3	Sewing worker	96	66.21
4	Supervisor	26	17.93
5	Manager	5	3.45

Source: Compiled From Survey Results.

Table 2 shows that the structure of textile and garment human resources in Vietnam has a labor structure, low qualifications and low income.

On the basis of theory, the author of the paper builds the scale (table 3) as follows:

Table 3. Scales And Variables In The Research Model Of The Relationship Between Green Human Resource Management And Labor Productivity Of Textile And Garment Companies In Vietnam.

No.	Code	Observation Statement	Source(s)
I. Staff Qualifications – SQUA			
1	SQUA1	I have comprehensive knowledge about environmental issues	(Hamilton et al., 2003), (Napathorn, 2022), (Tsai, 2018), (Malik et al., 2020), (Napathorn, 2022), (Ribeiro, 2024), (S. R. Ali et al., 2024), (Nigatu et al., 2024), (Nart et al., 2024)
2	SQUA2	I possess strong skills in environmental operations	
3	SQUA3	I identify the environment as a	

1679

THE RELATIONSHIP BETWEEN GREEN HUMAN RESOURCE MANAGEMENT AND LABOR PRODUCTIVITY IN TEXTILE AND GARMENT COMPANIES IN VIETNAM

		key factor for sustainable development and productivity enhancement	
4	SQUA4	I have a high sense of responsibility toward environmental matters	
II. Employee Motivation – EMOT			
5	EMOT1	My company's compensation includes environmental-related allowances	(Collins, 2002), (Franco, 2017), (Muster & Schrader, 2011), (Franco, 2017), (Mandip, 2012), (Malik et al., 2020), (Amin et al., 2024), (Sharif & Malik, 2025)
6	EMOT2	The company offers generous bonuses related to environmental performance	
7	EMOT3	All employees have opportunities to participate in the company's environmental training programs	
8	EMOT4	I have opportunities to apply my environmental knowledge and skills in my current job	
9	EMOT5	The environmental aspects of my job bring me satisfaction	
10	EMOT6	I am willing to attend external environmental training programs	
III. Employee Opportunities – EOPP			
11	EOPP1	The company assigns environmental objectives to both managers and staff	(Haddock-Millar et al., 2016), (Leitão et al., 2019), (Oliveira Neto et al., 2020), (Amjad et al., 2021), (Bag & Pretorius, 2022), (S. S. Ali et al., 2024), (Naqvi et al., 2024)
12	EOPP2	The company evaluates environmental performance across job roles	
13	EOPP3	There are financial rewards for employees with good environmental performance	
14	EOPP4	There are non-financial rewards for employees with strong environmental performance	
IV. Green Human Resource Management – GHRM			
15	GHRM1	The company recruits green-oriented personnel	(Haddock-Millar et al., 2016), (Leitão et al., 2019), (Oliveira Neto et al., 2020), (Amjad et al., 2021), (Bag & Pretorius, 2022), (S. S. Ali et al., 2024), (Naqvi et al., 2024)
16	GHRM2	The company offers specific compensation schemes for green employees	
17	GHRM3	The company has a green employee evaluation system	

18	GHRM4	The company implements green training programs	
V. Labor Productivity – LPRO			
19	LPRO1	General assessment of your working capability	Expert interviews
20	LPRO2	Level of task completion in your work	
21	LPRO3	Overall performance results over the past years	
22	LPRO4	Productivity growth over recent years	
23	LPRO5	Your understanding of company, team, and personal objectives	
24	LPRO6	Your time management ability	

Source: Compiled By The Author From Theoretical Foundations.

Initially, the author considered a total of 5 measurement scales comprising 24 observed variables.

4. REGRESSION MODEL TESTING AND DISCUSSION OF RESULTS

In econometric modeling, to assess the quality of measurement scales, researchers commonly use Cronbach's Alpha coefficient as a reliability measure.

The standard threshold for scale reliability requires that the overall Cronbach's Alpha coefficient be greater than 0.7 and the corrected item-total correlation be greater than 0.3 for each item.

Based on these criteria, the following observed variables were excluded: SQUA4, LPRO4, EMOT5, EMOT6, LPRO5, and LPRO6.

The remaining measurement scales met the reliability requirements. Details are presented in Table 4 below.

Table 4: Results Of Scale Reliability Analysis For The Models.

