

**GREEN HUMAN RESOURCE MANAGEMENT PRACTICES
TOWARDS SUSTAINABLE PERFORMANCE: AN
INTEGRATED MEDIATED MODERATED MODEL**



**DOCTOR OF PHILOSOPHY
IN
BUSINESS ADMINISTRATION**

BY

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SESSION: 2017–2020**

**DEPARTMENT OF MANAGEMENT SCIENCES
THE SUPERIOR COLLEGE
LAHORE-PAKISTAN**

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**Thesis is submitted to
The Superior College, Lahore
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By

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Session: 2017–2020**

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LAHORE-PAKISTAN**

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DEDICATION

This thesis is dedicated to my late father, Mian Muhammad Latif, who provided me with the majority of the motivation and inspiration to finish my PhD. This journey would not have been possible without seeing him as a symbol of dedication and perseverance. After that, I want to devote all to my mother, whose generosity and love enabled me to finish my thesis. Last but not least, my beloved wife and daughter, who made many sacrifices and showed patience to help me finish my dissertation. My sister and brother, who have prayed for my prosperity and constantly supported me.

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Abstract

Green human resource management (GHRM) is seen as a critical progress driver for boosting sustainable performance as organizations are currently engaging in increased competitiveness, forcing managers to actively find innovative approaches to maximize their essential organizational capital, like human resources. The escalation of global environmental concerns has pushed businesses to embrace sustainable policies aggressively; this may help organizations to become green and competitive. Despite the fact that academics are interested in GHRM, research on green practices is rare, especially in developing countries. Hence, this study bridges this gap in the literature with integration of NRBV theory and the theory of planned behaviour.

The goal of this study is to look into the effects of GHRM practices on sustainable performance in Pakistan's textile industry, using the mediating and moderating roles of green attitude, green behaviours and green work climate perceptions. The purpose of this study is to find the impact of GHRM practices on sustainable performance in the textile industry.

The influence of the selected predictors (green hiring, training and development and performance management and compensation) on sustainable performance was investigated using self-administered questionnaires. The data was collected using a stratified random sampling technique and then analysed using the SmartPLS method. This research involved 355 employees from the Pakistani textile sector who have implemented GHRM practices at different levels of management.

The findings of this study suggest that integrating GHRM practices in textile firms is a key driver of sustainable performance. According to the findings of this study, GHRM practices, as well as green attitudes, behaviour, and work climate perceptions, have a key influence on boosting sustainable performance in the textile industry. As per the results, GHRM practices should be fully integrated into the textile sector's strategic goals. The textile sector

should prioritize GHRM practices in order to enhance their sustainable performance. This research helps managers to learn how to inspire their workers to solve environmental problems in a more meaningful and positive manner.

Keywords: Green hiring, green training and development, green performance management and compensation, green attitudes, green behaviours, green work climate perceptions, social performance, economic performance and environmental performance.

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List of Acronyms

AVE	average variance extracted
EGB	employee green behaviour
EMS	environmental management system
EP	environmental performance
FA	factor analysis
FY	financial year
GHRM	green human resource management
GPMC	green performance management and compensation
HR	human resource
HRM	human resource management
KMO	Kaiser-Meyer-Olkin
PCA	principal component analysis
PLS	partial least squares
PLS-SEM	partial least squares-structural equation modelling
RBV	resource-based view
SEM	structural equation modelling
GWCP	green work climate perceptions
NRBV	natural-resource-based view
SDG	Sustainable Development Goal
SIT	social identity theory
TNC	theory of normative conduct

CHAPTER ONE: INTRODUCTION

Researchers have paid serious attention to green human resource management (GHRM) in the recent era, with companies realizing that they may use green management practices to lower their “environmental impact” and become more sustainable. GHRM research has grown dramatically among academics during the last decades (Nawangarsi et al., 2019; Shoaib et al., 2021). As a result, GHRM research has expanded rapidly to focus on sustainable performance. Human resource management (HRM) has implemented GHRM practices to make their organizations more environmentally friendly, with a special emphasis on lowering carbon footprints and waste (Ahmad, 2015). GHRM plays a pivotal role in introducing sustainable practices and altering current processes, to get new projects done (Shoaib et al., 2021). GHRM is an organization planned and continuous revolution (Shoaib et al., 2021). During the last decades, there has been a number of corporate scandals in which the world has witnessed the apex of non-green, non-sustainable, non-environmentally conscious corporate practice, and how detrimental they could be for the world, the home country, corporate reputation, the society, customers, employees, shareholders, etc. As such, researchers have focused their attention on various aspects of environmentally responsible green corporate practices.

GHRM is regarded as having tremendous sustainability potential (Nawangarsi et al., 2019). A business's ability to introduce environmental measures depends on how much HRM and other organizational departments are able to contribute (Ababneh, 2021). Sustainable business strategies rely on a human resource (HR) department’s efforts to create and implement them across the organization (Chillakuri et al., 2020). In addition to supporting traditional financial measures, the HR department may also assist in developing and attaining environmental and social goals. HR departments also play a key role in the creation of corporate values and sustainable strategies. It is vital to have a thorough awareness of the structure as well as the body of current GHRM research. There are currently few comprehensive literature

studies that have focused on the extensive GHRM literature. There is a need for a large-scale and thorough study initiative on GHRM literature and sustainable performance in the manufacturing context.

The first chapter gives an overview of the research. Section 1.1 provides an introduction to GHRM practices in the textile industry. The study aim is described in Section 1.2. Section 1.3 discusses GHRM in the textile industry. The problem statement and research gaps are presented in Sections 1.4 and 1.5, respectively. The study's objectives are outlined in Section 1.6, and research questions are presented in Section 1.7. The proposed research framework is described in Section 1.8. The significance of the study is described in Sections 1.9. In Section 1.10, the research's delimitations are provided; important terms used in the study are specified in Section 1.11. Section 1.12 provides a short explanation of the researcher's own interest in the subject. The structure of the thesis is summarized in the last part, Section 1.13.

1.1 Background

Countries throughout the world, developed and developing, have suffered numerous consequences because they did not comply with a sustainable agenda in the past. Businesses operate in a highly competitive global market in which they not only have to be effective and efficient, but also accountable to environmental responsibilities. The escalation of global environmental concerns has pushed businesses to embrace environmental policies aggressively, and this may help companies to become "green and competitive" (Nawangarsi et al., 2019). Experts focused on GHRM because it plays an essential role in the pursuit of this green agenda (Gupta, 2018). As a result, incorporating green practices into HRM activities may help a firm become more sustainable. HRM services may enhance the chance of an organization achieving sustainable performance.

The 2030 agenda is based on 17 sustainable development goals (SDGs) that were presented by UN member states in 2015. These goals are meant to address the many problems

that people face so that they can be healthy, have a good economy, make progress in society, and protect the environment. Only three of the 17 SDGs were focused on in this study: affordable and clean energy, responsible consumption and production, and action on climate change. In contrast to traditional development plans, which focus on a small number of things, these SDGs give a big picture and multifaceted view of development. Sustainability has become a priority throughout the world, particularly in the West where people worry more about their working conditions than people in less developed countries. However, as some developing countries' governments implement long-term development plans that include Sustainable Development Goals (SDGs), public awareness of the sustainable workplace has increased (Islam et al., 2020; Omisore et al., 2017). Pakistan is one of the developing countries where sustainability has coexisted with economic success, because sustainability issues have been addressed in sustainable goals and the government has committed to expanding SDG awareness. Pakistan's government is dedicated to ensuring the long-term sustainability of its operational and infrastructure enhancements. However, its sustainable performance cannot be accelerated unless both commercial and public institutions work together (Islam et al., 2020; Pradhan et al., 2017).

GHRM practices have had a substantial beneficial impact on the development of organizational sustainability (Islam et al., 2020). However, owing to a number of constraints, implementing GHRM principles has been regarded as a difficult task for management (Jia et al., 2018). In this context, Nawangsari et al. (2019) identified the cost of implementing GHRM techniques as the most significant hurdle in the manufacturing sector. The main impediment to GHRM, according to Islam et al. (2020), is a lack of support from organizational management. Rahman et al. (2019) on the other hand, reported that the absence of a comprehensive strategy, among other things, was the most important obstacle, followed by a lack of organizational

leadership support, a lack of information about GHRM and a lack of awareness of green policies.

The results of an investigation by Fayyazi et al. (2015) into barriers to GHRM implementation in the oil industry led to many suggestions; GHRM implementation, for instance, necessitates the use of a variety of techniques in the manufacturing sector. In addition, uncertainty about the economy and the possible adverse effect of GHRM operations on the economic and social performance of other organizations are hindrances to the implementation of GHRM (Islam et al., 2020; Ren et al., 2018). All of these studies, however, were conducted in Western countries with industrial perspectives that differ from those in other areas of the world, and no comparable studies have been conducted in Pakistan so far. As a consequence, the research may not be applicable to all industries in Pakistan; in particular, this thesis is intended to serve the textile sector of Pakistan.

According to previous studies, there is a lack of comprehensive knowledge on how to overcome the barriers to implementing GHRM standards in businesses (Nawangarsi et al., 2019). None of the earlier GHRM studies were designed to build a sustainable workplace. Ren et al. (2018) proposed further research on GHRM approaches from a variety of perspectives. I feel this is an important issue for research since there is a lack of knowledge on how to make workplaces more sustainable with GHRM adoption.

This study was conducted on Pakistan's textile sector, since it is the country's second largest sector, employing more than 4 million people and contributing 60% to the country's total exports (Amjad et al., 2021). As a consequence, this industry is an excellent option for researching the challenges and solutions connected with adopting GHRM practices to create a more sustainable workplace for the sector's manufacturers (Rahman et al., 2021). The study's initial aim is to look at the problems of applying GHRM practices to a sustainable workplace

in Pakistan's textile sector. The study's research purpose is to look at ways to overcome the hurdles to adopting GHRM practices for sustainable workplaces in Pakistan's textile sector.

The scholarly contribution of this study is the researcher's investigation of the contribution of GHRM and sustainable development. Moreover, the research benefits green education and development, and green performance management and assessment in the textile sector. It establishes a connection between GHRM and sustainability that is vital to the bottom line of Pakistani's textile industry's social, economic and environmental performance (EP). This research highlights the significance of GHRM practices in green hiring, green training and development, and green performance management and compensation (GPMC) for greening an organization and improving employee performance as suggested by (Mishra et al., 2014; Ramus et al., 2007). This study investigates the relevance of these phenomena to the developing nations' context as GHRM practices are still evolving in underdeveloped nations and require the attention of decision makers. Although the present study is performed in the local context of Pakistan, the results can be generalized, particularly to developing nations, since green and sustainable management has become a worldwide problem (Macke et al., 2019).

This thesis provides a significant addition to existing knowledge, and fills numerous research gaps (Amjad et al., 2021). The present study contributes to the body of knowledge by examining the mediating and moderating impacts of green attitudes, green behaviours, and GWCPs on sustainable performance. A scant amount of research has been done in the textile industry on GHRM and sustainable performance (Amjad et al., 2021). This type of research usually seeks to make a substantial contribution to GHRM by concentrating on natural-resource-based view (NRBV). Pham et al. (2019) found that the bulk of the research focused on GHRM practices in advanced countries. Based on a theoretical NRBV and theory of planned behaviour, this current research explores how GHRM affects sustainable performance in the

textile sector in developing countries and the mediating and moderating role of green attitude, green behaviours and GWCPs on sustainable performance.

The concept of integrating sustainability into business practices is growing rapidly, and it is now considered one of the most important operational tasks (Chillakuri et al., 2020; Van Buren III, 2020). The increasing attention paid by companies to environmental concerns is one of the most prominent developments in sustainability issues (Severo et al., 2017; Zawawi et al., 2019). Employees' performances are typically higher in organizations that are committed to sustainability policies (Hameed et al., 2020; Su et al., 2019). As a result, green behaviour is gaining popularity; to remain sustainable, an organization must investigate how GHRM influences employee behaviour, which would ultimately ensure the organization overall success (Emel et al., 2019). A organization sustainable performance relies greatly on its GHRM practices (Yong et al., 2020). While previous research shows that employee attitudes and GHRM scores have improved (Rubel et al., 2021), there are still discrepancies in how people perceive the influence of GHRM practices on green behaviour and attitude, and that is important for empirical investigations (Hameed et al., 2020). Firms need to understand how GHRM affects green behaviour and attitude and how much it does so (Emel et al., 2019).

HRs are essential business assets that cannot be easily replaced by rivals and can provide businesses with a distinct competitive edge (Yong et al., 2020). In order to differentiate themselves from their competitors, businesses engage in practices (Dey et al., 2019), such as unique identifying practices (Schedlitzki, 2019) and the internalization of management values and characteristics (Geiger et al., 2019). This is significant because businesses must understand how and to what degree GHRM improves green behaviour and attitude (Darvishmotevali et al., 2022). GHRM takes the form of a series of actions, from hiring environmentally responsible employees to investing in selective processes that assess the commitment and consistency of a candidate in terms of human beings and the environment (Shoab et al., 2021), training to

clarify environmental and social commitments and positions of the organization, as well as performance assessments and rewards (Emel et al., 2019).

In the manufacturing industry, GHRM practices are necessary for organizational improvement (Fawehinmi et al., 2020). When it comes to GHRM practices that promote sustainable conservation activities, reduce environmental pollution, and promote preservation and regeneration, time is of the essence (Yong et al., 2020). GHRM is in its infancy, with several businesses adopting green practices in the textile industry (Jain et al., 2018) and others adopting GHRM as a HRs tool that promotes sustainable consumption business management (Bombiak et al., 2018).

Many academics have proposed a conceptual model to describe the effects of GHRM implementation on a person and an organization, and have further studied the concept in many scenarios and developed GHRM. Many scholars have recognized the most significant features of GHRM. Siyambalapitiya et al. (2018) found GHRM features using face-to-face interviews with HR specialists. GHRM, according to Shah (2019), is a multidimensional concept with seven elements. According to Tang et al. (2018), GHRM is made up of five aspects and examines the effect on individual or organizational performance. Five of the most frequently discussed categorization systems are green hiring, selection, training and development, GPMC, and green pay and rewards. Another set of researchers, such as Yong, Yusliza, Ramayah, et al. (2019), looked at the overlap between strategic HRM and environmental management of diverse functional HRM practices and studies. GHRM attempts to enhance employees' environmental behaviour, organizational efficiency, cost savings, and EP (Siyambalapitiya et al., 2018).

The impact of green initiatives on HR practices is growing and has become a need for organizations, as they are pressured to reduce their environmental impact (Uyun, 2021). GHRM may support both environmental and sustainability goals (Mishra et al., 2014).

Although Nawangsari et al. (2019) found that most businesses have not fully connected their HRM practice with environmental objectives, organizations do have some GHRM strategies. Although it is the least well-known of the GHRM strategies, environmental training or education as the most important activity. If an organization wants to make any progress on its climate goals, it has to implement a green training programme for environmental management (Gupta, 2018).

