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Provide a conceptual framework for green human resource management based on sustainable development approach

Fariba Nazarifard A.* **and Zahra Broumand *B*.**
Central Tehran Branch, Islamic Azad University, Iran
faribanazarifard@gmail.com

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Abstract

The purpose of this paper is to introduce a conceptual framework that specifies the green human resources indicators towards sustainable development approach. Data was collected 2 ways: first, study review from empirical articles on green human resource management and sustainable development led to Framework 1, second, unstructured interview from 19 academic and industrial experts resulted in Framework 2. The collected data was analyzed *by meta-synthesis and thematic method, using MAXQDA software. Based on framework 1 and 2,was presented final conceptual Framework with 3 major themes, including Effective variables, Green human resource management variables, Sustainable variables, as well as10 secondary themes, were identified for this paper.* Researchers calculated the reliability by the "HOLSTI's method"*: it was 85%.*

Keywords: Sustainable development, GHRM, thematic method analysis, meta-synthesis.

Introduction

Human activities have adversely influenced the environment and the depleting natural resources. Mehta and Chugan stated the effect on the stark realization of day-to-day activities not only individuals to go green but also organizations. They believe concern for environment has been increasing, therefore, the businesses are compelled to move towards sustainable goals and green policies[1]. In other word, according to the current condition the companies have to figure out solutions to reduce the ecological effects without considering the economic matters. Hence, to attain success and to facilitate attainment of profit, some researchers have recommended to social and environmental parameters along with economical and financial parameters[2, 3].

In Fact, they believe the companies should think over all aspects. Some opinion states that still the topic is not convenient with most specialists in the human resource (HR) environment although the sustainability topic is quick moving up on the priorities list of the big company's managers of world[4]. Some researcher state to implement any environmental plan a vast number of departments such as HR, Marketing, IT, Finance, and so on, involve putting forward an effective collaborative attempt and among them, the most significant participator is the HR department. Certainly, one of the significant parts of the solution to eliminate the environmental adventure is the Great partnership of stakeholder and companies[5].

The study aims to detect all variables which influence green human resource (GHRM), provide a framework to common GHRM processes and state the GHRM implementation result.

Statement of the problem and necessity: Owino and Kwasira state "as a result of increasing production, companies use a lot of fuel as a source of manufacturing energy leads to increase amount of wastes informs of toxic gases and biodegradable solids and poisonous liquids and finally end up polluting the environment and wasting resources"[6]. According to British Petroleum reports in 2016, energy consumption in Iran was 6.2% (Three times the global average)[7].

Molina-Azorı´n et al. pointed to responsible activities are more important to control raw material. They state "excess consumption of natural resources as a raw material by the industries and companies brings about tremendous pressure on the natural resources of planet Earth and it is necessary for them to companies to develop environmentally responsible activities"[8]. Generally, Owino and Kwasira expressed that "the environment and energy resource situation are so alarming and the GHRM is necessary in the current 21st Century on a daily basis"[6]. They emphasized the commitment of HR being the guardian of all employees to achieve green purpose[6]. Some studies which are done recently illustrate the correlation between human resource management (HRM) and environment management towards the achievement of environmental goals[9].

By determining the significant HRM role in environmental performance matters, results obtained by Jabbour and his colleagues reverberate the attempts that have been made in this area since 20 years ago. Over the last 15 years, skilled researches in EM have conducted their consideration to HRM and have highlighted the importance of individual green no vation in the workplace[10].

Research questions: To provide a conceptual framework for GHRM, this paper has proposed the following questions in this research: i. which variables influence GHRM conceptual framework? ii. What are the GHRM Indicators? iii. According to sustainable development, what are results from GHRM on organization?

Research literature: In this section is explained main concepts including: green human resource management, sustainable development and GHRM models.

