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Designing a Green Human Resource Management¹ Model at University Environments: Case of Universities in Tehran

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Abstract: Due to environmental changes around the world, the importance of green issues is getting more attention nowadays and because human resources² are the most important resource of any organization, one of the issues to be considered is green human resource management. The purpose of the current research was to provide a basic understanding of green human resource management, designing a green human resource management model at university environments, and acquaintance it with its dimensions, components, and features using the grounded theory approach. This research has made a significant contribution to the development of information on this case as well as to a model for green human resource management. The statistical population of this study, according to its subject area, was universities experts (academic managers and professors), sampling was done using the purposive method and the sample size was 19 people also, to analyze the data obtained from the interviews, a three-step process of open coding, pivot coding, and selective coding were used. The components of each category were extracted based on the grounded theory approach and a conceptual model was developed and based on the results, green human resource management was extracted in the form of six main categories: core factors, causal factors, contextual factors, intervening factors, strategies, and consequences.

Keywords: Green Human Resource Management, Green University, Grounded Theory

1. Introduction

Nowadays, environmental sustainability and green organization topics have shaped the principles of green human resource management^{1,2,3,4,5}. Further, organizational strategies for environmental management and sustainable development will succeed when they are well-aligned with its human resource practices^{6,7,8}. Since individuals are the most important resource in the organizations and since human resources can be scarce in organizations and exploited, sustainability has become a concern for those who are interested in the areas of individuals in organizations, at work, and in the human resource management³ systems. The human resource sustainable management seeks to reproduce the human resource base (potential human stock) during the time and simultaneously, achieve organizational goals, and strive to

meet beneficiaries' needs⁹). Researches have shown how the role of human resource management is effective in reducing environmental degradation. For example, it has been examined how green HRM bested along with financial and environmental performance outcomes through national culture, stakeholder conflict-theories with a green perspective on employee recruitment, competition, and participation¹⁰). Therefore, green HR has some operations with a special focus on waste management, recycling, carbon effects reduction, production and use of green commodities and certainly, most employees think about the environment highly and have a great association and job satisfaction rather than the one who is always there for the green to emerge. Because the green HR is an effort to meet requirements so that a balance to be done between the organizational growth for the production of wealth and the preservation

¹ GHRM

² HR

³ HRM

of the natural environment to create a sustained and successful future¹¹⁾. Patil & Sarode (2018)¹²⁾, mentioned the role of HR in developing the sustainability and protecting natural resources and also investigated the role of managers in different levels of an organization and their staff in implementing green behavior and even it causes growth, well-being and employee health¹³⁾, the balance between financial performance and environmental protection¹⁴⁾ so, it should not be overlooked that green employees promote the social identity of organizations, and it is essential to absorb and train the potentials in this area⁴⁾.

On the other hand, organizations are increasingly seeking to integrate green goals, strategies, and operations development. However, organizations cannot achieve the intended results of their initiatives on green goals completely without the motivated and skilled force. Employing such efforts by the staff requires the active leadership and involvement of those human resources departments responsible for establishing staff selection, training, evaluation, and rewarding systems¹⁵⁾.

According to the conducted studies, in Iran, especially in university, it is necessary to turn to green human resource management and take it seriously. Shahriari et al., (2019) by the revision of the previous researches concluding that the main gaps in the research on green human resources management are the cultural gap, lack of comprehensive research in undeveloped countries, and the absence of a cross-cultural model. For example, Tavakkoli et al., (2018), Rajabpour (2017), Seyed Javadin et al., (2017) and Mohammad Nejad et al., (2017) have pointed to the existence of few studies in this area in Iran and the lack of a codified program. Mishra (2017), Masri & Jarron (2017), Tariq et al., (2016); Mohd Yusuf et al., (2015), Wagner (2013) and Renwick et al., (2012) have stated that most of the researches on human resource management are in developed countries, European countries and the United States. Also, Gholami et al., (2016), Subramaniana et al., (2016), Opatha and Arulrajah (2014) respectively have referred to the lack of comprehensive research in Malaysia, China, and Sri Lanka. Cheema et al., (2015) also pointed to the lack of sufficient knowledge of the benefits of green human resource management in Pakistan was a major gap knows. On the other hand, a lack of a mutually international model has been mentioned by Tang et al., (2018), Patil and Sarode (2018), Subramaniana et al., (2016) and Cheema et al., (2015)^{16,17)}. Given that each country has its own economic, social, political, and cultural position, the dimensions and components, causal factors affecting green human resource management and ultimately its guidelines and consequences may vary from country to another country and each country needs a model of green human resource management in its implementation and usage as a native process. Therefore, we need a model that fits with the internal rules and regulations. It is essential that the universities also look at green HRM factors and

their consequences based on the campus environment and existing culture. Therefore, researchers focused on indigenous components and designed their model accordingly. By identifying the key factors affecting green HRM, this model assists universities in implementing and utilization of green HRM and poses positive consequences for them, which not only affect staff but also the students. It promotes a green culture in the campus environment and transmits it to the family environment.

Accordingly, the purpose of the current research is also to provide a basic understanding of green HRM, to investigate the causal, contextual, intervening factors, its components, strategies, and consequences and ultimately to design a green HRM model. Besides, this research also has a significant contribution to the development of information and declaration of a model for green HRM. This model assists Universities in the utilization and implementation of green HRM through the selection and recruitment of green staff (increasing virtual screening rather than face-to-face interviews and recruitment of environmental support staff); training and evaluation of green performance (training in green principles observation and performance evaluation based on green standards); participation and compensation for green services (participation of individuals in green programs and decisions that increase their commitment and responsibility and reward commensurate with a green performance that reinforce the individual's motivations); and dissemination of green culture (green universities are more prestigious which is a competitive advantage and causes attracting more highly skilled human resources). In general, it can reduce waste, environmental degradation, the costs of excessive energy consumption, and increase profitability even for all other organizations. In the following, the concept of green HRM and related prior researches, green university, and its consequences have been discussed.

