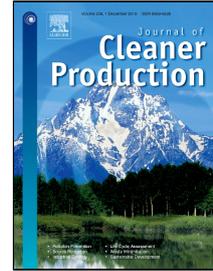# Journal Pre-proof

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The impact of green human resource management practices on sustainable performance in healthcare organisations: a conceptual framework

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The impact of green human resource management practices on sustainable performance in healthcare organisations: a conceptual framework

Abstract

Over the past few years, organisations have faced pressure from stakeholders to adopt environmentally friendly business practices, where it is becoming critical to identify green practices that boost sustainability. Despite green human resource management receiving significant interest from scholars, studies related to green practices remain limited, and are still emerging in a developing countries context. This paper aims to assess the level of implementation of green human resource management practices in Palestinian healthcare organisations, and their impact on sustainable performance in this important service sector. A mixed research approach was adopted by conducting 14 semi-structured interviews with human resource managers, operational managers, and chief executive officers within a range of areas in the healthcare sector in the West Bank. A survey was used as a quantitative tool for data collection from 69 respondents who have been using green human resource management practices at different managerial levels. Partial least squares structural equation modelling was used for data analyses. The findings revealed that green human resource management practices were implemented at a moderate level, where the overall

mean of implementation was 2.42 on a scale of 5. Moreover, sustainable performance was achieved at a high level, 3.42 on a scale of 5. Identification and prioritisation of green practices were applied, where the most influential practices were 'green hiring', and 'green training and involvement'; the least influential green practice was 'green performance management and compensation'. In addition, the path coefficients test revealed that green human resource management practices had a positive influence on sustainable performance, where environmental sustainability had the highest path coefficient of $\beta = 0.478$; the lowest impact from social performance measured $\beta = 0.372$. This study provides scholars with a better understanding of green human resource management practices in a developing countries context, with empirical evidence of the role of green human resource management practices, in a bid to enhance employee behaviour towards sustainable performance. A framework was developed to provide policy makers with set guidelines on how to influence and implement green human resource management practices for maximised sustainable performance.

1. Introduction

Protecting and preserving the natural eco-system's resources has been considered a main priority of decision-makers and top managers in various business fields (Howard-Grenville et al., 2014). Currently, companies are engaging in increased competition, which requires managers to keep finding new ways in which to optimise their essential organisational resources, i.e. human resources (HR), where HR is considered a key success factor for the implementation of polices, practices, and boosting sustainable performance (Harel and Tzafrir, 1999; Sheehan, 2014). Furthermore, HR plays a noticeable role in the organisation's performance, where top management considers HR a competitive advantage for organisational success, which can lead to innovation and sustainable performance, as well as the efficient use of organisational resources to reduce threats and obstacles, thereby remaining competitive in the market (Singh et al., 2019a). Creating a balance between resource consumption and economic development is considered a challenge that obliges firms to implement environmentally friendly business activities that improve their economic, social, and environmental performance (Chan et al., 2012). Rapid increase in pollution from industrial practices, accompanied by a decline in natural resources, has driven governments, governmental associations, environmental agencies, stakeholders, competitors, customers, employees, and society as a whole to push firms and corporations to adopt green practices on a larger scale, where implementing such practices will lead to operational development, economic gain, and improvement of organisations' environmental performance and competitive advantage (El-Kassar and Singh, 2019; Singh et al., 2019 b).

Several studies have debated employees' environmental values as an essential aspect in terms of applying green culture and values, including the development of green product designs, sustainable utilisation of resources, efficient use of energy and pollution emissions, waste, and recycling (Graves and Sarkis, 2018). The greening of firms and environmental sustainability has become the agenda of decision-makers in the 21st century, and as a result, new alternatives to traditional human resource management (HRM) have been developed. Arguably, HR is a power point for facilitating green and sustainable initiatives, where environmental sustainability may be at the epicentre and focus of emergent GHRM research studies (Jabbour et al., 2019). Consequently, researchers focusing on HRM have paid more attention to the role of HRM in the greening of organisations, as indicated by the important number of major journals on the topic (e.g. Jabbour and Santos, 2008; Jackson and Seo, 2010; Jabbour and Jabbour, 2016). There is little argument about the degree of impact of these issues among environmental specialists (IPCC, 2018; EPA, 2018). Nevertheless, governments, consumers, and researchers are presented with growing green opportunities and challenges, since HRM practices have been relatively slow in addressing these environmental issues (Jackson et al., 2011).

Rapid technological changes and active market changes have forced organisations to manage and utilise their resources in a sustainable manner, which poses many challenges in terms of economic and sustainable development (Wang and Song, 2014). Broadly speaking, developing countries do not fully adopt green practices in all functional areas; in fact, few departments adopt green practices (Gupta, 2018). These countries generally have poor economic performance for a variety of reasons such as lagging political reforms, under-developed financial markets, dominant and underperforming public sectors, and

extensive trade restrictions. On the other hand, a widespread lack of political stability in these countries have led to war, social disruption, and mass migration (Budhwar et al., 2018).

In the service sector, healthcare is considered an important service provider, and is an area of focus among institutions concerned with environmental issues as a result of waste produced (Romero and Carnero, 2017). The healthcare industry generally ignores environmentally sustainable practices and the environmental effect of the sector for a number of reasons, e.g. obliviousness, and to avoid extra expenses (Mbongwe et al., 2008; Yellowlees et al., 2010). Existing research showed that the healthcare sector on average accounts for 5% of the national CO_2 footprint in member countries of the Organisation of Economic Co-operation and Development (OECD), China and India, rendering this sector similar in significance to the food sector (Pichler et al., 2019). This sector produces significant amounts of hazardous materials (Pasqualini Blass et al., 2017). The managers in this sector are under growing pressure from society regarding environmental issues; thus, their responsibility is not limited to delivering high quality and low cost services, but should be expanded to involve environmental protection issues, and limiting the use of natural resources (Pinzone and Lettieri, 2016). As a result, healthcare managers are being allocated more resources to establish environmentally friendly initiatives, such as recycling, energy efficiency, water conservation, green procurement, and sustainable mobility (McGain and Naylor, 2014).

Occupied Palestinian territories (OPT) are in a unique situation regarding environmental issues, due to the political situation and conflict in the country. They participate as members in a number of regional agreements on environmental subjects,

chiefly solid waste and water, representatives by the Environmental Quality Authority (EQA), in a bid to improve environmental practices (EQA, 2010). This complex and unique situation is reflected in an ambiguous level of willingness to adopt and implement green practices in many sectors (Masri and Jaaron, 2017). It is worth noting that the healthcare sector is an important service sector in Palestine, as evidenced by the degree of government expenditure in this sector. According to an annual report about health accounts in Palestine, published by the Palestinian Central Bureau of Statistics (PCBS) and Ministry of Health (MOH) in 2016, the healthcare industry accounts for 10.9% of the gross domestic product (GDP) in Palestine (PCBS, 2016; MOH, 2016).

This study highlights three key theoretical contributions. First, it responds to the lack of empirical studies on GHRM practices in the service sector, and within a unique, developing country situation, and contributes value to the current body of literature by providing empirical evidence for the level of implementation of the GHRM bundle practices in this important service sector. In fact, this study is the first of its kind in Palestine to be conducted in the healthcare sector. Second, it explores the impact of the GHRM bundles on sustainable performance using mixed methods research (qualitative and quantitative), and contributes important evidence from Palestine to current GHRM practices and sustainable performance literature in the context of developing countries. Third, a conceptual framework was developed, providing a valid mechanism and useful insights for healthcare organisations to facilitate using HR practices, as a means for improving sustainable performance.

This paper investigated GHRM practices in the healthcare sector in the West Bank. To this end, this study set the following objectives:

- To determine the level of implementation of GHRM practices in Palestinian healthcare organisations.

- To investigate the relationships between GHRM and sustainable performance in Palestinian healthcare organisations.

- To develop a framework that can assist in implementing GHRM in Palestinian healthcare organisations.

