

# The Impact of Green Human Resource Management Practices on Employee Retention and Environmental Sustainability: A Conceptual Model

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## **Abstract**

*This study aimed at investigating the impact of Green Human Resource Management (GHRM) practices on Employee Retention (ER) and Environmental Sustainability (ES) in the automotive industrial sector in Egypt. GHRM practices represent a bundle of three human resource management practices, which are Green Recruitment and Selection (GRS), Green Training and Development (GTD), and Green Rewards, and Benefits (GRB). The study also is set out to investigate the factors that could hinder/encourage the implementation of GHRM practices in the Egyptian automotive industry. The research adapted a descriptive design using a structured survey and semi-structured interviews, the respondents where the HR Managers, factory heads, and line managers up to the top management level from a sample size of 70 respondents. Multiple regression models were used to establish the relationship between the independent variables and the- dependent variables shown in the models. ER was only significantly affected by one factor, which was GRB. GTD, and GRS, all showed strong positive correlations with ES. The main impact on ES came through GRB, whereas the least came from GRS. It is clear that GRB is the single most important component in promoting a culture of sustainability inside Egyptian automobile firms and retaining talented employees. Lack of awareness of green practices and lack of management buy-in are the biggest obstacles to the implementation of GHRM practices in the automotive industry.*

**Keywords:** Green Human Resource Management – Employee Retention – Environmental Sustainability –Automotive –Egypt.

**Paper type:** Research paper

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## Introduction

As a result of the accelerated development of global industrialization, several areas of organizational management have faced significant environmental performance challenges. Furthermore, chemical-related precautionary measures and actions aid in the reduction of issues such as climate change, environmental degradation, the release of numerous toxins that pollute the atmosphere and oceans, as well as the release of audio and visual contamination, and possibly even the annihilation of wildlife (Billig et al., 2022; Darvishmotevali and Altinay, 2022). These manufacturing applications, as well as their negative environmental impacts, endanger the global ecosystem and economic and social well-being. This critical scenario necessitates increased public awareness of environmental or green concerns such as emissions reduction, composting, and renewable technologies such as sunlight, wind, and hydroelectricity. The dangers of environmental challenges have recently prompted various sectors to focus on environmental initiatives, initiate coaching, and retrain their staff in green performance (Johar et al., 2020)

Green Human Resources Management has become a popular term in the business world today, and its importance has become more and more complex with time. Currently, GHRM plays a vital role in achieving sustainable development in organizations, and many scholars have emphasized the importance of green practices in companies to improve employee commitment toward environmental behavior.

Going Green in recent decades has emerged as one of the top pressing concerns worldwide. The rise of global environmental concerns has necessitated the adoption of new environmental policies and procedures. One of the green developing strategies and practices that promote environmental sustainability is the GHRM. Despite the growing interest in human resource management's commitment and environmental sustainability in most developed countries, there is still a lack of attention to these areas in the Arab countries in general and in Egypt in particular. In this regard, Sobaih (2019) attested to the above fact by acknowledging the lack of systematic research in the area of GHRM and its contribution to environmental sustainability.

According to (Mandago, 2019), GHRM engages in environmentally friendly activities and programs that lead to increased efficiencies, cost savings, and higher staff engagement and retention. GHRM such as; green recruitment and selection, green career development, green performance appraisal, the green reward system has the potential to improve organizational environmental performance and sustain organizational behavior by minimizing carbon footprint through using video conferencing, online interviewing, e-learning, and electronic filing. GHRM policies are anticipated to strengthen a company's environmentally friendly culture through hiring pro-environment personnel, training staff in technology and innovation, and offering rewards and incentives for employees.

According to (Mandip, 2012), Greening a business necessitates the active participation of all employees as well as the development of strong social conscience and a feeling of environmental responsibility. He argued that the function of human resources, which must synchronize its practices and policies with the aims of sustainability, is the driving force behind environmental sustainability within the organization. There is a rising desire to incorporate environmental management into human resource management (HRM), as well as to investigate

the effective application of GHRM to create a green corporate culture and promote environmental and employee sustainability.

The role of the industrial sector in Egyptian society is important and vital to promote GHRM practices. Therefore, attention must be paid to adopting environmentally friendly practices that support environmental sustainability and benefit from the transition to GHRM practices in terms of cost savings, employee retention, and attraction. GHRM and environmental sustainability should be integrated to promote corporate sustainability by building and presenting fundamental human resource management practices based on sustainable principles. The impact of green human resource management in the environment on the industrial sector's sustainability has been studied globally, but few studies have been conducted in Egypt, particularly in the industrial sector. Therefore, this study sought to determine the impact of green human resource management practices in the environment on the industrial sector's sustainability in Egypt.

In Egypt, the adoption of GHRM is a new concept and still under study. As a result, this study focused on three Green HRM practices: recruitment and selection, training and development, and reward system, all of which were relevant to the study's objective. These activities will be examined further in-depth later on to investigate how are the HRM practices employed into green initiatives that improve corporate environmental sustainability. Hence, this research adds to the academic literature and bridges a gap in knowledge in relation to GHRM practices in the automotive industry. For this study, the dependent variables are Employee Retention (ER) and Environmental Sustainability (ES), both are measured by Green Human Resource Management Practices (GHRM) in terms of green recruitment and selection (GRS), green training and development (GTD), and green rewards and benefits management practices (GRB). Therefore, the aim of this study is to investigate the impact of GHRM Practices on Employee Retention and Environmental Sustainability.

## **Literature Review**

### **Green Human Resource Management (GHRM)**

According to Mampra (2013), GHRM is a management strategy centered on environmental protection and sustainability, which results in higher employee satisfaction and productivity. Various scholars have provided a similar definition. Mandip (2012), defined GHRM as a company's commitment to long-term environmental sustainability and its employees' involvement in environmental issues. GHRM, based on (Deshwal, 2015) focuses on HR activities that are environmentally friendly and support organizations to use resources in a sustainable way. This, in turn, aids organizations in reducing employee's carbon footprints through methods such as teleconferencing, carpooling, telecommuting, electronic filing, online interviews, recycling, and online training. GHRM, according to Shaban (2019), is management's effort to reduce or eliminate pollution from the home or factory, while also increasing energy effectiveness and efficiency. According to Deepika & Karpagam (2016), embracing environmentally responsible human resources policies and practices can have positive effects on an organization's bottom line and environmental impact. Human resources has a major part to play in the company's green drive, inspiring and empowering workers to adopt more environmentally friendly procedures.

According to Mishra (2017), GHRM is implemented to achieve green goals through the entire HRM process of planning, hiring and selection, training and development, and rewards. Corporate social responsibility (CSR), work-life balance, and Electronic HRM (E-HRM), all of which may help improve organizational sustainability by considering economic, social, and environmental concerns, were included in the preceding definition of strategic green HR management (Yusoff, et al., 2015).

GHRM is a hot topic among academia right now, with many scholars discussing the idea of "green" as an environmental system when describing HRM methodologies (Oyewale, 2019). Opatha (2014) defines it as a method of HR management that strives to change employees into environmental employees in order to help the company achieve its sustainability goals. Rana & Jain (2014) describe GHRM as an employment model that helps industry experts retain, remember, and preserve the talent they need to fulfill their long-term goals.