2. Literature Review: Developing the Concept of GHRM and Green University

2.1 Green Human Resource Management (GHRM)

The term "green human resource management" is a new concept for the majority of academic and professional human resource specialists introduced by Wehrmeyer in 1996 in a book entitled "Greening People: Human Resources and Environmental Management"¹⁸⁾. In subsequent years, other studies were also conducted by other researchers, including Jackson et al., (2011)³⁾, Renwick et al., (2008, 2010, 2012, 2016)^{19,20,4,10)}, Jabbour et al., (2010)⁵⁾ and Ehnert (2009)⁹⁾.

Different authors have provided various definitions of green human resource management, some of them will be as follows.

- Green HRM refers to policies, operations, and systems that empower employees in organizations due to

the benefit of the individual, community, environment, and business. Also, green HRM refers to all activities involved in the development, implementation, and maintenance of a system that its purpose is the existence of the organization's green personnel. Turning regular employees into green employees is a human resource management task, intending to achieve the environmental goals of the organization and ultimately achieving a significant share of environmental sustainability that addresses policies, practices, and systems that are beneficial for the individual, society, nature and the business environment. The goal of green HRM is to create, enhance, and maintain greenness in each employee of the organization²¹.

- GHRM is responsible for the creation of awareness, informing, and establishment of interactions between the employees, especially regarding environmental issues. Also, through green policymaking, it orients the employees towards fulfilling their green duties²².

- The research findings of Joong Kim et al., (2019) on hotel employees show that green human resource management enhances employees' organizational commitment, their eco-friendly behavior, and hotels' environmental performance²³.

- Leidner et al., (2019) highlighted that Green HRM practices are not peripheral, intermediate, or embedded but shaped by contextual situations. They also revealed that the sustainability advocates (i.e. the leader and managers) intentions do not seem to match Green HRM policy design. Hence, they recommended that practitioners need to consider contextual factors when selecting suitable Green HRM policies²⁴.

- Thu Pham & Paille (2019), in their research, point out that the behaviors of job seekers should be determined during the selection process in order to understand their pro-environmental attitudes and values²⁵.

- Human Resources Management is directly responsible for the creation of a green workforce that understands, appreciates and practices the Green Initiative and apply its green goals throughout the HRM process in the areas of recruitment, selection, training, reward, growth, and development, promotion and protection of human capital²⁶.

- Green HRM focuses on employee's behaviors towards the environment in the company, which even causes employees to apply such a pattern of consumption in their lives²⁷.

- Mohd Yusef (2015) believes that GHRM is a complex set of the following counts: A- Electronic GHRM: 1- electronic recruitment, 2-e-mails, 3- electronic training, 4- electronic users, and 5- electronic job description; B- Flexible Work including 1- a part-time job, and 2- working at home; C- Social responsibility including 1- recycling, 2- social responsibilities, and 3- green cafeteria; D- Green Policies including 1- security, well-being, consideration for the environment, and 2-green organizational policies (ISO 14001-2); E- Additional care programs including

Mothers' rooms and parking lots, and 2- Childcare room²⁸).

Therefore, human resource management is a resolution that helps create a green workforce that can understand and appreciate green culture within the organization. Such a green initiative can use its green goals throughout the HRM process in the fields of recruitment, selection, training, compensation, growth, and development, maintenance, and retention of the company's human capital²⁹, that the functions are summarized in Table 1:

Table 1. Summary of GHRM Functions²¹

Job Analysis	Considering environmental dimensions as a duty in the job description Considering green competency as a special component in conditions for recruitment
Recruitment	Considering the environmental criteria in recruitment notices Relating to the concerns of employees regarding environmental issues
Selection	Selection of applicants who are well aware of green issues in their jobs Selection of applicants who in their personal lives behave as green consumers
socialization	Familiarizing the new employees with the organization's green activities Development for socialization programs related to green citizenship behavior for current employees
Training and performance evaluation	Proper statement of knowledge and skill regarding green roles through the training programs designed in this regard Consideration for separate components for progression in the context of greenness through reviewing the performance feedbacks
Reward management	Providing financial incentives for employees who have undertaken their green tasks in their jobs well Granting non-financial rewards such as venerating and introducing the green employees
Discipline management	Compilation and publication of rules related to greenness Development of an advanced disciplinary system for the punishment of employees who violate green rules

Regarding the research background, the authors in their previous research titled "a systematic review of green human resource management" reviewed previous researches. The results showed eight major gaps such as the lack of comprehensive studies about GHRM in undeveloped countries and Asia; the absence of a cross-cultural model; the lack of long term comparison between sustainable companies and unsustainable ones, lack of attention to rewards for green activities and how to

motivate green HR; lack of up to date green training, little attention to green leadership, disconnection between the behavior of managers and GHRM and lack of sufficient financial and non-financial and there have been 24 effective factors in the GHRM performance such as knowledge of benefits of GHRM motivation, green organizational learning, social responsibility, green management and leadership support of green ideas and activities, organizational attitudes and culture and so on and they concluded with a review of GHRM functions that the most focus has been on selection and recruitment, training and development functions and the less on discipline management and socialization functions¹⁶⁾.

2.2 Green University

Universities are the most important sectors of the communities because of their main role in educating the specialist. Therefore, it is substantial to know about the impact of green HRM in the university to utilize the green HRM functions to have a better workplace and educational environment. Green University is commonly recognized worldwide as a place where all its activities are based on the vision of sustainable development and reflect the important responsibility for community development, too³⁰⁾. The Green University principle focuses on the green education system firstly, that means, the use of the concept of sustainability in education. Tsinghua (a leading green university in China), through its formal and informal green education efforts, commits itself to students becoming responsible citizens and expanding the scope of social responsibility to achieve sustainability. In Tsinghua, green education includes green curriculum, student green training, and green learning environment³¹⁾. Accordingly, a Green University in Iran has also three-dimensional approaches, which are as follows:

- The first dimension is the reduction of the public and current costs of the university as predicted in Iran's economic, social, and cultural development plans.

- The second dimension is the Promotion of educational behavior based on new and paperless technology.

- The third dimension is to train a generation of scholars and graduates who are tracking the consequences of their performance in the environment³²⁾.

It is necessary to mention that the use of green human resource management can reduce environmental degradation, excessive energy consumption, and increase profitability. For example, the following can be observed:

- Use of educational software and CDs as much as possible, instead of textbooks that reduce paper consumption.