Green human resource: Researchers have provided several definitions for GHRM. Some of them believe "investigation about GHRM is an inter-disciplinary and is drawn from organizational themes within strategic management"[11-14]. Some others believe" implementation GHRM practices bring about reduction negative environmental impacts or enhance positive environmental impacts of the organizations"[15]. In other word, the organization implants GHRM in search of preventing environmental problems due to positively influences environment in the long run. Mandip[16] provided a Comprehensive definition for GHRM: "Green human resources refer to using every employee touch point/interface to promote sustainable practices and increase employee awareness and commitments on the issues of sustainability. It involves undertaking environment-friendly HR initiatives resulting in greater efficiencies, lower costs and better employee engagement and retention which in turn, help organizations to reduce employee carbon footprints by the likes of electronic filing, car-sharing, job-sharing, teleconferencing and virtual interviews, recycling, telecommuting, online training, energy-efficient office spaces etc".

Sustainable development: From the perspective of McGrath and Powell[17] "A growing awareness of environmental issues became visible in the 1960s and early 1970s". But in 1987 the Brundtland Commission report popularized the term 'sustainable development', Our Common Future. The sustainable development was explained in the Brundtland Commission report as "meeting the needs of the present without compromising the ability of future generations to meet their own needs"[18]. Department of Environment from Ireland defined: the main aim of Sustainable development is moving citizens into high wellbeing now and in the future. In other word, it is a process of economic, environmental and social change which is continuous. Creating a sustainable and efficient economy based on just and fair community, respecting the ecological constraints and the natural environment carrying capacity are principal factors for realizing the sustainable development[19].

Human resources management models: GHRM is a new issue for organization and recently it investigation has been increasing.

In the research literature, there are a few conceptual models for GHRM. Table-2 Shows that a summary of these models.

Methodology

In order to achieve the study aim, in this article has been used 2 methods: i. Meta-synthesis applied to articles review. ii. Thematic analysis applied for interviews.

In the last step, by using MAXQDA software, codes identification and categorization have been done.

There are several definitions about Meta synthesis and thematic analysis: "Holly and salmon" stated the definition about Meta synthesis: qualitative Meta synthesis is a method that incorporate and breaking down the qualitative studies and findings which are done by the individual researchers. After combination of findings into a single completed description, is clarified the themes, metaphors, or categorizations and key features[20].

Also "Braun and Clark" stated the definition about thematic analysis "Thematic analysis is a method for identifying, analysing, and reporting patterns (themes) within data. It minimally organises and describes your data set in (rich) detail"[21].

Results and discussion

Study review findings based on *Met synthesis*: The first part of findings comes to an extensive review from Reliable articles on GHRM. For data analysis, has been applied Meta *synthesis*. The result of study review has been shown in the Table-1, 2, 3. And these Tables resulted in the Figure-1 that shows the framework-1.

Interview findings based on thematic analysis: After study review, unstructured interview started. The experts were selected from academic and industrial in HRM, environment management and energy management fields due to integration between their viewpoints and archive to comprehensive result. To review the content of the interviews was applied thematic analysis and gave rise to framework 2 which has been indicated in the Figure- 2. The following the Table-4 Shows the activities which have been done by the researchers.

Discussion: In this study were found 3 main themes. The content of the main themes has been described by the MAXQDA Software output in the Figure-3. In the follow each theme will be explained.

Effective variables: These codes play vital role for creating the GHRM indicators. All codes which were extracted for this theme covered all physical, behavior aspects and also considered individual and organization impacts. These variables are classified based on internal and external aspects.

GHRM indicators: These codes indicate the indicators to GHRM, obtained from the researches and interviews. This

theme includes 3 sub themes: i. Input Processes: such as recruitment and this study suggest the companies be oblivious to environmental and green aspects, when they are will to design job. ii. Management indicators: based on framework 1, 2 in this section the researchers found that managers have a significant role for GHRM implementation. As a result of this the researchers suggest the companies emphasize the manager's indexes. In this study, the researchers identified indicators such as Green vision and strategy, Green socialization and defining the green code of conduct. iii. Maintenance process: like as green training management, green performance and Payment and reward is other variable which recognized from framework 1 and 2. In fact, during this study many articles and many interviewed expert pointed to it.

Sustainable variables: These codes refer to GHRM implementation results based on sustainable development approach. In search of archive to topic purpose, classifying of it is based on sustainable development according to a conceptual framework (final modes). The final framework shows the Sustainable variables which have been identified for each sub theme.

