ORIGINAL RESEARCH PAPER

Identifying the obstacles to green human resource management practices in Iran

S. Vahdati*, S. Vahdati

1Department of Public Administration, Management and Accounting Faculty, Allameh Tabataba’i University, Tehran, Iran
2Department of Industrial Engineering, Industrial Engineering Faculty, Tehran South Branch, Islamic Azad University, Tehran, Iran

ABSTRACT: As green human resource management is known as a way of promotion of sustainable employee practices with the help of interface of every employee, there has always been a question in mind why in some societies green human resource management practices cannot be implemented effectively. The purpose of this paper is to find factors affecting green human resource management practices as barriers to help managers identify the root and be able to surmount the obstacles. As the result showed two groups of factors were defined; 1- Internal factors including personality and upbringing, knowledge of individuals, organizational culture, and 2- External factors including digital divide and education and training. Then the attention is drawn to the significance of these factors to see which one can have the most and the least effect. Therefore to rank the value of these factors the Friedman test was used. The result showed that among all these factors personality and upbringing have the highest effect and digital divide has the lowest effect on green human resource management practices. It is believed that by emphasizing and paying more attention to these factors the implementation of green human resource management can be improved more effectively and employees will be more willing to show green behavior towards the environment or the use of resources.

KEYWORDS: Education and training; Digital divide; Green human resource management (GHRM); Knowledge; Organizational culture; Personality and upbringing

INTRODUCTION

Green Human Resource Management (GHRM) is the combination of environmental management and human resource management (HRM) practices. It is what an organization can use to step forward in a way in which the cost can be reduced without losing precious employees and it results into high efficiency and more useful management, GHRM is about using human resource management policies to support sustainable use of resources and actively encourage environmentalism (Ahuja, 2015). More attention to environmentalism is leading organizations toward the development of employees’ competencies to produce their products according to strict environmental rules. Nowadays, to achieve long term sustainability, organizations have found out that, just focusing on financial profits, is not enough and all social and environmental impacts must be greatly considered. Therefore, it is absolutely essential for organizations to know how much they are responsible for all their decisions affecting the society and the environment.
GHRM involves in development, progress, execution, performance and keeping a system with the goal of training green employees for a green organization. In other words, it means making efforts to turn the ordinary individuals to green employees to fulfill organization’s environmental goals which engulf the whole “concept of greenness” (Opath and Antonarulrajah, 2014). Therefore, GHRM is directly responsible for training the employees who can understand the value of the environment. (Daily and Huang, 2001) suggested that organizations must fundamentally reassure that they balance the industrial growth alongside with preserving and supporting the environment. In long run, these balance and practices will benefit the organizations.

Considering the significance of GHRM, it is worth mentioning that scholars believe green management system can be effective only if organization has eligible and competent individuals. Success and efficiency in every green innovation depend on the availability and ability of human resource. Green human resource management is an approach to fulfill organizations’ and society’s needs without harming the environment. GHRM will bring economic benefits, distinction and specifically advantages for human resource. Besides, those organizations that have better environmental performances will have better image and will absorb more potential employees (Fayyazi and Afshar, 2014). As implementing green human resource management is so important, in the current paper it is argued that what factors can affect Green human resource management practices. According to our discussion there are some internal and external factors which will not allow GHRM be implemented by all the organizations effectively. It has been discussed that personality and upbringing, knowledge of individuals, organizational culture as internal factors and digital divide and education and training as external factors affect Green HRM practices. These factors are defined as the followings:

**Uphbring and personality**

People are different based on their psychological aspects (Eysenck and Eysenck, 1985). These differences can be categorized at many levels (Elliot and Thrash, 2002). As the predictors of environmental behavior are based on their differences, Core personality traits, such as the Big Five and HEXACO dimensions, can provide a favorable explanation considering the fact that they are cross-culturally reliable and valid enough. In addition, they can somewhat determine factors like attitudes (McCrae and Costa, 1997).

Broad models of environmental behavior (Stern, 2000) consider basic personality as the cause and base of a person’s values, ideology, attitudes, etc., and mention long-lasting effect of early personality on a person’s life in future (Block and Block, 2006). For instance, early personality foretells future values, attitudes, and behaviors before even having them (Caspi and Silva, 1995; Slutske et al., 2012). Attention must be paid to the relations and connections between a person’s character, traits, aptitudes, values, frame of mind, etc. and their environmental behavior which shows how the environmental and green behavior is affected by someone’s personality (Krahnzal, 2010).