Global attention to environmental issues has increased throughout the course of the previous two decades. As the global green movement gain attraction, it is becoming increasingly important to do research into how various companies help to accomplish environmental goals. To attain the Sustainable Goals, the industrial sector must implement eco-friendly methods, according to (Dissanayake, et. al, 2019). This might lead to a green economy, which benefits the entire community. A significant component of this endeavor was the management of human resources, which is essential for the establishment of a long-term corporate (Sharma & Gupta, 2015). Two key components of (GHRM) are ecologically sound HR practices and the protection of intellectual capital, all of which help organizations reduce their carbon footprints by increasing efficiency and lowering costs while also boosting employee engagement and retention.

The path to corporate environmental management will be easier for firms that successfully integrate HR policies with sustainability goals (Jabbour C. J., 2011). Meanwhile, Mehta & Mehta (2017) presented a broader perspective of GHRM, where HRM combines environmentally friendly HR initiatives with practices for resource sustainability. The advantages include a better work/life balance, reduced costs, increased productivity, and retention. In addition, Nagendra & Kansal (2014) described the "GHRM" as environmental aspects with fiscal, foreign, and industrial policies. It promotes eco-friendly activities that lead to a cleaner atmosphere, less paper use, a high retention rate, and proper elimination of waste. Daily & Huang (2001) declared the need of finding the right balance between economic advancement and environmental conservation, and it has been proved that companies that achieve this balance are more profitable than those that do not. According to Firdaus & Udin (2014), HR Management is a critical element in developing an environmental culture in any organization. Renwick (2013) outlined how GHRM can encourage, engage, and boost employee participation in environmental activities. Primary objectives of GHRM are to increase employee awareness of and buy-in to sustainable environmental management practices and to encourage more participation in company-wide green initiatives. Consistently with this concept, Sharma & Gupta (2015) assumed that GHRM is all about applying the concept of sustainability holistically to enterprises and their employees, green HRM entails eco-friendly measures aimed at improving process efficiency, minimizing and eliminating waste, and updating HR products, tools, and procedures.

Yusoff, et. al, (2015), summarized the GHRM concept, as stated in their research study that it has been evolved from the previous concept of green strategic human resource management to also include corporate social responsibility activities, work-life balance, and E-HRM as part of the organization's overall sustainability strategy. To build and strengthen the company's human capital, GHRM emphasizes greening across all of the human resource management procedures, including recruitment, staffing, training, and remuneration (Dutta, 2012).

## **Employee Retention**

Several authors have provided definitions to the practice of employee retention for example; Khalid et al. (2016) defined employee retention as a set of activities of an organization utilized for retaining employees. Moreover, Herman (2005) defined employee retention as an effort taken by organizations for providing and maintaining a work environment for the motivation of employees to uphold them with the organization. According to Lockwood (2006), among organizational strategies, employee retention is a critical component through which an organization can maintain talented human capital. As indicated by Hausknecht et. al, (2009), talented employees working in different levels judge organizational strategies and processes in a system if they found it suitable, then they decide to stay or to leave the organization.

GHRM or recruiting a green workforce results in a low rate of employee turnover (Dailey, 2013). According to Naima (2016), more than 60% of employees who participated in the Strategic HRM Green workplace Survey said they preferred to stay with their current employers because of the green policies in place. Employee retention, according to Al-Hajri (2020), is a vital component of every organizational strategy for retaining competent staff. GHRM offers various advantages, including higher employee morale, talent acquisition, cost savings, and increasing staff retention. Companies that implement GHRM practices in their business activities result in financial gains and reduced staff turnover (Jam & Jamal, 2020).

According to Ramasamy (2017), HRM plays a key role in transitioning a non-green firm into a green one. Green recruitment is the first stage toward becoming a green organization, and organizational culture management is the final step. When an organization implements the above procedure in a greenway, the organization will be better equipped to achieve environmental and organizational sustainability. Elsafty & Ragheb (2020) stated that, employee retention is directly linked to the policies developed and implemented by a company's HR department. It is essential for the organization to meet the needs of the employees professionally and ethically.

According to Jam & Jamal (2020) when employees are well compensated and rewarded, they will show an interest in working more efficiently. Employee retention, moreover, can be improved by aligning other GHRM practices, including compensation and benefits, to decrease staff turnover. To keep exceptional employees on board, business must concentrate on HR operations such as green hiring and training. Employees weigh the organizational climate while determining whether or not to stay with the company. Hence, firms are currently concentrating on improving the working environment through a variety of projects while considering policies and a green mindset (Ahmad, 2015).

The conclusion from the above is that, GHRM practices offers a wide range of advantages such as increasing employees' morale, acquiring talents, money-saving, and corporate social responsibility within the company. Dutta, 2012; Deshwal, 2015; Likhitar & Verma,(2017)

argued that green HRM practices helps in increasing employee retention Moreover, green rewards and compensation has a significant positive effect and help increase employee retention.

### **Environmental Sustainability**

Recently, the concept of environmental sustainability, or simply sustainability, has gained momentum. The idea is described as a process that combines economic and social aspects, considering ecological balance and environmental protection. It was developed in the 1960s in response to a rapidly growing population and associated threats such as overconsumption of natural resources, pollution, high unemployment, malnutrition, and destruction of Earth's surface (von Weizsäcker & Wijkman, 2018).

The significance of sustainability is growing, with a particular emphasis on sustainable development as a source of concern. Significant transformation, heightened understanding of the social and shareholder context, and the growth of social duties are all necessary for long-term sustainability, where the development of leadership and management skills is critical for firms to successfully embrace sustainability, and in order to achieve sustainability, organizations must adapt their vision and management techniques (Mandago, 2019). As role models and advocates for a sustainability commitment, we must help others see the value in doing this (Jackson S. F., 2003). According to Marshall (2004), one of the qualities that enable sustainability is the ability to think creatively and form new partnerships. Sustainability managers must have a deep grasp of their stakeholders and be able to produce return on investment for all stakeholders rather than just shareholders. To succeed, they must be excellent communicators who are able to manage large networks. At every level, sustainability strategies and plans must be set in place.

Jafri, (2012), concluded that environmental sustainability was placed third based on the study to uncover the reasons driving GHRM in the Indian auto sector. Contribution to society, health, and safety came first as important drivers. According to Mandago (2019), the investigation of the effect of GHRM practices on five service-based state corporations in Kenya concluded that they improved environmental sustainability. Meanwhile, Firdaus & Udin (2014) concluded that while most large corporations have begun to promote their environmental efforts and incorporate green practices into their daily operations, Small & Medium Enterprises (SMEs) have shown a low level of commitment to sustainability. It has been found that HRM practices are implemented better by the non-governmental organizations (NGOs) sector than by the private or governmental sector, regardless of size (AL-Jabari, 2012). But in the Palestinian context, family companies are rarely, if ever, engaged in HRM practices.