The paper is structured according to six sections as follows. Section two reviews previous studies of GHRM practices and proposes a set of hypotheses that will be tested by the research. Section three presents the methodology adopted for the study. Section four presents the data analyses and results. Section five presents the proposed GHRM framework for supporting sustainable performance in healthcare organisations. A results discussion is presented in section six. The final section of this study presents the managerial implications and limitations of the research.

2. Literature review

GHRM has emerged as a new trend of successful management, and combines and integrates environmental management (EM) and sustainable performance in a bid to support organisational performance (Al Kerdawy, 2018). Nowadays, environmental matters represent one of the most important managerial challenges (Opatha and Arulrajah, 2014; Mancha and Yoder, 2015; IPCC, 2014), where corporations attempt to find ways to reduce their negative impacts on the environment, while at the same time improving sustainable performance (Ahmad, 2015). HRM literature, on the other hand, suggests that HRM practices affect organisational performance through their influence on employees'

work behaviour and attitudes (Dumont et al., 2017). Jackson et al. (2014) defined GHRM as a phenomenon relevant to recognising the links between organisational actions that affect the environment, and the evolution, design, implementation, and impact of HRM systems. According to a recent review of existing literature on GHRM, several empirical studies proposed the use of a cluster of GHRM practices (the so-called 'GHRM bundle'), rather than individual practices, as a means for improving environmental performance (EP), by diffusing environmental principles and values within an organisation (Renwick et al., 2013; Nejati et al., 2017). This paper takes into consideration the GHRM bundle as a coherent set of HR practices in order to study its influence on the performance of healthcare organisations. Table 1 presents definitions of the GHRM bundle and the practices involved therein.

2.1 Green hiring

Currently, many companies aim to provide job descriptions that can define a number of environmental issues and tasks that are linked to duties and responsibilities of the work being advertised (Wehrmeyer, 1996; Renwick et al., 2008). Applying green, environmentally friendly practices can attract candidates to work for 'green employers'. Thus, an efficient approach for attracting applicants is by earning a reputation as a 'green employer' (Phillips, 2007). Companies can also promote their green image, environmental performance, and environmental policy through advertising, which can help to attract candidates to apply for potential vacancies. As such, the description of a particular employment position should illustrate the environmental tasks related to said position, as well as the skills and knowledge candidates will need to carry out environmental activities (Chaudhary, 2018). Green hiring (GH) is considered an essential dimension in GHRM

practices, and focuses on the importance of establishing a workforce that is interested in environmental issues, which in turn can improve their EP (Zibarras and Coan, 2015).

2.2 Green training and involvement

Green training and involvement (GTI) is considered an essential priority for any company, as it contributes to its sustainable development (Pinzone et al., 2019). Moreover, it is essential for effecting successful activities related to environmental management (Jabbour, 2013) and cleaner production (Diana et al., 2017). Fernández et al. (2003) found that adopting an environmental approach in organisations requires increasing employees' skills, awareness, and knowledge related to both materials and processes; this in turn requires training in EM to effect involvement and participation in environmental issues. Therefore, employee involvement is pivotal for environmental and social responsibility, as it will help to encourage employee obligations to environmental goals (Ramachandran, 2011), which is considered a key factor for improving the outcomes of EM systems. These systems include benefits such as waste reduction, efficient resource usage, and pollution reduction. The participation of staff in green initiatives will enhance opportunities to upgrade green management, as it will help to structure green objectives, motivations, and capabilities among workers (Florida and Davison, 2001; Kitazawa and Sarkis, 2000).

2.3 Green performance management and compensation

Essentially, improving the environmental performance (EP) of firms will lead to better economic performance (Ec.P) (Stefan and Paul, 2008). Adopting a green standard and indicator is therefore a priority for improving the EP of firms (Tang et al., 2018), where identifying green objectives for all employees will enable translating environmental goals into action plans for all workforces (Milliman and Clair 1996). Berrone and Gomez-Mejia

(2009) highlighted the importance of inspired environmental behaviours for achieving EP. Additionally, firms should support environmental strategies by using EP criteria to reward their employees. Merriman and Sen (2012) found indirect green compensation benefits of sustainable projects to be sufficient reasons for encouraging staff commitment to green goals. Table 1 summaries GHRM bundle practices.

Table 1 Green human resource management bundle.

GHRM bundle Practices	GHRM bundle Practices Definition
GH	Adoption of environmental criteria in selection and hiring procedure (Jabbour and Santos, 2008; Renwick et al., 2013).
GTI	Boost of reward and competencies system, which reinforce organisational performance, and enhance the commitment to environmental initiatives, thus let employees participate in the environmental progress (Daily et al., 2012).
GPMC	Reward and monitoring systems to support employees to EMs (Berrone and Gomez-Mejia, 2009).

The sustainability concept is currently a worldwide issue, and progressively essential in HRM. Balancing economic environmental performance has become the focus of attention for organisations facing pressure from regulatory bodies, stakeholders,

competitors, and society at large (Rehman et al., 2016). As such, there is a considerable relationship between environmental performance, environmental management, and economic performance, and a number of HR practices for the refinement of EP (Siyambalapitiya et al., 2018). Generally, sustainability is adopted by governments, communities, business leaders, and consumers (Rayner and Morgan, 2018). Furthermore, an influential estimation of sustainable performance can be effected through assessment of the performance of three mainstays: economic, environmental, and social factors (GRI, 2006); these three pillars of sustainable performance are assessed in equal measure (Svensson et al., 2018).

Scholars are slowly realising the link between HR factors and environmental sustainability (Jabbour, 2013); thus, HR is considered as comprising powerful practices for merging employees with new initiatives, and for allowing companies to align HR practices with their environmental targets, thereby assisting them in moving towards environmental sustainability (Haddock-Millar et al., 2016). Moreover, social performance (SP) refers to the impacts of GHRM practices related to social aspects, and is linked with the image of an organisation and their products, as per the perspectives of various stakeholders (Newman et al., 2016). According to Chowdhury et al. (2017), green programmes support HR in improving social responsibility between employees. Therefore, HRM plays an important role in developing and boosting SP. 'Environmental performance' (EP) refers to an organisation's capability to decrease the waste it produces, as well as its air emissions, and limiting the use of hazardous materials, while minimising the frequency of environmental accidents (Zhu et al., 2008). In the context of EP, Paillé et al. (2014) studied the link between HRM and environmental performance management in Chinese firms.

Their results showed that organisational citizenship behaviour mediated the relationship between HRM and EP.

Dubey and Gupta (2018) highlighted the role of GHRM in improving sustainability, which not only includes awareness of environmental issues, but also economic and social performance, and how these initiatives can increase employee awareness, and support sustainable practices. Economic performance relates to marketing and finance performance development as a result of applying green practices, which can enhance the position of an organisation, compared to other organisations in the industrial sector (Zhu et al., 2005). In this way, balancing economic, social, and environmental performance is currently a responsibility of companies towards society (Longoni et al., 2018). Notably, to enhance long-term sustainability in an organisation, there is a need to acknowledge and participate in green practices and behaviours such as recycling and waste management. Moreover, an understanding is needed of the role of GHRM in sustainability issues, such as establishing a green culture, using resources more efficiently, decreasing negative impacts on the environment as much as possible, and engaging staff in reducing waste (Rayner and Morgan, 2018).

Green HRM literature largely provides insights about manufacturing firms, while GHRM contributions to service sectors have not been given the same research focus (Jabbour et al., 2013). However, the lack of focus in developing countries on managing environmental impact, this is a significant gap that must be addressed in future studies (Yusoff et al., 2015). Furthermore, according to several scholars in the field of GHRM, there is a need for more in-depth research across different organisational functions, where limited quantitative studies have been conducted in a GHRM context. Moreover, advanced

studies should focus on examining GHRM in relation to other practices and cross-functions, such as sustainability (Fisher et al., 2010).