Leidner et al. (2019) asserted that GHRM practices are not contextual, but rather peripheral, intermediate or established. They showed, furthermore, that the objectives of the advocates of sustainability (i.e., managers and leaders) do not appear to correspond to GHRM policy. They thus suggested that practitioners take contextual variables into account while choosing appropriate GHRM strategies. Research has tried to identify the variables driving GHRM adoption.

Organizational issues have been overlooked in previous studies. Green intellectual capital, top management support, environmental focus, green employee empowerment, HR business partner role, strategic HR skills, environmental senior management attitudes, and so on, have all been found to be important to the implementation of GHRM (Kim et al., 2019; Obeidat et al., 2020; Yusliza et al., 2017). Furthermore, Shoaib et al. (2021) discovered that GHRM practices serve as an intermediary to meet the needs of stakeholders while simultaneously improving EP. It has been shown that environmental management may be transformed into a more proactive activity if corporate culture, teamwork, top-level management support and the use of technology are all connected to an impact on environmental training.

GHRM has the potential to be a significant source of competitive advantage and sustainable development. Benefits and cost differences in the environmental HR industry may benefit environmental HR firms (Yu et al., 2017). GHRM has a beneficial impact on EP (Guerci

et al., 2016; Longoni et al., 2018; Masri et al., 2017; Yusoff et al., 2019; Zaid, Bon, et al., 2018), financial performance (Longoni et al., 2018) and social performance (Zaid, Jaaron, et al., 2018) as well as economic performance (Zaid, Jaaron, et al., 2018). In various studies, GHRM has also been examined as a factor in green supply chain management (Jakhar et al., 2018). As a result of green training, businesses are better equipped to work with customers and acquire green products (Teixeira et al., 2016).

In previous studies, a number of GHRM employee-related outcomes were reported with respect to individual level analysis, including employee eco-friendly behaviours (Kim et al., 2019), organizational engagement (Luu, 2019) and employee performance (Ragas et al., 2017). In addition, the implementation of GHRM indirectly influences the desire of workers to pursue jobs or turnover. For example, (Chaudhary, 2020) showed that GHRM has indirect effects on the intention of future workers to pursue their jobs. Shen et al. (2018) found that GHRM has a motivating social and psychological influence on employee turnover (i.e., organizational identification).

Furthermore, according to Yong et al. (2020), companies that are aggressive in terms of "greening" could be more profitable, giving them a competitive edge. Firms without a rigorous GHRM policy, on the other hand, can face limitations, leading to inadequate environmental management (Geiger et al., 2019). Green HR activities improve operations by increasing productivity, reducing environmental pollution and encouraging green behaviour, which lead to increased efficiency and cost savings (Yong et al., 2020). It is uncertain whether GHRM activities such as green hiring, training and development, and GPMC support and/or impact the potential of an enterprise to become sustainable (Sharifa, 2020).

Furthermore, existing research requests deeper investigations into various corporate settings, comparing developing and established countries, highlighting the relevance of GHRM practices in the development of sustainability policies and climate change. Despite the fact that

there is a link between GHRM and the Asian service sector (Kim et al., 2019; Pham et al., 2019), GHRM in Asia's main manufacturing enterprises still has a long way to go. Through the perspective of NRBV, this research examines the relationship between GHRM and sustainability in Pakistani textile organizations through the integrated function of GWCPs, attitudes and behaviours.

1.2 Research aim

The goal of this study is to find out what link there is between GHRM and sustainable. The aim of this study is also to investigate the mediating and moderating role of green attitude, green behaviour and green work climate perceptions on GHRM practices and sustainability in the textile industry. Researchers wanted to know more about how GHRM helps employees be more environmentally aware at work (Yong et al., 2020). GHRM is now used to highlight the green practices of companies and bring a new line of study into GHRM and its employees'. Further, the function of green attitude and green behaviours as mediators is emphasized in this research. This study also mentions the Pakistani government's demand for a green textile movement in the region. The industry has been pushed by the government to implement strategies and practices that are environmentally friendly (Ahmad, 2015; Haque, 2017). In contrast to other sectors, the textile industry has a high sustainable element in both in-house and green leasing policies (Dahiya, 2020). To put it another way, textile management can find ways to inspire workers to provide environmentally friendly support. For these reasons, it is critical to look at how GHRM practices affect green attitude, behaviour and sustainable performance in Pakistan's textile industry.

1.3 GHRM in Pakistan's textile sector

There has been an increasing focus on environmental issues over the last several decades as a consequence of the environmental deterioration caused by the industrial revolution (Amjad et al., 2021). Green companies have been found to be more competitive in their

operations as opposed to their conventional rivals in the business world, where an eco-friendly commodity brand has become an important aspect that incorporates procedures, technology acceptance and structures (Muster et al., 2011). In developing nations, the textile sector has several environmental concerns; organizations must review, follow up and improve management-related processes (Agyabeng-Mensah et al., 2020). In today's market climate, eco-friendly goods and the sustainable performance of Pakistan's textile industry have become critical components incorporated into business processes, technological adoption and structures.

Businesses that adopted sustainable practices have a comparative edge in cost efficiency and earnings (Sharifa, 2020). Adopting GHRM activities for a healthy existence will have further advantages in terms of protecting the atmosphere from emissions. Incorporating green practices into corporate processes supports society as a whole, and it demonstrates how companies can be socially conscious. Green management activities in the textile industry must be promoted and used in view of rising social, economic and environmental concerns (Amjad et al., 2021).

The textile sector in underdeveloped nations faces a variety of sustainable-related issues, and companies must become interested in assessing, tracking and addressing management-related activities (Amjad et al., 2021). The principle of sustainability management is now seen in a variety of industry fields, including financial management. Organization groups in developing countries have already taken steps to initiate a groundbreaking movement with the phrase "GHRM". Furthermore, GHRM practices aid in improving employee morale and engagement in order to maximize sustainable performance. A GHRM strategy entails changing the HRM tradition, framework, tactics and policies in order to safeguard the climate (Dahiya, 2020). In order to preserve the climate, the GHRM approach involves changing HRM culture, configuration, tactics and organizational policies. As a result,

GHRM is a critical component of an organization's sustainable development (Amjad et al., 2021).

The purpose of GHRM practices is to help businesses to improve their sustainable success (Zaid et al., 2020). Different companies are applying GHRM practices progressively to support an environmentally friendly culture, which in this sophisticated period of industrial growth would further minimize their environmental impact. Since no departmental officials are accountable for green behaviour, all divisions are accountable for maintaining the natural environment. A few studies have found a correlation between GHRM practices and organizational performance on a global level. As a consequence of Pakistani industry's current environmental issues, the Pakistani textile export market is experiencing difficulties. There are few studies on the effect of GHRM activities on the sustainable success of the Pakistani textile industry (Amjad et al., 2021). Most developing countries have made progress in enacting environmental controls in reaction to rising emissions levels. However, developing countries like Pakistan face difficulties in enforcing environmental legislation due to factors like insufficient capability, a shortage of funding and officials' unwillingness to comply (Amjad et al., 2021).

Researchers assert, however, that only a small amount of research has looked at the role of GHRM frameworks in businesses attempting to achieve sustainability (Martins et al., 2021). As a result, there is a need to align GHRM practices with the sustainability of organizations. The use of HRM strategies to promote the efficient utilization of corporate capital for commercial purposes, and, most specifically, to support environmental preservation causes, is what GHRM practices are all about (Chillakuri et al., 2020).

Climate change has become a highly significant global problem and is also regarded as one of the greatest issues for businesses as well (Mansoor et al., 2021). It's no secret that companies are growing more concerned about environmental issues, which helps them

compete in a highly competitive business environment. (Tang et al., 2018). Several additional motivators may serve as a cause for the adoption of environmental management efforts (Raut et al., 2017). In particular, stakeholders' demands and international legislation have redirected the focus of companies towards the development of environmental management systems (EMSs) (Singh, Chen, et al., 2019).

Environmental protection techniques are rapidly becoming more popular in businesses. Along with textile organizations, manufacturers in general are trying to reduce waste to improve their standing with their stakeholders (Rahman et al., 2019). In order to improve their EP, manufacturing sector organizations are also concerned about conserving water and energy, and minimizing waste (Kim et al., 2019). To avoid being scrutinized by stakeholders and environmental protection agencies, companies must rely on their GHRM practices (Singh, Chen, et al., 2019). The relationship between sustainable businesses and GHRM practices has also been empirically shown (Mariappanadar, 2019). Similarly, Rahman et al. (2021) proposed a new notion of green attitude and green behaviour and showed that green attitudes improve the sustainable performance of textile companies.

EP is the alignment of corporate operations with environmental requirements. It demonstrates an organization's dedication to environmental protection (Roscoe et al., 2019). In addition, researchers have indicated that the EP of companies relies heavily on the sensitivity of workers to environmental issues (Singh, Chen, et al., 2019). According to Yong, Yusliza, Ramayah, et al. (2019), GHRM is crucial to employee development, which provides the organization with a competitive edge and high sustainable performance. Employees' involvement in green activities via the organization's HRM efforts will ensure green management of HRs (Mansoor et al., 2021). Given the significance of GHRM in predicting performance, more research into this relationship is required (Kim et al., 2019). Renwick et al.

(2013) stressed the essential significance of HRM in the pursuit of a greener organization. The ability to manage the green agenda may lead to better EP (Yong, Yusliza, & Fawehinmi, 2019).

Various researchers have investigated the connection between GHRM and numerous other factors, such as management of a green supply chain (Nejati et al., 2017; Raut et al., 2017) and environmental issues (O'Donohue et al., 2016). However, there has been limited research on the relationship between GHRM practices and sustainable performance due to various intervening issues (Malik et al., 2020). The present research therefore seeks to discover the anticipated impact of GHRM practices on fostering sustainable organizational performance, including the mediating and moderating influence of green attitude, green behaviour and GWCPs on sustainable organizational performance.

The industrial sector contributes significantly to environmental issues and difficulties (Malik et al., 2020). Manufacturing companies must thus focus their attention on environmental sustainability. Pakistan has a 0.4% share of the world's total carbon output, and it is exponentially increasing (Shahzad et al., 2017). Manufacturing companies should thus reconsider their existing business models and develop and execute green conservation strategies. To that end, companies could adopt GHRM principles together with GHRM practices. Given the importance of GHRM practices in sustainable performance promotion, the present study aims at testing the connection between GHRM practices, green attitude, behaviour, work climate perceptions, and sustainable performance, which researchers have previously ignored (Malik et al., 2020; Nejati et al., 2017).

1.4 Problem statement

According to the UN's Global Economic and Social Survey Report (Hosain et al., 2020), The planet has several problems balancing the three pillars of sustainability: social, economic and environmental; this survey report asserted the need for a rational approach to considering sustainability in developing countries such as Pakistan. Green management

practices help with this by providing the resources required for policy creation as well as the development of green skills and competencies among personnel in sustainable businesses (Gull et al., 2021). Furthermore, a grasp of the function of GHRM practices on issues of sustainability is required (Gull et al., 2021). As the developing countries are lacking in the implementation of GHRM practices that must be addressed (Sharifa, 2020).

In the textile sector, different stages play pivotal parts in converting yarn into fabric. Each step contributes to greenhouse gas emissions that have an adverse effect on the environment. According to research, finishing, dyeing, fibre production and yarn preparation contribute 50% to carbon emissions during the process of converting yarn into fabric (Amjad et al., 2021). These figures are alarming and invite researchers to investigate how GHRM practices can be adopted to address this issue. Textile business owners ignore the factor of the environment as their concern is only to reduce production costs; this is because they do not have studies that can help them to devise GHRM policies that can lead to sustainable performance.

Pakistan's economy relies on the textile industry, which is the second-largest contributor to export revenue. As a consequence, the textile industry makes a substantial contribution to the country's economic development. The Pakistani textile industry is facing major sustainability issues and, as a consequence, the country's textile export sector is struggling owing to issues such as lack of capacity, lack of finance and government authorities' unwillingness to cooperate (Amjad et al., 2021). There has been an increase in environmental awareness and concern among global textile consumers. Consumers demand that their suppliers should be environmentally conscious. As a result, foreign consumers' environmental concerns have an effect on textile manufacturers. It has also been shown that the textile industry's environmental difficulties have contributed to a decrease in exports. In Pakistan's textile sector, GHRM practices are an effective approach to educate and train employees about

how to live in a more ecologically friendly country. Moreover, the environmental problems of the textile sector have been cited as an important reason for the decrease in its exports. All these are strong grounds for researching the GHRM practices in the Pakistani textile sector, which is a good way of training managers how to survive in an environmentally friendly nation.

Employee behaviour still needs to be studied in connection with GHRM practices (Tian et al., 2020) and should be done in a specific organizational environment, such as the textile sector in Pakistan (Amjad et al., 2021). Furthermore, this study correlates with the NRBV by treating an organization HRs as the primary predictor of performance and as a distinctive sustainable competitive advantage (Ghouri et al., 2020). Due to political unrest, weak financial systems, the dominant performance of public institutions and extensive trade controls, developing countries lack the ability to follow green practices in all functional fields (Dubey et al., 2018).

Green attitude could be effective and necessary for the achievement of successful environmental outcomes that have a ripple effect on society (Mohamed et al., 2020). Employees' green attitude also helps a firm to gain a comparative edge in terms of environmental sustainability (Kim et al., 2019). As an organizational contextual component, a green work climate is directly connected with employee attitude and behaviour, and it is a crucial contextual component that might influence institutions' sustainable success (Tian et al., 2020). It is worthwhile because its outcomes are predefined and systematically measured. As a way to better understand the current literature on GHRM practices, this study looked at how widespread the use of GHRM practices is in the textile industry. As a result, the study aims to solve the problem of identifying the missing link between GHRM practices and the sustainable performance of Pakistan's textile sector and to examine the mediating and moderating impacts of green attitudes, behaviours and work climate perceptions on sustainable performance.

1.5 The research gaps

GHRM has been studied in a wide range of sectors (Uyun, 2021), such as the telecommunication sector (Chaudhary, 2020), the healthcare sector (Saeed, Afsar, Hafeez, Khan, Tahir, & Afridi, 2019) and information technology sector (Ojo et al., 2019). Nevertheless, the importance of GHRM, and its emphasis on sustainability measures, in the textile sector has received little attention (Amjad et al., 2021); in addition, only a few studies have looked at the role of GHRM in regard to employee green behaviour (EGB) (Ercantan et al., 2022) and sustainable performance, particularly in the textile industry (Saeed, Afsar, Hafeez, Khan, Tahir, & Afridi, 2019). Thus, research on GHRM in the textile industry is required because researchers, executives and policymakers are interested in GHRM practices and sustainable development (Martins et al., 2021).