### **Barriers to Green Human Resources Management (GHRM) Implementation**

The primary goal of green activities in organizations is to reduce the negative impact of their activities on the environment, and GHRM as a concept falls under this category. To succeed and implement global sustainability, GHRM implementation in a developing country like Egypt is still in the beginning and faced with many challenges. These hurdles need to be addressed and discussed thoroughly in order to learn how to implement GHRM practices successfully. The following part aimed to investigate the critical barriers to GHRM

implantation in Egypt. To achieve this goal, the study revealed three major barriers namely, Awareness Enhancement, Knowledge Management, and Climate Building.

### **Awareness Enhancement**

Green training programs (GT) can certainly assist employees to understand the importance of environmental preservation, employee awareness of pro-environmental activities in the workplace can be raised with GT (Wong, 1998). Fernandez et. al, (2003) argued that integrated training in environmental management (EM) is a necessity to achieve emotional involvement in environmental concerns. It may be used to highlight the negative effect of poor environmental behavior and attitude (Renwick, 2013).

In contrast to this, some firms actively engage their staff in green training and involvement in order to create an environment in which their green behaviors are improved (Guerci et. al, 2016). All employees, not just those in environmental departments, should receive green training as part of their education programs (Tang, 2018). GHRM practices and learning strategies should be integrated into the organization. According to Nalini & Durai (2019), Green training allows employees to execute more efficiently in GHRM practices, such as online training, teleconferencing, video conferencing, online course materials case studies, and online training.

Green training & development, according to Ahmad (2015), will enhance an employee's ability to solve a variety of environmental challenges by educating them on how to make the best use of resources inside the firm. Employees should receive specific eco-friendly activities and training in areas such as minimizing waste, saving energy, and saving the environment, and training managers may provide softcopy as a resource instead of printed handouts. Also, green job rotation should become an important aspect of the future green manager's career development program. It's a good technique to train green leaders or potential board members on how to run their companies in an environmentally friendly and sustainable manner (Masri, 2016; Prasad, 2013).

### **Knowledge Management**

Employees can carry out environmental initiatives with the help of GT's knowledge management (Del Brio, Fernandez, & Junquera, 2007). Green training can help to develop technical and managerial abilities and skills related to environmental management (Dumont, 2017). Employees can be empowered to perform environmental actions through knowledge management. Human capital is also trained in green knowledge management to handle complex EM problems (Govindarajulu, 2004). Correspondingly, it is essential to identify and design an environmental training based on Training Needs Analysis (TNA) to assess the training needed in environmental management. TNA can be conducted by assessing what employees need in terms of environmental knowledge and skills (Mandip, 2012). TNA should be identified in an integrated way with the participation of the environment Management (EM) team as well as top management (Masri, 2016; Chiappetta- Jabbour & Santos, 2008). On a macro scale, environmental education for both management and non-managerial employees is critical for influencing behaviors and attitudes toward green HRM practices (North, 1997).

## **Climate Building**

Third, Green Training addresses climate change as it relates to the organization's commitment to support and engage in (Fernandez et. al, 2003). Managers and supervisors can also contribute to this environment by displaying green conduct that both indicates what the organization expects of them and invites them to engage (Renwick, 2013). Integrated training not only incorporates full programs but also relates them to appraisals and quality measurements, which is a way of producing a positive work environment. Other methods for providing an environment include doing a green workplace analysis, job rotation, and training programs on various parts of environmental management, such as recycling and trash management.

Govindarajulu (2004) claims that effective personnel training is critical to successful sustainability management projects. He argued that staff who aren't given proper training are less likely to be enthusiastic about the company's green initiatives. This means that companies need to supply adequate resources and technical support. As well, (Naima, 2016) agrees that the most important aspects of green HRM are employee training in green matters, without sufficient development, it is extremely impossible to meet environmental standards for sustainability. Therefore, organizations are adopting these training programs in view of the importance of environmentally friendly employees and a green workplace.

In conclusion, the training programs can be utilized to raise awareness about important environmental concerns such as waste management, energy conservation, and carbon footprint reduction, among others, to combat pollution and ensuring a safe and healthy environment (Khurshid, 2016). Green training is an essential research area on how companies can improve their environmental performance, as it tackles all social and environmental challenges at all levels. This include everything from shop-floor workplace health and safety considerations to executive management and board-level strategic sustainability concerns (Mandip, 2012).

## **Hypotheses Development and Research Conceptual Model**

### **Green Human Resource Management (GHRM) Functions**

GHRM initiatives are linked to the development of a green workforce that seems to be better at understanding and implementing green culture in the workplace. Green HRM can help businesses promote environmental issues by implementing and adhering to Green HR policies and practices (Prasad, 2013). HRM practices, according to Cherian & Jacob (2012), are a key element for organizational change and strategic issues. Green HRM methods, according to Deepika & Karpagam, (2016), transform the workplace into a green environmental workplace, which benefits both employees and businesses; she also stated that green HRM is an important aspect of corporate social responsibility (CSR), and that the HR department of a company plays a crucial role in implementing CSR initiatives. GHRM functions include but are not limited to green recruitment, training, development, performance management systems, green compensation, reward system and engagement.

Green HRM functions are critical for fostering pro-environmental behavior and improving employee participation. By boosting psychological capital and environmental awareness, five GHRM functions (green recruitment, green training & development, green performance



management, green pay and rewards, and engagement), can help to improve pro-environmental behavior (Tang, 2018).

## **Green Recruitment & Selection, and Employee Retention, and Environmental Sustainability**

The term "green recruiting" according to Ullah (2017) refers to the practice of attracting new employees who are aware of sustainable procedures and environmental systems. Online recruitment for green jobs should be the norm, and candidates who can demonstrate familiarity with environmentally conscious practices should get priority. Companies that use green recruiting typically publish job openings on their company websites, which results in lower expenses, a faster and more convenient recruitment process, and fewer environmental impacts (Deepika & Karpagam, 2016).

In today's global environment, recruiting high-skilled and competent workers is a major challenge for HRM in any sector (Renwick, 2013). To put the environmental goals into action, businesses require an environmentally conscious staff. GRS is a proactive technique that is less expensive than providing essential environmental protection training, development, education, and awareness to existing employees (Naima, 2016). The core of GRS is identifying and recruiting candidates who have a significant environmental awareness and behavior, as well as a green mindset and a desire to work for environmentally conscious enterprises (Ahmad, 2015). Consequently, it is extremely important to conduct an environmental behavior assessment of potential applicants when they are being interviewed in order to determine the level of environmental knowledge and commitment that each individual possesses. GRS aim to choose potential applicants based on the green job description, green job specification, and green criteria (Chams & GarcaBlandón, 2019; Saeed, et al., 2019).