2.4 Hypotheses development

Human resources practices play a major role in contributing to the adoption of modern sustainability practices (Aragão and Jabbour, 2017; Da Rosa et al., 2019). Recent studies have found positive support from HRM in realising organisational-level green sustainability objectives (Jabbour et al., 2019). It is clear that green practices are vital tasks that support the maintenance and implementation of EMs, which will assist corporations to obtain greater EP (Jabbour and Santos, 2008), particularly where GHRM practices focus on the importance of establishing a workforce that is interested in environmental issues, which can improve their environmental performance (Arulrajah et al., 2015). GHRM practices play a fundamental role in efficiently disseminating green culture (Nejati et al., 2017). Where development in environmental performance depends on teamwork, the training of workforces, appraising and evaluating environmental goals, organisational culture (Jabbour et al., 2008), and competitive performance can enhance the EP of organisations (Iraldo et al., 2009). In addition to the tangible benefits of adopting green practices, this will also contribute to enhancing the attraction and retention of the best talents, thus rendering GHRM practices a critical part of EMs (Patel, 2014). Therefore, the following hypothesis examines the positive relationships between the GHRM bundle and environmental performance.

HP1. The GHRM bundle has a positive impact on EP in Palestinian healthcare organisations.

Balancing economic and environmental performance has become the focus of attention for companies facing pressure from stakeholders, competitors, and society as a whole (Mishra et al., 2014). Therefore, there is a positive relationship between environmental performance, environmental management, and economic performance, and a host of HR practices, for the refinement of environmental performance (Siyambalapitiya et al., 2018). Wagner (2013) provided quantitative evidence about the benefits of implementing GHRM practices in organisations, highlighting a positive relationship between GHRM practices and the economic performance of firms. Additionally, alignment of GHRM practices with sustainability concepts will create the ability for firms to achieve not only their short-term financial objectives, but also their future goals (El-Kassar and Singh, 2019).

Employee competence and involvement are linked to environmental-oriented practices such as GHRM, which can also lead to better economic performance (Ec.P) (Turban and Greening, 1997). Indeed, attracting and hiring workforces interested in environmental development will surely lead to hiring a talented workforce committed to environmental issues. Similarly, reinforcing employees' involvement and commitment in environmental actions and delivering green training may enhance their knowledge and skills, thus developing the Ec.P of firms (Longoni et al., 2018). Therefore, this study suggests that:

HP2. The GHRM bundle has a positive impact on Ec.P in Palestinian healthcare organisations.

Green human capital is considered a fundamental determinant for corporate citizenship behaviours and corporate social responsibility (CSR) in emerging markets (Park and Ghauri, 2015; Macke and Genari, 2019). Organisations should take into account their CSR practices when attracting a workforce, in order to enhance the organisational image among

stakeholders (Farooq et al., 2014). Moreover, Al Kerdawy (2018) referred to the positive relationship between GHRM and CSR, which will reflect a more socially and environmentally responsible image for the organisation. It is worth noting that such initiatives can help to accomplish sustainability, thus ensuring a positive impact on society and the environment (Newman et al., 2016), where CSR refers to informal and formal approaches for developing social, governance, labour, ethical, and environmental performance in developing countries (Patnaik et al., 2018). In fact, CSR programmes in a competitive marketplace may be an efficient approach for attracting and retaining customers. Moreover, it has a positive impact on customer loyalty (Park et al., 2014), where investing in social responsibilities can lead to customer and staff satisfaction. Notably, superior talent hiring is considered an important aspect for supporting a firm's social performance (SP), where increasing the level of employee satisfaction, better relationships with stakeholders, and workforce retention are some of the benefits that companies can gain from engaging in environmental activities (Khurshid and Darzi, 2016; Wagner, 2013). Accordingly, the third hypothesis of this study was formulated as follows:

HP3. The GHRM bundle has a positive impact on SP in Palestinian healthcare organisations.

According to Longoni et al. (2018), environmental management can be effective in various organisational functions such as GHRM and green supply chain management (GSCM), as it is linked to environmental and economic performance within the organisation. Furthermore, the results from their study showed that GHRM positively impacted on EP, and the GHRM bundle helped in disseminating environmental principles

and values within corporations. Similarly, the GHRM bundle also positively impacted Ec.P by dissemination, and motivating employees to create economic value.

3. Research methodology

A mixed (qualitative and quantitative) method approach was adopted for the present study. This approach can help to increase the comprehension of a phenomenon and gaining a full and complex understanding of it (Johnson et al., 2007; Creswell, 2012). Choosing this approach for the current study helped to enhance familiarity with GHRM practices in the healthcare sector, and with sustainable performance. Therefore, as a first stage of the research, a comprehensive search of the literature on GHRM practices was conducted to allow for identifying GHRM practices, and sustainable performance (Nejati et al., 2017).

The initial phase of the mixed methods approach involved conducting semi-structured interviews with HR experts in the healthcare sector. Thus, 14 semi-structured interviews were conducted with experts in the healthcare sector working in 11 organisations, with a range of classifications such as primary and secondary care centres, and within a variety of sectors (e.g. governmental, private, non-profit organisations, and military sectors). The interviewees included five general directors, two HR managers, four administrative directors, two quality managers, and one expert in GHRM from the academic sector. A thematic analyses approach was employed to analyse data generated from conducting interviews with managers and experts in the healthcare sector (Braun and Clarke, 2006). In the second phase, to check the hypotheses of the study, as well as obtain a comprehensive understanding of GHRM practices and their influence on sustainable performance in the healthcare sector, a quantitative approach was adopted

using a survey. The survey items was identified from the literature and the input from interviews with HR experts from within the healthcare sector. The survey participants were general directors, HR managers, administrative directors, and quality managers working in the healthcare sector.

3.1 Sampling techniques

The research was conducted in the healthcare sector in the West Bank, in 2019; the population of the study comprised four classifications that covered all the services provided in the healthcare sector adopted by the Palestinian Ministry of Health (MOH) (e.g. primary care centres, secondary and tertiary care centres (hospitals and rehabilitation centres), central laboratories, and blood banks. The MOH provided the research with raw data about these healthcare organisations (e.g. the name of the health care organisation, location, classification, and others). The total population was 77 organisations. To judge the validity and reliability of the questionnaire prior to starting the study, and to check the consistency of the questionnaire, a number of questionnaires were distributed to a group of the study sample, comprising six experts in the healthcare sector. Conducting a pilot study in this manner can help researchers in many ways, e.g. testing and assessing the feasibility of a survey (Van Teijlingen and Hundley, 2002).

Nearly 77 electronic and hard copy questionnaires were distributed within the healthcare sector. The survey targeted the top managers, managers of administrative affairs, HR managers, and quality managers; an electronic copy of the questionnaire was established using Google Drive, and this copy was used to reach hospitals and primary care centres that were difficult to reach for political reasons (e.g. in Jerusalem). The questionnaire sent by email included definitions of terms and guidelines to help the

respondents complete the questionnaires in the correct manner. Additionally, the HR managers were contacted by phone to explain the questionnaire, and to remind non-respondents' managers to answer the questionnaire. Following distribution of the questionnaires and screening of the subsequent data collected, the final number of useable returned surveys was 69, a respondent rate of 88.5%. The number of respondents in terms of organisation classification was distributed as follows: more than 68% (n=41) of respondents were from secondary care centres (hospitals), roughly 34% (n=21) hailed from triple care centres (rehabilitation centres), and the remaining laboratories/blood banks represented 4% and 6% (n=3, n=4), respectively. The sample size of 69 was considered appropriate for analysing the data using partial least squares (PLS) SEM (Hair et al., 2017).

3.2. Measurement development

The model of the study included 39 reflective measurement items for six latent variables, including three independent variables (GH, GTI, GPMC) and three dependent variables (EP, Ec.P, SP), which constituted three relationships (three hypotheses) between them. The respondents answered the questionnaire by selecting from many options, or from a five-point Likert scale, which ranged from one ('not at all') to five ('a very significant extent'); this scale assessed the existence of target practices in healthcare organisations, where the respondent chose only one option that represented the current situation of their organisation regarding the practices under study. The start of the questionnaire began with the GHRM bundle and its three dimensions (GH, GTI, and GPMC). This section comprised 22 items to assess the degree of applied and adopted GHRM practices, and environmental behaviour. These items were obtained from several existing research studies (see Table 3). Furthermore, respondents were able to add

comments at the end of the questionnaire, thereby providing feedback about the level of sustainable performance in their organisations.