In addition, from the “Big Five” perspective which defines the differences in human personality through five dimensions of Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience, environmentalism has been analyzed (Goldberg, 1993) and they can be used to foretell more attitudes and value orientations (McCrae and Costa, 1997), two of these dimensions, Agreeableness and Openness, are considered remarkable predictors of pro-environmental values (Hirsh and Dolderman, 2007). In another study, openness was associated with more-frequent pro-environmental behaviors and also this relation was entirely mediated by environmental attitudes and connection to nature (Markowitz et al., 2012). Considering all the discussion above, it is believed that it may be beneficial to examine an even broader array of personality traits plus upbringing and their connections with green behavior because this may provide additional insight into the reasons that how we can improve our green human resource management practices.

**Knowledge of individuals**

How knowledgeable an employee can be about green behavior and greenness according to his/her previous education and life background is what is meant here. Rarely will individuals show pro-environmental behavior or act in a green way if they have little knowledge about the impacts of their actions on the environment. If an employee has no knowledge about greenness and its effect on the environment and
society, it is not easy to behave in a pro-environmental way (Levine and Strube, 2012). The more knowledgeable the employee is about environmentally friendly behavior and the impact of their behavior, the more pro-environmental behavior can be predicted (Fielding and Head, 2012).

**Organizational culture**

Having green and environmentally friendly policies and rules in an organization little by little will provide a culture in the organization in which employees will try to behave and act according to the fundamentals of greenness. Green human resource management sets up a green workplace in which green employees can deeply perceive the concept of greenness and appreciate having this culture in their organization. In such green environment green goals can be accomplished throughout the whole process of human resource management (Dutta, 2012). To be able to implement green human resource policies, it is vital to pay attention to the critical role of human resource processes (Renwick, 2008); hence, human resource management is essential to achieve environment management goals (Hersey, 1998). Therefore, employees who have been working in a green culture are much more easily manageable for green human resource management practices.

**Digital divide**

Digital divide may cover a wide range of meanings and definitions, but with more attention, it will be understood that the nature of all of them are the same and all are related to how much a person can access to computers and this fact can be different from one to another based on their financial or geographical situations and their computer knowledge which might be associated with their age as well (Chamberlain, 2002).

To be more precise, digital divide also refers to better use of information and communication technology by different countries from developed to developing countries even to the number of ICT experts or specialists who are trained in developed countries in comparison to those from developing countries (Williams and Poh-Sze, 2003). This divide can be caused by different reasons. It is undeniable that rich countries are normally the first who benefit new technologies because of financial power and better human resources but poorer countries because of different priorities such as basic necessities and physiological needs may not be able to allocate resources for information and communication technologies (Mirdamadi et al., 2008). Hence, the more opportunities for the use of ICT are provided, the better situation is for those who are able to use ICT properly. Digital divide can be considered with three different stages: Access to ICT; usage, if people are able and interested to use ICT, and effective use of ICT (Andreasson, 2015). In the current paper by the term of digital divide it is meant how the lack or shortage of information technology or the access to it may cause behaviors and actions which are not according to green behavior, environment management or in one word greenness; conversely, those who have more access to ICT and better knowledge of its use are able to show more green behaviors.

**Education and training**

Greening refers to better energy usage, with lower costs, low wastage by the use of sustainable resources or materials that can be recycled for end results (Jafri, 2012). This is the matter that how a green organization can be made. To do this, high efficiencies in organizational hierarchies are needed, and more virtualized work, besides, unnecessary time spent in the office must be eliminated and the company resources must be used at optimal level. Green organizations support telecommuting, flexible work schedules more than other organizations (Sathyapriya et al., 2013). In addition, those people must be hired in a green organization who are interested in environmental issues (Renwick et al., 2013).

The organization success in training and educating the employees in order to have more environmentally friendly behavior and act in a more green way is what should be mentioned as one of the affecting factors on green human resource management practices. By training green employees can be trained for the organization. Training programs should include different issues including social and environmental at all levels, from the lowest level to the top level. Green orientation programs must be included as an inseparable part in all steps of the training for the employees. The employees must be informed about the green procedures and policies, etc. This clarification is essential for green thinking and being green. To create an effective training system, it is vital to have a controlling system, an environmental committee, precise job descriptions, increase in employees’ special new environmental awareness practices, a useful
Green human resource management

- Performance management system to monitor productivity, quality, excellence, wastage, etc. In such training system, assessment is greatly needed (Mandip, 2012). It is obvious that organizations with high environmental performance and greener behavior may improve their overall images and consequently high potential employees’ attentions are attracted toward them. Also, Increase in environmentalism leads the organizations to improve the employees’ competence to make products based on environmental regulations (Chen et al., 2012).