According to Tang (2018), the GRS is based on three components: candidate green awareness, green corporate branding, and green criteria to attract applications. Employees that demonstrate pro-environmental conduct can help in the implementation of sustainable policies, provide support for the organization's sustainability strategy and objectives, and inspire current employees to adopt more sustainable attitudes. Aside from the Green Practices awareness component, which is a cornerstone in developing a sustainable environment in the workplace, the other component is the Green Employer Brand, which is the company's image and reputation of environmental management. Renwick (2013) indicated that, employees who exhibit a pro-environmental behavior can help implement sustainable policies, plans, and goals, and foster more positive attitudes toward sustainability, as a result, sustainable branding is an effective strategy for attracting new employees and retaining existing ones, and this is referred to as the "green collar" recruiting strategy. Thus, building a company image and reputation as an eco-friendly employer growing as a trend nowadays, it is among the most effective strategies to attract new talented employees. To stay loyal to their employers, highly skilled employees seek a sense of purpose and meaning and self-fulfillment in their job (Deshwal, 2015). Furthermore, a lack of comprehensive studies on "green collar" and what can be known about the dynamics of adding environmental issues in the organization's recruiting process

demonstrates that, environmental aspects are not always taken into consideration in recruitment and selection practices (Renwick, 2013).

The third aspect of GRS is green selection criteria, in which companies should make their green approach and objectives explicit in their job descriptions and web pages (Mandip, 2012). Moreover, candidates' compatibility with the company's values can be assessed, interview questions should be geared toward environmental knowledge and views (Renwick, 2013). Thus, green recruiting entails not only publicizing the organization's environmental principles in order to attract the best candidates, but also taking the proper approach to the entire recruitment process, such as reducing the consumption of papers and shifting to using online platforms (Bombiak & Marciniuk-Kluska, 2018). According to Yusoff, et. al, (2015), incorporating technology into HRM processes is essential to going green in recruitment. GHRM is characterized as a paperless procedure in which requested to submit applications via online technologies, the automation of HRM systems has the potential to promote sustainability by minimizing environmental waste. Logically, it was expected that GHRM practices specifically green recruitment & selection shows significant impact on employee retention and environmental sustainability, and therefore the following hypotheses were suggested:

*H1: Green Recruitment and Selection has a significant impact on Employee Retention.*

*H2: Green Recruitment and Selection has a significant impact on Environmental sustainability.*

## **Green Training & Development, and Employee Retention, and Environmental Sustainability**

IGI Global publisher of timely knowledge (2022) defined green training and development as, the process of equipping employees with working approaches that ensure adequate resource utilization, reduce waste, energy conservation, and environmental degradation cause reduction. According to Teixeira et. al, (2018), Green training and development practice is an economically and eco-friendly approach for enhancing green value.

Green training is emerging as one of the most important ways for HRM to contribute to environmental sustainability (Daily et. al, 2011; Jabbour C. J., 2011; Del Brío, 2007). Training is a key component of human management (HRM), it raises employees' awareness of environmental issues and connects them to their job activities (Bansal & Roth, 2000). According to Chams & GarcaBlandón (2019), sustainable requirements can be met through green training, which improves employees' environmental knowledge, skills, and competencies.

According to Naima (2016), it is hard to attain a company's current targeted environmental sustainability without proper education, training, and development. Green training could be a systematic solution to grow environmental skills, green mindsets, and pro-environmental behavior (Tang et. al, 2018). An employee's right to participate in environmentally friendly activities can be achieved by providing adequate training in work programs that decrease waste, conserve energy, and protect the environment, as outlined by (Zoogah, 2011). Green training and development improve an employee's ability to solve a range of environmental issues, which develops workers' understanding of environmental management and the best utilization of resources (Ahmad, 2015).

For a variety of reasons, green training and development (GTD) is regarded as an essential component of Green HRM. Environmental Training, according to (Opatha, 2014), had the greatest impact on employee environmental awareness. It was also in charge of fostering a culture in the organization that promote green practices, environmental awareness, and educating employees about energy conservation and waste reduction (Zoogah, 2011). Green training, however, can help workers become more aware of environmental challenges in the workplace by focusing on "awareness enhancement, knowledge management, and climate change mitigation" (Tang, 2018). Based on these studies, the following hypotheses were advanced:

*H3: Green Training and Development has a significant impact on Employee Retention.*

*H4: Green Training and Development has a significant impact on Environmental sustainability.*

### **Green Rewards & Benefits, and Employee Retention, and Environmental Sustainability**

Green Rewards and Benefits practice refers to a rewarding system that is aimed to attract, retain, and encourage employees to support environmental goals (Mandip, 2012; Teixeira & Chiappetta; Jabbour, 2012). Incentives and rewards, according to Jackson & Seo (2010), may prove more successful than other HRM strategies in bringing the performance of employees into line with the objectives of the company. Green pay and rewards management, according to Opatha (2014), contributes significantly to encouraging all employees to participate in corporate environmental management efforts. Renwick (2013) proposed two approaches to green incentive management: financial and non-financial. Financial benefits, such as incentives, bonuses, and cash, are available to the organization to use for strong environmental performance, whereas non-financial rewards include, honors, awards, and special recognition. Similarly, Khurshid (2016) pinned in his study that an organization's compensation structure should be used to influence and adjust employees' environmentally friendly behavior. According to Nalini & Durai (2019), employees are more motivated and passionate about their work when they are compensated well. There are additional ways to drive employees to contribute and be engaged with environmental practices where loyalty is improved and good talent retention is achieved, such as rewards, promotions, public recognition, and gratitude.

Ramus C. A. (2001) argued that green recognition awards foster a feeling of pride among coworkers and more successfully stimulate greener. Incentives and rewards can affect employees' attention at work to the fullest and drive them to put up maximum effort to attain corporate goals. A green incentive is a benefit offered in exchange for applying green practices to promote eco-friendly activities at work (Ramasamy A. I., 2017). Employees should be rewarded for acquiring and achieving green skills through a variety of compensation rewards (Deshwal, 2015). Compensation structure has a huge impact on motivating employees to work toward the aims and objectives of the company (Ahmad, 2015).

Hettiarachchi (2020) argues that in order to develop a sustainable construction industry, senior managers must lead by example and inspire their employees to do the same GHRM. Environmental incentive programs have a substantial impact on staff motivation to develop eco- initiatives. The green pay and reward system fosters self-motivated teams by encouraging

voluntary activities beyond the job responsibility. Getting employees involved in waste management, reusing materials, and recycling waste can cut down on project expenses and fines in some cases. According to Mandago (2019), a green culture in firms can be supported if green rewards and compensation systems are linked with the HRM process. Green management components can be incorporated into a company's reward programs to encourage staff to adopt environmentally friendly practices.