- Use of online training to reduce the costs of energy consumption that brings more benefit for the concern organization and transportation decrease that result in cutting the fuel consumption and air pollution down.

- Use both sides of the paper in writing, printing, and copying (it reduces the power consumption and preserves trees).

- Using public transport or sharing cars whenever possible (it reduces fuel consumption and air pollution).

- More and more efficient use of electronic technology such as holding distance conferences to reduce traveling, which results in decreasing organization costs and air pollution. Also, use computers, tablets, and so on instead of recording information on paper.

- Shut down the computer when not in use (it will reduce electricity consumption and air pollution).

- Use of natural light and work with a minimum number of lamps (it reduces electricity consumption).

- Use of the plants in the workplace and classroom to absorb contamination

- Having your glass and dishes that reduce the consumption of disposable containers.

- Turn off air conditioners before the daily work time (30 minutes before ending work time)²¹⁾.

- The use of reed valves instead of disposable glasses, which reduces both financial costs and environmental pollution that implemented at Payame Noor University.

To achieve the purpose of research and data collection following the process of grounded theory, research questions include:

- 1) What are the key components and core factors of green human resource management at the university?

- 2) What are the causal factors of Green Human Resource Management at the university?

- 3) What are the contextual factors of green HRM at the university?

- 4) What factors are intervening in managing green HR at the University?

- 5) What are the Human Resource Management strategies at the university?

- 6) What will be the consequences of green HRM at the university?

3. Methodology

This study has a qualitative approach that collects and analyzes data by the grounded theory research strategy. The grounded theory procedures are designed to develop a set of coherent concepts that provide a complete theoretical explanation of the social phenomenon of study. A grounded theory should explain as much as it describes. Like the other qualitative methods, the data of the grounded theory can come from a variety of sources. Grounded theorizing is a qualitative method that aims to identify and understand people's experiences of events in a particular context³³⁾. This study is developmental research because it seeks to present a green HRM model by identifying core factors, causal, contextual and intervening factors, strategies, and consequences that aim to develop knowledge in this area, and it is based on the interpretive paradigm. After all, it addresses the views of experienced and expert individuals to answer the research question and the interpretation of their views has shaped this model.

The data collection tool was an in-depth interview with

the statistical population to the extent that received enough information and then the information was duplicated. The statistical population of this study was university experts (university administrators and professors) concerning its subject area, people who are influential, well known, and conscious in their field of work. This study interviewed the managers of university departments active in the field of green affairs. The interviewees were people with more than 5 years of experience in the green field, knowledgeable in green affairs, observing green issues about their staff or at the university scope, and with postgraduate education.

Priority was given to the managers and deputies of these departments as detailed in Table 2. The sampling method is also purposive, which means the purposive selection of research units to acquire knowledge or information³⁴⁾ in which among the sample units, the individuals with the most knowledge and information about the subject under study were selected and interviewed. The sample quantity of this study was 19 persons and to analyze the obtained data from interviews, the three steps of open coding, pivot, and selective coding process of grounded theory were used.

Table 2. Interviewee’s Characteristics

Item	Corporate Responsibility	Frequency	Experience (years)	Sexuality
1	Head of University	3	25	male
			25	
			27	
2	Vice President of Administration and Finance of the University	3	18	male
			18	
			21	
3	University Educational Assistant	3	25	male
			17	
			15	
4	Head of the college	2	34	male
			21	
5	Department Manager	3	22	male
			18	
			15	
6	Department Vice-president	2	13	male
			12	
7	Expert	2	8	male
			5	female
8	HR Advisor	1	8	male

4. Findings

Information analysis process in Grounded Theory is based on three Stages of Open Coding (Creating Concepts and Categories), pivotal Coding (Identifying pivotal categories, causal factors, Contextual factors, Intervening factors, strategies, and outcomes) and selective Coding (creating theory) which is explained below the formation modality of the derived categories from the concepts. The open coding and the coding of the interviews will be

explained first, and then the formation modality of the concepts and categories will be discussed.

4.1 Initial Coding

At this stage, efforts were made to extract the key points and the items that the interviewees emphasized more on them from the interviews. These key points can be summarized from the interviews, or the researcher himself selects such topics with his creativity and features. Some of the initial codes extracted from the sample of the eleventh interview illustrated in Table 3.

Table 3. Initial Codes of interview No. 11

samples of interview transcript	Initial code
Encouraging and motivating people is essential to driving green ideas	Encourage green innovation

There should be regulations at the university on green matters and encouragement and supervision of staff in green affairs	The necessity of green HR regulations at university
University policy and evaluation need to be changed annually and green affairs also should be taken into account	The necessity to replace green politics at university
The monitoring system must be in place	Green monitoring
Regarding green transport, people get together and going on a mission by the same care in one day and people with same way use the same car	Green transport
Have a printer in each department and sharing it with the others in the building. My offer is still pending	The need to pay attention to and apply green ideas
The manager himself must also be trained to be supportive	Emphasize managers green training
There is no sense of green responsibility and culture in society	The need for increasing the sense of green social responsibility
At Green University, staff are more committed to staying in the mood is consistent with the atmosphere	The loyalty of Green Staff at Green University
We have to make a paperless theme and launched the electronic archive and we do not print any longer for the record	Managers support of green ideas
office automation has also accelerated matters, reducing costs and paper consumption	The impact of office automation on paper savings and costs

4.2 Secondary Coding and category formation

At this point, the initial codes become secondary codes due to their large number, meaning that the researcher goes on to describe the words of each code, compares the codes with one another to identify overlapping and similar codes, and then converts the secondary codes into conceptual codes. Table 4 presents the results based on the secondary code, concepts, and categories.

4.3 Selective Coding and final model

At this stage, the pivotal codes of the previous stage were grouped and the final table of variables related to each of them was prepared from the expert's and universities' points of view as presented in Table 5. Then, the final model of research is then formed as shown in figure 1.