The Pakistani textile sector is now facing serious sustainability challenges due to factors such as inadequate capacity, a lack of resources and a lack of government policies (Amjad et al., 2021). Insufficient research is available, and further study is needed to assess GHRM's influence on Pakistan's textile sector's sustainable performance (Amjad et al., 2021). The textile sector is vital to Pakistan's economy.

In recent years, customers have increased pressure on firms to embrace environmentally friendly organizational rules, making it increasingly important to identify green practices that aid in sustainability (Dahiya, 2020); however, there is a dearth of studies on this phenomenon, particularly in the context of the textile sector (Rahman et al., 2021). Despite the fact that academics are interested in GHRM, research on green practices is rare, especially in developing countries (Sharifa, 2020). GHRM practices are widely acknowledged as a critical success factor in promoting sustainable performance. Companies are currently working to improve their sustainable performance, which requires administrators to work actively and identify creative ways to improve their valuable business resources, such as HR, which is a key driver

of success from the perspective of sustainable performance (Sharifa, 2020); however, researchers have not paid attention to textile sector (Rahman et al., 2021). GHRM experts have indicated the importance of studying this phenomenon in relation to sustainable performance in their “research future directions” (Islam et al., 2020).

Employee sustainability concepts, such as the advancement of green product formats, sustainable resource usage, energy conservation, pollution emissions, waste and recycling, have been addressed in several studies as an integral aspect of promoting green culture and values (El-Kassar et al., 2019). In the twenty-first century, greening companies and maintaining sustainability have risen to the forefront of decision-makers' priorities, resulting in the development of new alternatives to traditional HRM (Singh et al., 2020). Emerging GHRM research ventures can place environmental sustainability at the centre and emphasize it, and HR can be a powerful tool for promoting green and sustainable initiatives (Jabbour et al., 2019).

Since the actions of HRM have been relatively delayed, countries, consumers and scholars face a rising number of green opportunities and barriers in addressing environmental difficulties (Sharifa, 2020). In general, developing countries do not completely implement green practices in all functional areas; in particular, only a few departments do so (Amjad et al., 2021). Because of a number of factors, such as lagging institutional changes, underdeveloped capital markets, powerful and underperforming public sectors, and comprehensive trade barriers, developing countries have weak economic performance. In addition, these countries' extensive lack of democratic stability has resulted in war, civil unrest and mass migration (Budhwar et al., 2019). The work climate is directly linked to employees' attitudes and behaviour, and is an important contextual component (Tian et al., 2020). The purpose of this research is thus to analyse GWCPs, to better understand their influence on EGB.

In the general management literature, most HRM practitioners and academics have taken note of the relevance of GHRM in promoting green activities and attitudes at work

(Jabbour et al., 2019; Longoni et al., 2018). The clear link between green HRM practices (green training and development, green hiring and GPMC) and organizational performance has been extensively studied (Pham et al., 2019). Despite the abundance of research undertaken in this field, the majority of efforts have solely concentrated on the content component of the subject, with little attention paid to sustainable performance in terms of economic, social and environmental factors (Sharifa, 2020).

A limited number of quantitative research on green management practices has been conducted in developing nations, which has led managers to see GHRM as a difficult and expensive endeavour rather than a potential initiative that might improve the firm's performance (Zhan et al., 2018). Bour et al. (2019) found that a majority of Pakistan's industrial enterprises had given up on their green initiatives. Therefore, research that contains scientific evidence to urge industry experts and managers to promote GHRM and its related advantages, such as higher organizational productivity, is beneficial (Afum et al., 2020).

GHRM practices, as well as its encouragement and efforts, are critical to increase an organization capacity to move towards environmental sustainability (Yong, Yusliza, Jabbour, et al., 2019). However, there is a scarcity of studies that include any examples of research demonstrating how GHRM practices can be utilized to reduce global warming and meet the SDGs for climate change targets (Chiappetta Jabbour et al., 2020). The growing theme of HR supporting organizational greening objectives has aided the development of GHRM, which is now regarded as one of the best green management solutions for reducing carbon footprints and assisting firms to become more sustainable (Yong et al., 2020).

Several scholars have tried to identify causes that motivate individuals to be more environmentally conscious in their communities, and have created various models that emphasize prosocial behaviour, altruism and empathy, group social marketing, and deliberate inclusive procedures (Mariappanadar, 2019; Martins et al., 2021; Tian et al., 2020); however,

researchers cannot devise mechanisms and comprehensive policies that can serve the purpose of facilitating the textile sector (Ojo et al., 2020; Van Buren III, 2020). The primary issue with these current models is that they were created with households in mind, and the workplace context is not sufficiently examined; notably, the impact of GHRM policies and green workplace attitudes on EGB (Popowich et al., 2020). Furthermore, Dahiya (2020) pointed to green attitudes at work as a critical research agenda for the future.

Furthermore, more study into the elements that promote organizational sustainability, as well as how green attitudes and behaviours influence it, is needed (Dahiya, 2020). Because people spend most of their lives at work, adopting a green attitude is predicted to have a beneficial impact on the environment (Tian et al., 2020). In this regard, a green work climate is very important for an organization's sustainable success (Dahiya, 2020). The existence of sustainability rules has an impact on employee expectations of a green work climate, which is defined by healthy workplace behavioural norms and qualities connected to colleagues' and organizational views (Dahiya, 2020).

In fact, this is the first research of this nature in Pakistan on the textile industry. GWCPs, attitudes, and behaviours play an important moderating and mediating role in the relationship between GHRM practises and sustainable performance (social, economic, and environmental), and this study adds important evidence from Pakistan to the body of knowledge on GHRM practises and sustainable performance in developing countries. A conceptual model is developed, which provides a valid mechanism and practical perspectives for textile companies to use GHRM practices as a means of optimizing sustainable performance.

1.6 Research objectives

Sharifa (2020) determined that GHRM practices may potentially enhance firms' protection of the environment while also providing a competitive advantage. This study's main objective is to look at how organizations achieve sustainable performance in order to acquire a

strategic advantage, utilizing NRBV theory and theory of planned of behaviour as a guide (Chiappetta Jabbour et al., 2020). From this perspective, GHRM practices are essential for firms to achieve sustainable performance (Raut et al., 2020). The main and subsidiary objectives of the study are stated below:

Main objective:

1. To examine the relationship between GHRM practices and sustainable performance.

Subsidiary objectives:

2. To examine the mediating and moderating model of GHRM and sustainable performance.
3. To investigate the role of green attitudes and green behaviours in promoting sustainable performance.
4. To study the influence of GHRM practices on green attitudes, green behaviours and sustainable performance
5. To determine the impact of GWCPs in green attitudes, green behaviours and sustainable performance.

1.7 Research questions

The following research questions were developed for this study:

1. Do GHRM practices effect the sustainable performance of textile sector organizations?
2. How do green attitude and green behaviour and GWCPs mediate and moderate the relationship between GHRM practices and sustainable performance in the textile sector?
3. What effects do green attitude and green behaviour have on sustainable performance in the textile sector?
4. What is the impact of GHRM practices in green attitude, green behaviours and sustainable performance?

5. Do GWCPs exert influence on green attitudes, green behaviours and sustainable performance in the textile industry?

1.8 Proposed research framework

This study uses NRBV theory and theory of planned behaviour to categorize the existing literature, revealing that GHRM practices are critical for organizational sustainability (Ghouri et al., 2020). As explained above, this study examines the effects of GHRM practices (green hiring, training and development and GPMC) on organizational sustainability, using the moderating and mediating roles of GWCPs, green attitudes and green behaviours to achieve sustainability. The concepts of GHRM and organizational sustainability are combined in this study.

For this study, a multidimensional concept of sustainable performance is divided into three dimensions, namely economic, social and EP of textile sector organizations in Pakistan, where: social performance refers to the expansion of community economic activity and the creation of additional employment possibilities; the term economic performance refers to operations that reduce waste while maintaining the same level of production and provision of accurate and complete information to customers about products and services; and EP refers to waste reduction, reduction of emissions from operations, and minimization of the environmental impact of its activities (Sharifa, 2020). The model is based on the notion that NRBV might be a valuable theoretical lens for examining the underlying mechanism of the GHRM–sustainable performance link in Pakistan's textile sector.

Based on the NRBV argument, the model argued that GHRM practices such as green hiring, green training and development, and GPMC improve the sustainable social, economic and EP of the textile sector of Pakistan (Amjad et al., 2021). As a consequence, employees are better equipped to meet their formal work requirements as well as adapt to additional environmental issues, resulting in a sustainable competitive advantage (Afum et al., 2020).

Employees with strong mental skills, it has been argued, may be able to provide more task assistance to colleagues and subordinates, provide more considered counsel to supervisors, and better advocate the institutional agenda to external stakeholders resulting in improved sustainable performance (Sharifa, 2020).

Businesses in the textile sector should use the services of industry experts and academics to build a framework for assuring environmentally sound operations (Rahman et al., 2019). Due to a lack of knowledge and practical experience, the risk of failure, and an absence of clear objectives and effective planning, many firms confront difficulties despite the fact that GHRM frameworks have been formed in many countries (Amjad et al., 2021). In addition to the well-known method, upper management also considered a more active approach to building a strict GHRM. However, achieving organizational stability has its own set of problems and difficulties.

Government support is crucial in the textile industry because it has the legal authority to require this sector to follow green policies, which can lead to improved sustainable resource management and conservation results. It is best to use an integrated framework that includes contextual and analytical aspects as well as dynamic ones. According to an integrated framework, in actuality, environmental and green regulations are implemented first, followed by the adoption of practices in the textile industry that need a concerted effort from companies. This will compel the senior management of these companies to adopt an environmentally aware culture and discover ways to put it into action. Sustainability policy, planning, execution, assessment, review and corrective actions are all part of the framework's development. Establishing an environmental system and sustainability approach will require the support of HR departments, which are in charge of providing workers with the skills they need; it will then be necessary to implement a sustainability policy and plan that has specific environmental

goals and objectives that are appropriate for all employees. Through GHRM programmes, firms are encouraged to adopt a more environmentally friendly culture.

To improve sustainable performance, the research framework splits GHRM practices into three phases. The first phase is to find and interview candidates who are concerned about environmental issues. The environmental responsibilities, skills and knowledge required of applicants, and the interview criteria for determining which candidates to hire should all be included in job descriptions, as well as information on how to find and hire the best candidates. Green training programmes should be the focus of an organization's second phase to keep, expand and develop employees' skills and knowledge. Green training for new staff is also necessary in order to raise environmental consciousness and ensure the successful implementation of environmental management in the textile industry (Blass et al., 2017). Third, green aims and goals must be created and connected to a green incentive and assessment system that incorporates green indicators that give workers monetary and non-monetary incentives; this will increase workers' loyalty and involvement in environmental sustainability concerns.

To measure sustainable performance, an integrated technique with three aspects should be used (environmental, economic and social). Although waste and emissions are important indicators in the textile industry, EP should include many other criteria. An environmental evaluation should encompass energy consumption, waste and emissions from activities, the risk of environmental disasters, minimization of environmental impact, reuse and recycling of materials, and the conducting of frequent environmental audits.

Every year, a broad variety of items are purchased by the textile industry (equipment, furniture, paper, electronic devices, cleaning products, etc.). The use and discarding of these materials has a direct influence on the environment and the economy. Textile is a manufacturing business whose primary goal is to help the country's economy thrive; hence, sustainable performance is critical. In addition to helping firms achieve their sustainability

objectives, these kinds of initiatives may also have a positive social effect. Finally, an evaluation of sustainability should be carried out to make certain that the outcomes are in line with the organization's sustainable objectives. An evaluation of the organization's sustainability strategy should be conducted if the degree of sustainable performance implementation falls short of policymakers' expectations.

1.9 Significance of the study

In the following respects, this research provides major theoretical and practical contributions:

- This study makes a scholarly contribution by bringing together the various cultural domains of sustainability and traditional management. The author demonstrates a thorough understanding of sustainability. Research has shown the importance of GHRM practices (in hiring, training and development, and GPMC) to sustainability practices and improving employee performance (Mousa et al., 2020). GHRM practices in developing nations are still in their infancy and need the attention of researchers. Because environmentally friendly and sustainable management is now a global concern, the findings of this study are intended to help developing countries to improve their sustainability practices.
- This research adds to the body of knowledge in a number of ways. To begin, it considers GHRM practices in developing nations, as well as GWCPs, green attitudes, green behaviours and sustainable performance. This is the first research of its type to investigate the variables of green attitudes, green behaviours and GWCPs as intervening mechanisms in the research (Dumont et al., 2017a; Fawehinmi et al., 2020; Gilal et al., 2019; Hameed et al., 2020; Luu, 2019; Song et al., 2020).
- It has different perspectives; first, the research examines the link between GHRM practices and green attitudes in the textile sector in order to achieve sustainable

performance. Second, it investigates how GHRM practices promote green behaviour and so contribute to sustainable success. Finally, using the perspective of GWCPs, it investigates the impact of GHRM practices on sustainable performance. In the industrial sector, no previous research has looked at these correlations between GHRM practices, attitude, behaviour, work climate perceptions and sustainable performance.

- Investments in HRs are necessary to ensure efficient operations and environmental protection. However, the phenomena concerning implementation of GHRM practices in Pakistan's textile industry are under-researched. Environmental management operations need to be operationalized but little attention has been paid to the challenges facing personnel (e.g., green hiring, green training and development, GPMC and sustainable performance). Firms must invest in their staff training to properly adopt environmental sustainability. Therefore, this research emphasizes green hiring, green training and development, and GPMC for the acquisition of sustainable performance and competitive advantage.
- The results of this research may be useful to industrial managers in their search for GHRM that will ensure the sustainable performance of their organizations. Managers may benefit from this research by better understanding GHRM practices and sustainable performance to encourage their staff to take an active role in environmental concerns.
- The agenda of the UN has given top management and HRM the additional duty of implementing green practices through the incorporation of the GHRM concept into the organization vision and mission statements. As a result, senior management should consider environmental activities as part of their overall business strategy and image, as well as part of their operational choices. This research may help and drive manufacturing organization executives to design and relate sustainable strategic

objectives to specific GHRM. This may encourage workers to become more involved in achieving the textile industry's sustainable economic, social and environmental goals.

- In the textile industry, this research may be used for a variety of purposes, such as green employment, green training and development, and even GPMC. Pakistan's textile industry should establish a relationship between GHRM and sustainability. For the sake of future generations, researchers and industrialists must cultivate a green culture among all stakeholders, including those inside and outside an organization.
- The outcomes of this research encourage business leaders to increase staff knowledge and training in GHRM practices, which are critical in this period. It also contributes to the establishment of a culture of rewarding workers for their environmental attitudes and behaviours, which has the potential to change consumers' perceptions of textile products manufactured in Pakistan. This study gives an overview of research issues to managers that are very significant to the integration of GHRM practices with environmental sustainability. It also advises how organization leaders might incorporate sustainability practices into their everyday operations.