It is recommended that award packages be established to recognize employees' efforts to acquire green skills and achievements (Prasad, 2013). The challenges of accurately and equitably evaluating environmental behavior and performance might make it challenging for human resource managers to develop monetary incentives that are successful (Fernandez et al, 2003). However, there is a need for additional research to establish how HR managers can design and implement green rewards systems that can assist a company in meeting its environmental goals (Shoeb, 2015). Therefore, it was expected that green rewards and benefits (GRB) leads to greater employee retention and positive environmental sustainability as stated in the following hypotheses:

*H5: Green Rewards and Benefits has a significant impact on Employee Retention.*

*H6: Green Rewards and Benefits has a significant impact on Environmental sustainability.*

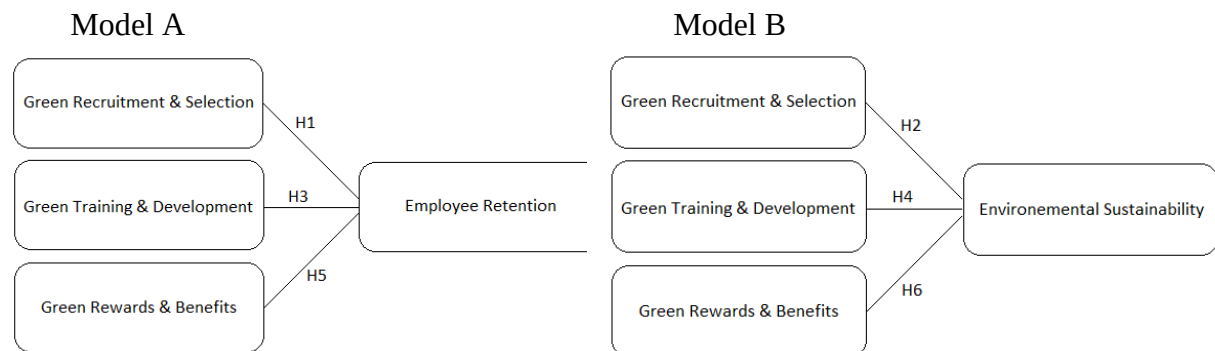
### **Research Conceptual Model**

The question that the current study tries to answer is that is there a significant impact of green HRM practices (i.e., green recruitment and selection, green training and development, and green benefits and rewards) on employee retention and environmental sustainability. For that reason, six main hypotheses were suggested to investigate the impact of the independent variables (i.e., green recruitment and selection (GRS), green training and development (GTD), and green benefits and rewards (GBR) on the dependent variables (i.e., employee retention (ER) and environmental sustainability (ES)). It should be noted that the total impact of green HRM practices on employee retention and environmental sustainability were not separated in specific hypotheses due to the fact of the limited information within the Egyptian industrial sector.

The models below depicts the effects of GHRM practices in the Egyptian automotive sector on employee retention (ER) and environmental sustainability (ES). The study developed sub-constructs (i.e., green recruitment methods, green training and development, green compensation, and rewards management practices) to predict the study's outcome in terms of attaining staff retention and a sustainable environment in the Egyptian automotive industry. To accurately investigate the relationship between GHRM practices and the dependent variables of the study, the researchers developed two conceptual models as shown in the below figure (1). Model (A) is set out to investigate the impact of GHRM practices in terms of GRS, GTD, and GBR on the dependent variable (ER). While model (B), aims to investigate the impact of the same GHRM Practices on the second dependent variable of the study (ES).

This study used an adapted model done by (Jam & Jamal, 2020; Mandago, 2019). These hypothesized effects are shown in the following Figure (1).

Figure (1) – Research Conceptual Model adapted by (Jam &amp; Jamal, 2020; Mandago, 2019)



As shown in the above conceptual model of the study in figure (1), model (A) depicts the first set of hypotheses (H1, H3, and H5) to investigate the relationship between the independent variables GRS, GTD, and GRB with the first dependent variable ER. While model (B) includes the second set of hypotheses (H2, H4, and H6) to find out the impact the same group of selected GHRM practices on the second dependent variable of the study ES.

## Research Methodology

### Research Design, Sample and Data Collection

In conducting this study, the researcher used both qualitative and quantitative approaches. As an interim measure toward refining the research's quality and representativeness, qualitative data collected by conducting structured interviews with industry professionals and technical specialists in the field of automotive engineering to gather preliminary data, and to ensure the accuracy of the findings and a more accurate depiction. A descriptive research design was adapted in the form of online structured questionnaire to be utilized to investigate the relationship between study dependent and proposed independent variables in the quantitative section.

The research population target consists of all First Line Managers, Mid-level & Senior-level Managers and HR Heads in the Automotive assemble and manufacturers in Egypt. The three layers of management were chosen since they are accountable for strategic decisions in organizations and policy formulations and implementations fall under their scope. The researchers adopted non-probability sampling in both quantitative and qualitative data collection. In the qualitative part, the researcher used non-probability sampling using a Purposive sampling technique of experts in automotive and the HR field in Egypt. A face-to-face interview with specialists were employed to perform an intensive focused semi-structured questionnaire by the researchers. In the quantitative part, a non-probability sample with a voluntary response sampling technique has been chosen, because of time and resources limitation to gather data and draw representative conclusions. An online survey was undertaken to collect the views of people across all management levels (first, middle, and top) in Egypt's automobile manufacturing firms. Hence, Twenty (20) companies agree to take part in the study

and six questionnaires were sent to each human resource department via e-mail followed by a phone call to encourage a good response rate. Therefore, the sample consists of 120 participants. Out of the questionnaires distributed, 87 questionnaires were returned (72%) and 28 questionnaires were excluded due to outliers. The total final number of the questionnaires used in the study is 70 questionnaires. Data analysis was carried out at the department level.

### **Research Instrument**

Gathering data conducted using both primary & secondary methods. For collecting primary data, the researchers used online questionnaires and semi-structured interviews; for the secondary data collection, an extensive literature has been done which included books, research papers, journal articles, as well as the internet.

Interviews with specialists in the field were conducted face-to-face. The goal of the interviews was to expand and enhance our understanding of the research point.

The second method utilized for the collection of preliminary data was a questionnaire in the form of an online survey. The researcher designed a questionnaire consisting of thirty-nine questions to achieve the goals of the study. In this survey, the questions follow a five-point Likert scale. Five represents (to very great extend), meanwhile 1 represents (not at all) adapted from previous studies (i.e., Sobhani, Haque & Rahman, 2021; Wulandari & Nawangsari, 2021; Jamal et al., 2021; and Aust et.al., 2020). The researcher used the study's validated questions (Mandago, 2019; Masri, 2016) to guide the work. The questions were short, simple, and clear. Google Forms is the tool of choice since it allows for the creation of interactive questions and offers a visually appealing user interface that simplifies analysis. Emails and various social media platforms, such as LinkedIn and WhatsApp, were used to distribute the survey and invite people to take part.

### **Validity and Reliability**

The validity of the research instrument was determined using the face and content validity. To ascertain this, the researchers presented two copies of the questionnaire to two experts from the academia and one other experts from the automotive industry. The experts were also presented with copies of the research purpose, research questions and research hypotheses as a guide. They were requested to assess the suitability of the language, the comprehensiveness, adequacy and relevance of the items in addressing the research questions, bearing in mind the purpose of the study. Their comments, suggestions and correction were accommodated and used to modify the instrument. The reliability of the data set has been checked using Cronbach's alpha statistic. The items reliability presented in table (1) ranged between 0.894 and 0.945 which are all above the recommended threshold thereby suggesting good internal consistency. The values for the Cronbach's alpha for all the composite variables (composed of several questions) indicate a high consistency of the responses which encourage proceeding with the process of the data analysis and augments the data reliability.