4. Data results

4.1 Interviews analysis

An exploratory research approach was adopted to gain more information about the research questions, and to enable better familiarity with GHRM practices in the healthcare sector. The initial step in this qualitative approach involved conducting semi-structured interviews with HR experts in the healthcare sector. Therefore, 14 semi-structured interviews were conducted with experts in the healthcare sector, working in 11 organisations with many different classifications, e.g. primary and secondary care centres (e.g. governmental, private, non-profit organisations, and the military sector). All interviews with respondents were audio recorded using a recording machine to enable easy analysis of the interviews, and to avoid bias (Willis, 2015). The interviews were analysed based on guidelines from thematic analysis approaches by Braun and Clarke (2006). The primary focus was to discover themes and interesting features that reflected the current situation of green culture and EMs. An additional goal was to become more familiar with the role of the HR department in developing green initiatives and their impacts on sustainability in the healthcare sector. Analysis of the interviews revealed the following themes. First, environmental practices applied in the healthcare sector highlighted the important role of government, represented by the MOH, to commit to these practices. Second, the role of the HR department in the development of green culture, and in providing employees with skills and knowledge was underscored, particularly related to learning about medical waste and its separation and disposal mechanisms, and

incorporating these practices into the appraisal and rewards system. Third, environmental sustainability are important issues, and commitment to effecting it using approaches such as a waste separation system and disposal to reduce its negative impact on the environment was underscored. Notably, energy conservation was a priority for all of the interviewees, and they mentioned using different approaches to saving energy, e.g. using clean energy, using electronic systems rather than paper, and using smart systems for reducing energy use without purpose, which can also be reflected in an economic context. Finally, in terms of social sustainability, all interviewees highlighted the humanitarian role of the healthcare sector, which to ensure the health of members of society and their staff. Moreover, they reiterated that the ultimate goal of this sector was not only to provide medical services at a low cost, but at a high quality, and with commitment to environmental conservation standards.

4.2 Questionnaires analysis

To achieve the objectives and test the research hypotheses, Smart- PLS 3.2.7 software was used. Two essential methodological elements of the Measurement Model and the Structural Model were considered, where they can identify the hypotheses and statistical properties of the conceptual framework. Currently, PLS-SEM technique is widely used among scholars, in various research fields such as marketing, statistics, and management disciplines (Hair et al., 2013; Hair et al., 2011). General description was used to assess the level of implementation of the GHRM bundle and the dimensions of sustainability with its three dimensions (environmental performance, economic performance and social performance) in the West Bank. As can be seen in Table 2, the means and standard

deviations of the model were reported. For making easy of interpretation of the Likert scale five- point that was used in the current study, we used five equal sized categories as follows: scores less than 1 were considered very low; scores from 1-2 were considered low, scores between 2-3 were considered moderate, and those in between 3-4 were considered high, and those more than 4 were considered very high.

Table 2 Level of implementation of the GHRM bundle and sustainable performance.

	Mean	Standard Deviation	Level of Implementation
Green hiring	2.4806	1.1018	Moderate
Training and green participation	2.4331	1.1878	Moderate
Green performance management and compensation	2.3712	1.1931	Moderate
Environmental performance	3.5506	1.0695	High
Economic performance.	2.7610	1.000	Moderate
Social performance	3.9647	0.9021	High
Total for GHRM	2.4283	1.1609	Moderate
Total for sustainable performance	3.4254	0.9905	High

The results revealed that the overall means of implementation level of the GHRM bundle and sustainability were 2.4283 and 3.4254 on a scale of 5 respectively, which reflects a moderate level of applied of GHRM practices and high level of applied of

sustainable performance in the Palestinain context. The highest level of the GHRM bundle is listed for green hiring with 2.4806, then training and green participation with 2.4331, the green performance management and compensation scored the lowest level of implementation with 2.3712. In terms of sustainability, the most implemented practices are social performance (3.9647) with a high level of implementation, followed with environmental performance with high level of implementation which reached to 3.5506, while the lowest level was for economic performance with a moderate level (2.7610).

4.2.1. Assessment of the measurement model

The measurement models are used to estimate the relationships between each latent variable and its associated indicators, where they aim at assessing the reliability, internal consistency, and validity of the variables. Table 3 presents the measurement models' results of reflective constructs for GHRM practices, and dimensions of sustainable performance (EP, Ec.P, and SP). Three main outputs were measured to determine items loading, the convergent validity; through Average Variance Extracted (AVE) and internal consistency; through Composite Reliability (CR) of the six measurements or constructs. The CR should be more than 0.708 (acceptable range 0.60 to 0.70) (Hair et al., 2016). Moreover, the item loading should be higher than 0.708 (Hair et al., 2011). On a final note, the AVE should be more than 0.50 in order to prove the utilisation of the factor (Fornell and Larcker, 1981).

Table 3 Reflective constructs measurement properties

Reflective constructs	Construct items	Items loading	CR	AVE	Reference
Green Hiring	The organisation prefers to recruit employees that have knowledge about environment.	0.78	0.93	0.71	Siyambalapitiya et al. (2018)
	Applicants for jobs in the organisation are subject to interviews to test their knowledge about environment	0.84			Nejati et al. (2017)
	In addition to other criteria, employees are selected based on environmental standards.	0.91			Longoni et al. (2018)
	Job seekers are attracted by the environmental image and policies of the organisation	0.86			Yusliza et al. (2017)
	The job description includes the job's environmental aspects	0.84			Siyambalapitiya et al. (2018)
	The recruitment message includes organisations' environmental values in job advertisement	0.83			Siyambalapitiya et al. (2018)
Green Training and Involvement	Training programs about environment are provided to large-scale individuals in the organisation.	0.89	0.94	0.80	Nejati et al. (2017)
	In general, staff are satisfied with the organisation's green training.	0.89			Nejati et al. (2017)
	Topics offered through green training are modern and suitable for the institution's activities.	0.89			Nejati et al. (2017)
	The organisation provides formal environmental training programs for employees to increase their ability to promote them.	0.86			Nejati et al. (2017)

	Environmental training is a priority and an important investment.	0.89			Yusliza et al. (2017)
	The need assessment for green training helps to familiarise employees with environmental practices.	0.93			Siyambalapitiya et al. (2018)
	Evaluation of green training and development helps to measure the employees' level of green knowledge and awareness	0.90			Al Kerdawy (2018)
	Environmental objectives contain green training and development aspects	0.91			Siyambalapitiya et al. (2018)
Green Performance Management and Compensation	Specific environmental goals are adopted by every manager and employee in the organisation	0.77	0.950	0.70	Nejati et al. (2017)
	When environmental programs are improved, employees are rewarded for their remarkable ideas	0.85			Yusliza et al. (2017)
	Employees who have achieved or exceeded the objectives of the environmental institution are rewarded with non-cash equivalents or other cash prizes.	0.86			Siyambalapitiya et al. (2018)
	Section managers reward staff in their departments when they improve environmental programs.	0.87			Nejati et al. (2017)
	Environmental performance is recognized in public.	0.86			Yusliza et al. (2017)
	One of the criteria employee performance assessment is the achievement of environmental objectives.	0.91			Nejati et al. (2017)
	There are adequate assessments of staff performance after attending courses on environmental topics.	0.89			Siyambalapitiya et al. (2018)

	Employees are punished for non-compliance with environmental standards in the organisation.	0.64			Interviews
Environmental Performance	Direct and indirect toxic emissions are reduced	0.69	0.86	0.53	Longoni et al. (2018)
	Increase the volume of recycled materials and reduce waste.	0.61			Rawashdeh (2018)
	Commitment to the system of separating medical waste from the public sewage system.	0.62			Interviews
	Increase the rate of purchase of environmentally friendly goods (e.g., medicines).	0.81			Longoni et al. (2018)
	Increase activities that protect our natural environment such as the presence of green areas in the institution.	0.75			Al Kerdawy (2018)
	Reduced the risk of environmental accidents such as medical waste leakage, poisoning or radiation emissions.	0.82			Paillé et al. (2014)
Economic performance.	Growth in the organisation's profits in general is due to the energy consumption and materials reduction.	0.91	0.93	0.77	Longoni et al. (2018)
	Rise in the market share of the enterprise and improve the reputation of the organisation.	0.88			Rawashdeh (2018)
	Reduce the cost of energy use	0.88			Zhu et al. (2005)
	Reduce processing fees and waste disposal	0.84			Zaid et al. (2018a)
Social Performance	Increase attention in the rules of the health and safety of employees, especially when using hazardous materials and radiation.	0.84	0.93	0.65	Abdullah et al. (2015)
	Improving community health and safety ,and infection control.	0.83			Abdullah et al. (2015)