Table 4. Initial Codes of interview No. 11

Subcategory	Concept	Secondary Code
Green HRM Functions	Green recruitment and hiring	The Importance of Choosing Green People - Influencing Green Life Skills in employment - recruitment and hiring green people
	Green Education and Development	The necessity of green training courses for staff and managers - Importance of staff green empowerment - Importance of having green knowledge by university staff - Pay attention to increase of staff green awareness - Importance of green skills in university staff
	Green Performance Management	Green Performance Assessment - Careful Supervision of Green Performance - Importance of Proper Supervision of manager on Green Actions - Proper Identification of Green Employees - Importance of a Green Career Path for Green Staff
	Green Service Rewards and Compensation	The necessity of Green Reward - Impact of non-financial incentives for doing green affairs- Impact of financial incentives for doing green affairs
	Green motivation	The necessity to motivate manpower towards green goals - Encourage green employees - Necessity of managers to support green employees - Importance of reprimand and negative reaction to non-conformity of green issues - Need to see green employee

		actions by managers - Importance of motivating staff- Importance of green staff retention - The role of wage in green staff loyalty to the university
Green Strategic Thinking	University Human Resources Green Policy and Strategy	Existence of green HR regulations at the university - Existence of green HR program at the university - Having a green HR policy and strategy at the university
Formation and operation of the Green Committee at the University	Green Team	Aligning individual goals with green management goals at university - The importance of having a green team at university – Setting managers as the role model by staff
University manager's support	Role of managers support	The necessity for Managers to Support Green Programs - Managers' care to Green Management Standards at the University
Board of trustees/stakeholders support of the university	The Role of Supporting Senior Policymakers	Trustees Need to Support All Green Plans - Need to Invest in Green Affairs at University - Trustees Support of Green Plans
Green leadership at university	Leadership style of managers	Influence of management or leadership style - Influence of manager's attitude on the workforce - Need to pay attention to qualitative indicators in attitude change - Managers' willingness
	Participation in Green Affairs	Being involved in Greenery Affairs
	Green innovation	Care about green innovation
Meritocracy at university	Meritocracy	The individual's selection should be based on their capabilities, not relationships
University Green Vision and perspective	University Green Perspective	The necessity of having a green vision and perspective by the manager - role of green belief and attitude in employees - the role of green belief and attitude in managers - foresight
	University Mission	The Impact of University Cultural Policy on Advancing Green Goals
	University Approach	The Role of Stability in Green Approach in Managers - The Role of Managers Except in Advancing Green Affairs - Organizational Approach to Human Resources - The Role of Employee Mobilization in Green Affairs
Green university rules	Existence of supporting the regulation of green management	Having green regulations at university
University Brand	Organizational brand	Impact of a green brand in green people attraction
University staff attitudes	The green vision of staff	Influencing the attitude of the workforce on the manager - the employee's imitation from each other
Staff awareness level	Awareness level of staff	The level of human resource awareness of green principles in the organization
Staff personality type	Staff personality type	Paying attention to the importance of the impact of the personality of human resource on doing green affairs
	Keep up with the technology of the world	Technology advancement and its use - the optimal use of resources - They need for high-speed Internet

University Technological context	Using electronic systems	The impact of using office automation - the role of the ERP ⁴ system in promoting green goals
University's cultural context	Organizational Culture	Type of University Culture - The Role of University Professors in Green Culture - The Role of Green Culture in Implementing Green Affairs
	Social Responsibility and Citizenship Behavior	Employee Sense of Social Responsibility - Impact of staff Citizenship Behavior on Green affairs Observations - Employee Sense of Green Responsibility
Empowering context	Learning and self-control	Empowering and habituating human resources to doing green affairs - Creating the necessary framework for green regulations enforcement at the university - The need for experts within the organization - The need to apply new ideas at the university
Financial context	University financial constraint	The Impact of University Budgeting on Green Goals - The Role of Financial Limitation in Turning to Green Management - The Need for Cost Reduction
Structural context	Size and structure of the university	The impact of the overall structure of the university on the implementation of green affairs - size of organization - degree of integration and separation of university departments
	The role of flexible structure	The necessity of flexibility of organization structure - Necessity of a stable work environment in the university
Macroeconomic	Economic conditions of society	Economic conditions of society - the need for adequate government funding - need more infrastructure in densely populated cities
	Unemployment	The Negative Impact of Unemployment in the Community on Green Employment
Social environment	Cultural and social tendencies	People's Lifestyle - Negative Impact of Bureaucratic and Aristocratic Culture in Society - Role of Community Culture - Role of Family in Green Culture
	Green culture in society	Pre-employment green education in the community - The importance of public awareness of green issues in the community by IRIB
	Demographic factors	The Role of Women in Greenery (Gender) - Age - Education
Legislative bodies	The general policy of the country	Macro-country policy - Changing the country's policies towards the green - Government supportive role for the green universities - State education policy support for the green process - The role of the state policy towards the development of the environment
	Country laws and regulations	Protecting Green Laws in the State - Obstacles to State Law - Impact of Legislative body (Ministry of Science) - Significance of State Employment Law Support for Green Employment - Taxation Support for Green Universities - Changing Financial Audit Process
	Management weakness of officials	The superficiality of the authorities - the contradiction of the words and the actions of the authorities - the fading of substitution in society

⁴ Enterprise Resource Planning

	Ministry of Science, Research and Technology	The necessity of strict supervision of the Ministry of Science on the green affairs of the universities - Impact of the green vision of the Ministry of Science - Support of the Ministry of Science on green creativity
Geographical conditions	Geographical conditions	Geographical conditions of regions - Impact of regional climate on the implementation of green policies
Private or public university	Private or public university	Difference between Private University Management with Public one - Optimal Investment - More Monitoring and Motivation at Private University - Negative Impact of Paying State University Salaries on Government Budget on Green Motivation
The motivation of university staff	Financial rewards	Prioritizing Financial Rewards to Encourage & Create Green Motivation - Returning the Benefits of Green Savings to Green Staff
	Non-financial rewards	Prioritizing non-financial rewards for encouraging green human resource
	Encouraging staff	Positive incentive system after green education - priority of encouragement instead of punishment - implementation of symbolic green programs such as planting at university
	Punishment of delinquent staff	Consider punishment and negative reinforcement for the offender
Formulation of green laws and standards	Green Regulations	Full support of university laws for implementation of green HRM functions - Green strategy development in the university - Existence of strategic green HRM - Green standards development appropriate to the university
	Clarification	Prioritizing Green Employees promotion - Separation and Transparency of Payrolls from the other expenses - Setting Quantitative Standards for Green affairs observation - - Necessity to clarify the results of green compliance - Transparency and honest training of employees on green affairs
	Green Investment	Importance of investment in university green affairs - management and budget allocation for green affairs utilization - design and construction of a green building - development of electronic and mechanized platform
	Outsourcing	Outsourcing some cases towards green goals
Green education and culture	Prioritize green education	First, green education, then strict oversight of implementation – green management training to the manpower at university - green education priority in in-service training courses – being green training courses tailored to human resource needs
	The need for green education for managers	Prioritize green education for executives themselves
	create an understanding of the value of green HRM	Considering the importance of green human resource management not just because of the economic benefits
	Emphasize Innovation	Applying Employee Green Ideas - Creating a Green Offer System at the University
	Disseminate green corporate culture	Managers' emphasis on green culture Dissemination