Conceptual framework (final model based on framework 1 and 2). After theme and sub theme detection, the conceptual model for this paper has been shown in the Figure-4.

Table-1: Met synthesis Steps and actions.

Met synthesis Steps[22]	Actions taken by the author
Research question	In this paper has questioned all aspects including: effective indicators, GHRM indexes and result of GHRM implementation.
Systematic articles review	Two study groups were conducted in search of answering the question: First: was investigated the GHRM models which had been presented by the others researchers then was extracted it indexes. Second: was surveyed the articles which there was the correlation between GHRM and sustainable development then was extracted it indexes.
Search and select the right article	This paper applies a method to study the papers cited in the reliable references and for the article assessment has been used Critical Appraisal Skills Program (CASP) checklist.
Extract articles data	After an extensive review from research content were studied abstracts, Conceptual Frameworks, variables, methodologies and results.
Analyze and combine qualitative findings	In this step was started identification and categorization of codes, units Encoded and using MAXQDA. The researchers found 20 codes during the articles study.
Quality Control	Quality of research was done by the experts
Findings	According to Table-2,3 and the Framework 1 which resulted from review study (Figure-1)

Table-2: GHRM indexes from pervious frameworks.

Variables	Ref.
Senior Manager Support, Empowerment, Training, Team working, Remuneration	23
Recruitment an selection, Training, Performance evaluation, Remuneration, Organizational Culture, Management support, Team working	9
Employment, Training and development, Performance management, communication, salary and reward	24
In this paper, Provide framework to VGHRM activities was according to Ability–Motivation–Opportunity (AMO) theory. 2 indicators for GHRM obtained: motivation, green employees, green opportunity, green ability	25
Recruitment an selection, Performance evaluation, e-learning HR process, training, employees participation, motivation and reward, Disciplinary process, Compensation, Awards and rewards, HR role	16
Two remarkable achievement of this paper were green Perception, and job analyzing. Job analyzing means designing jobs by considering technical, organization and environmental requirements.	24-26
Social responsibility, E-HRM, Green policy, Balance between work and life	27
Green process, green support, green culture, green strategy	28

Table-3: Variables which were extracted from correlation between GHRM and sustainable development.

Variables	Ref.
GHRM codes : Training, Independence of employees in decision making, Evaluation system, personnel involvement, top management support. Other codes: Energy management requirements (energy saving, consumption management), Environmental requirements (ISO 14001, Reduce environmental incidents), Social requirements (employer branding, Social responsibility), Economical requirements (technology, cost, profit).	29
Green indicators: Attitude Leadership, Management Employee Involvement, Facilities and Techniques. Organizational performance indicators: Environmental Performance, Business Performance.	30
GHRM codes : Green training, Green recruitment, Green learning. Other codes: Company performance in environment and economical field.	31
GHRM codes: Reward, performance evaluation, Training, management commitment, management support. Other codes: Company performance and environment aims.	32
Financial and economic performance, social and market performance, environment strategy.	33
GHRM codes: Organizational training, Systematic analysis for training, Green performance evaluation, right responsibility definition, employees involvement, infrastructure and Facilities, Creating a green opportunity for educated people.	34
Social aspect (Training and awareness, Health and safety, involvement, commitment), economical aspect (Increase market share, Reduce costs, return on investment, Green technology, Increase in revenue), environment accept (Reduce contamination, Reduce environmental incidents, requirement).	35
Economic criteria, Social criteria, Environmental criteria	36
Generation of Green Decisions (Stimulus-outcome (Efficacy), Response-outcome (Utility beliefs), Emotions (Anxiety and fear), Orientations (obligation and partnership), Performance (Achievement), Mastery (Learning) Instrumental (Advantages), Terminal (Costs). Execution of Green Behaviors (Attention focus, Self-monitoring, EM knowledge, Experience, Training/Updating, Technology, Remuneration). Maintenance of Green conducts (Cool and Hot representations).	37
Social focus (Health and population, Food safety and nourishment, Social patronage, Education, women empowerment and Gender equality), Environmental focus (Sustainable cities and human habitations and sanitation, reduction of the catastrophe probability, Deforestation, drought, Sustainable agriculture, Chemicals and waste, Energy, Sustainable transport, Changing the climate, Oceans and seas, Forests, Biodiversity, Mountains, Mining), Economic focus (Green economy, Poverty eradication, Promotion of productive and decent employment, Sustainable consumption and production, Sustainable tourism).	38
Environment subsystem (exhaust Gases, solid Waste, waste Water), Social responsibility Subsystem (responsibility to environment, responsibility to employee), Corporate profit subsystem.	39
Performance management, salary, recruitment, training, culture, personnel involvement, union role.	40
Population subsystem, Economic subsystem, Ecological environment subsystems.	41
Friends' Norms, Relative' Norms Knowledge, Consciousness about environment topics, Consciousness about environment values, Consciousness about environment consequence, Personal value, Social value, Perceived convenience, Better packaging products.	42
Top management, Training, Team, Empowerment, Rewards.	23
Green staff sourcing, Occupational Health and Safety, Green staff training, Green performance.	6
Recruitment, Performance, Management, Training and empowerment, Employee Involvement, Remuneration: Pay and Reward System.	1