	Developing economic activities in the community and providing more job opportunities.	0.73	Zaid et al. (2018a)
	Reducing the impact of the organisation's waste on the community.	0.82	Abdullah et al. (2015)
	Improving the quality of service provided, and commitment to the code of ethics.	0.85	Rawashdeh (2018)
	develop and design better service and participation of staff initiatives in management decisions	0.86	Rawashdeh (2018)
	Increased commitment to professional ethics, infection control and antibiotic control policy.	0.72	Interviews

From Table 3, the items loading ranged between 0.61 and 0.93. The CR for all constructs was greater than 0.86, thus, the CR and Cronbach's alpha displayed reasonably reliable scales. The AVE values were more than 0.5 for all constructs so convergent validity was approved. These findings confirmed good internal consistency and the convergent validity of the measurement model. Similarly, the collinearity of indicators is measured by checking the Variance Inflation Factor (VIF), the reflective factors weights are shown in Table 4. The factor VIF for all factors was less than five (Hair et al., 2016), illustrating that multicollinearity criterion was acceptable.

Table 4 Assessment of formative constructs.

Second-order construct	First-order construct	Weight	t-value	VIF
	GH	0.21	8.72	3.16
GHRM bundle	GTI	0.145	11.56	3.37
	GPMC	0.14	13.73	2.59

Discriminant validity also essential to test the dissimilarity between measurement tools of different factors, where the square root of the (AVE) should be more than other constructs correlations (Fornell and Lacker, 1981), as shown in Table 5 the results of applied Fornell-Larcker criterion with our model confirm this criterion.

**Table 5** The measurement model discriminant validity–Fornell-Larcker criterion.

Constructs	Ec.P	EP	GH	GPMC	GTI	SP
Ec.P	**0.880**					
EP	0.516	**0.716**				
GH	0.381	0.364	**0.842**			
GPMC	0.410	0.444	0.734	**0.840**		
GTI	0.423	0.472	0.803	0.754	**0.898**	
SP	0.445	0.684	0.302	0.332	0.363	**0.809**

Moreover, discriminant validity of the formative model can be examined using the heterotrait-monotrait ratio (HTMT) of the correlations (Henseler et al., 2015). The HTMT ratio should be less than 0.85. We listed all of results from HTMT test in Table 6; all of results are less than 0.85 which provides the discriminant validity property.

After establishing all the results from the measurement model of the study, Fig. 1 displays the model of research study we conducted.

Table 6 Heterotrait-Monotrait Ratio (HTMT).

	Ec.P	EP	GH	GPMC	GTI	SP
Ec.P	-					
EP	0.606	-				
GH	0.411	0.385	-			
GPMC	0.450	0.487	0.786	-		
GTI	0.450	0.499	0.848	0.787	-	
SP	0.481	0.792	0.313	0.350	0.375	-
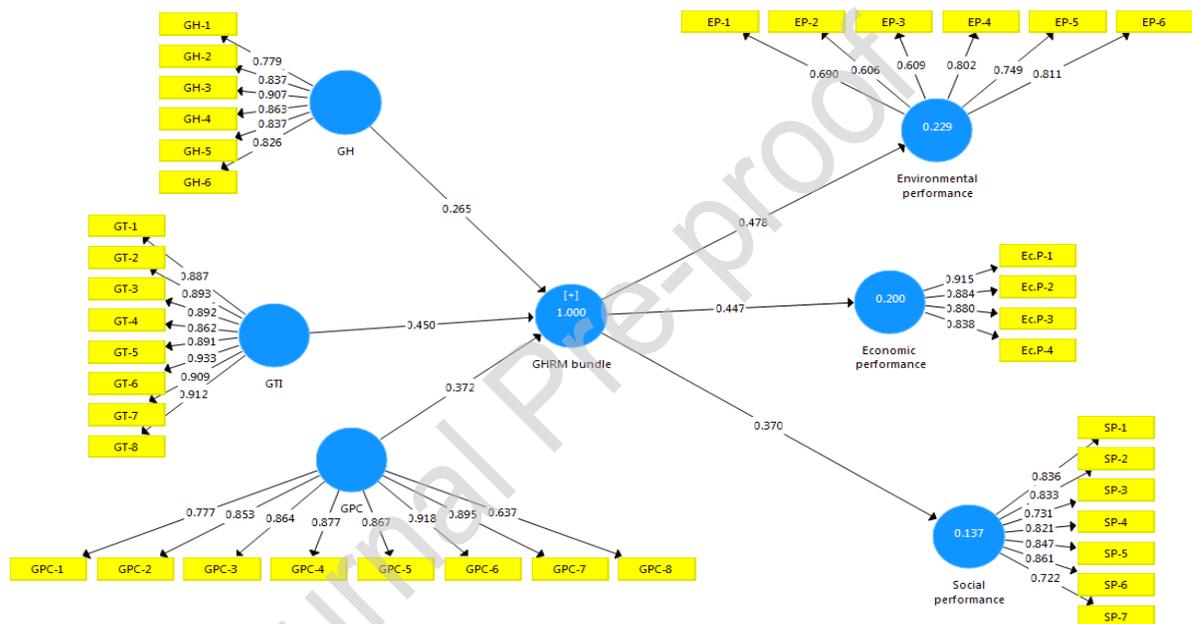
Fig. 1. The measurement model.

4.2.2 Assessment of the structural model

The next step was to assess the Structural Model outcomes to determine the predictive relevancy and the relationships between the constructs and the strength and quality of the structural model, and to check the hypotheses developed in the research. This included measuring of four key standards which are the coefficient of determination (R^2), Path coefficient (β value) and T-statistic value, Effect size (f^2), and the predictive relevance of

the model (Q^2). A bootstrapping analyses was conducted. However, we can consider R^2 values of 0.75, 0.50, and 0.25 as high, moderate, and low respectively (Hair et al., 2011). Hence, the R^2 value in this study was moderate. The Q^2 value is a criterion of the model predictive relevance. Notably the results of Q^2 values should be larger than zero as an indication that the exogenous structure has predictive relevance to the endogenous structure under consideration based on the recommendation of Hair et al. (2011). Table 7 illustrates that the obtained cross-validated redundancy values for environmental, economic and social satisfaction were listed to be 0.194, 0.243 and 0.171, respectively. The f^2 is the degree of the effect of each exogenous latent construct on the endogenous latent construct. This measure enables a researcher to analyse the link of structural model in explaining the chosen endogenous latent variables. As recommended by Cohen (1988), the f^2 values of 0.02, 0.15 and 0.35, respectively, were termed small, medium and large effect sizes of the predictive variables. Table 7 presents medium effect size of environmental, economic and social construct with f^2 values of 0.301, 0.251 and 0.160, respectively. All of the tests' results were acceptable, and satisfactory.

Table 7 R^2, communality, and redundancy.

| Construct	R^2 adj	Q^2	f^2 EP	f^2 Ec.P	f^2 SP
GHRM bundle	-	0.597	0.296	0.250	0.159
EP	0.529	0.194	-	-	-
Ec.P	0.508	0.243	-	-	-
SP	0.460	0.171	-	-	-

Moreover, the Path Coefficients test was conducted to test the hypothesized relationships. In Table 8, the findings of the proposed hypotheses are shown, as proposed

by Hair et al. (2016), we are running the bootstrapping option. The outcomes from this procedure include the numerical data related to the beta, Std. Error, corresponding t-values and P-value that are critical based on the two-tailed t-test. As presented in Table 8 and Fig. 2, a positive relationship among GHRM bundle and sustainable performance with its three components is concluded, hence supporting H1, H2, and H3. In H1, results revealed that the proposed relationship between environmental performance and GHRM bundle was highly significant ($\beta = 0.478$, t = 5.796, P-value =0.00) and hence the first hypothesis was supported. Furthermore, we observed highly significant relationship between economic performance and GHRM bundle ($\beta = 0.446$, t = 4.201, P-value =0.00) and hence the second hypothesis was supported. The effect of the GHRM bundle on social performance was significant ($\beta = 0.266$, T = 10.513, p < 0.000), therefore supporting H3.