1.10 Delimitation

The delimitations of a research study are determined by the inclusionary and exclusionary judgements made throughout its conduct (Sharifa, 2020). The following are some of the ways in which the current study's scope has been defined.

- i. The scope of this research is limited to the textile industry in Pakistan. Because the findings of this research were derived from selected textile organizations operating in Lahore and other cities of the Punjab province, the findings can only be applied to a textile sector with an environment or policies comparable to those in this research.
- ii. The GHRM practices and sustainable performance association model suggested in this research is linked to individual and organizational performance, and only responses

from medium to top level management workers were collected. The research did not include the responses of other employees.

- iii. Because of the core area of focus, only GHRM practices were employed in this research to explore their influence on sustainable performance.
- iv. The research mainly looks at certain aspects of mediating and moderating factors (such as green attitudes, green behaviours and GWCPs,) and how these relate to GHRM practices and sustainable performance.

1.11 Operational definitions of variables

a. Green hiring

According to Martins et al. (2021), green hiring is the process of employing individuals who have the necessary skills, knowledge, attitude and behaviours to identify EMSs. One of the most essential parts of GHRM is green hiring, which allows the organization to attract an ecologically conscientious workforce by focusing on environmental training and awareness (Danilwan et al., 2020). Furthermore, this study explains the relationship between green hiring, green attitude, green behaviour and sustainable performance.

b. Green training and development

Employees who have received green training and development have learned how to use resources more efficiently, reduce waste, save energy, and protect the environment (Yafi et al., 2021). Research has shown that workers who are trained in green practices are more productive and dedicated to improving their organization EP (Roscoe et al., 2019).

c. GPMC

GPMC is the process of encouraging individuals to improve their professional abilities in order to help the business accomplish its goals and objectives more effectively (Martins et al., 2021). Businesses reward, evaluate, and rate staff members based on

their compliance with green practises that support survival, sustainability, and a positive reputation (Yong, Yusliza, Ramayah, et al., 2019).

d. GWCPs

GWCPs constitute psychological mechanisms that link policies with the behaviour of employees (Tian et al., 2020). The theory of normative conduct (TNC) is the foundation for the idea of employee work climate perceptions. TNC focuses on the degree to which a behaviour is regarded as socially acceptable (Cialdini et al., 1990). TNC distinguishes between injunctive norms, which reflect acceptable actions, and descriptive norms, which indicate actions that are often seen. Descriptive norms characterize commonly seen behaviour. Descriptive norms are behavioural standards that are shared by a majority of individuals. Injunctive norms are those set by a society, an organization, a system or morals that represent the majority of people's beliefs, whether they agree or disagree. Through societal punishment, such standards enhance and encourage individual behaviour.

e. Green attitudes

Opatha et al. (2020) defined attitude as an evaluative statement or a judgement about things, individuals and events. Attitude involves three aspects that are cognitive (the belief about an item), affective (the emotions or feelings that happen towards an item) and intention to action (the purpose of conduct towards something, the intention to behave towards something). Green attitude is described as attitudes towards the environment; it is also known as ecological attitudes, environmentally friendly attitudes and environmentally sustainable attitudes (Quoquab et al., 2017). Opatha et al. (2020) viewed green attitude as rational thoughts (cognitive), sentiments (affective) and intentions to action (behavioural) with regards to greening.

f. Green behaviours

Opatha et al. (2020) defined green behaviour as an individual action that diminishes or enhances the natural environment. Green behaviour is defined by Ones et al. (2012a) as configurable actions and behaviours that employees participate in that are linked to environmental sustainability and either contribute to or detract from it. Energy efficiency, material productivity, pollution avoidance, regeneration and water management are all part of green behaviour (Norton et al., 2015).

g. Social performance

Social performance means that an organization social goal is carried out (Afum et al., 2020). Employee safety and health are among the indicators of social performance, as are improvements in community quality of life, vocational training for community members, and employee training, among others (Abdul-Rashid et al., 2017).

h. Economic performance

Economic performance is usually measured using both operational and financial results (Afum et al., 2020). From a practical point of view, an industrial company's ability to make money is tied to its ability to cut costs related to getting materials, getting rid of waste, using energy, and paying fines and penalties for environmental violations (Abdul-Rashid et al., 2017).

i. EP

Manufacturing companies achieve EP by minimizing solid and waste water, reducing carbon emissions and harmful inputs, reducing environmental accident frequencies and minimizing the overall impact of organization activities on the environment (Çankaya et al., 2019).

1.12 Personal interest in the topic

As I said earlier, there are various reasons why I chose GHRM and sustainable performance in Pakistan's textile sector as my subject of study, but my own personal passion is one of the main reasons. I have been involved in the textile sector since 2007 and published various research articles on the textile sector as my area of keen interest. Given that my area of expertise is HRM, I am curious to explore how GHRM practices might lead to a desired level of sustainable textile performance. This study project thus gave me the chance to think about my experiences and to contribute both academically and practically to my career.

1.13 Thesis organization

This study's subsequent chapters are organized as follows:

Chapter two consists of 11 sections. Section 2.1 presents an overview of GHRM practices, Section 2.2 provides conceptualization of GHRM practices and Section 2.3 presents theories to aid understanding of GHRM practices. Section 2.4 describes types of GHRM practices; Section 2.5 provides a review of sustainable performance from economic, social and environmental perspectives. Section 2.6 discusses GWCPs as a moderating factor in GHRM practices, whereas Section 2.7 discusses mediating factors of GHRM practices. Section 2.8 provides information about the textile sector; Section 2.9 provides an overview of the present study. Section 2.10 explains the proposed research model and, finally, Section 2.11 outlines the hypotheses of the study.

The **third chapter** is the methodology chapter, which discusses the research methodology and the study's knowledge claims by referring to the literature. In addition, this chapter explains the investigation technique as well as the methodologies used to test the hypotheses.

The **fourth chapter** discusses the data analysis and findings.

The **fifth chapter** discusses the study's findings and seeks to explain data consistency and contradictions in connection to previous empirical findings and theoretical considerations.

Chapter 6 presents the managerial implications and theoretical contributions of this research, study limitations and some suggestions for further research.

CHAPTER TWO: LITERATURE REVIEW

This chapter of the thesis focuses on the underlying methods for improving the textile industry's sustainable performance in Pakistan. The research employs a NRBV theory and theory of planned behaviour to categorize the available literature, revealing that GHRM practices are critical to the long-term sustainability of Pakistan's textile sector. Through the mediating and moderating functions of green attitudes, behaviours, and work climate perceptions, this research examines the effect of GHRM practices, such as green hiring, green training and development, and GPMC, on the sustainable performance of the textile sector.

2.1 GHRM practices and sustainable performance

GHRM refers to HRM in environmental matters (Guerci et al., 2016; Renwick et al., 2013). It includes hiring people based on how green they are and giving them training and skills on how to manage sustainability. In this case, relevant performance reviews look at how well workers do their jobs in a sustainable way and reward staff for meeting green goals (Renwick et al., 2013; Yong et al., 2020). GHRM is an HRM programme that is friendly to the environment. Its goal is to guarantee and encourage staff participation through better green, increased efficiency and lower costs. This will assist businesses to save money and use resources effectively wherever possible. In this scenario, some examples are: sharing work, telecoms, digital interviews, reprocessing, online training, and making offices work better.

Preserving and maintaining the environment and climate resources has long been a key priority for decision-makers and senior management across a wide range of industry sectors (Hameed et al., 2020). GHRM practices are seen as a critical progress driver for the improvement of processes and strategies, and for boosting sustainable performance, as companies are currently engaging in increased competitiveness, which forces managers to actively find innovative approaches to maximize their essential organizational capital, like HRs (Sharifa, 2020).

GHRM practises are important to an organization's performance because high management sees HR as a strategic advantage for corporate development. This can lead to innovation and long-term performance, as well as the efficient use of internal capital to reduce risks and problems, which helps an organisation stay successful in its industry (Singh, Gupta, et al., 2019). Companies have to implement environmentally friendly business practices to enhance their sustainable performance (like social, economic and EP) to establish an equilibrium between resource usage and economic development (Mousa et al., 2020). Governments, public organizations, environmental associations, partners, stakeholders, consumers, workers and society as a whole have encouraged companies to pursue green policies on a broader scale, where organizational growth, economic development and social development would be beneficial outcomes (El-Kassar et al., 2019).

The implementation of GHRM is done through the alignment of environmental management with HRM operations. In this process, companies shift their methods and efforts to a greener corporate strategy (Renwick et al., 2013). In this connection, Paillé, Chen, et al. (2014) looked into the link between HRM and sustainable development by looking at how and how much employees help their companies become more environmentally friendly. Kautish et al. (2019) suggested that the HR department has the capacity to evaluate and inspire employee knowledge, attitudes, motivation and behaviours to enhance sustainable performance. Organizations would find it simpler to utilize GHRM to effectively generate sustainable, environmentally friendly employee behaviour (Dumont et al., 2017a).

Employees' environmental concepts, such as the development of green product designs, sustainable resource use, energy usage, carbon control, waste control and recycling, have been addressed in several studies as an integral part of promoting green culture and values (Kim et al., 2019). In the 21st century, greening businesses and protecting the environment in a sustainable way have become top priorities for decision-makers. This has led to new ways of

doing traditional HRM. Emerging GHRM research projects may place sustainability at the centre, and HRM may be a powerful tool for enhancing green and sustainable initiatives (Jabbour et al., 2019). GHRM researchers have paid a lot of attention to the role of HRM in greening organizations (Jabbour et al., 2016). There is no disagreement among environmental experts about the extent of the consequences of environmental issues (Beck et al., 2018). Despite the fact that HRM activities have been comparatively slow in addressing these environmental issues, states, customers and researchers have been increasingly confronted with green opportunities and challenges (Amjad et al., 2021).

Rapid technical progress and active market movements have pushed organizations to manage and utilize their capital competitively, creating a range of economic and sustainable development problems (Chung, 2020). Only a few departments in developing countries have completely integrated green practices; this is a problem that has to be addressed in the context of developing countries (Shoab et al., 2021). These countries' economic growth is low for a variety of reasons, including slow structural reform, underdeveloped financial markets, powerful but underperforming public sectors, and high trade barriers. The persistent lack of democratic stability in these nations, on the other hand, has culminated in wars, civil conflict and mass migration (Singh et al., 2018).

Employees' conscientious behaviour can be promoted by GHRM activities in order to save the environment (Kim et al., 2019). GHRM practices have been suggested to start the greening of an organization (Shahriari et al., 2019). Singh et al. (2020) pointed out that GHRM practices substantially impacted an organization's green innovation and survival. GHRM has been defined as using HRM practices (Sharma et al., 2015) to improve the sustainability of organizational resources that assist in enhancing sustainability as well as to increase employee knowledge of EP.

Increased financial benefits of green practises as well as the overall financial performance of a firm are directly connected with higher levels of GHRM activities (O'Donohue et al., 2016). A more comprehensive corporate social responsibility programme includes a GHRM framework (Hameed et al., 2020). Managers are presently required to increase employee awareness inside their organisations (Ojo et al., 2019). When officials are provided with both monetary and non-monetary rewards, they are encouraged to actively participate in environmentally friendly initiatives (Jabbar et al., 2014). HR actions are often evaluated from the viewpoint of the shareholders by HR experts (Gholami et al., 2016). Organizations must get wide input both internally and externally from their stakeholders, taking account of the economic, social and environmental impacts (Mariappanadar, 2019). For an organisation to operate sustainably, a variety of green practises must be used, including electronic documentation, ride-sharing, flexible office layouts, virtual collections, telephone conferencing, recycling, and the construction of more energy-efficient buildings (Likhitkar et al., 2017). Green programmes result in increased productivity, lower costs, a happier population and more engaged workers, which contribute to the sustainable performance of organizations.

Researchers have looked into both organizational and environmental protection in developing countries (Bag, 2019). Businesses should make a greater attempt to put more innovation and technologies on the market in order to reduce environmental pollution by raising employee awareness and developing environmentally friendly goods (Singh et al., 2020). Aggarwal et al. (2015) addressed the value of "Green and GHRM" as well as the advantages, drawbacks and shortcomings of its use for organizational sustainability. Sustainability is described as "creation that effectively meets current human needs without compromising future generations' needs" (Uyun, 2021).

Dedication to organizational sustainability is critical for the raising of employees' awareness of environmental problems and for motivating them to meet expected challenges with confidence (Amjad et al., 2021). Hiring and selection, training and development, success improvement, and incentives for environmental sustainability are the GHRM goals when firms use HRM practises (Amjad et al., 2021). GHRM activities can be implemented as a performance-based assessment mechanism targeted at growing workers' knowledge of environmental sustainability (Jyoti, 2019).

Global concerns regarding the sustainable performance of organizations have grown in recent years as a consequence of environmental problems (Sharma et al., 2015), particularly since the industrial revolution, which has resulted in environmental devastation (Kautish et al., 2019). Research indicates that an eco-friendly product image has become a critical component of business success, integrating all aspects of the organization processes, technological adoption and systems (Amjad et al., 2021). Furthermore, when compared to their conventional rivals, green businesses have been shown to be more environmentally friendly in their operations.

The textile sector in developing nations is confronted with a wide range of environmental issues. As a result, organizations must evaluate, monitor and improve their environmental management practices (Rehman et al., 2016). Today's business world has evolved to the point where environmentally friendly goods and GHRM practices have become critical components that are incorporated into the processes, technology adoption and systems that are implemented in organizations. Afum et al. (2020) reported that companies that adopted sustainable practices (social, economic and environmental) showed a competitive advantage in terms of cost reductions and profit margins.

It is possible to get additional advantages in terms of preserving the environment from pollution by using green strategies for a better way of life. The incorporation of

environmentally friendly techniques into organization operations offers advantages to the whole community and demonstrates the socially responsible side of corporations. An increasing number of environmental problems are being addressed, making it necessary for the textile sector to promote and implement green management techniques (Amjad et al., 2021). The textile sector in developing nations confronts a broad variety of environmental problems, and organizations must be engaged in evaluating and correcting ecologically damaging management practices (Rehman et al., 2016).

Presently, the idea of environmental management is used in a variety of corporate sectors, including operations management, marketing and other areas of expertise (Amjad et al., 2021). Business groups in industrialized nations have also taken the initiative to start a revolutionary campaign under the motto "GHRM". Furthermore, GHRM practices assist in enhancing employee performance and dedication to improving environmental efficiency. HRM culture, structure, tactics and organizational policies are all altered as a result of a GHRM strategy to preserve the environment.

GHRM is critical for the sustainable growth of organizations that are committed to sustainable performance (Afum et al., 2020). The goal of GHRM practices is to assist organizations in their efforts to enhance their sustainable performance (Jeruto et al., 2017). GHRM is being quickly embraced by a variety of companies in order to foster an environmentally conscious corporate culture, which will aid in the reduction of environmental effects in this advanced stage of industrial growth. It is not the duty of any particular organizational department's workers to engage in environmentally conscious conduct, but it is the responsibility of all departments to contribute to the preservation of the organization's sustainable environment (Amjad et al., 2021).