Table-4: Theme analysis steps and actions.

Theme analysis steps[26]	Actions taken by the author
Data recognition	Statistical population for interview includes: academic and industrial experts from human resource management and energy and environment management.
Initial encoding	In this step started data entry for identification and units encoded, using by MAXQDA.
Extract initial concepts and themes	During initial coding, researcher found 28 codes from interviews These codes were classified 3 major themes.
Themes review (second encoding) and Draw a Theme Network	In this step, previews codes were revised and researchers found 24 codes.
Analyze concepts and themes	Interviews survey led to framework 2 (Figure-2)

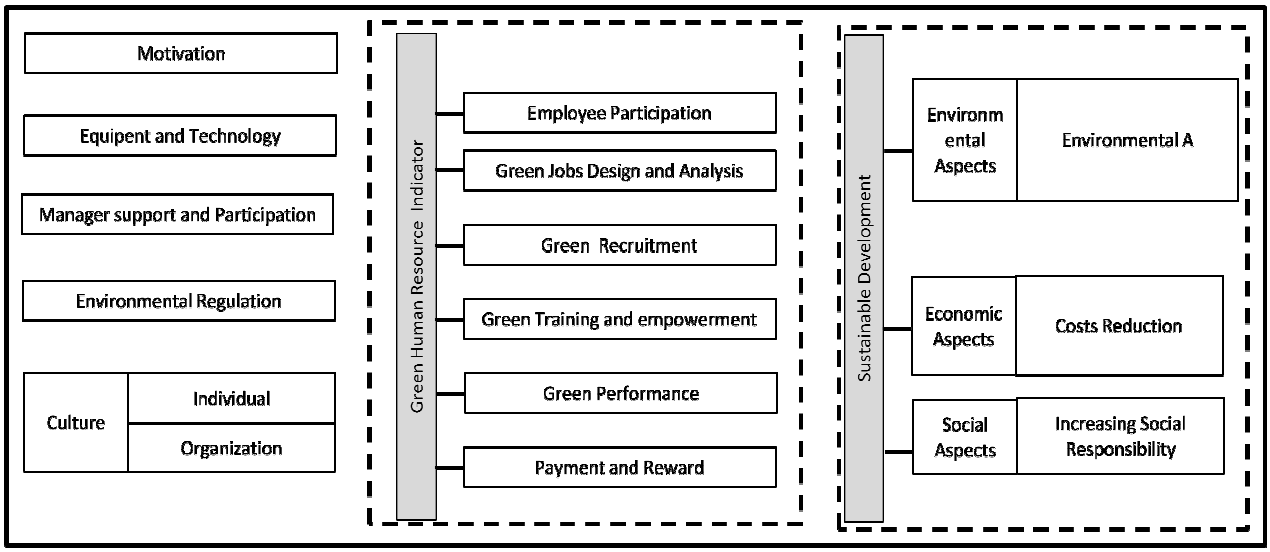

Figure-1: The result of review study (Framework-1)