Design of green monitoring systems	The need for continuous monitoring	Monitoring must be continuous - Hint of green affairs in the workplace by green people
	Managers support of green supervision	Seriousness in evaluating green performance by managers
Green employment priority	Green employment priority	Prioritize green hiring
Increasing the quality of working life	Increase in job satisfaction	Increasing Human Resource Satisfaction - Increasing Human Welfare
	Motivation Increase	Increasing motivation in the workforce
	Improving the quality of working life	Paying more attention to HR health – HR relaxation - Increasing employees morale - Increasing employees vitality - Impact of green programs on quality of work-life - Enjoying work in a green work environment
University flexibility	Increase of organizational flexibility	Increasing University Variability - Increasing Human Resources Creativity
Facilitating the recruitment and retention of green elites and staff	recruitment of elites and expert professionals	Increase in green staff recruitment
	Facilitation of the maintenance of green staff	The Positive Impact of a Green Brand on Preserving Green Employees
	Promotion of organizational commitment	Increase of green staff commitment
Improving university organizational identity	organizational identity improvement	Getting Better organizational image - building green beliefs across the university - enhancing green identity at the university
Enhancing student satisfaction	Increasing student satisfaction	Increasing student satisfaction
Economic savings	Preserving the balance between the financial and environmental aspects	The balance between financial performance and environmental protection
	Return of resources and benefits	Return of resources and benefits
	Expanding green behaviors	Pay more attention to green environment and building- Use of economically equipped facilities - Use of solar energy
	reduction in costs	Reduction of fuel costs- No waste on disposable items- Reduction of energy consumption – Reduction of paper consumption – a decrease of university financial costs
Developing a green organizational culture	Promote green culture at the university	Promote green culture from home to work- The Positive Impact of Green people on the Promotion of Green Culture at the University - Managerial Support on the Promotion of Green Culture - The Positive Impact on Green Employment and the Promotion of Green Culture
Sustainable environment	Environmental Protection	Caring for environmental protection - reducing air pollution - expanding green transportation - reducing traffic
Promoting a green social culture	Promotion of green social culture	Spreading green culture from work to family - promoting a green lifestyle in the community

	Green citizenship behavior	Expanding Green Citizenship Behavior in the Community - Increasing the sense of green responsibility in the community
	Get native model	Having a native green cultural model
Self-esteem	Trying to be self-confident	Creating self-esteem in employees

Table 5. Forming the Main Classes

Main category	Subcategory
The causal organizational and managerial factors	<ul style="list-style-type: none"> - University manager's support - Board of trustees/stakeholders support of the university - University brand - Green leadership at university - University green vision and perspective - Meritocracy at university - Green university rules
The causal individual factors	<ul style="list-style-type: none"> - University staff attitudes - Staff awareness level - Staff personality type
The core factors of GHRM	<ul style="list-style-type: none"> - Green human resource management functions - Strategic thinking - Formation and activity of the green committee at university
The contextual factors	<ul style="list-style-type: none"> - University's technological context - University's cultural context - Empowering context - Financial context - Structural context
The intervening factors	<ul style="list-style-type: none"> - Macroeconomic - Social environment - Legislative bodies - Private or public university - Geographical conditions
Strategies	<ul style="list-style-type: none"> - The motivation of university staff - Formulation of green laws and standards - Green education and culture - Design of green monitoring systems - Green employment priority
The academic consequences	<ul style="list-style-type: none"> - Increasing the quality of working life - University flexibility - Economic saving - Developing a green organizational culture - Facilitating the recruitment and retention of green elites and staff - Improving university organizational identity - Enhancing student satisfaction
The social consequences	<ul style="list-style-type: none"> - Promoting a green social culture - Sustainable environment
The individual consequence	<ul style="list-style-type: none"> - Self-esteem