A small amount of research conducted all over the world has revealed a link between GHRM and organizational performance. The Pakistani textile industry currently faces a large

number of environmental challenges, which has had a detrimental effect on the country's textile export sector. Only a few studies on the effect of GHRM practices on the sustainable performance of the Pakistani textile industry have been performed so far; therefore, further research is required to overcome the research gap that presently exists in this area (Amjad et al., 2021). As a result of increasing pollution, most industrialized economies have been successful in gaining support for environmental laws. However, developing nations such as Pakistan have difficulties in enforcing environmental laws for reasons such as inadequate ability, a lack of resources and a lack of agreement from government officials. The sustainability of the environment on a global scale is the most pressing problem confronting human civilization in the twenty-first century.

All nations must cooperate in order to conserve resources, habitats, and a variety of animal and plant species throughout the long and short terms. This encompasses the physical environment in which people live as well as the resources that are made accessible to them by the government. There have been many studies conducted in this field over the last few decades, including those in the behavioural and social sciences, environmental deterioration (including human well-being) and environmental behaviour (Amjad et al., 2021; Longoni et al., 2018; Roscoe et al., 2019); Research in the textile industry, especially in poor nations, is lacking when it comes to sustainable practises and performance. A limited number of studies have explored the role of GHRM practises in corporate organisations that are trying to attain environmental sustainability, according to scholars. As a result, it is essential to incorporate GHRM approaches with sustainable management practises. Practices in GHRM are basically the application of HRM policies for the promotion of efficient and effective use of organisational resources in order to achieve commercial objectives and more importantly to promote environmental sustainability.

GHRM is an organization asset that is firmly integrated with employees; thus, it is not the property of organizations. GHRM gives a business more value and it is difficult for rival companies to replicate it. GHRM offers a foundation for a lasting competitive advantage since it is a pool of brilliant individuals, not a physical item that can be readily purchased or duplicated (Mansoor et al., 2021). Increased industrial dynamism needs a fundamental strategic resource that offers a competitive edge. GHRM is thus a strategic resource that not only improves competitive advantage but also improves the organization's entire sustainable performance. By gaining new skills, the human capital of workers would be increased and be more efficient to enhance sustainable performance (Allameh, 2018). The effectiveness of employees thus contributes to the sustainable performance of an organization (Mansoor et al., 2021).

In today's highly competitive business world, environmental problems and elements cannot be ignored by organizations if they wish to excel in sustainable performance. It is thus important to investigate the effect of GHRM on the sustainable performance of companies in the textile sector context. Mansoor et al. (2021) showed a favourable connection between GHRM and organizations' financial success. Chen et al. (2013) also found a favourable relationship between green innovation and GHRM. GHRM helps the organisation meet global environmental requirements, produce value for the company, and meet the environmental needs of its consumers (Centobelli et al., 2019).

2.2 Conceptualization of GHRM practices

HRM strategies are used to get an organisation to use its resources more efficiently so that it can stay in business (Jia et al., 2018). GHRM is a term used to describe the interests of individuals and executives in establishing environmentally-friendly corporate methods and practises (Shafaei et al., 2020a). There are many ways to thank employees for taking part in a green programme while also recognising their company. For example, you could give them

free bikes or carbon offsets. (Suharti et al., 2020). In addition to showing that they care about the community and their current and future employees, companies that implement GHRM policies are more "appealing" to job seekers because of their demonstrated commitment to corporate social responsibility (Suharti et al., 2020). GHRM is a relatively new management trend that enhances sustainable performance and improves organizational efficiency (Roscoe et al., 2019).

The incorporation of green initiatives into human resources management procedures improves environmental awareness (Anwar et al., 2020). GHRM involves top management sharing environmental plans and policies as well as other useful facts; educating staff about new environmental standards; empowering staff to take part in environmental programs; and offering incentives that encourage staff to behave in an environmentally friendly manner (Zhan et al., 2018). Practices in HRM that aid in the accomplishment of environmental and financial objectives are referred to as GHRM (Wikhamn, 2019). Additionally, GHRM mandates that the organization's protection of the environment goals be integrated into its HRM practises and procedures (Mansoor et al., 2021).

HRM studies, on the other hand, indicate that GHRM practices influence employees' task behaviour and attitudes, which has an effect on workplace sustainable performance (Likhitkar et al., 2017). Ren et al. (2018) characterized GHRM as a phenomenon that identifies the links between organizational activities; it influences the evolution, architecture, implementation and impact of HRM systems. Green companies have been found to be more competitive in their operations as opposed to their traditional rivals in the business world, where eco-friendly commodity brands have become an important aspect that incorporate procedures and technology acceptance (Dumont et al., 2017a).

In today's economy, sustainable goods and social responsibility have become critical components embedded into business practices, technological implementation and programmes

(Amjad et al., 2021). Businesses that adopt sustainable practices have a comparative edge in cost efficiency and earnings (Muster et al., 2011). As a result, GHRM is a critical component of an organization's sustainable performance (Jyoti, 2019). The aim of GHRM practices is to assist organizations in improving their sustainable performance (Renwick et al., 2013).

Companies are under growing pressure to expedite their transition to appropriate adaptation of environmental management methods and procedures as a consequence of environmental, ethical, legal, moral and social pressures. Climate change, natural resource depletion and environmental protection require adequate adaptation of EMSs and practices, and organizations are under increased pressure to accelerate their transition to appropriate adaptation of EMSs and practices (Ashton et al., 2017; Ganda, 2018; Longoni et al., 2018; Wu, Cheng, et al., 2018). More importantly, new factors (such as consumer boycotts, preferences, and ethical beliefs) are emerging in the present business climate that may either favourably or adversely impact an organization's efforts to achieve a sustainable competitive edge. Consumer purchasing decisions are influenced by their perceptions of an organization brand image and its ability to maintain sustainable operations (Ashton et al., 2017; Chung, 2020; Longoni et al., 2018).

GHRM has a number of advantages, including attracting new skilled workers and retaining employees (Shoaib et al., 2021), reducing costs and creating a competitive edge (Mishra, 2017), improving the organization overall environmental productivity, enhancing overall effectiveness and business sustainability, and improving employee well-being in general (Gholami et al., 2016). Organizational commitment may be referred to as workers' desire to stay engaged with the organization and to play their part in achieving organizational objectives. Cheema et al. (2017) observed that many companies have integrated GHRM strategies to promote environmental sustainability with an emphasis on environmental pollution reduction and environmental deterioration. Workforce greening can be thought of as

an HRM strategy that improves the overall motivation, commitment, and skills of all employees (Elrehail et al., 2019). Employee identity, loyalty, and involvement are all parts of organisational commitment (Singh & Onahring, 2019). HRM methods are generally designed to change employees' attitudes and improve employee performance (Li et al., 2019). According to Jawaad et al. (2019), companies should make an effort to motivate their staff to stay engaged.

More significantly, Hussain et al. (2020) recommended that GHRM practices have a significant impact on the sustainability of the manufacturing sector. There is enough research to verify the advantages of adopting GHRM practices, for example, WalMart's saved US\$ 12,000 because of a decrease in paper use (Shoaib et al., 2021). The E.O.N. organization also claimed to have saved £106,000 as a consequence of training its employees to shut down superfluous electrical equipment if not in use (Shoaib et al., 2021). The growing significance of environmental consciousness has led HRM to implement GHRM practices, such as decreased use of paper and reduced carbon footprint and other waste (Ahmad, 2015). Alkhateeb (2018) reported that increasing economic and financial development substantially improved CO₂ emission levels and that GHRM may play a positive role in reversing environmental degradation impacts. This is because GHRM focuses on the protection of the environment and resources (Jain et al., 2018).

This study's main goal is to find out how GHRM policies affect manufacturing companies, which have more environmental effects than service companies (Pinzone et al., 2016). Manufacturing has typically set trends for GHRM standards and sustainable environmental initiatives since it is closest to supply chain consumers. Environmental issues have also centred on the industrial sector (Shoaib et al., 2021). It has been generally recognized that human activities impact the environment and that adopting industrial GHRM practices may help mitigate environmental problems.

Environmental objectives are already being included by organisations in their political campaigns and strategies (Chung, 2020); In order to comply with worldwide environmental norms and rules, they have modified operations and services to some level, therefore they now place more emphasis on their operational systems (Han et al., 2019). Despite these efforts, green behaviour is complicated and requires collaboration across a number of different multidisciplinary methods to be effective (Ababneh, 2021). Because of this, it may be difficult to assume that the mere incorporation of environmental goals into an organization plans and policies will result in the green behaviour and results that are intended. Therefore, integrating sustainability objectives into an organization's overall strategy and operating with a compliance-focused mind-set may not guarantee the full and effective execution of those admirable goals.

Ganda (2018) described green behaviour as pro-innovative, which has implications for proactivity, voluntary conduct, excitement, and commitment among other things. These characteristics are related to the human element (which contains individuals' attitudes, cognitive judgements, perceptions, and social values), and it is believed that increasing the number of people who have these characteristics will magnify the execution of economic, social and environmental efforts (Jabbour et al., 2019). As a result, some have argued for the integration of HRM into the environmental conversation by embracing the organization's sustainability motto while creating and carrying out HRM practises and activities (Kim et al., 2019). With the help of these needs, the idea of GHRM (the integration of environmental objectives into HRM practices and activities) has developed, promising the effective development of environmental results for both people and businesses (Ababneh, 2021).

Both academics and practitioners have given GHRM practises a lot of attention, and general management literature has given a lot of emphasis to how important GHRM practises are for motivating workers to engage in green behaviours and activities (Longoni et al., 2018;

Roscoe et al., 2019). Pham et al. (2019) examined a possible association between GHRM (green hiring, green performance management and selection, green training and development, green incentives and rewards, and green employee involvement) and an organization's sustainable performance. Despite the abundance of studies in this area, the majority of efforts have primarily concentrated on the content element of the issue, with GWCP receiving little attention, particularly in developing nations. Further research is required in this area because of the dearth of studies examining the psychological and social underpinnings of when and how GHRM activities affect people's environmental behaviour.

Negligence in the workplace may lead to environmental harm and deterioration (Pham et al., 2019). It may be possible to utilize GHRM practices to encourage workers to participate in environmentally aware behaviour in the workplace so that the environment is preserved (Cherian et al., 2012). People have said that a company needs to have good HRM policies in place before it can start a greening initiative (Shahriari et al., 2019). Singh et al. (2020) looked at GHRM and found that it is crucial for establishing a link between green innovation and environmental sustainability. In their research, they found that effective HRM practices had a significant influence on sustainable performance. They also argued that good risk management and governance methods have a significant impact on environmental sustainability. According to Sharma et al. (2015), the method of employing HRM to make organisational resources more sustainable makes employee commitment to environmental sustainability stronger and heightens employee knowledge of its significance

According to O'Donohue et al. (2016), higher levels of GHRM practices are significantly related to larger financial benefits of green practices as well as better overall financial performance of the organization. Increased levels of GHRM are also related to higher levels of GHRM practices. The Global Human Resource Management framework is part of an organization overall aim of social and environmental responsibility (Shahriari et al., 2019).

Managers must promote awareness among people who work for their businesses in today's society (Bhatti et al., 2012). According to Jabbour et al. (2016), when representatives are provided with monetary and non-monetary incentives, they are more likely to actively participate in environmentally friendly activities than when they are not provided with incentives.

GHRM is the use of HRM techniques to encourage the sustainable use of resources inside a company. This is done to reach the goal of environmental sustainability in the workplace (Srivastava et al., 2019). When developing techniques and processes for improving corporate environmental planning, the word GHRM is often used to convey the concerns of employees and executives (Shafaei et al., 2020a). Green incentives may range from clean energy to free bikes, and can be used to motivate individuals to engage in a green programme while simultaneously recognizing their employer's initiatives (Suharti et al., 2020). Although many workers believe they are not responsible for the environment while at work, the millennial generation is more conscious of this as they choose green businesses (Nagarajan, 2020).

When businesses adopt green HRM strategies, it is obvious that the organization has an effective business social agenda and that the corporation values both the ecosystem and the social objectives of its existing and future workers (Rangarajan et al., 2011). Therefore, the organization external reputation grows, and the organization becomes more "attractive" to potential and existing employees. Employees' views of GHRM, as predicted by social identity theory (SIT), will lead to their identifying with the organization. Employees' commitment to an organization is linked with their identity in the organization (Amjad et al., 2021). Organizational identification is defined as a strong emotional connection to an organization that publicly displays an organization sense of pride, and it is associated with workers' commitment to the organization. Employees are urged to exhibit positive work attitudes and

behaviours in order to improve their own self-esteem as well as the image of the organization (Kim et al., 2019). Additionally, research has shown that organizational GHRM is linked with better employee performance as well as a reduction in the probability of employees leaving their employment (Shen et al., 2018).

GHRM describes an organization's interaction with different stakeholders, including clients, suppliers, retailers and government. Companies must thus align their interests with important stakeholders in order to prosper and stay competitive in the sector. Additionally, businesses communicate information with a variety of stakeholders. Thus, GHRM between businesses and their stakeholders is crucial to their relationship (Mansoor et al., 2021). Over time, green connections stay steady and encourage learning. Nawangsari et al. (2019) reported that this kind of intimate connection helps an organization to achieve sustainable results.

Most industrial companies maintain strong ties with their stakeholders. For example, suppliers and retailers offer valuable insights into emerging business trends and practices (Longoni et al., 2018). A strong connection with the provider allows an organization to get raw materials on time, at a lower price and with longer payment terms. In addition, companies may also gain from suppliers with respect to production capacity and expertise. Retailers may also notify the business of the latest consumer requirements and preferences. They may also pass on information about any flaws in goods that their customers communicate. The information received from stakeholders therefore enables organizations, as well as their performance, to respond quicker (Chillakuri et al., 2020). Through the development of GHRM practises, a successful relationship between multiple stakeholders gives a long-term competitive advantage (Anwar et al., 2020)). Enhanced collaboration with rival companies may also be beneficial in pursuing an EMS (Kuo et al., 2015). In addition, the sharing of information and collaboration are essential to achieve competitive advantage, leading to high performance (Matinaro et al., 2019).

Few research studies have demonstrated the connection between GHRM and EP in the past (Shen et al., 2018). Huang et al. (2011) found a positive indirect relationship between GHRM and competitive advantage. Similarly, El-Kassar et al. (2019) claimed that green social capital improves worker collaboration and makes product innovation in an organization effective. Uyun (2021) recently reported that a favourable relationship exists between GHRM and organization sustainability.