- Adoption of environmentalism and green human resource management leads to better public image, more productive business processes, more positive reputation, more professional and greener employees, higher product quality, more competitive advantage, more productivity, more commitment and loyalty, more motivation, etc., in other words, in this condition, green employees with green abilities develop green management organizational efforts (Renwick et al., 2013). Aragón-Correa et al. (2013) suggested that many organizations that use GHRM, have profited from their implementation and their employees have also more confidence, positive feelings and better morale and performance. Working based on environmental standards and improving productivity will lead to the reduction of negative environmental effects (Delmas and Pekovic, 2013). As it was mentioned above, training acts as a key to achieve the goals through trained employees. Such employees are considered perfect staff to reduce waste (Renwick et al., 2008). Generally an environmental approach needs development in employee awareness and knowledge and skills. (Fernandez, et al., 2003).

MATERIAL AND METHODS

The current paper is an applied and analytic-descriptive research carried out as a survey. The participants were all the experts of Environmental Protection Organization of Iran. Total numbers of participants who answered and returned the questionnaires were 54 males and 59 females, aged from 25 to 55. The simple random sampling was used. Cochran formula was applied to determine the sample size in this method. The questionnaire consisted of 14 questions in which 7 indicators for internal factors and 7 indicators for external factors were considered. For ensuring the validity of content, the perspectives of scholars and experts were used and structure validity also was measured by using Confirmatory Factor Analysis (CFA) and by the help of Lisrel software for each indicator, weak indicators were eliminated. Also Cronbach alpha was measured and according to the result it was 0.730 which shows that the reliability of the questionnaire is acceptable. Fig. 1 presents the final proposed research model consisting of five relating factors. (1) Internal factors: Personality and upbringing, knowledge of individuals, Organizational culture, (2) External factors: Digital divide and Education and training:

![Fig. 1: Research model](image-url)
All the factors considered as obstacles to green human resource management along with their relevant indicators are mentioned in Table 1. In the present study, the following hypotheses were developed:

- **H1**: Personality and upbringing affect Green HRM practices.
- **H2**: Knowledge of individuals affects Green HRM practices.
- **H3**: Organizational culture affects Green HRM practices.
- **H4**: Education and training affect Green HRM practices.
- **H5**: Digital divide affects Green HRM practices as an obstacle.

**Analysis of research data**

**First hypothesis**
Personality and upbringing affect Green HRM practices.

- **H0**: The mean score given to personality and upbringing affecting Green HRM is less than or equal to 3.
- **H1**: The mean score given to personality and upbringing affecting Green HRM is more than 3.

According to Tables 2 and 3, it will be concluded that H1 is accepted so personality and upbringing affect Green HRM practices.

**Second hypothesis**
Knowledge of individuals affects Green HRM practices.

- **H0**: The mean score given to knowledge of individuals affecting Green HRM is less than or equal to 3.
- **H1**: The mean score given to knowledge of individuals affecting Green HRM is more than 3.

<table>
<thead>
<tr>
<th>Factor number</th>
<th>Factor title</th>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Personality and upbringing</td>
<td>Family, lifestyle, the way a person has been brought up</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Person’s nature and values and believes</td>
</tr>
<tr>
<td>2</td>
<td>Knowledge of individuals</td>
<td>knowledge, intelligence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Person’s degree</td>
</tr>
<tr>
<td>3</td>
<td>Organizational culture</td>
<td>Proper use of resources and the culture of protecting environment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cultural education of environmentally friendly behavior and optimal use of resources</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Organizational culture and organizational performance</td>
</tr>
<tr>
<td>4</td>
<td>Digital divide</td>
<td>Availability of information technology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Advanced information technology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Effect of information technology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Well-equipped work places</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ability to use information technology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Proper use of information technology to have more environmentally friendly behavior</td>
</tr>
<tr>
<td>5</td>
<td>Education and training</td>
<td>Different education, educational centers, advertisement, media</td>
</tr>
</tbody>
</table>

*Human resource management*
According to Tables 2 and 3, it will be concluded that H1 is accepted so knowledge of individuals affects Green HRM practices.

Third hypothesis
Organizational culture affects Green HRM practices.

$H_0$: The mean score given to organizational culture affecting Green HRM is less than or equal to 3.

$H_1$: The mean score given to organizational culture affecting Green HRM is more than 3.

Tables 2 and 3 also reveal that H1 is accepted so organizational culture affects Green HRM practices.