Table (1): The Reliability Analysis using Cronbach's alpha statistic

| Variable                                        | Cronbach's alpha |
|-------------------------------------------------|------------------|
| Green Recruitment and Selection (GRS)           | .894             |
| Green Training and Development (GT)             | .948             |
| Green Reward Management Practices (GR)          | .927             |
| Environmental Sustainability (ES)               | .941             |
| Employee Retention (ER)                         | .945             |
| Barriers and limitations of GHRM implementation | .916             |

## Discussion & Findings

### Correlations Test

Multiple linear regression analysis was performed to test the hypotheses in the current study. First, we investigate the correlations among all set of variables. The correlation matrix below showed that all the correlation coefficients among all variables were significant at  $\alpha = 5\%$ . This result encouraged the researchers to conduct the regression analysis on the data set.

The following table (Table 2) provides the bivariate correlation test results. The results show all variables have significant relations with the dependent variables.

The independent variables GRS, GTD, and GRB have a positive significant relationship with the dependent variable Employee Retention and Environmental Sustainability. The correlation coefficient is above 0.7 which indicates a strong relationship.

Table (2): The Bivariate Correlation Test Results

|     |                     | GRS    | GT     | GR     | ES     | ER     |
|-----|---------------------|--------|--------|--------|--------|--------|
| GRS | Pearson Correlation | 1      | .724** | .747** | .763** | .658** |
|     | Sig. (2-tailed)     |        | .000   | .000   | .000   | .000   |
| GT  | Pearson Correlation | .724** | 1      | .782** | .799** | .670** |
|     | Sig. (2-tailed)     | .000   |        | .000   | .000   | .000   |
| GR  | Pearson Correlation | .747** | .782** | 1      | .865** | .821** |
|     | Sig. (2-tailed)     | .000   | .000   |        | .000   | .000   |
| ES  | Pearson Correlation | .763** | .799** | .865** | 1      | .804** |
|     | Sig. (2-tailed)     | .000   | .000   | .000   |        | .000   |
| ER  | Pearson Correlation | .658** | .670** | .821** | .804** | 1      |
|     | Sig. (2-tailed)     | .000   | .000   | .000   | .000   |        |

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Regression Analysis

### Stepwise Multiple Regression Test

The stepwise method was used to conduct the regression analysis via SPSS. Two separate regression models were run to investigate the relationship between Employee Retention and the dependent variables in one model (A) and the relationship between Environmental Sustainability and the dependent variables on the other hand model (B).

### Stepwise Multiple Regression - Model (A)

Table (3): Stepwise Multiple Regression results of Model A  
Model (A) Summary

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .821 <sup>a</sup> | .675     | .670              | .62855                     |

In model (A), Employee Retention was used as the dependent variable. Green Recruitment and Selection, Green Training and Development and Green Reward Management Practices were used as independent predictors. The results of the model run are presented in Table (3). The only significant predictor indicted was the Green reward management practice.

R Value of 0.821 indicates the degree of correlation between the dependent variable Employee Retention and GRB. R Squared value indicates the fitness of the mode (A), where the adjusted R squared for the final model equals 67.0%, while the rest of the variability remain unexplained and can be investigated by other variables that were not considered in the model. This could be an area for further research.

## ANOVA Test Results

Table (4): ANOVA Results (Model A)  
ANOVA<sup>a</sup>

| Model        | Sum of Squares | df | Mean Square | F       | Sig.              |
|--------------|----------------|----|-------------|---------|-------------------|
| 1 Regression | 55.707         | 1  | 55.707      | 141.004 | .000 <sup>b</sup> |
| Residual     | 26.865         | 68 | .395        |         |                   |
| Total        | 82.571         | 69 |             |         |                   |

a. Dependent Variable: EMPLOYEE RETENTION IN AUTOMOTIVE COMPANIES IN EGYPT

b. Predictors: (Constant), GREEN REWARD MANAGEMENT RACTICE AND ENVIRONMENTALSUSTAINABILITY



### Coefficients Summary (Model A)

Table (5) – The Regression Coefficients results -Model (A)  
Coefficients<sup>a</sup>

| Model |                                                                   | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. | Collinearity Statistics |       |
|-------|-------------------------------------------------------------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
|       |                                                                   | B                           | Std. Error | Beta                      |        |      | Tolerance               | VIF   |
| 1     | (Constant)                                                        | .168                        | .182       |                           | .920   | .361 |                         |       |
|       | GREEN REWARD MANAGEMENT PRACTICE AND ENVIRONMENTAL SUSTAINABILITY | .892                        | .075       | .821                      | 11.875 | .000 | 1.000                   | 1.000 |

a. Dependent Variable: EMPLOYEE RETENTION IN AUTOMOTIVE COMPANIES IN EGYPT  
The ANOVA table (4) and the regression coefficients results in Table (5) asserted the significance of the model at  $\alpha=0.05$  with a p-value equals 0.000. The coefficient of the Green reward management practice was found to be 0.82 which means that as the Green reward management practice indicator increases by one point, the employee retention indicator will increase by approximately 0.82 points. This indicates almost one whole point change in the indicator in the positive direction.

Table (6) – Excluded Variables -Model (A)  
Excluded Variables

| Model |                                       | Beta In           | T    | Sig.        | Partial Correlation | Collinearity Statistics |       |                   |
|-------|---------------------------------------|-------------------|------|-------------|---------------------|-------------------------|-------|-------------------|
|       |                                       |                   |      |             |                     | Tolerance               | VIF   | Minimum Tolerance |
| 1     | GREEN RECRUITMENT & SELECTION         | .101 <sup>b</sup> | .968 | <b>.337</b> | .117                | .442                    | 2.261 | .442              |
|       | GREEN TRAINING & DEVELOPMENT PRACTICE | .070 <sup>b</sup> | .626 | <b>.533</b> | .076                | .388                    | 2.576 | .388              |

### Excluded Variables (Model A)

-As shown in the above table (6), Green Recruitment and Selection has an insignificant impact on Employee Retention with p-value is 0.337, which is greater than 0.05. Therefore, the null hypothesis is accepted.

-Green Training and Development has an insignificant impact on Employee Retention with p-value is 0.533, which is greater than 0.05. Therefore, the null hypothesis is also accepted.

### Stepwise Multiple Regression results of Model (B)

Table (7): Stepwise Multiple Regression results of Model B

Model B Summary<sup>d</sup>

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .865 <sup>a</sup> | .748     | .744              | .53400                     |
| 2     | .887 <sup>b</sup> | .787     | .781              | .49491                     |
| 3     | .895 <sup>c</sup> | .800     | .791              | .48251                     |

In the above table (7), Environmental Sustainability was used as the dependent variable while same as model (A), GRS, GTD and GRB Practices were used as independent predictors. As can be seen from the results shown in Table (7), R Value of 0.895 indicates the degree of correlation between the dependent variable Environmental Sustainability and the independent variables. Adjusted R<sup>2</sup> value indicates the fitness of the model, where the adjusted R squared for the final model equals 79.1%. This means that the last model reached – which included all the independent variables - was able to explain 79% of the variation in the opinions of participants about the Environmental Sustainability. It is perceived as a high value indicating that this model is considered so powerful in explaining the variability in the dependent variable. The remaining 20% of the variability might be attributed to some other variables that were not included in the model (error).