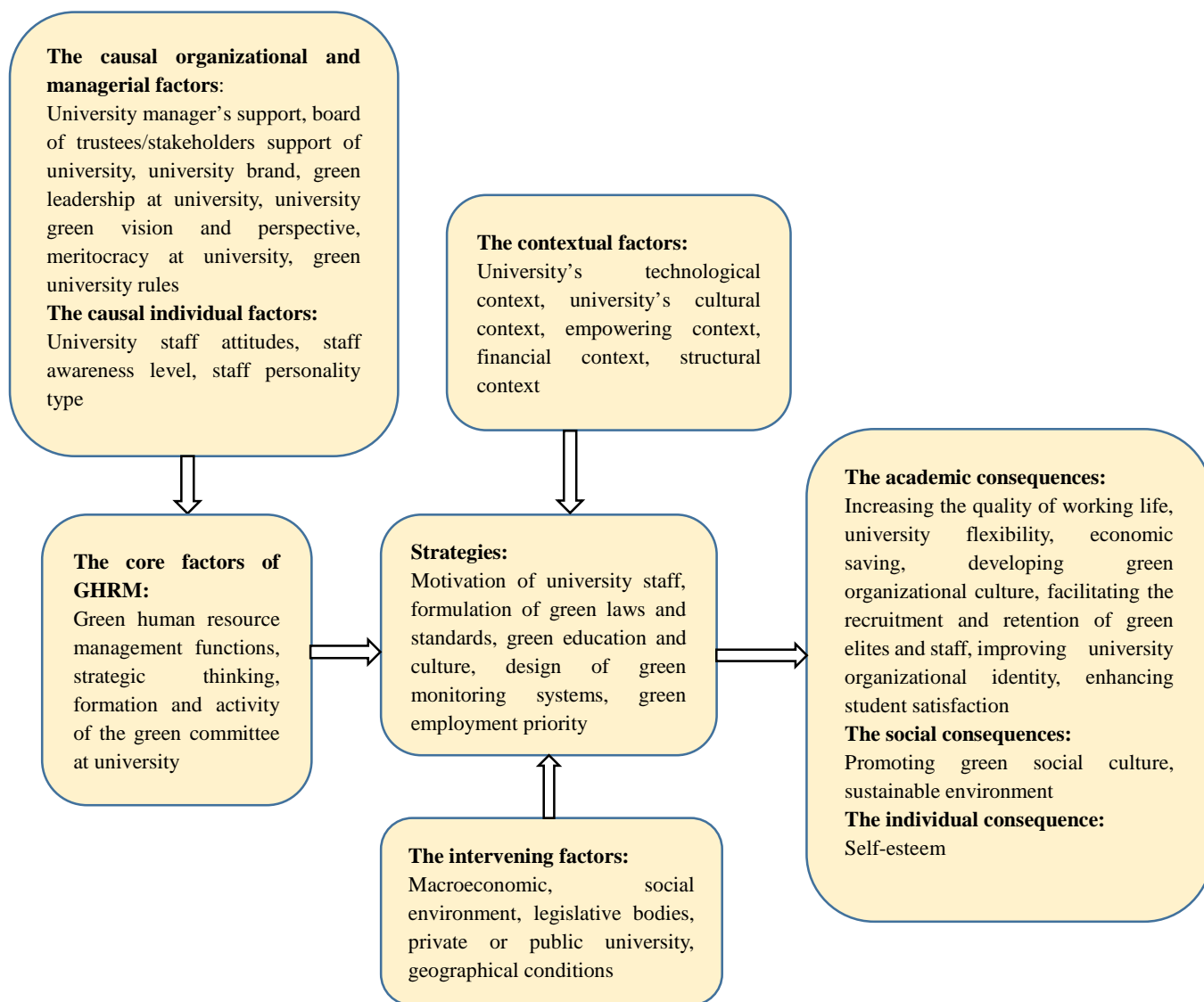


Fig. 1: The final model

5. Research validation

Strauss and Corbin (2012) have proposed acceptability criteria for evaluating research based on grounded theory, rather than validity and reliability. Acceptability means to what extent the findings of the research are credible in reflecting the experiences of the participants, the researcher, and the reader concerning the phenomenon under study; for this purpose, 10 indicators have been used for acceptability criteria³³:

1) **Relevance:** Are the findings consistent with the experiences of the experts in the field under study as well as the participants? In this study, individuals were purposefully selected for the interview. People who have the experience, knowledge regarding the research process and care about green issues at university, at home, and in the community.

2) **Applicability or usefulness of findings:** Do the research findings provide new insights and be applicable? In this regard, the findings of the present study can be useful for designing a model of green HRM for use in

universities that have not been implemented, so far; as well as helping to have a native model in this area. In this study, designing green HRM models in pivotal factors, causal factors, contextual and intervening factors, the strategies and consequences have been recognized that will help universities in its implementation and utilization. At the macro level, identifying the intervening factors offers a new horizon for improving green HRM.

3) **Concepts:** The findings of the research should be able to provide appropriate conceptualization. As can be seen in the findings of the present study, concepts such as a green committee, green team, green leadership, learning and self-control, self-esteem, financial and environmental balance, etc. are examples of concepts that are well conceptualized.

4) **Contexts:** The findings without context are incomplete. Without context, the reader cannot understand the cause of events. The findings of the present study are based on experiences and events related to green HRM and in this respect, emerging concepts are based on green context and culture.

5) Logic: Do the storylines have a logical relationship with each other? To meet this criterion, as can be seen in the text of the interviews in the appendix, the narrative process of the Green HRM experience has been attempted to ensure that the narrative in question has a well-ordered and well-timed procedure.

6) Depth: Spacious description of the details enriches the research findings. In this research, it is attempted to present research findings in the process of narration of the emerging theory in detail and concerning its features and dimensions.

7) Deviation: Are there any deviations within the findings? In this respect, it should be noted that if the research data do not match the subject matter, they place it in the range of other characteristics. In this study, due to the theoretical sensitivity, it is desirable to use subject-related data desirably.

8) Innovation: Does research have anything new to say or does it bring out the same old ideas in a new vein? Regarding this criterion, it should be noted that the findings of this study have been particularly innovative in designing a green HRM model. As recognized in reviewing previous studies and prior research results, the present study is innovative because no research has been done so far and it has been tried to design a suitable model for the university.

9) Sensitivity: Has the researcher been sensitive to the research topic, the participants, and their findings and taken them seriously? In this research, the researcher was sensitive to the research topic, the participants, and its findings and took them seriously and during the research process, it was attempted to make the subject matter important and sufficiently serious and pay close attention to the details.

10) Citation of notes: Because the researcher cannot recall all the topics, opinions, insights, and declarations in the process of analyzing the findings, the use of notes is necessary. In this case, the researcher has also attempted to cite extracts from the data and transcripts of the interviews as necessary in the narrative process of green HRM experience.

Moreover, to further confirm the research results; the researcher presented the final model of this study to seven interviewees that approved it.

6. Discussion

In this research, Green Human Resource Management has been extracted in the form of six main categories, by the grounded theory that in the field of causal factors, two subcategories of causal organizational and managerial factors university manager's support, the board of trustees/stakeholders support of the university, university brand, green leadership at university, university green vision and perspective, meritocracy at university, green university rules and individual causal factors including university staff attitudes, staff awareness level, staff personality type have been derived. The core factors

of green HRM are also illustrated by the three indicators of green HRM functions, strategic thinking, formation, and operation of the green committee at the university. The contextual factors include technological, cultural, empowering, financial and structural contexts of the university and the intervening factors are also extracted as macroeconomic, social environment, legislative bodies, private or public university and geographical conditions that in this regard, environmental and organizational characteristics with the five components affected on the strategy which has been identified by the 5 components of the motivation of university staff, formulation of green laws and standards, green education and culture, design of green monitoring systems, and green employment priority. Besides, the consequences of green HRM including academic consequences accompany seven components of Increasing the quality of working life, university flexibility, economic saving, developing green organizational culture, facilitating the recruitment and retention of green elites and staff, improving university organizational identity, enhancing student satisfaction. Social consequences with two components of promoting green social culture, a sustainable environment, and individual outcomes with one component of self-esteem were achieved.