2.3 Underpinning theory to support the study

According to the literature on sustainability, an organization may acquire sustainable performance through developing unique, distinctive, non-inimitable and non-substitutable core competences (Barney, 1991). Strengthening core capabilities is critical to an organization sustainable performance, according to the widely recognized resource-based view (RBV) concept (Jakhar et al., 2018). Researchers have advanced beyond this basic school of thought and recognized the NRBV theory (Hart (1995). The NRBV perspective is founded on the premise that a business's competitive advantage is essentially determined by its interaction with the natural environment. The NRBV framework provides ways for businesses to gain a competitive edge via sustainable development skills; it focuses on development towards sustainable market performance for companies. NRBV is composed of many key elements, including pollution prevention, product stewardship and sustainable development. Scholars have emphasized the use of NRBV theory for the sustainable performance of firms (Teece et al., 1997). Pollution prevention and sustainable development are key elements that support this study and its framework is developed under the shadow of this theory.

Environmental policies are critical for businesses because they may help them gain an edge while also enhancing their overall performance. NRBV theory sheds light on the operations of enterprises involved in cleaning up the natural environment, so this is an appropriate research framework. Environmental methods for pollution reduction, product

stewardship and sustainable development are the three important aspects of NRBV. Cost-reducing, differentiation and hybrid environmental initiatives are the norms of this theory (Walsh et al., 2017). In order to achieve a competitive edge, an organization invests in proactive environmental initiatives that reduce operating and future liability costs. In order to meet the goal of zero emissions and waste, businesses must focus on eliminating pollution from the manufacturing process. Hence, all these factors reflect the perspective of this study.

In this study, NRBV empirical theory is used to clarify the relationship between GHRM practices and sustainable performance. RBV theory is utilized in economic science, whereas NRBV theory is used to promote studies based on social, economic and environmental impacts (Svensson et al., 2018). The NRBV provides guidance on how to gain a competitive advantage while still protecting the planet's natural wealth and ecosystems. As a result, NRBV recommends a technique that is both flexible and effective (Hart, 1995). According to Al - Ghazali et al. (2021), incorporating environmental concerns into corporate practices aids businesses in achieving sustainable performance. Prior observational studies used NRBV theory as a theoretical foundation for their research, although there was some variation in latent variable selection and methodology (Ghouri et al., 2020).

Furthermore, alongside the NRBV theory this study also use theory of planned behaviour to determine the relationship of green attitude and behaviour as some of the research models in the literature often used to examine behaviour, such as recycling, travel mode selection, energy consumption, water conservation, food selection, and ethical investing (Ajzen, 1991). According to the theory of planned behaviour, the easiest way to anticipate someone's behaviour is to ask them if they intend to act in a particular way. Here, it is important to highlight that if a behaviour is physically impossible to carry out or if unanticipated obstacles get in the way, the intention will not express itself in the behaviour. How can intention be

described, assuming intention can explain behaviour? Three factors, in accordance with theory of planned behaviour, account for behavioural intention:

- The attitude (perceptions of oneself regarding the behaviour);
- The subjective norm (Other people's perceptions on the behaviour);
- The perceived behavioral control (self-efficacy towards the behaviour).

Attitudes, subjective norms, and perceived behavioral control are three key components of theory of planned behavior, which all influence behaviour. Prior to the activity occurring, the motive behind the behaviour is explained by attitudes, subjective norms, and the perceived behavioral control. The goal can reasonably predict actual behavior. Theoretically, perceived behavioral control is also a measure of the abilities required to express the behaviour and the potential to get beyond obstacles. As a result, it is assumed that the attitude directly affects behaviour. The theory of planned behaviour states that decisions are made by considering the social, economic and environmental sustainability of organizations.

Proactive environmental policies are expected to save costs while also promoting ecological sustainability (Amjad et al., 2021), which is also the core agenda of this research. So this study indicates that businesses might obtain a competitive advantage by engaging themselves in proactive environmental initiatives that lead to green innovation and profitability by promoting NRBV theory and theory of planned behaviour. According to Hart et al. (2011), companies that use NRBV strategies not only increase their own performance but also contribute to a healthier environment. According to past research, NRBV is an excellent tool for assessing an organization social, economic and environmental sustainable performance (Menguc et al., 2005). NRBV is very useful for assessing businesses' social, economic and environmental sustainability that can only be gauged through the use of green practices (Rubel et al., 2021). Competitive advantages may be gained by companies engaged in environmental

actions before their competitors. Therefore, NRBV theory has a major role in this study, which helps firms to achieve sustainable performance and increase revenues automatically with integrated role of the theory of planned behaviour.

2.4 Dimensions of GHRM practices and the impact of GHRM on sustainable performance

GHRM practices have now emerged as a major managerial effect for growing an organization competitiveness and market share while also having a positive impact on the environment (Gull et al., 2021). Stakeholders are worried about the negative impact on the natural environment, which is becoming an increasing issue for businesses (Rubel et al., 2021). Green management practices are a set of business procedures that allow an organization to evaluate its environmental effects, set environmental goals, operate sustainably and create a comprehensive environmental management framework (Gull et al., 2021).

Green management practices entail, among other things, a continuing dedication to emissions reduction and conformity with environmental regulations, turning an organization's environmental policies into strategic decisions, and creating a management system to promote the accomplishment of environmental priorities (Gull et al., 2021). According to Yong, Yusliza, and Fawehinmi (2019), green management techniques provide organizations with an excellent opportunity to improve organizational sustainable performance through instilling needed skills and competencies in staff. According to Rawashdeh (2018), green management methods must include green human capital strategies. This is because green human potential is the base of green management

Numerous organizations provide their employees with efficient programmes for engaging in green practices to reduce emissions of environmentally polluting gases, and to improve their management and technical capabilities for the conservation and preservation of natural resources and to support the organization's environmental sustainability (Amjad et al.,

2021). A limited number of businesses have recognized the necessity for both organizational and environmental sustainability green training and development programmes, but that is changing (Pradhan, 2020). The most challenging problem now confronting businesses is how to maintain economic growth while simultaneously preserving the long-term sustainability of organisations (Kamperman Sanders et al., 2018).

Furthermore, green training programmes provide green education on environmental problems in order to alter management and non-managerial workers' attitudes and behaviours (Jeruto et al., 2017). Another problem confronting the world today is the combination of financial success and growth with sustainable development (Pinzone et al., 2019). More environmental education is needed inside of businesses to change organisational culture and non-administrative employees' behaviour (Jeruto et al., 2017). To put it another way, GHRM includes defined procedures and strategies with respect to HRs within the economic, social and environmental pillars of sustainability (Renwick et al., 2013).

HR practices are intended to assist organizations in implementing their HRM strategies. Pradhan (2020) described GHRM practices as those promoting green values, knowledge and skills linked to green business by means of hiring and selection, training, management, awards and participation. Pless et al. (2012) argued that green HR strategies support the development of environmental values, knowledge and skills related to green activities. GHRM practices are those that encourage the development of environmental values (Renwick et al., 2008).

Jabbour et al. (2008) stated that green performance management entails evaluating workers' performance while they are engaged in the process of green management as well as providing them with feedback on their green performance (Martins et al., 2021) (Luu, 2019). For green performance management, non-financial rewards, such as green tax, green travel perks and green recognition, should be provided alongside financial incentives (Tang et al., 2018). Employees must be allowed to engage in environmental management through green

participation, which involves conveying a clear green vision, trying to establish a green educational environment and a range of media platforms, offering green activities and fostering green involvement (Tang et al., 2018).

Managers may make brief comments to employees or union workers on their organization success in achieving environmental objectives in order to improve their sustainable performance (Arulrajah et al., 2016). Employees will benefit from this information as their perspective, skills and capacity will improve sustainable performance. The motivation of employees (e.g., the sharing of the evaluation findings with employees) is important for environmental management (Srivastava et al., 2019) because it will help management achieve their objectives and build their commitment to environmental management responsibilities. Additionally, businesses can implement an online system that enables staff members to share their opinions and representatives to adhere to their own personal environmental policies. Additionally, businesses can offer online information systems and reviews that enable staff members to participate and suggest new ideas for making their workplaces more environmentally friendly. Unions need to adapt their grading system so that workers are evaluated based on their behaviour and specialization in environmental sustainability (Ahmad, 2015).

By rewarding its workers, an organization may enhance its overall sustainable performance and achieve more success (Srivastava et al., 2019). Providing incentives for workers to alter their behaviour in order to accomplish sustainable objectives may be integrated into the pay structure. Employees may be encouraged to participate in environmentally beneficial behaviour rather than being inculcated with bad habits (Mansoor et al., 2021). When it comes to the environment, rewards may be given to employees who have made significant contributions to the environment. Furthermore, the widespread acceptance of incentives results in exceptional levels of satisfaction for the organization as a whole (Arulrajah et al., 2016). It

is apparent that just a few businesses have implemented incentive systems to encourage workers to adopt acceptable workplace behaviour.

Researchers has divided rewards into two categories: monetary rewards (such as bonuses, cash and interest rates) and non-monetary rewards (such as providing vacations, leave and presents to their workers, and improving their credit scores) (Amjad et al., 2021). All of these incentives have a substantial effect on the performance of employees who make major contributions to the improvement of environmental sustainability (Martins et al., 2021). In order to achieve this, companies should adopt green management practices by devoting all available resources and efforts to implementing green methods, or by encouraging environmentally friendly activities such as waste reuse and waste control (Jabbar et al., 2014). Additionally, green management practices are often used to encourage some green innovation and development among workers by encouraging them to contribute new green ideas that are relevant to their particular employment situations (Ahmad, 2015). Following GHRM practices has a key role in increasing the sustainable performance of textile organizations in Pakistan (Amjad et al., 2021).

2.4.1 Green hiring

Green hiring refers to the process of selecting employees who are knowledgeable about environmental protection strategies in their respective businesses (Obaid et al., 2015). In green hiring, prospective candidates are recruited with electronic methods such as email and video-based interviews in order to reduce any environmental impact associated with travel (Saini et al., 2016). Previous research in HRM has pointed out that an employee's initial interest in joining an organization is dependent on the impression of the organization established throughout the hiring process (Martins et al., 2021). Companies that utilize green hiring will be perceived as more relevant bodies and employers by prospective workers. Organizational attractiveness is described as "individuals' emotional and attitudinal views about specific

businesses as prospective locations of employment. According to Abrams et al. (1988), SIT asserts that individuals experience a feeling of pride in their social groupings when they associate themselves with a responsible organization. When prospective employees are interested in working for an organization, they have greater job pursuit intentions, and organizational attractiveness has been shown to have a positive relationship with job pursuit intentions.

In the hiring and selection of individuals with a green awareness, tests are used to ensure that workers are supportive of environmental issues and that they have environmental attitudes, behaviours and knowledge of key subjects. Identification and selection of environmentally conscious candidates are also important components of green recruitment and selection (Tang et al., 2018). Green training programmes may benefit employers because they not only raise workers' awareness, knowledge and abilities in green activities, but also foster an environment that encourages all employees to participate in green projects (Martins et al., 2021).

Martins et al. (2021) found that environment-centred signals sent during the recruiting phase had an impact on job pursuit intentions and on the organization's perceived reputation. When Jones et al. (2014) conducted a scenario-based study of 128 participants, they discovered that the organizational attractiveness of companies recognized for adopting green initiatives was greater than the attractiveness of organizations that were not engaged in green efforts. According to Dögl et al. (2014), there is an association among firm size and an organization environmental reputation in both developed and developing countries. According to Islam et al. (2020), employees who work for socially responsible corporations are more likely to pursue employment opportunities.

Given the above debates, evidence concerning GHRM, in particular, green recruitment, is important as limited research on GHRM is available and further studies are necessary to address the issues of how environmentally responsible recruitment agencies can inspire green

skills to achieve environmental tasks, particularly in the manufacturing context (Renwick et al., 2013). Many businesses are attempting to provide job requirements that describe a variety of environmental issues and practices pertinent to the job position's responsibilities and functions (Amjad et al., 2021). Applicants would like to work with friendly employers. As a consequence, building a reputation as a "green employer" is a good way to attract new employees (Mousa et al., 2020).

Advertisements may also be used to improve an organization green brand, environmental quality and environmental policy, and can encourage candidates to apply for open positions. As a consequence, a job description for a certain function may include environmental responsibilities as well as the skills and knowledge that applicants should possess in order to do certain tasks (Chaudhary, 2018). Green hiring is an important part of GHRM practices that emphasizes the need to have staff who are aware of environmental problems and can help an organization to achieve sustainable performance (Martins et al., 2021).

According to Ghouri et al. (2020), green hiring in the manufacturing sector is essential as applicants become able to get environmental knowledge, beliefs and care, as well as communicate messages linked to environmental criteria. A green hiring process demonstrates to potential employees the green organization's culture and environmental principles (Martins et al., 2021). Shoaib et al. (2021) asserted that sustainable companies should focus their efforts on hiring and employing individuals who are concerned about the environmental impact of their operations. Researchers have suggested that in order to attract potential green recruits, sustainable companies must establish their image and standing in the public as an ecologically friendly organization (Mani et al., 2018).

Furthermore, Martins et al. (2021) reported that a green hiring process addresses what is anticipated by prospective green workers during job analysis, job description, job

specification which define the green achievement and environmental concerns of businesses. Additionally, Razab et al. (2015) stated that sustainable companies must stress ecological inquiry while interviewing prospective candidates. Furthermore, organizations should step up their efforts to prevent environmental degradation by incorporating environmentally friendly job responsibilities and creating job positions that are solely focused on environmental aspects of the organization (Ghouri et al., 2020). Mousa et al. (2020) suggested that environmentally conscious individuals should be given priority by sustainable organizations in order to contribute to the sustainable performance of organizations.

A organization conveys its strategic principles and objectives to potential employees through its recruitment and selection procedures (Arulrajah et al., 2016). Job descriptions should reflect the importance of sustainability reports to the role (Ojo et al., 2020). According to this research, interviews should be set up to discover candidates who are likely to adhere to the company's green policy. Additionally, new hires should get training on the organization's principles, values, and dedication to environmental sustainability (Fernández et al., 2017).

Green hiring is a fantastic strategy for showing the company's dedication to working in the best interests of the environment (Ojo et al., 2020). Aside from being appealing to potential workers, green hiring shows the organization's commitment to sustainability (Masri et al., 2017; Tang et al., 2018). A organization shows its commitment to the environment by integrating environmental duties into the work obligations of its employees and by creating employment roles in accordance with environmental principles (Arulrajah et al., 2016). If these steps are done, employees are more likely to see environmental principles as acceptable workplace norms, boosting their enthusiasm for sustainable performance activities. Environmental promises backed up by suitable actions affect both workers' environmental attitudes and the organization EP (Ojo et al., 2020).