The greater the beta coefficient (β), the stronger the effect of an exogenous latent construct on the endogenous latent construct. Table 8 and Fig. 2 display that the environmental sustainability has the top T path coefficient of $\beta = 0.478$ when compared to other β values in the model. Whereas, the GHRM bundle had the lowest impact on social performance with $\beta = 0.372$

Table 8 Hypothesis testing results.

Path	Hyp.	(β)	Std. Error	T- value	P-value	Decision
GHRM bundle →EP	**H1**	0.478	0.110	5.738	**0.00**	Supported
GHRM bundle →Ec.P	**H2**	0.446	0.089	4.198	**0.00**	Supported
GHRM bundle →SP	**H3**	0.372	0.107	3.848	**0.00**	Supported
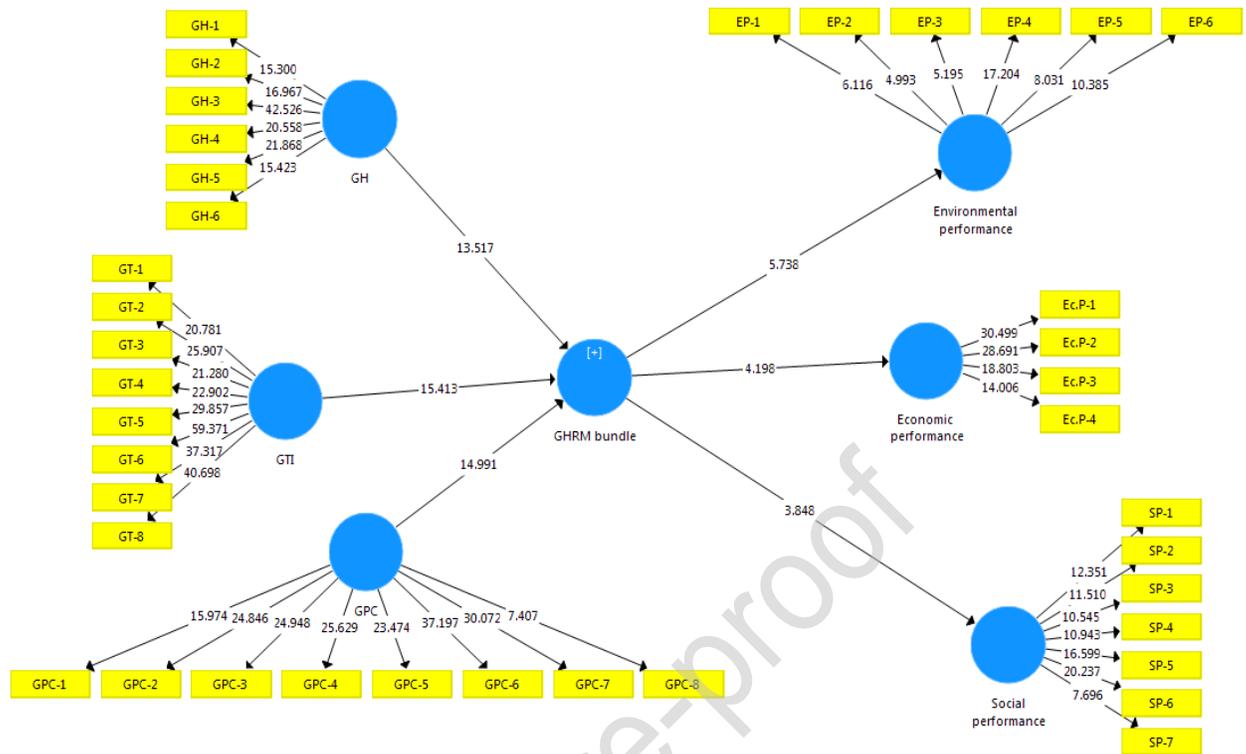
Fig. 2. PLS Bootstrapping (t-values) for the study model.

5. Framework development

The healthcare sector in Palestine still needs more guidance to improve their EMs. This practice requires support from many stakeholders and decisions-makers such as government (represented by the Ministry of Health), and other sectors providing medical services. It is important to focus on governmental support in this area, since it has the legal authority to force green policy adherence in the healthcare sector, which can lead to better sustainable performance, reflected in managing and saving natural resources. A suitable framework related to GHRM practices is a multi-layer, integral framework with contextual, analytical, and dynamic dimensions. Practically, the framework begins by implementing practices in the healthcare sector that requires from organisations a collective effort,

starting with adopting environmental and green policies formulated by decision-makers and stakeholders. This will force top management working in these organisations to adopt an environmentally focused culture, and find avenues for implementing it. The framework was constructed according to five stages: sustainability policy, planning for sustainability, implementation, evaluation, and review and corrective actions (see Fig. 3).

Subsequently, adopting an environmental system and sustainability approach from will be reflected in establishing a sustainability policy and plan with specific environmental goals and objectives, relevant to all employees, which will require support from HR departments, as it is responsible for providing workers with the skills they require. Notably, GHRM practices play a fundamental role in disseminating green culture concepts in organisations. The framework divides GHRM practices into three stages to enhance sustainable performance. The first stage starts by attracting and selecting candidates with an interest in environmental issues. Additionally, job descriptions should state and clarify the environmental tasks related to a position, and the skills and knowledge candidates require to achieve the environmental activities specified, alongside interview criteria for selecting and hiring the best talent. In the second stage, an organisation should focus on retaining, developing, and improving employees' skills and knowledge, by providing them with training through green programmes. Furthermore, green training new employees is vital for developing their awareness about environmental issues and supports the successful implementation of EM in healthcare sector (Pasqualini Blass et al., 2017). In the final stage, green goals and objectives must be defined and linked with a green reward and appraisal system, which include green indicators that provide employees with financial and non-

financial rewards, thereby increasing their interest and commitment to environmental and sustainability issues.

Sustainable performance, with its three dimensions (environmental, economic, and social aspects), should be assessed using an integrated process. In terms of EP, this aspect should include many different criteria, and should not be limited to medical waste, despite this being an important indicator in the healthcare sector. Environmental assessment should also include the following criteria: energy consumption, atmospheric emissions, consumption of materials, water use, decreasing electrical energy consumption, refutation of waste, replacing paper with electronic solutions, and supporting environmentally friendly projects. Other criteria can also be included such as green purchasing. Healthcare organisations purchase a large number of products yearly (equipment, furniture, clinical materials, cleaning products, paper, electrical devices, etc.). All of these materials have an effect on the environment and economic performance through their use and disposal. SP is an important criterion that should be assessed, since healthcare is a service sector that aims primarily to provide medical services to all segments of society. It is worth noting that such initiatives can help organisations to accomplishing sustainability goals, and to ensure a positive effect on society. Regarding such an initiative, there are many activities that can be useful, such as reducing the number of injuries among employees, protecting society from infection and the spread of diseases, and increasing the application of occupational safety standards among employees. Finally, sustainable performance assessment should be effected to make sure outcomes are in line with organisational sustainability goals. If the sustainable performance implementation level is below policy maker expectations, a