As the core of green HRM is the human resource of all organizations and organs and on the other hand is a new concept for the majority of academic and professional HR professionals, managers and staff of organizations, it is conceptualized as the functions of green HRM, strategic thinking, and the formation and operation of the Green Committee.

7. Conclusions

Workplace and in the social environment, regarding the influential environment outside the university, one suggestion is that it is better if the culture starts first with the family because then the manpower with the green culture embedded in it enters the university or organization, which it also reduces the cost of education. On the other hand, it is suggested that by incorporating green education programs or green management courses in universities for students, they should be familiar with some of the green issues that need to be observed before entering the workplace and then enter the market with green attitudes. Of course, for the sake of cultural debate, some also argue that the law must first be established, followed by continuous monitoring to ensure proper behavior is repeated. Therefore, it is recommended that appropriate green laws be considered at both the university and community levels and that regular follow-up with appropriate encouragement and punishment should be instituted to implement them.

In the workplace within the university, it is also important to pay more attention to in-service training and to incorporate green learning into the human resources curriculum. It is also suggested that quantitative standards

be set to assess green performance and pay more attention to the green performance of the workforce, and that points be given to individuals' green performance in performance appraisals and ultimately reward. On the other hand, every single green employee must be identified and rewarded with the person who has been in charge of the green, as well as the offender identified and punished. Besides, it is recommended that the payroll be separated from the costs so that the income from the savings are given to the people who have been in charge of the green affairs and to motivate the staff. On the other hand, the implementation of electronic HRM will be very effective.

In this study, interviewees believed that private universities perform better in terms of green practices, for some reasons: failure of the government to allocate and monitor the green budget, poor management of public university on green issues due to the lack of public funding, and receipt of perpetual specific remuneration per month and non-participation or very low share of government executives in profits from green compliance, it is suggested that the government, in addition to its green support for government agencies, oversee spending and compliance with their green affairs as the budget dedicated to green affairs is spent solely on these issues and that offshore agencies are also severely affected.

It is also necessary to take appropriate steps to address the problem of non-protection of the law from prioritizing the recruitment of green people in green universities by the relevant legislative body, and Employment regulations for green universities should give priority to hiring people who have a green vision and desire to work at a green university.

Contextual and interventionist factors that to be considered are needed budget providing and concerning about financial issues for having up-to-date technology and environmentally-friendly equipment that limits the universities. One of the suggested solutions is tax discount and tax organization support for the green university.

Based on the obtained outcomes, the long-term keeping

track of green issues will be profitable, and the savings will go back to the university or any organization that respects green affairs. It suggests that from this return on capital, funds to be allocated for the deployment and installation of new and environmentally friendly equipment that will contribute to the health and well-being of employees in the workplace. On the other hand, it can also be a motivating lever for keeping track of green jobs, as human resources see that observing green affairs also saves money and increases the quality of their working lives in the long term.

One of the causal factors affecting green human resource management is the support of managers, managers need to have a green vision and support the green HR. The importance of focusing on innovation and green ideas should also not be overlooked and employees should have the opportunity to comment and brainstorm and the manager should support the most appropriate and top green ideas. Attention to the green issues to be certain when managers themselves have the green faith and to be trained on them, so we need to have green managers before we have green hiring or training. This applies even to government officials and legislators.

Given the efforts made to develop a green HRM model in this research and its novelty, there may be some shortcomings in this research. Therefore, it is suggested that quantitative methods of the aforementioned model in universities and organizations be also evaluated. On the other hand, there is a need for more research into the role of being private and public universities and even other organizations in the observance and implementation of green affairs. Also, there is a great need to examine the role of cultural differences in respect for green affairs and there is still no cross-cultural model in the area that is even more necessary in Iran due to ethnicity and even different religions. Therefore, in future research, it is suggested to compare universities and green organizations with non-green organizations.

References

- 1) J. Gonzalez-Benito and O. Gonzalez-Benito, "A review of determinant factors of environmental proactivity," *J. of Buss. Strg and the Environment*, **15** 87-102 (2006). <http://dx.doi.org/10.1002/> (ISSN) 1099-0836.
- 2) A. Marcus and R. Fremeth, "Green management matters regardless," *Academy of Mgmt Perspectives*, **23** (3) 17-26 (2009).
- 3) S. E. Jackson, D. W. S. Renwick, C. J. C. Jabbour and M. Muller-Camen, "State-of-the-Art and Future Directions for Green Human Resource Management: Introduction to the Special Issue," *German J. of Research in HRM*, **25** (2) 99-116 (2011). Doi: 10.1688/1862-0000_ZfP_2011_02_Jackson.
- 4) D. Renwick, T. Redman and S. Maguire, "Green human resource management: a review and research agenda," *Intl J. of Mgmt. reviews*, **15** (1) 1-14 (2012). <http://dx.doi.org/10.1111/j.1468-2370.2011.00328.x>.
- 5) C.J.C. Jabbour, F.C.A. Santos and M.S. Nagano, "Contributions of HRM throughout the stages of environmental management: methodological triangulation applied to companies in Brazil," *Intl J. of HRM*, **21** (7) 1049-1089 (2010). DOI/abs/10.1080/09585191003783512.
- 6) C. Ichniowski, K. Shaw and G. Prensushi, "The Effects of Human Resource Management Practices on Productivity: A Study of Steel Finishing Lines", *The American Ecmc. Review*, **87** (3) 291-313 (1997).
- 7) H. Mendelson, and R.R. Pillai, "Information Age organizations, dynamics and performance", *J. Ecmc. Behavior and Org*, **38** 253-281 (1999).
- 8) C.J. Collins and K.D. Clark, "Strategic Human