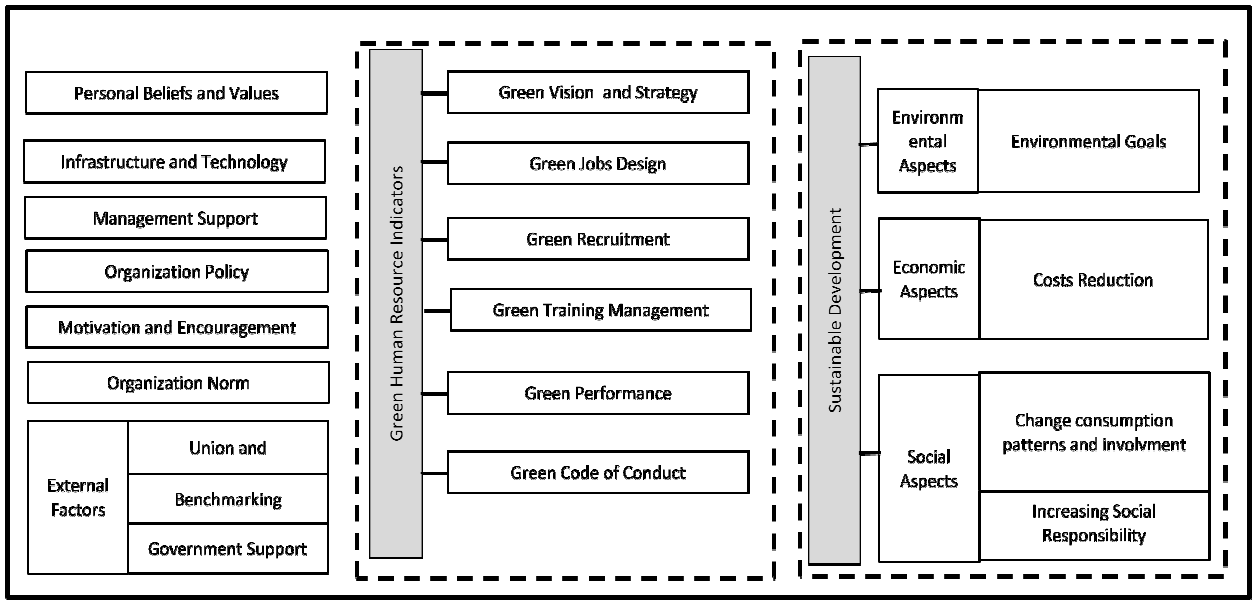

Figure-2: The result of interviews (Framework 2).

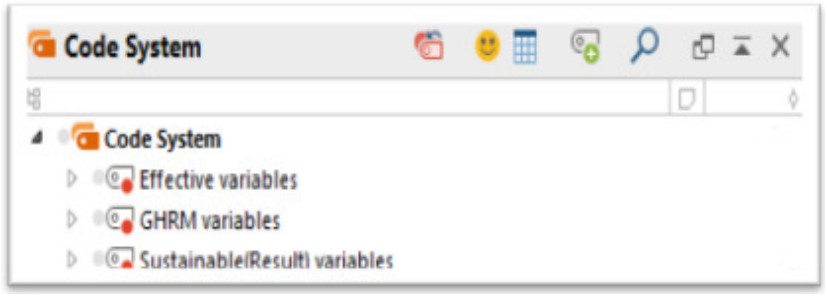

Figure-3: 3 main themes.