general review of the sustainability plan should be effected to better achieve organisational goals.
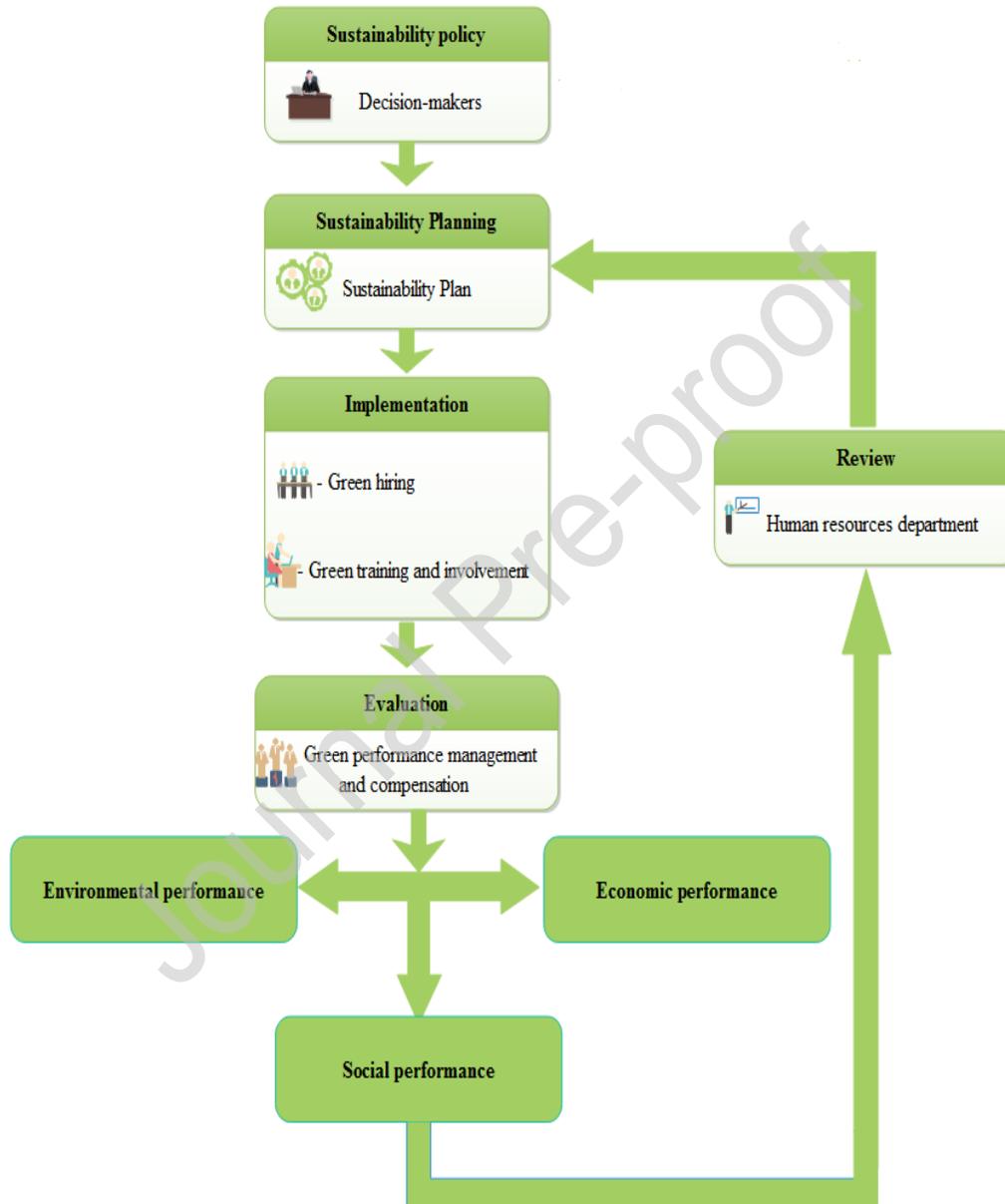
Fig. 3. GHRM framework to support sustainable performance.

6. General discussion and conclusions

This study explored the impact of the GHRM bundle on the pillars of sustainability (EP, E.cP, and SP) in Palestinian healthcare organisations, in a bid to provide a more in-depth understanding of the role of the GHRM bundle to improve sustainable performance in the healthcare sector. This research assessed to what extent the GHRM bundle was implemented, which can help to promote a green culture in this important service sector. The findings revealed that GHRM practices were moderately implemented among employees, which were similar to results found in other studies on the manufacturing sector, in a country context (e.g. Zaid et al., 2018b). This indicates that healthcare organisations still do not take advantage of the full benefits of adopting these environmental practices (Macke and Genari, 2019). A positive relationship among the GHRM bundle and EP, Ec.P and SP was found that is consistent with results from other studies (e.g. Rehman et al., 2016). Based on this result, there are positive and significant correlations between the GHRM bundle and EP, which is confirmed by results gained by Zaid et al. (2018a) and Rawashdeh (2018), which supports H1. Similarly, the findings showed a positive and significant correlation between the GHRM bundle and Ec.P, which was consistent with results in Rayner and Morgan (2018), which supports H2. Finally, the results present a positive and significant correlation between the GHRM bundle and SP, which supports results in Zaid et al. (2018a), and which supports H3, which indicates the existence of a significant link between the GHRM bundle, EP, Ec.P, and SP.

However, the most influential green practice was found to be 'green hiring', followed by 'green training and involvement'; the least influential green practice was 'green performance management and compensation'. Although green hiring was the first most

used green practice, only a few corporations have used environmental standards in their hiring processes (Jabbour, 2011). The results of Teixeira et al. (2016) suggested that green hiring, as a significant tool for attracting talent, already qualified competent and environmentally skilled employees as being more effective, and incurred lower costs than formal training courses about environmental issues.

In the case of hiring, currently, not all organisations in the healthcare sector use online portals and social media in the hiring process (Ehnert, 2009). Additionally, considering green standards in the job description to access green skills and personalities in the recruitment and selection process is still not applicable in this sector. Thus, the job description should clarify the environmental tasks related to the position (Mandip, 2012). Notably, HR managers can improve environmental culture by establishing a workforce that is interested in environmental issues, and that can improve their EP (Arulrajah et al., 2015). Though an environmental culture requires governmental and top management support in the healthcare sector, which is considered a significant factor for application to such practices, the results represent a lack of commitment from top management's perspectives on this issue, which instead focuses on providing medical services, rather than enhancing environmental practices (Govindarajulu and Daily, 2004; Ji et al., 2012).

The 'training and green participation' aspect was the second most used GHRM practice among participants, with a moderate level of implementation. A likely reason for this result was that most healthcare organisations depend on informal means and training for raising environmental awareness among employees, as this requires minimal monetary resources compared to formal green and environmental training (Mishra, 2017), considering the economic shortages in Palestine. Barr (2003) notes that, regardless of cost, it is critical for

corporations to provide their staff with formal training programmes and education to boost pro-environmental practices and behaviour. Although 'training and green participation' was considered the most important practice for environmental management systems (Daily et al., 2012), these practices require more attention from governmental and top management bodies, in order to encourage environmental practices in the healthcare sector. Consequently, green training programmes need both administrative and financial resources to achieve their goals effectively. It is likely that healthcare organisations perceive environmental and green training and their participation practices as expensive; this indicates that they should be investing more in green training programmes, rather than focusing on medical training. Doing so will improve their level of GHRM practices application, and enhance it from a moderate to a high level. Similar findings have been proposed in the context of the manufacturing sector in Palestine (Masri and Jaaron, 2017).

In terms of the 'green performance management and compensation' aspect, the results revealed that this had the lowest level of implementation as part of the GHRM bundle. Several studies emphasised that rewards and compensation can be a helpful approach for applying GHRM practices (Govindarajulu and Daily, 2004; Ahmad, 2015). The findings present that 'green performance management and compensation' is not widely applied to support the pro-environmental culture of employees. Only aspects related to production and medical services were evaluated. The 'green performance and rewards' aspect was not widely used to promote environmental behaviour. Another reason for the insufficient utilisation of a reward and compensation system is that staff are encouraged for various reasons not related to environmental goals; therefore, it is difficult to apply a reward system, meets the needs of employees. This result is considered uncommon in existing

research, since it arises only in firms and companies with an excellent level of EP (Fernández et al., 2003). Based on this fact, it is likely that 'green performance management and compensation' is not used to motivate environmental practices to the same extent as other techniques used to promote productivity and the quality of medical services provided, particularly in healthcare organisations with large numbers of employees. Top management must motivate employees by offering benefits to those willing to promote an environmental system within an organisation. Finally, the performance management indicator for supervisory employees is suggested to encourage involvement and participation and the flow of innovative ideas, and its links to performance management should be facilitated in organisational structure within an emerging and developing economy context (Malik et al., 2017).