Organizations have the ability to recruit and choose people who are committed to environmental concerns (Saeed, Afsar, Hafeez, Khan, Tahir, & Afridi, 2019). GHRM techniques have highlighted green recruiting and selection as a key component to succeed in the competitive market (Jabbar et al., 2014). As per Shoaib et al. (2021), green recruitment and selection includes three elements: candidate's ecological knowledge, environmentally responsible employer branding and green parameters for attracting applicants. First, the most essential aspect of green recruitment and selection is a candidate's green consciousness, which includes personality traits that enable businesses to achieve their environmental goals, such as engagement and involvement, awareness and socialization. Environmentally valuable workers have demonstrated that throughout the operating process, they actively increase their environmental knowledge, which in turn enhances sustainable business performance (Saeed, Afsar, Hafeez, Khan, Tahir, & Afridi, 2019). Companies should use a variety of tests to find and hire people who care about the environment. This will make sure that all employees are interested in solving environmental problems.

Second, a green corporate reputation relates to an organization's brand image, which may be enhanced through GHRM practices (Saeed, Afsar, Hafeez, Khan, Tahir, & Afridi, 2019). With the assistance of green employer branding, job seekers may see a solid relationship between themselves and some organization principles. In addition, job applicants may be proud to work for an organization famous for its environmental policies. Job searchers often utilize EP statistics and descriptions as criteria for assessing how effectively the business treats its employees. Good green signal organizations may also attract job seekers who are searching for employment (Jabbour et al., 2019). Green branding is thus an excellent way of recruiting and choosing prospective workers who are enthusiastic about tackling environmental problems.

Third, workers should be assessed and chosen on the basis of environmentally friendly standards. Recruiting companies, for example, may highlight environmental considerations in

job descriptions and personnel requirements. Workers' environmental concerns, attitudes and behaviours may be gathered using questionnaires, and those who excel in these areas can be recognized and encouraged (Renwick et al., 2013).

2.4.2 Green training and development

Another important practice of GHRM is green training and development. Many companies provide effective training programmes for workers on how to engage in green activities to eliminate or reduce greenhouse waste gas emissions, develop management and technological capabilities for natural resource protection and restoration, and contribute to increasing environmental sustainability (Mousa et al., 2020). Few companies understand the importance of green training and development activities for both corporate and environmental protection (Amjad et al., 2021), which may sustain their performance in the market as compared to others. Nowadays, the most difficult challenge for the corporate community is to balance economic prosperity with organizational growth (Pinzone et al., 2019). Besides that, green training sessions involve green teaching of environmental problems in order to enhance the attitudes and behaviours of management and non-managerial employees (Jeruto et al., 2017).

Integrating financial development and change with sustainable performance is another challenge in today's climate (Pinzone et al., 2019). Additionally, in industrial firms, environmental training is needed to change the behaviour of executives and non-administrative employees (Jeruto et al., 2017). To put it another way, GHRM necessitates consistent practices and policies in the areas of human capital in the economic, social and environmental pillars of sustainability (Mousa et al., 2020). Environmental training leads to the greatest increase in employees' environmental interest and the development of a green practices culture inside the organization (Mousa et al., 2020). Employees who have received appropriate environmental training should be aware of environmental management activities in the workplace (Amjad et

al., 2021). Similarly, Arulrajah et al. (2016) discussed the role of green training in improving workers' skills and abilities in order to improve sustainable performance. Green training should be geared towards shifting behaviours and increasing emotional engagement with regard to environmental objectives (Gull et al., 2021). Environmentally friendly embedded training includes not only green-effective measures, but also their integration with performance management systems, which is a green environment strategy (Tang et al., 2018)

Sustainable businesses that offer green training to their workers have much more informed, trained and capable personnel who can carry out the goal of environmental conservation better than their rivals (Oyedokun, 2019). Similarly, reports from an analysis of Spain's car industry show that workers who have received green training are more professionally capable of dealing with environmental concerns, which plays a key role in sustainable performance (Bai et al., 2010). These well-trained and knowledgeable staff allow an organization to come up with new approaches to improve its efficiency while minimizing the detrimental impact of its activities on the community (Mousa et al., 2020). Furthermore, according to a survey of visitor hotels, green preparation makes it easier for workers to participate in socially and environmentally friendly practices (Srivastava et al., 2019). Increased employee participation may contribute to more environmentally friendly organization operations. Finally, a Chinese study found that high-level green training leads to improved environmental efficiency in sustainable organizations (Ji et al., 2012).

Companies should prioritize green training and development because it contributes to organizations' sustainable performance (Yafi et al., 2021). Additionally, green training and development is needed for the effective execution of environmental protection activities (Graves et al., 2018) as well as cleaner manufacturing (Diana et al., 2017). Introducing an environmental strategy in the workplace (Ojo et al., 2019), necessitates employees' experience, awareness and knowledge of all tools and processes; this, in essence, necessitates

environmental management planning in order to promote employee participation and involvement in environmental issues. As a consequence, employee participation is critical for environmental and social responsibility because it encourages employees to commit to environmental goals (Mousa et al., 2020), which is thought to be a key factor in improving EMS outcomes. Employee participation in green programmes can help to structure green priorities, motivations and expertise, resulting in further ways to improve green management (Gull et al., 2021).

A series of programmes known as "green training and development" enables employees to put their knowledge of environmental management into practise and pay attention to environmental issues, both of which are essential for accomplishing environmental objectives (Hameed et al., 2020). Training would improve employees' environmental knowledge, experience and abilities to enhance sustainable performance (Mousa et al., 2020). Through green awareness management, employees can get in-depth training on sustainability that will improve their knowledge, skills, and ability to deal with difficult situations (Gull et al., 2021). Green training encourages all workers to engage in environmental efforts (Srivastava et al., 2019). Dahiya (2020) proposed that comprehensive training connects not only successful learning but evaluations and performance appraisal systems, thus fostering a safe work climate and sustainable performance.

According to Joshi et al. (2020), staff training is one of the main elements in achieving the environmental objectives of a business. A kind of training that allows workers to solve the environmental problems of a business is known as "green training" (Gull et al., 2021). Research conducted by Teixeira et al. (2012) found that green training substantially improves the knowledge, abilities and competence of workers to accomplish environmental objectives more effectively. Previously, various studies have investigated green training as a component of green management practices that has a beneficial impact on workers' environmental protection

behaviours, abilities and competence (Govindarajulu et al., 2004; Jabbour, 2013). As a result of this research, it is suggested that green training be made a mandatory corporate function in order to instil environmentally conscious attitudes and skills in employees. Research supports the possibility that green training will have an effect on sustainable performance and instillation of essential skills and competences among workers.

Environmentally conscious companies who provide green training for their workers have more aware, informed and competent personnel who are more equipped to achieve the sustainable performance goal of environmental protection than their competitors (Gull et al., 2021). The likelihood of involvement in environmentally friendly business operations increases as employees' level of engagement in their work increases. High-level green training is associated with improved levels of EP in businesses that are dedicated to sustainable performance and environmental responsibility (Gull et al., 2021). This is largely due to the fact that green training and development equips workers with the knowledge and skills they need to go beyond environmental efficiency and towards a more resilient future.

Since the 1990s, academics have concentrated their efforts on conceptualizing HRs as well as environmental sustainability (Madsen et al., 2001). Environmental training is a critical component of implementing environmental management initiatives through HRM in the workplace (Jabbour, 2013). Because these two structures develop and expand at the same time, environmental training and environmental management are inextricably connected (Ghouri et al., 2020). According to Gull et al. (2021), environmental training results in the greatest increase in employee care for the environment and the development of a green practice culture inside a business. Workers who have undergone appropriate environmental training, according to Sarkis et al. (2010), may adopt GHRM practices in their workplace. Arulrajah et al. (2016), in a similar vein, emphasized the need for green training to improve employees' knowledge and abilities in order to enhance social, economic and EP. Green management training and

development programmes are crucial for workers to learn green management knowledge and abilities. As a result, green training has a substantial impact on sustainable performance (Renwick et al., 2013). Companies should give ecological problem-solving projects and green tasks to future green managers in order to prepare them for their jobs (Ghouri et al., 2020).

A change effort in sustainable environmental management can be effectively supported by appropriate personnel training and development. Employees may benefit from introductory training programmes that provide them with the required knowledge about environmental management requirements (Fernández et al., 2017). As a consequence, workers may become more aware of the significance of green-friendly working practices and of the steps that must be taken to promote green projects (Ojo et al., 2020), and they may become interested in and driven to participate in green-friendly activities (Kim et al., 2019). Green training is essential in establishing and maintaining a green awareness and culture inside an organization (Opatha et al., 2020). Additionally, green training has been shown to have a significant impact on workers' attitudes towards and participation in environmentally friendly activities (Ojo et al., 2020).

On the other hand, if the green training programme is not designed with appropriate regard to the requirements of the participants and the possible application of the knowledge and skills in the workplace, it may be useless in terms of motivating behaviour (Ojo et al., 2020). Training is critical in providing workers with the skills and information they need to make decisions regarding environmental policies in their own organizations. Therefore, I believe that environmental training will expose workers to important environmental knowledge that may arouse their care for the environment as a result of the training.

Employees' attitudes towards their internal and external environments are significantly improved as a result of green training (Srivastava et al., 2019). Green training helps workers to get a better knowledge of environmentally friendly activities while also clarifying the

organization's environmental motives and goals. The provision of effective and comprehensive green training has the potential to enhance environmental management practices as well as to foster an environment-conscious attitude among employees. In addition, when green leadership is given, workers are more dedicated to the organization's objectives and understand the objectives better. They are aware of the organization's environmental objectives and can see their own contribution to the achievement of those objectives.

Green training not only increases workers' interest in the accomplishment of tasks, but also increases the likelihood of their applying what they have learned in their day-to-day operations; green training also assists them in identifying and reducing waste (Srivastava et al., 2020). When leaders, via green training, offer clear information about what is expected of workers and what frames their green performance, it helps to enhance the decision-making process and increase employee engagement. This encourages employees to adopt modern sustainable performance techniques (social, economic, and environmental) and exhibit ecologically responsible work-aligned behaviour in the workplace (Amjad et al., 2021).

Green professional development should be provided to all workers within a company, not only those associated with environmental departments, as part of a comprehensive training programme. Green training programmes might improve staff understanding and attitudes towards the environment. Employees may benefit from green training programmes if they learn more about monitoring and/or preventing environmental problems, like collecting data on waste and finding the source of pollution, as well as other environmental problems (Saeed, Afsar, Hafeez, Khan, Tahir, & Afridi, 2019). Baumgartner et al. (2014) stressed the importance of facilitating employees to undertake a more effective commitment to global issues, such as by training employees to start caring for the natural surroundings, raising environmental sustainability, and increasing their capability and self-efficacy in dealing with environmental

issues. Green training also allows workers to manage their knowledge, allowing them to participate in green initiatives.

Through green knowledge management, employees may obtain comprehensive green training that will increase their environmental knowledge and skills, as well as their ability to handle challenging environmental management issues (Sammalisto et al., 2008). When companies provide green training, it creates an atmosphere that encourages workers to engage in social, economic and environmental activities (Kjaerheim, 2005). Green training not only comprises entire courses, but also links the courses to assessments and sustainable performance monitoring techniques, making it an excellent way to create an environmentally friendly workplace (Renwick et al., 2013).

2.4.3 GPMC

GPMC raises awareness among workers about the need to improve an organization's sustainable performance (Gilal et al., 2019). When it comes to environmental responsibility, the performance assessment covers all of the activities that are ultimately accountable for the reduction of carbon emissions and that address environmental concerns and regulations. For businesses to sustain better levels of staff performance, they must utilize organization criteria to evaluate resource allocation (Afum et al., 2020). Green evaluations and rewards should be given to workers in terms of their green assessments in order to increase employee involvement and promote environmentally friendly behaviour (Srivastava et al., 2019). Managers should encourage their workers to express their opinions about their workplace and their professional responsibilities with a view to supporting green HRs practices in the workplace. Those in charge of administration should establish objectives for the next year that include the execution of these environmentally friendly ideas as well as an evaluation of the performance of their workers. Green performance evaluations are often assessed based on the quality of the green output (Sharma et al., 2015).

Enhancing an organization EP can, in principle, lead to improved social, economic and EP (Mousa et al., 2020). As a consequence, implementing a green standard and indicator is a top target for improving an organization sustainable performance (Mousa et al., 2020). According to Severo et al. (2017), the indirect green compensation benefits of environmental programmes are sufficient to encourage workers to strive towards green goals. Offering incentives to staff may help an organization boost its overall sustainable performance. Employees may be inspired to engage in green activities rather than destructive behaviour in this manner (Dahiya, 2020). Furthermore, the popularity of incentives results in a high level of satisfaction with the business (Arulrajah et al., 2016).

Sustainable organizations have established EP criteria to assess and evaluate their employees' green results (Mousa et al., 2020). GHRM can develop green work rating standards by establishing environmental management priorities, analysing environmental management actions, and reviewing employees' environmental accomplishments, and factoring this green work into their success and pay records (Dahiya, 2020). Furthermore, in order to enhance their EP, organizations can have daily input on employee success in meeting environmental targets (Arulrajah et al., 2016). According to (Amjad et al., 2021), getting input on employees' green job results will help motivate them and increase their participation in environmental management responsibilities. As a result, the HR department must design an employee performance compensation scheme that incorporates behavioural and technological expertise relevant to environmental sustainability (Ahmad, 2015).

Organizations may enhance their EP and accomplish their environmental objectives by paying and rewarding workers for their green practices and dedication to social, economic and EP (Arulrajah et al., 2016). Green incentives and compensation programmes encourage workers to engage in environmentally friendly behaviour, which may help to enhance the EP (Martins et al., 2021). Ababneh (2021) recommended that HRM develop a compensation

structure that represents the organization's commitment to EP while also highlighting and promoting environmentally friendly behaviour among workers. A corporate commitment to the environment leads to increased employee commitment to the environment, which turns them into more ecologically responsible employees and motivates them to participate in ecological projects (Renwick et al., 2013). To promote green behaviour among employees, employees should be compensated depending on the results of green initiatives carried out inside their respective companies (Renwick et al., 2013). Additionally, green appreciation incentives should be given at all levels of management across the organization for sustainable performance (Arulrajah et al., 2016). Green incentives are designed to provide gratitude and recognition to the most environmentally conscious workers and middle management people who inspire and encourage their subordinates to achieve green performance (Arulrajah et al., 2016; Kapil, 2015). A further suggestion made by Ahmad (2015) is that green incentives may be utilized to encourage green creativity and innovation by offering reward-based possibilities to workers who submit green work ideas that are relevant to their employment.

Sustainable performance is a prerequisite for the use of organizational statistics to evaluate resource consumption and waste. Success in this field also relies on an information system for environmental management to track and monitor resource movement and use (Masri et al., 2017). A organization may create suitable metrics and performance indicators to evaluate its workers' effects and participation in green practices (Ojo et al., 2020). The incorporation into performance management of environmental indicators is a fundamental GHRM technique that allows workers to get timely feedback on their environmental behaviour. An employee may therefore evaluate his/her work individually in relation to the targeted EP. Ojo et al. (2020) said that timely feedback on employee's sustainable performance may encourage the desired behaviour and interests of the employees. Employees change their behaviour in accordance with the main indicators that evaluate their job performance (Ojo et al., 2019).