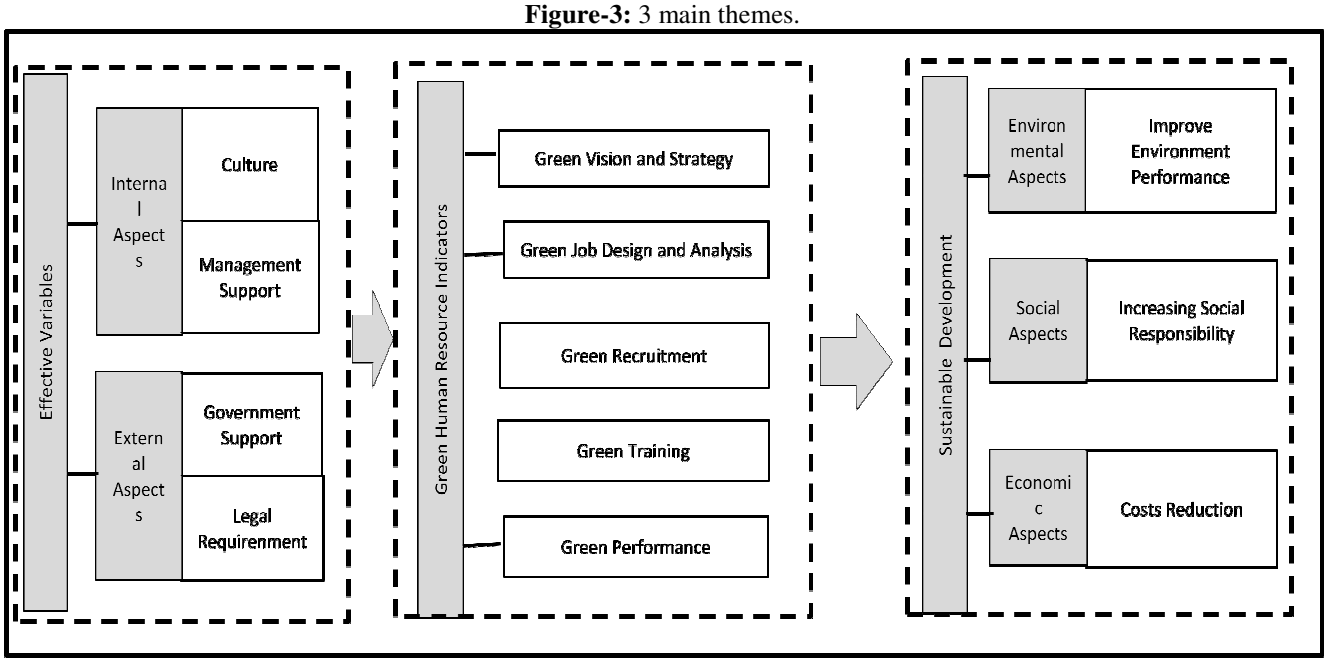

Figure-4: Conceptual framework (Final model).

Reliability assessment: To assess the reliability coefficient, data was selected by 2 methods: studying the literature and interviewing the expert opinion.

In the each method, first themes were extracted by researchers, and then were identified by specialists. After comparing the 2 phases, the reliability coefficient was computed, using The HOLSTI's methodology. The formula is as follows:

$$PAO = \frac{2M}{n1 + n2}$$

M=the number of agreement between two coders, on the commonly coded cases. N1=N1 indicates the number of encoded units which has been identified in the first phase. N2=N2 indicates the number of encoded units which has been identified in the first stage in the second stage. PAO=PAO shows the agreement percentage encoded units (reliability coefficient). The values range between 0 and 1. 0 is not agreement result. 1 is the perfect agreement and it is acceptable if the value number be above 0.8[43].

The Table-5 shows that the findings of research have high reliability.

Table-5: PAO calculation

Theme	N1	N2	M	*PAO*
Study review findings	28	21	20	%82
Interview findings	28	26	24	%89

Conclusion

This article used 2 ways for data collection and analysis. Meta-synthesis was conduct applied to review articles. Thematic analysis was conduct applied to interviews.19 academic and industrial experts from human resources and environment took part in the Statistical population. After data collection, by using "MAXQDA", three main themes were identified. The first theme called "Effective variables theme" which classified based oninternal and external aspects. The second theme called "Green

Human Resource Management variables theme", and the last theme was "Sustainable variables theme" which in search of paper goal classified to sustainable development components. This article employed a method to the Researches cited in the reliable references and for the article assessment used Critical Appraisal Skills Program (CASP) checklist. Furthermore, Researchers calculated the reliability by the "HOLSTI's method": it was 85%.

Innovation of this research in the first theme was review considering all phenomena mean: physical, Behavioral, Structural and Contextual factors that have an effect on GHRM implementation. In addition, in the GHRM theme was identified some green indicators were as the decisive factors for proving GHRM framework. Last theme indicts to result of GHRM implementation. In this section all variables were categorized based on sustainable development including: social aspects, Economic aspects, Environmental aspects.

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