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
SQUA1	6,82	2,182	0,863	0,769	0,806
SQUA2	6,82	2,456	0,734	0,548	0,918
SQUA3	6,72	2,424	0,821	0,729	0,846
Cronbach's Alpha = 0.901					
EOPP1	5,08	2,006	0,727	0,565	0,724
EOPP2	4,76	2,286	0,742	0,573	0,712
EOPP3	4,97	2,499	0,603	0,365	0,841
Cronbach's Alpha = 0.829					
LPRO1	5,78	2,130	0,808	0,832	0,591
LPRO2	5,94	2,205	0,774	0,825	0,629
LPRO3	5,33	2,810	0,450	0,311	0,952
Cronbach's Alpha = 0.814					
GHRM1	11,07	2,862	0,503	0,307	0,655
GHRM2	11,34	2,568	0,470	0,349	0,681
GHRM3	11,28	2,473	0,508	0,357	0,656
GHRM4	10,95	3,004	0,585	0,411	0,629
Cronbach's Alpha = 0.716					

1681

THE RELATIONSHIP BETWEEN GREEN HUMAN RESOURCE MANAGEMENT AND LABOR PRODUCTIVITY IN TEXTILE AND GARMENT COMPANIES IN VIETNAM

EMOT1	8,35	6,349	0,642	0,415	0,771
EMOT2	8,48	6,269	0,707	0,536	0,738
EMOT3	8,60	7,260	0,561	0,339	0,805
EMOT4	8,32	6,972	0,655	0,494	0,765
Cronbach's Alpha = 0.718					

(Source: Statistics From SPSS 24 Software).

The sample size collected was 145 observations. The KMO test value was 0.670, which falls within the acceptable range of 0.5 to 1. The rotated component matrix showed a total variance explained of 71.371%. Therefore, the EFA (Exploratory Factor Analysis) meets the required validity criteria. Details are presented in Table 5 below:

Table 5: Rotated Component Matrix Of The Model.

Total Variance Explained							
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	3,864	22,730	22,730	3,864	22,730	22,730	3,168
2	2,856	16,801	39,532	2,856	16,801	39,532	3,113
3	2,313	13,604	53,136	2,313	13,604	53,136	2,443
4	1,781	10,477	63,613	1,781	10,477	63,613	2,337
5	1,319	7,758	71,371	1,319	7,758	71,371	2,369
6	,773	4,547	75,918				
7	,738	4,339	80,257				
8	,637	3,746	84,003				
9	,565	3,324	87,327				
10	,468	2,752	90,079				
11	,405	2,380	92,459				
12	,390	2,295	94,754				
13	,308	1,812	96,567				
14	,247	1,452	98,019				
15	,157	,921	98,940				
16	,106	,625	99,566				
17	,074	,434	100,000				
Extraction Method: Principal Component Analysis.							
a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.							

(Source: Statistics On SPSS 24 Software).

Table 6: Analysis Of The Relationship Between Green HR Management And Labor Productivity.

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			0,670
Bartlett's Test of Sphericity		Approx. Chi-Square	2900,896
		df	136
		Sig.	,000
Pattern Matrix[a]			
	Component		
	1	2	3	4
SQUA1	0,976			
SQUA3	0,863			

SQUA2	0,810			
EMOT2		0,927		
EMOT4		0,828		
EMOT1		0,707		
EMOT3		0,559		
EOPP2			0,890	
EOPP1			0,883	
EOPP3			0,810	
GHRM1				0,788
GHRM2				0,752
GHRM4				0,735
GHRM3				0,684
LPRO1				
LPRO2				
LPRO3				
Extraction Method: Principal Component Analysis.				
Rotation Method: Promax with Kaiser Normalization.				
a. Rotation converged in 6 iterations.				

(Source: Statistics on SPSS 24 software).

The author conducts a regression analysis to show the impact of independent variables on dependent variables. Among the original hypothetical independent variables, which independent variables have an impact on the dependent variable (p-value less than 0.1 in a meaningful regression analysis). For variables with a p-value greater than 0.1, the author will proceed to remove this variable from the model on the grounds that there is no effect on the dependent variable.

Table 6: Results Of Scaling Back The Factors Affecting Green Human Resource Management At Textile And Garment Companies In Vietnam.

Coefficientsᵃ								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3,584	0,169		21,171	,000	3,250	3,917
	EOPP	0,033	0,041	0,045	0,808	0,420	-0,047	0,113
	SQUA	0,112	0,045	0,159	2,485	0,013	0,023	0,200
	EMOT	-0,115	0,040	-0,183	-2,860	0,005	-0,194	-0,036

a. Dependent Variable: GHRM

The First Equation Is Rewritten As Follows: GHRM = 0.159* SQUA - 0.183* EMOT+ 0.045* EOPP.

Table 7: Results Of Remodeling Green Human Resource Management Factors Affecting Labor Productivity.