### ANOVA Test Results

Table (8): ANOVA Results (Model B)

ANOVAa- Model (B)

|   | Model      | Sum of Squares | df | Mean Square | F       | Sig.              |
|---|------------|----------------|----|-------------|---------|-------------------|
| 1 | Regression | 57.617         | 1  | 57.617      | 202.050 | .000 <sup>b</sup> |
|   | Residual   | 19.391         | 68 | .285        |         |                   |
|   | Total      | 77.008         | 69 |             |         |                   |
| 2 | Regression | 60.597         | 2  | 30.299      | 123.702 | .000 <sup>c</sup> |
|   | Residual   | 16.410         | 67 | .245        |         |                   |
|   | Total      | 77.008         | 69 |             |         |                   |
| 3 | Regression | 61.642         | 3  | 20.547      | 88.257  | .000 <sup>d</sup> |
|   | Residual   | 15.366         | 66 | .233        |         |                   |
|   | Total      | 77.008         | 69 |             |         |                   |

In the above Table (8), the Analysis of variance table (ANOVA) shows that the model reached is significant at  $\alpha=0.05$  with a p-value equals 0.000. This indicates that we can confidently start interpreting the significant coefficients in the coefficients table. The coefficient of the Green Reward and Benefits Management Practices was turned out to be 0.56 approximately indicating that the when the evaluation of Green Reward & Benefits Management Practices Increase by one point, the opinions of participants about Environmental Sustainability tend to move more towards a positive evaluation by 0.56 points. Green training and development practice had a lower effect of raising the opinions about the Environmental Sustainability by 0.23 points. The lowest effect has been indicated by the green recruitment and selection which raises the Environmental Sustainability opinion by around 0.2 points when it is raised by one point. This suggests that the highest effect is associated with the Green Reward and benefits Management Practices.

### Coefficients Summary

Included and excluded variables are summarized in Table (9). Included variables have a p-value of 0.05 or lower.

Table (9) – The Regression Coefficients results Model (B)  
Coefficients<sup>a</sup>

| Model |                                                                          | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. | Collinearity Statistics |       |
|-------|--------------------------------------------------------------------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
|       |                                                                          | B                           | Std. Error | Beta                      |        |      | Tolerance               | VIF   |
| 1     | (Constant)                                                               | .372                        | .155       |                           | 2.402  | .019 |                         |       |
|       | <b>GREEN REWARD MANAGEMENT PRACTICE AND ENVIRONMENTAL SUSTAINABILITY</b> | .907                        | .064       | .865                      | 14.214 | .000 | 1.000                   | 1.000 |
| 2     | (Constant)                                                               | .205                        | .152       |                           | 1.352  | .181 |                         |       |
|       | <b>GREEN REWARD MANAGEMENT PRACTICE AND ENVIRONMENTAL SUSTAINABILITY</b> | .648                        | .095       | .618                      | 6.827  | .000 | .388                    | 2.576 |

|   |                                                                          |      |      |      |       |             |      |       |
|---|--------------------------------------------------------------------------|------|------|------|-------|-------------|------|-------|
|   | <b>GREEN TRAINING &amp; DEVELOPMENT PRACTICE</b>                         | .297 | .085 | .316 | 3.488 | <b>.001</b> | .388 | 2.576 |
| 3 | (Constant)                                                               | .080 | .159 |      | .505  | .615        |      |       |
|   | <b>GREEN REWARD MANAGEMENT PRACTICE AND ENVIRONMENTAL SUSTAINABILITY</b> | .557 | .102 | .532 | 5.467 | .000        | .320 | 3.127 |
|   | <b>GREEN TRAINING &amp; DEVELOPMENT PRACTICE</b>                         | .234 | .088 | .249 | 2.651 | .010        | .344 | 2.909 |
|   | <b>GREEN RECRUITMENT &amp; SELECTION</b>                                 | .197 | .093 | .186 | 2.118 | <b>.038</b> | .392 | 2.552 |

### Included Variables:

The results in the above table ((9) can be summarized as follows:

-Green Rewards and Benefits has a significant impact on Environmental Sustainability. The p-value is .000 (less than 0.05), and the  $\beta$  coefficient equals .865. Therefore, the null hypothesis is rejected. Consequently, there is a positive linear relationship between Green Rewards and Benefits and Environmental Sustainability.

-Green Training and Development have a significant influence on Environmental Sustainability.

The p-value is .001 (less than 0.05), and the  $\beta$  coefficient equals 0.316 Therefore, the null hypothesis is rejected. Consequently, there is a positive linear relationship between Green Training and Development and Environmental Sustainability.

-Green Recruitment and Selection have a significant influence on Environmental Sustainability. The p-value is .038 (less than 0.05), and the  $\beta$  coefficient equals .186, Therefore, the null hypothesis is rejected. Consequently, there is a positive linear relationship between Green Rewards and Benefits and Environmental Sustainability.

### Checking Regression Assumptions for Both Models (A) & (B):

- After fitting both models (A) and (B), different diagnostics were computed to check the validity of the regression assumptions. (Linearity, normality, independence of errors, homoscedasticity (equal variance), absence of multi-collinearity)
- The Q-Q and P-P plots to check for the normality of the residuals.
- The plots show that the distribution of residuals is normal in both models.

### Checking for the Equal Variance Assumption for the Residuals.

- From the scatter plot of the residuals against the predicted values we can tell that there is no specific pattern for the errors. So, the errors are random

### Collinearity Diagnostics (Independent Variables) Intersections Impact

- From the regression output, we run some multi-collinearity problem diagnostics.
- None of the tolerance values in the output fell below 0.1.
- None of the Variance Inflation factors exceeded 10
- The Eigen system analysis didn't show any inflated figures
- Accordingly, the data shows no signs of multi-collinearity.

### Analyzing the Barriers and Limitations of GHRM Implementation:

The survey part which included analyzing the targeted barriers and limitations of implementing the GHRM practices in Egypt can be shown in the following table (10)

**Table (10): Barriers and limitations of GHRM implementation sample results:**

|                                        | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Total |
|----------------------------------------|-------------------|----------|---------|-------|----------------|-------|
| Lack of understating of green policies | 11.4%             | 17.1%    | 24.3%   | 28.6% | 18.6%          | 100%  |
| Lack of awareness                      | 11.4%             | 21.4%    | 15.7%   | 30.0% | 21.4%          | 100%  |
| Lack of management support             | 15.7%             | 14.3%    | 17.1%   | 31.4% | 21.4%          | 100%  |
| Staff resistance                       | 17.1%             | 20.0%    | 22.9%   | 31.4% | 8.6%           | 100%  |
| Cost of implementing the program       | 12.9%             | 20.0%    | 30.0%   | 22.9% | 14.3%          | 100%  |

The secondary aim of this study is to shed light on the most significant obstacles blocking the adoption of GHRM practices in Egyptian automotive industry. GHRM's most significant constraints and challenges, ranked from most to least effective as following, Lack of Management Support, Lack of awareness, Lack of understating of green policies, Staff resistance, Cost of implementing the program. According to the findings, the lack of awareness is a greater barrier than the cost of implementation.

The above Table (10) displays an analysis of the key limitations and obstacles facing GHRM practices in the Egyptian automotive industry, ranked from most effective to least as following:

- 1- Lack of Management Support
- 2- Lack of awareness
- 3- Lack of understating of green policies
- 4- Staff resistance
- 5- Cost of implementing the program

According to the findings, the lack of awareness is a greater barrier than the cost of implementation, which is in line with what the experts indicated.