Fourth hypothesis
Education and training affect Green HRM practices

$H_0$: The mean score given to education and training affecting Green HRM is less than or equal to 3.

$H_1$: The mean score given to education and training affecting Green HRM is more than 3.

According to Tables 2 and 3, it will be concluded that H1 is accepted therefore, education and training affect Green HRM practices.

Fifth hypothesis
Digital divide affects Green HRM practices as an obstacle.

$H_0$: The mean score given to digital divide affecting Green HRM as an obstacle is less than or equal to 3.

$H_1$: The mean score given to digital divide affecting Green HRM as an obstacle is more than 3.

According to Tables 2 and 3, it will be concluded that H1 is accepted therefore, digital divide affects Green HRM practices as an obstacle.

<table>
<thead>
<tr>
<th>Factor title</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personality and upbringing</td>
<td>113</td>
<td>4.0708</td>
<td>.6671</td>
<td>.0628</td>
</tr>
<tr>
<td>Knowledge of individuals</td>
<td>113</td>
<td>3.9292</td>
<td>.7845</td>
<td>.0738</td>
</tr>
<tr>
<td>Organizational culture</td>
<td>113</td>
<td>3.5339</td>
<td>.8889</td>
<td>.0836</td>
</tr>
<tr>
<td>Digital divide</td>
<td>113</td>
<td>3.3683</td>
<td>.6175</td>
<td>.0583</td>
</tr>
<tr>
<td>Education and training</td>
<td>113</td>
<td>3.9912</td>
<td>1.0307</td>
<td>.0969</td>
</tr>
</tbody>
</table>

*Number
**Mean
***Standard Deviation
****Standard Error of the Mean
Table 3: One-Sample Test of hypotheses

<table>
<thead>
<tr>
<th>Factor title</th>
<th>t*</th>
<th>Df**</th>
<th>Sig *** (2-tailed)</th>
<th>Mean Difference</th>
<th>95% Confidence interval of the difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personality and upbringing</td>
<td>17.047</td>
<td>112</td>
<td>.000</td>
<td>1.07080</td>
<td>.9463 1.1953</td>
</tr>
<tr>
<td>Knowledge of individuals</td>
<td>12.591</td>
<td>112</td>
<td>.000</td>
<td>.92920</td>
<td>.7830 1.0754</td>
</tr>
<tr>
<td>Organizational culture</td>
<td>6.385</td>
<td>112</td>
<td>.000</td>
<td>.53392</td>
<td>.3682 .6996</td>
</tr>
<tr>
<td>Digital divide</td>
<td>6.312</td>
<td>112</td>
<td>.000</td>
<td>.36830</td>
<td>.2527 .4839</td>
</tr>
<tr>
<td>Education and training</td>
<td>10.222</td>
<td>112</td>
<td>.000</td>
<td>.99115</td>
<td>.7990 1.1833</td>
</tr>
</tbody>
</table>

*t-Statistics
**Degree of freedom
*** Significance

Table 4: Friedman test

<table>
<thead>
<tr>
<th>Factors</th>
<th>Mean rank</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personality and upbringing</td>
<td>3.66</td>
<td>1</td>
</tr>
<tr>
<td>Knowledge of individuals</td>
<td>3.29</td>
<td>3</td>
</tr>
<tr>
<td>Organizational culture</td>
<td>2.51</td>
<td>4</td>
</tr>
<tr>
<td>Education and training</td>
<td>3.49</td>
<td>2</td>
</tr>
<tr>
<td>Digital divide</td>
<td>2.06</td>
<td>5</td>
</tr>
</tbody>
</table>
RESULTS AND DISCUSSION

Based on the result of this paper, it is argued that the factors affecting green human resource management practices fell into two categories. The first category (internal factors) includes: Personality and upbringing, Knowledge of individuals and Organizational culture and the second category (external factors) includes: Digital divide and Education and training. Then the Friedman Test was applied to rank the factors. The ranking result is mentioned below.

Firstly, according to the result, personality and upbringing were considered as the most important factor on showing green behavior. When the employees have the tendency to behave in an environmentally friendly way it shows that their personality, traits, beliefs, values, attitudes and the way they were brought up are the reasons.

It means those who act and behave eco-friendlily have these characteristics as a part of their personality. Secondly, the next important factor was education and training. By training and educating employees, they can show specific behavior that they have been taught. When they are aware of the important points of greenness, they will carry out their duties while considering those points. Hence, it is suggested education and training can improve green human resource management practices. Thirdly, knowledge of individuals affects green human resource management. It means that if the employee is familiar with the consequence of not being green to the environment and has the knowledge of how to behave more environmentally friendly and consume the resources more effectively, it will be far easier for the manager to implement green human resource management practices.