The findings indicate a positive correlation between the GHRM bundle and EP (supporting H1), with the probable clarification that the effective dissemination of knowledge and values of environmental culture through GHRM bundles enhance EM, based on the skills and motivations of employees. This creates an opportunity for employees to engage in environmental system development (Cantor et al., 2012). Our results also match those of Pinzone et al. (2016), which show EP aspects in healthcare organisations increase employees' willingness to apply additional efforts to EM. The results show that a high level of environmental sustainability performance and environmental impact indicators (e.g. natural resources used, separation of medical waste, pollution levels) can achieve progress towards establishing environmental sustainability in the healthcare sector. This may be due to governmental support and the adoption of Law No. (10) in 2012 on 'Medical waste management and handling system' in Palestine (MOH,

2012), which imposes on all organisations working in this sector to apply it, or risk being subject to legal liability.

The EP includes many criteria (e.g. environmental management) and standards for environmental behaviour, and criteria for environmental conditions (Romero and Carnero, 2017). However, the EP still has a little guidance on how mitigation negative effects from this sector on the environment (Ones and Dilchert, 2012). The reason for this is the culture in developing countries, where practices such as recycling, reducing resource usage, and environmental practices are not particularly implemented. Here, industrial manufacturers and services consider green practices unrealistic in a developing country context (Geng et al., 2017). The research findings confirmed results presented in Chaudhary (2018), i.e. that the impact of an indirect approach (GHRM as a tool for executing corporate environmental responsibility) for sustainability depends on the perspectives and attitudes of employees. Corporations' concerns about environmental issues will reflect the adoption of GHRM practices in its activities. In addition, there is a significant correlation between the GHRM bundle and Ec.P (supporting H2), and these results are supported in other studies such as Rawashdeh (2018), where Ec.P is shown to be implemented at a moderate level. It is obvious that GHRM practices play an important role in disseminating environmental standards and ideologies, and provide employees the opportunity to participate and implement environmental practices (Jackson and Seo, 2010).

The likely reason for the moderate level of implementation is that the healthcare sector is a service sector that aims to provide medical services with high quality and low costs for all segments of society, rather than focusing on economic profit. Government controls a large proportion of healthcare, and selected governmental healthcare organisations, such

as military medical services, do not take any financial return for their services (MMS, 2019). Several studies provide supporting evidence that investment in EM and GHRM practices enhance environmental and financial performance, where GHRM can provide firms with a competitive advantage (Longoni et al., 2016). Thus, improving the EP will reflect better Ec.P, and will not necessarily lead to additional costs (Stefan and Paul, 2008). Furthermore, the sustainability crisis in developing countries like Palestine poses both an opportunity and challenges. Green practices here are still emerging and require more attention, where it is interesting in these terms that there is less acceptance between healthcare organisations for greening the current HRM practices (Mishra et al., 2014).

Finally, a positive relationship was found between the GHRM bundle and SP (supporting H3). Traditional performance management systems focused on objectives like the enhancement of corporations' ability to maximise profit, and ignoring sustainability aspects (Ramasamy et al., 2017). Furthermore, our findings are similar to those of Al Kerdawy (2018), who found a positive relationship between GHRM and SP. In terms of SP, the high level of implementation due to the humanitarian services provided by the healthcare sector as an ultimate goal.

Many studies have focused on the benefits of SP and CSR for corporations (Chen and Lee, 2017; Chowdhury et al., 2017). Although CSR is obligated by law and regulations in some contexts, it is beneficial to both society and the environment. CSR has gained more interest among sustainable strategists in contemporary research, as it presents advantageous contributions to societal, financial, and environmental contexts (Ağan et al., 2016).

7. Managerial implications and future studies

7.1 Implications for practice on cleaner production and sustainability

Various empirical studies (Ramus, 2002; Daily and Huang, 2001; Mishra, 2017) highlight the important role of GHRM practices such as hiring and selection, training, and rewards and appraisal in the greening of companies, and in improving EM. However, GHRM practices are still emerging in developing countries, and require more attention from decision-makers in the healthcare sector. Moreover, the important role of stakeholders' pressure for environmental safeguards will put pressure on healthcare organisations to improve, implement, and execute pro-environmental strategies. The current study results are supported by existing findings, such as those presented by Pinzone et al. (2016).

This study proposes four implications for policy makers in GHRM and sustainability performance. First, the study provides a better understanding of the GHRM bundle presented in existing literature, particularly in the context of developing countries, by measuring the level of implementation of the GHRM bundle in the healthcare sector. Once the implementation level is known by decision makers, they can improve their strategic plans by prioritising green practices that impact the sustainability pillars. The healthcare managers are recommended to invest more in green practices to take all benefits from these practices. Second, the study investigated the relationships between GHRM practices and sustainable performance in healthcare organisations, and adds evidence to the current literature about the positive correlations between GHRM bundles and sustainability, alongside the three pillars (EP, Ec.P, and SP). Moreover, managers should increase employees' awareness about the positive effect of green practices on sustainable organisation performance and environmental performance. Examples of these practices are

waste reduction, recycling activities, and energy saving. Third, existing studies have examined GHRM in the healthcare sector by focusing on a single health facility, i.e. hospitals (Pinzone et al., 2019; Rawashdeh, 2018). The current study considered all healthcare organisations, including various classifications of healthcare in Palestine (e.g. primary, secondary, and tertiary care centres (hospitals), primary laboratories, and blood banks). Since healthcare contributes significantly to environmental degradation (Ryan-Fogarty et al., 2016), we collected data from managers of various classifications of healthcare to cover the entire sector in the data analyses. Finally, a framework was developed in this study to help managers working in the healthcare sector to promote green practices towards preventing the production of waste, and to facilitate the implementation of green culture in their organisations, which will be reflected in positive sustainable future performance, through the prevention of the production of waste, and by improving the quality of healthcare services provided. Moreover, the links among green strategic policies and HR practices for enhancing organisational sustainability performance was also clarified. Hence, it is suggested that a sustainability manager position must support hospitals in establishing a commitment to sustainable performance, both among senior executives and employees, and reinforce collective behaviours towards environmental consideration.

7.2 Limitations and future research work

As is always the case when conducting research, limitations arose in conducting this study. The first limitation is that the lack of knowledge about the GHRM concept among experts and HR managers working in healthcare organisations, where these practices are

still emerging in developing countries which required explaining more details and information to participants, which may have impacted the generalisability of the results. For future studies, we suggest testing the hypotheses of the current study, as proposed in the healthcare sector, in other developed and developing countries, in order to confirm the results of the present study, since only a small number of studies on GHRM practices and their impacts on sustainable performance have been conducted in this service sector. Additionally, the proposed conceptual GHRM framework should be applied to different environments to enhance understanding of the role of GHRM practices on sustainable performance, in a variety of settings. Recent studies have revealed the need for more cross-functional research, such as exploring the relationships between green management systems in HR and supply chain functions (Jabbour and Jabbour, 2016; Fisher et al., 2010). As such, future studies can explore this relationship in the healthcare sector. Finally, this study focused on illustrating the impacts of GHRM practices on sustainable performance using three pillars (EP, EPc, and SP). Additional study may wish to focus on important topics related to this sector, such as social performance, examining the role of GHRM in CSR, and include a mediating factor related to the service sector (e.g. organisational citizenship behaviours (OCBs), as few studies have been conducted in this context (Pinzone et al., 2016; Al Kerdawy, 2018).

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Highlights:

1. A lack of studies on green human resource practices in the healthcare sector

2. Investigating the effect of green practices of employees on sustainable performance.

3. Level of implementation of the GHRM bundle practices was assessed.

4. A positive correlation between green human resources practices and sustainability.

5. Developing a conceptual framework for implementing the green practices of employees.

Decision-makers
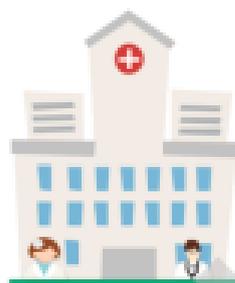
Health Care Sector

Human resources department

GHRM bundle

Sustainability Level of Implementation = 68.4%

Level of implementation = 48.4 %