The researchers have adapted the proposed model from two papers: "Impact of Green Human Resources Management Practices on Organizational Sustainability and Employee Retention: An Empirical Study Related to Educational Institutions" and "The Influence of Green Human Resources Management Practices on Environmental Sustainability in Service-Based State Corporations in Kenya."

The study aimed at investigating the impact of GHRM practices on employee retention and environmental sustainability. Three types of constructs as dimensions of GHRM practices where the focal of the study (green recruitment and selection practices, green training and development practices, and green rewards, and benefits practices). Based on the analysis applied to the data collected, the results revealed that:

- With a p-value of.337 (higher than 0.05), the study found that, green recruitment and selection does not significantly affect employee retention. Consequently, the null hypothesis is accepted.
- To a significant extent, Environmental Sustainability is affected by green recruitment and selection practices. Since the p-value is only.038 (less than 0.05), and the coefficient is 0.186, Thus, it can be concluded the null hypothesis must be rejected. Therefore, Green Rewards and Benefits are positively related to Environmental Stability.
- As the p-value for the association between green training and development and employee retention is 0.533 (higher than 0.05), it indicates clearly that there is insignificant relationship.
- Environmental sustainability is significantly impacted by green training and development. The significance level is very high, at.001 (less than 0.05), and the coefficient is moderate and equivalent to 0.316. Thus, it can be concluded that H0 must be rejected. Thus, Green Training and Development contributes positively to Environmental Sustainability.
- It has been found that green rewards and benefits have a major positive impact on Employee Retention, where the model is significant at the =0.05 level (p0.0001) green reward management was shown to have a coefficient of 0.82.
- There is a high significant effect on environmental sustainability can be attributed to green rewards and benefits. The significance level is quite high, at.000 (less than.05), and the coefficient is 0.865.

### **Summary Results of the Hypotheses Testing**

The regression test excluded two variables in model (A) that were found to have insignificant relationship with Employee Retention. The excluded variables are, green recruitment and selection, and green training and development.

The model (B) explained 79.1 percent of the environmental sustainability variables using stepwise linear regression. The study find that there is a positive and significant relationship between Environmental Sustainability and all three following variables, Green recruitment and selection, Green training and development, and Green rewards and benefits.

The below table (11) summarizes the results of hypotheses testing results as following:

Table (11) – Results of the Hypotheses Testing

| Alternative Hypothesis                                                                                                                     | Test name                  | Test Result on the Null Hypothesis | Sig. value (PValue) | Comment               |
|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------|---------------------|-----------------------|
| <b>(Ha1):</b> Green Recruitment and Selection has an impact on Employee Retention in Egyptian Automotive Manufacturing Organizations.      | Stepwise Linear Regression | Fails to reject $H_0$              | $>0.05$             | Excluded from model A |
| <b>(Ha2):</b> Green Recruitment and Selection has an impact on Environmental sustainability in Egyptian Manufacturing Organizations.       | Stepwise Linear Regression | Reject $H_0$                       | $< 0.05$            |                       |
| <b>(Ha3):</b> Green Training and Development has an impact on Employee Retention in Egyptian Automotive Manufacturing Organizations.       | Stepwise Linear Regression | Fails to reject $H_0$              | $>0.05$             | Excluded from model A |
| <b>(Ha4):</b> Green Training and Development has an impact on Environmental sustainability in Egyptian Manufacturing Organizations.        | Stepwise Linear Regression | Reject $H_0$                       | $< 0.05$            |                       |
| <b>(Ha5):</b> Green Rewards and Benefits has an impact on Employee Retention in Egyptian Automotive Manufacturing Organizations.           | Stepwise Linear Regression | Reject $H_0$                       | $< 0.05$            |                       |
| <b>(Ha6):</b> Green Rewards and Benefits has an impact on Environmental Sustainability in Egyptian Automotive Manufacturing Organizations. | Stepwise Linear Regression | Reject $H_0$                       | $< 0.05$            |                       |

## Conclusion

This research set out to investigate the following points, how GHRM practices affect employee retention and environmental sustainability at Egyptian automotive industry, to identify which aspects of the GHRM practices have the most influence on the independent factors, and the degree to which Egyptian automakers are aware of GHRM practices. Moreover, to bring to light the critical reasons that may prevent GHRM from being put into practice.

The primary results discussed earlier indicated that only one component (GRS) has a statistically significant impact on Employee Retention. However, the results demonstrated that the three components of GHRM practices (GRS, GTD, and GRB) are all significantly related to ES, and all three components have a significant impact on ES.

The findings show that "Green Rewards and Benefits" are an essential aspect of building a sustainable culture of sustainability within Egypt's automotive sector, and retaining talented employees.

According to data analysis and the opinions of experts, the lack of awareness of green practices and the lack of management buy-in are the biggest obstacles to GHRM's implementation in the automotive industry.

Financial incentives for adopting GHRM practices and government backing in the form of subsidies or incentives are identified as the two most important factors in encouraging Egyptian automakers to do so, this according to the expert's view.

The research concludes that GHRM practices are beneficial to businesses and suggests that companies should aligning human resource practices to be green. This could be achieved through hiring environmentally concerned people, using online platforms, raising eco-awareness via education and orientation programs, getting them involved in green activities, educating them about environment management, holding annual green trainings, and providing access to online learning portals, and establish green committees that promote and support green practices.

## Recommendations

Human resource departments in the Egyptian automotive companies should promote green culture, developing specific policies for better environmental practices. Greater emphasis should be placed on compensating employees to motivate them to be more environmentally conscious.

Egyptian automakers should put the GHRM practices at center while developing and spreading GHRM policies and procedures. Setting green strategy and getting top management support for green practices, should be given higher priority. Noteworthy is the fact that, the Egyptian government can incentivize the automaker to embrace green management practices, and raising public awareness of eco-friendly practices, enacting legislation, forcing enterprises to follow environmental sustainability measures, and offering financial incentives.

It is recommended for future research to look deeper into the concept of GHRM in many sectors, looking into more HRM practices.



## Limitations & Future Research

Lack of available information, there is no detailed information about the data of Auto-manufacturers in Egypt, even with the concerned authorities, such as the Central Agency for Public Mobilization and Statistics.

One of the major issues with this study was the participants' unwillingness to cooperate with the researchers and their refusal to actively participate in the investigation.

The research was conducted only to the Egyptian automobile industry; as a consequence, the results may not be applicable outside of this specific field; thus, future research could benefit from expanding the scope of the study to include other types of Egyptian businesses.

As suggested, the theoretical model of this study only considers three independent variables related to GRS, GTD, and GRB, more variables will need to be considered in future research. Additional investigation is required to fully comprehend the relationships between the various forms of business, whether local or global, and GHRM applications because they were not explored in this study.

There is a limited Literature in assessing the relationships between employee retention and green practices, so more in-depth study is needed to assess this area, and investigate potential mediating factors that may emerge or be added to explore the relationship, especially in Egypt.

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