- Resource Practices, Top Management Team Social Networks, and Firm Performance: The Role of Human Resource Practices in Creating Organizational Competitive Advantage”, *Acad. Mgmt. J.*, **46** (6) 740-751 (2003).
- 9) I. Ehnert, “Sustainability & human resource management: reasoning and applications on corporate websites,” *Eur. J. Int. Mgmt.*, **3** (4) 419-437 (2009). doi.org/10.1504/EJIM.2009.028848.
 - 10) D. W.S. Renwick, T. Redman, C. J.C. Jabbour, M. Muller-Camen and A. Wilkinson, “Contemporary developments in Green (environmental) HRM scholarship,” *Intl J. of HRM*, **27** (2) 114-128 (2016). <http://dx.doi.org/10.1080/09585192.2015.1105844>.
 - 11) B. F. Daily and S. Huang, “Achieving sustainability through attention to human resource factors in environmental management,” *Intl. J. of Oprtn. & Prdc. Mgmt.*, **21** (12) 1539-1552 (2001). <http://dx.doi.org/10.1108/01443570110410892>.
 - 12) J. Patil and A.P. Sarode, “Green human resource management: Role of HR managers to achieve sustainability”, *Intl J. of Creative Research Thoughts (IJCRT)*, **6** 527-531 (2018).
 - 13) A. Hamilton, D.A. Gioia, “*Fostering sustainability-focused organizational identities. In Roberts LM, Dutton JE (Eds.)*”, *Fostering sustainability-focused organizational identities*, first edition, Routledge, New York, (2009).
 - 14) W. O’Donohuea, N. Torugsa, “The moderating effect of ‘Green’ HRM on the association between proactive environmental management and financial performance in small firms,” *the Intl J. of HRM, Routledge*, **27** (2) 239–261 (2016). <http://dx.doi.org/10.1080/09585192.2015.1063078>.
 - 15) J. Milliman, “Leading-Edge Green Human Resource Practices: Vital Components to Advancing Environmental Sustainability,” *Environmental Qulty Mgmt, Wiley*, **23** (2) 31-45 (2013). DOI: 10.i002/tqem.21358.
 - 16) B. Shahriari, A. Hassanpoor, A. Navehebrahim and S. Jafarinia, “A systematic review of Green human resource management,” *EVERGREEN Joint J. of Novel Carbon Rsrce. Scins. & Green Asia Strtgy*. **6** (2) 177-189 (2019).
 - 17) B. Shahriari, A. Hassanpoor, A. Navehebrahim and S. Jafarinia, “*Designing a Green Human Resource Management Model for higher education industry (Case Study: Tehran’s universities)*,” Kharazmi University, Tehran. (2019).
 - 18) W. Wehrmeyer, “*Greening people*,” Greenleaf Publishing, Sheffield, (1996).
 - 19) D. Renwick, T. Redman and S. Maguire S, “*Green HRM: A Review, Process Model, and Research Agenda*,” University of Sheffield Management School, (2008). <http://www.sheffield.ac.uk/content/1/c6/08/70/89/2008-01.pdf>.
 - 20) E. Renwick and C. Casazza Herman, “*Sustainability and employee engagement: Which drives which? In E. Cohen (Ed.). CSR for HR: A necessary partnership for advancing responsible business practices*”, Greenleaf Publishing, Sheffield, England, (2010).
 - 21) H. Opatha and A. Arulrajah, “Green Human Resource Management: Simplified General Reflections,” *Intl Buss Research*, **7** (8) 101-112 (2014). Doi: 10.5539/ibr.v7n8p101.
 - 22) S. Ahmad, “Green Human Resource Management: Policies and Practices,” *Cogent Buss & Mgmt*, **2** 1-13 (2015). <http://dx.doi.org/10.1080/23311975.2015.1030817>.
 - 23) Y. Joong Kim, W. Gon Kim, H.M. Chio and K. Phetvaroonb, “The effect of green human resource management on hotel employees’ eco-friendly behavior and environmental performance”, *Int. J. Hospitality Mgmt.*, **79** 83-93 (2019). <https://doi.org/10.1016/j.ijhm.2018.04.007>.
 - 24) S. Leidner, D. Baden and M. Ashleigh, “Green (environmental) HRM: aligning ideals with practices,” *Personnel review*, **48** (5) 169-1185 (2019). doi.org/10.1108/PR-12-2017-0382
 - 25) D. D. Thu Pham and P. Paille, “Green recruitment and selection: an insight into green patterns,” *Intl J. of Manpower*, **41** (3) 258-272 (2019). DOI 10.1108/IJM-05-2018-0155.
 - 26) C. M. Mathapati, “Green HRM: A strategic facet”, *Tactful Mgmt. Research J.*, **2**(2) 1–6. (2013).
 - 27) V. Muster and U. Schrader, “Green work-life balance: A new perspective for Green HRM,” *Zeitschrift Fur Personalforschung*, **25** 140–156 (2011).
 - 28) Y. Mohd Yusoff, N. Zahiyah Othman, Y. Fernando and A. Amran, “Conceptualization of Green Human Resource Management: An Exploratory Study from Malaysian-based Multinational Companies,” *Intl J. of Buss. Mgmt and Ecmc Research (IJBMER)*, **6** (3) 158-166 (2015).
 - 29) S. Dutta, “Greening people: A strategic dimension,” *ZENITH: Intl. J. of Buss. Ecmcs. & Mgmt Research*, **12** (2) 143–148 (2012).
 - 30) Da-Yeh University website, <http://green.dyu.edu.tw/en>.
 - 31) W. Zhao and Y. Zou, “Green university initiatives in China: a case of Tsinghua University,” *Intl. J. of Sustainability*, **16** (4) 491-506 (2015). DOI: 10.1108/IJSHE-02-2014-0021.
 - 32) “The Iranian Society for Green Management,” retrieved from <http://www.iran-gma.com/awards-and-certificates/2110/>.
 - 33) E. Strauss and J. Corbin, “*Principles of Qualitative Research: Techniques and Processes of Underground Theory Production*”, translated by Ebrahim Afshar, Tehran: Ney Publishing. (2012).
 - 34) I. Holloway and S. Wheeler, “*Qualitative research in nursing and healthcare*,” 3rd e.d., Wiley, U.K., (2010).