Fourthly, organization culture is another factor affecting green human resource management. With green policies, rules, regulations, etc. in an organization the employees’ behavior and action are greener and more easily handled. Fifthly, considering the findings, it was shown that digital divide is the least important factor among other factors. It means the access to ICT and using information technology is important to green human resource management but its significance is not as much as other factors. The results indicate that all the factors naming, Personality and upbringing; Education and training; Knowledge of individuals; Organizational culture and Digital divide which were studied have effects on the practice of Green HRM, according to the current study which took place among the employees of the Environmental protection organization of Iran, it is important to pay attention more to these factors in order to remove the obstacles to Green HRM practices and implement it more effectively. Here with emphasis on the priorities and the significance according to the results it is discussed that: Since personality and upbringing have the most important effect on practices of Green human resource management, it is briefly noted how personality and upbringing can affect GHRM.

Personality and upbringing influencing the environmental behavior are influences of characteristic qualities, motivational characteristics (attitudes and values), abilities and mental moods of an individual and the way the person has been brought up to respect the environment. Personality factors often influence the environmental behavior without even a person being aware of it (Krajhanzl, 2010).

Therefore if green beliefs can be internalized, attitudes and values for the employees can be well-embodied and even by training and educating next generations are more likely to show green behavior. In short, the better the personality and upbringing are, the better Green HRM practices are improved. As it was mentioned before, education and training has the second rank among all the factors. It is crucial to focus attention on this point that what exacerbates environmental crises is the lack of environmental education and training and more serious than it is the lack of attention to correct environmental education and attitudes.

Training increases employees’ understanding and beliefs about their environment, therefore education and training can be one of the most effective tools and methods to manage a future environmental challenge and lead to proper use of resources. In conclusion, if in a society, an appropriate situation to educate is provided, training and teaching the employees will be widely accepted by anyone and the whole people will learn how to behave and act toward the environment and resources, then it will be a lot easier to manage green practices. The next important factor is Knowledge of individuals which means that high level of education and knowledge and educational content will help people to have more environmentally friendly behavior and use the resources more properly. There is a positive statistically significant relationship between environmental attitudes, environmental
employees are expected to show greener behavior and
having green rules, values, regulations, guidelines, etc. by improving the green culture in an organization and account was organizational culture; it is argued that implemented. The next factor which was taken into

newcomer that is employed, the better and cheaper organization. The more primary knowledge of a

point refers to knowledge of individual which means nurtured to develop greener behavior. Similarly, next

Human Resource Management, the employees can be implemented more easily.

CONCLUSION
The present study examined the internal factors (personality and upbringing, knowledge of individuals, organizational culture) and external factors (digital divide and education and training) affecting Green human resource management practices in Iran. According to the results it is greatly vital to pay attention to these factors in order to be more successful in green human resource management practices. In conclusion, by being more careful about the way our children are being raised and how their personalities are formed green characteristic qualities, attitudes, beliefs and values can be internalized and much greener behavior and actions will be seen in future. In addition, by having more training and educating about Green Human Resource Management, the employees can be nurtured to develop greener behavior. Similarly, next point refers to knowledge of individual which means the knowledge of employees before they enter the organization. The more primary knowledge of a newcomer that is employed, the better and cheaper green human resource management can be implemented. The next factor which was taken into account was organizational culture; it is argued that by improving the green culture in an organization and having green rules, values, regulations, guidelines, etc. employees are expected to show greener behavior and actions. Finally, by trying to decrease digital divide and provide equal information technology facilities and helping the employees to use these technologies the practice of Green Human Resource Management can be facilitated. It is worth mentioning that for future studies it is suggested by the use of Multi Attribute Decision Making (MADM) methods to facilitate the complexity in realizing engineering objectives through some form of weight of attributes (criteria) assessment procedure in order to identify the best factor to implement Green Human Resource Management.

AKNOWLEGEMENT
The Authors would like to express their sincere gratitude to Ms. Masoumeh Safaei and the employees of the Environmental protection organization of Iran, a large organization which has been working for more than half a century in Iran in the field of protecting the environment and preventing harms, destruction and pollution so there can be proper use of resources in order to reach sustainable development. Their continuous support of our research, and their patience, motivation, and immense knowledge helped us in all the time.

CONFLICT OF INTREST
The authors declare that there is no conflict of interests regarding the publication of this manuscript.

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