Coefficients^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	2,508	,236		10,648	0,000	2,044	2,971
EOPP	0,035	0,056	0,040	0,628	0,531	-,0075	0,145
SQUA	-0,084	0,062	-0,085	-1,337	0,182	-0,206	0,039
EMOT	0,210	0,057	0,205	3,709	0,000	0,098	0,321
a. Dependent Variable: LPRO							

The Second Equation Is Rewritten As Follows: LPRO = 0.205* EMOT.

Table 8: The Results Of The Remodeling Of Green Human Resource Management Affect Labor Productivity.

Coefficients^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	2,192	,295		7,440	,000	1,613	2,772
GHRM	0,174	0,078	0,124	2,220	0,0027	0,020	0,328
a. Dependent Variable: LPRO							

The third equation is rewritten as follows: LPRO = 0.124* GHRM.

With the H2 hypothesis: The motivation of green employees has a positive impact on green human resource management in textile and garment companies, with a value of β = 0.205 and a p-value of <0.05. Consistent with the studies of (Collins, 2002), (Franco, 2017), (Muster & Schrader, 2011), (Franco, 2017), (Mandip, 2012), (Malik et al., 2020), (Amin et al., 2024), (Sharif & Malik, 2025).

With the H4 hypothesis: Green human resource management has a positive impact on labor productivity in textile and garment companies, with a value of β = 0.124 and a p-value of <0.05. In line with the studies of (Haddock-Millar et al., 2016), (Leitão et al., 2019), (Oliveira Neto et al., 2020), (Amjad et al., 2021), (Bag & Pretorius, 2022), (S. S. Ali et al., 2024), (Naqvi et al., 2024).

5. POLICY IMPLICATIONS FOR MANAGERS OF TEXTILE AND GARMENT COMPANIES IN VIETNAM

On the basis of the results of the experimental research, the author proposes the following solutions:

First, creating motivation for green employees in the textile and garment industry. In the manufacturing and garment sectors, it is always the industry that has to focus the most time and resources to handle the problem of human resource management with professional characteristics such as: The number of employees is large (up to tens of thousands), factories are distributed in many different locations, etc many types of complex shifts, salary and bonus policies set separately for each group of subjects... In particular, the difficulties in the management process will be most obvious when businesses enter the peak season, employees must work overtime continuously to meet the needs of the market. Therefore, the necessary solutions are:

Strengthen communication between leaders and employees. To improve the motivation and commitment of green workers, leaders first need to have communication with green workers. The exchange with employees will bring two obvious benefits: Regular meetings and exchanges will make managers manage employees' problems. The problem may stem from family difficulties, causing them to decline in work motivation, leading to labor productivity. But when the leader encourages interest and sharing, the effort is increased. In addition, the problem here is that the company's reasonable management specifications put great pressure on employees. When there is an exchange, leaders can be aware of the problem in time to make better adjustments for employees. Moreover, communication shows leadership affection for employees. Because leaders with many jobs still

arrange time to meet and exchange with workers, which makes a good impression on them. Affection is an important factor affecting cohesion and increasing productivity.

Focus on building internal activities. Internal communication contributes to increasing cohesion among members. In the apparel industry, companies can apply annual internal events such as honoring employees with outstanding achievements or cheering for the most disciplined workers and along with valuable rewards. These events represent the company's recognition of the effort put into labor. Above all, form competition movements with all members to help the same productivity for bone fertilizer or factory.

Not only increasing the cohesion between leaders and employees, but companies also focus on cohesion through cultural and artistic competition programs, workers have the opportunity to express themselves together, creating a foundation to improve labor productivity.

Second, promote green human resource management activities at textile and garment companies. The results of regression accreditation have shown the role of green human resource management. Textile and garment companies need to act immediately regarding green jobs, especially

high-tech jobs - human resources are scarce while demand continues to increase. At the same time, ensuring the suitability of soft skills such as effective communication or adaptability will be increasingly important as many specialized skills will be replaced by automation. Developing existing personnel will save time and effort on recruiting new talent.

Companies need to promote innovative thinking and close the skills gap; businesses need to take a broader view of traditional green job positions. It is the green job positions that play a key role in strategic departments, creating a solid foundation for sustainable competitive advantage in the long term.

In conclusion, based on the theory and results of the regression model. The study has shown that two factors, motivation and green HR management in general, have a strong impact on labor productivity, the study relies on the AMO framework. The results of the study are consistent with many previous studies in the world, but there are still differences in employee motivation for green human resources in the textile and garment industry. Based on these results, the authors of the article have proposed solutions such as: motivating green employees in the textile and garment industry and promoting green human resource management activities at textile and garment companies.

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