Creating a compensation system that encourages employees to participate in green behaviour may help both the organization and its environment (Ojo et al., 2020). It is necessary to connect the result of green efforts to an incentive system in order for it to be successful in encouraging green behaviour. As stated by Renwick et al. (2013), participation in green activities may be rewarded in a variety of ways, comprising monetary (bonuses, profit sharing and cash) and non-monetary (recognition, holiday leave credits and awards). It is important that employees' contributions to environmental efforts are acknowledged at all levels of the organization. Incentives may also be extended to line managers who inspire their colleagues to participate in green initiatives, in addition to recognizing people who make substantial contributions to reducing the environmental impact inside the business (Arulrajah et al., 2016; Renwick et al., 2013). At the top levels of management, monetary incentives are often used to encourage workers to engage in green activities and enhance EP (Renwick et al., 2013). Nonetheless, non-monetary incentives, like positive feedback, have been shown to have the greatest effect on encouraging workers to engage in green activities at their places of employment (Handgraaf et al., 2013).

It is anticipated that an efficient incentive system would correctly and fairly compensate workers in accordance with their requirements (Ojo et al., 2020). Negative punishment (such as warnings and suspensions) for employees' failure to engage in green initiatives, on the other hand, may be detrimental when they withdraw from environmental protection or conceal environmental problems. Employees' perceptions of inadequate compensation, on the other hand, may discourage their participation in environmentally friendly activities (Renwick et al., 2013). Integrating environmental activities with promotion (career advancement) and employing incentives to encourage green behaviour, such as recycling and waste management, are other effective approaches for rewarding workers who engage in environmentally friendly activities (Ojo et al., 2019). Rewarding workers for their participation in green training and

involvement efforts may be a good way of encouraging green behaviour, which in turn can have a favourable impact on environmentally sustainable performance.

GPMC is a technique for evaluating employees' performance in the course of their everyday activities in the context of environmental management (Grobelna, 2019). Specific elements of green performance management, such as providing feedback and balancing key performance indicators, have been the subject of recent research efforts (Zhan et al., 2018). According to some researchers, these techniques of evaluating green performance management are ineffective since various companies have varying structural characteristics, and resources that apply similar criteria across enterprises would be arbitrary in their results (Saeed, Afsar, Hafeez, Khan, Tahir, & Afridi, 2019). To be effective, businesses must develop a systematic strategy to implement green performance management. As a consequence, many businesses are placing a high value on creating a uniform green performance management standard. Using green performance indicators, green performance management may provide a set of green criteria for all employees to use in performance evaluations. These criteria include, environmental obligations, carbon emission reductions, and public communication of environmental concerns and policies (Dahiya, 2020).

Hermann et al. (2007) said that the most essential element of green performance management for both managers and workers is performance evaluations, which will have an impact on the process and efficacy of future incentives and pay. As a consequence, all performance measurement systems should have clear green performance measures. Managers' contributions to environmental management are highlighted when their green outcomes are evaluated, which may lead to a greater sense of responsibility for environmental management performance. Defining green goals and holding leaders accountable for their companies' EMS' achievement are critical (Yong et al., 2020). Members who do not meet environmental protection indicators or do not meet green goals may be evaluated on their green performance

outcomes, which is another way to assess green performance (Jackson et al., 2011). Employees who are subjected to suitable negative consequences may be encouraged to adopt more environmentally conscious behaviours and to aim for green objectives in their future employment (Roscoe et al., 2019).

Green rewards and compensation is a framework of financial as well as non-financial incentives intended to attract, retain and encourage employees to make good contributions to environmental goals, based on a strategic approach to reward management (Jabbour, 2013). According to some researchers, non-financial incentives like recognition and praise, as well as green pay and rewards, may be more motivating for workers than financial rewards (Jackson et al., 2011). Incentives and rewards may be more effective than other methods in the HRM system in terms of matching workers' performance with the organization objectives. However, the majority of research concurs that using both monetary and non-monetary incentives together has a greater impact on employee motivation than using just one kind of reward (Renwick et al., 2013). Financial incentives should be paired with non-financial ones, such as travel benefits for going green, tax breaks for going green, and public recognition for going green.

As part of their green travel benefits, employees get paid for their transportation and travel costs. Their carbon footprints may be reduced and their knowledge of social, economic and environmental preservation could be increased if they follow appropriate guidance (Mohamed et al., 2020). Financial incentives like this have been adopted by companies in the United Kingdom, and they have had a major effect on employees' willingness to protect the environment (Haque, 2017). A system of non-financial incentives for employees, such as organization-wide public recognition, paid vacations and gift vouchers, must be established in order to achieve green recognition. These green recognition incentives instil pride in colleagues and are more effective than other kinds of rewards in promoting green behaviour (Roscoe et

al., 2019). Finally, on the basis of the above discussion, it is concluded that GPMC has impact on green attitude, green behaviours, as well as social economic and EP.

2.5 Sustainable performance as a consequence of green HRM practices

Governments, communities as a whole, business owners and customers are committed to sustainable performance (Yong et al., 2020). Measuring the effectiveness of the three main pillars of sustainable performance (social, economic and environmental) (Mousa et al., 2020) will affect an influential estimate of sustainable performance; these three pillars of sustainable performance are evaluated similarly (Svensson et al., 2018). The relation between HRs and environmental sustainability is still being studied by researchers (Oyedokun, 2019). GHRM is regarded as providing good practices for incorporating employees into new programmes, as well as allowing businesses to match GHRM practices with their environmental goals, thus assisting them in achieving environmental sustainability (Haddock-Millar et al., 2016). Furthermore, social performance is a term that relates to the social influence of GHRM activities and is linked to an organization's identity and products based on stakeholder views (Oyedokun, 2019).

Green programmes, according to Dey et al. (2019), assist HR in instilling social responsibility in employees. Martins et al. (2021) discussed the role of GHRMs in fostering sustainable performance, which involves not only environmental concerns but also economic and social success; they also discussed how these programmes would improve employee understanding and promote sustainable practices. Green practices can help an organization in the manufacturing sector keep ahead of the competition by enhancing marketing and financial performance (Centobelli et al., 2019). Today's businesses have a social responsibility to strike a balance between their economic, social and environmental successes (Mousa et al., 2020).

In order to improve the sustainable performance of an organization, green policies and activities such as recycling and waste management must be embraced and implemented.

Furthermore, a better understanding of the position of GHRM in sustainability issues is needed, such as maintaining a green work climate, using resources more effectively, minimizing negative environmental effects to the greatest extent practicable, and including employees in waste reduction (Rayner et al., 2018). Undervaluing environmental impact assessment in underdeveloped countries is a major gap in the research that has been done so far (Amjad et al., 2021). Furthermore, since only a few quantitative studies have been performed in a GHRM context, some GHRM researchers suggest that more in-depth analysis through various organizational functions is required. Cutting-edge research must comprehend GHRM in the context of other operations and cross-functional positions, such as sustainability (Mousa et al., 2020).

The concept "sustainability" can be described as growth that meets current needs without compromising future generations' ability to fulfil their needs (Srivastava et al., 2020). Employee appreciation for environmental priorities and their willingness to overcome predictable problems are aided by a dedication to organizational sustainability (Amjad et al., 2021). GHRM strategies, according to Rangarajan et al. (2011), explicitly demonstrate to existing and future staff that the organization has a solid corporate social policy and values climate and social interests.

Owing to developments in the environment and policies, and to societal pressure for social and environmental accountability, sustainability has become a major concern for many organizations. Executives have put a greater focus on sustainability, and it has been an integral aspect of many companies' corporate priorities (Chouinard et al., 2011). Businesses that concentrate on the appropriate allocation of resources to humans and associated issues such as education, health, income inequalities and poverty levels, are critical to society's sustainable performance (Aggerholm et al., 2011).

In order to be really sustainable, an organization success must be evaluated not just in financial terms, such as profits and investment returns, but also in regard to social, economic and environmental issues (Mousa et al., 2020). Organizational activities, particularly those that are people-oriented, are important for sustainable performance, with an increasing focus on green management. Scholars believe that in the present climate, business companies need a standardized strategic plan that is beneficial to social, environmental and economic development (Mousa et al., 2020).

Generating strategies for social sustainability issues can be seen as a starting point (Mousa et al., 2020), and the sustainability movement can be pushed upward by business. The HRM department is critical in designing market competency, and the teamwork plans and skills that are needed for an organization's path towards sustainability (Bombiak et al., 2018). GHRM provides opportunities for bringing sustainability into the organization's scope of achievement, environmental integrity, and social justice (Van Buren III, 2020). Sustainability ideas should be included in HRM programmes that generate and preserve an organization's employees' long-term economic, environmental and social well-being (Oyedokun, 2019).

The United Nations Sustainable Development Programme has placed a strong focus on the importance of sustainable performance (Elfert, 2019). Initially, the programme's emphasis was on guaranteeing lifelong learning, the most efficient use of available resources and long-term sustainability. However, the emphasis has moved away from what is now being done in each area and towards how it should be done. This is due to the fact that a successful sustainability programme necessitates a greater focus on the soft side of organizational planning. Increased concentration on the future by leaders is required as a result of shifts in strategic planning activities, leadership strategies, decision-making processes, changes in organizational structures and collaborative efforts for the future (Amui et al., 2017).

A high-performing organization is capable of effectively undertaking sustainable performance efforts, which is becoming increasingly important for all businesses (Tariq et al., 2013). There are many different ideas and uses for sustainable performance (Veress et al., 2018). Furthermore, giving beyond financial benefits is becoming a characteristic of being an ecologically friendly organization (Rafiq et al., 2020). As a result, organizational performance has recently emerged as a critical component of the goal of sustainable performance (Falle et al., 2016). Non-environmental destruction has grown in prominence in the field of environmental economics. Furthermore, businesses are obligated under this concept to refrain from abusing limited resources in excess without bearing the associated societal costs (Rafiq et al., 2020). As a result, this perspective on sustainability in research is critical. Many companies are finding it more necessary to conduct their operations in a conscientious and sustainable manner, and, as a result, they are applying their best efforts to improve their EP (Veress et al., 2018). Many businesses fail to adopt environmental policies because they believe that environmental sustainability is just a question of complying with existing environmental laws (Rafiq et al., 2020). They overlook the significance of panel participation and the involvement of the whole value chain system in the execution of environmental policies.

Another view assumes that the strategy for enhancing sustainable performance should shift from a reactionary to a proactive strategic approach, supported by an organizational orientation, with a focus on social, economic and environmental problems (Stadtler et al., 2017). Alani et al. (2018) described sustainable performance as the result of a firm's strategic actions that manage (or do not manage) the firm's effect on the natural environment. Because of this, management literature emphasizes the need to make significant efforts to integrate sustainable performance into the organization's whole process (Rafiq et al., 2020). Recently, academics have focused on an organization's strategic orientation in such a manner that it prioritizes environmental sustainability as an essential component of its operations, which

consumers see as a competitive advantage (Rafiq et al., 2020), rather than on the sustainability of individual products or services. Finally, it should be noted that in the literature, strategic orientation is primarily defined as an organization's general culture. In the end, businesses must decide whether to adopt strategies and orient their organizations, which may guarantee particular processes in management systems and planning where organizations need it (Engert et al., 2016).

EP refers to organizational activities designed to meet and exceed society's environmental expectations in a manner that goes beyond the fundamental rules and regulations. It includes the effect of organizational production processes on the environment and resource use so as to better meet regulatory environmental requirements (Dubey et al., 2015). A number of businesses are currently pursuing various EP methods to gain a competitive advantage (Chaudhary, 2020). EP is an environmental organizational commitment (Mansoor et al., 2021).

Zaid et al. (2020) showed a favourable link between sustainable performance and GHRM. Mishra et al. (2021) suggested that workers may have environmental knowledge from prior employment; they thus assist environmental knowledge development efforts in the current organization. The function of the HR department in promoting such information can thus only be successful if workers are sensitive to environmental concerns. Due to GHRM, individuals are able to perform autonomously by offering new ideas and methods to minimize the impact of their job on the environment (Evangelinos et al., 2015). In addition, green excitement and organizational efforts encourage employees to accomplish the organization's sustainable objectives successfully and effectively (Tariq et al., 2016). The scope of environmental care would mainly rely on staff understanding the importance of fulfilling the green business agenda (Bombiak et al., 2018). The adoption of GHRM standards is thus essential in order to make workers aware of environmental sensitivities (Malik et al., 2020).

2.6 GWCPs as a moderating factor in GHRM practices

Researchers who study corporate environmental sustainability have recently highlighted the significance of promoting GWCPs in the workplace (Ones et al., 2012a; Paillé et al., 2013). The main aim of this research was to see whether employee GWCPs might explain the link between GHRM practices and the textile industry's sustainable performance in Pakistan. The participants in this study were employed in the textile industry. Business policy and employee behaviour, according to previous studies, do not have such a clear correlation (Whitmarsh, 2009). The results of the present study, in my opinion, address the psychological mechanisms that account for the relationship between GHRM practises and organisational sustainability. This is achieved with the creation and testing of a conceptual model that explains how employee perceptions of a green workplace affect the relationship between GHRM practices and the textile sector's sustainable performance.

The TNC (Norton et al. (2014) is the foundation behind the definition of employee GWCPs. TNC explores the degree to which behaviours are viewed as socially appropriate. TNC differs between injunctive norms, which describe permissible habits, and descriptive norms, which represent frequently observed behaviours. Behavioural norms shared by the majority of people are known as descriptive norms (Ghouri et al., 2020). Injunctive values are those established by a society, an organization, a system, or a morality that reflect the majority of people's opinions, whether they agree or disagree with them (Ghouri et al., 2020).

GWCPs are used to create societal standards in organizations. These expectations are described as interpretations of structured organizational policies, mechanisms that convert these policies into tacit orders, encouraged and endorsed attitudes, and usual co-worker acts (Dahiya, 2020). Employee work experience preferences (Tian et al., 2020), espoused beliefs and cultural standards are expressed in individual value-based schemas used to characterize job information (Dahiya, 2020). In the case of the workplace, for example, employees could

be required to follow a number of environmental protection programmes and rules (Kim et al., 2019). Despite this, employees feel they can obey the organization guidelines and practice environmentally responsible actions, resulting in a state of balanced motivation. Furthermore, if employees perceive their colleagues to be environmentally conscious at work, they will assume that this behaviour is natural, and, as a consequence, they may adopt their co-workers' acts and function in a constructive manner towards the group, resulting in autonomous motivational states (Ghouri et al., 2020).

Furthermore, the greater an employee's awareness of an organization's green work climate, the higher the employees' controlled productivity and the greater the desire to act in compliance with the organization's requirements (Dahiya, 2020). Employees who think their colleagues' GWCP is stronger, on the other hand, think their colleagues are more environmentally aware at work (Ghouri et al., 2020). As a consequence, they will be more self-motivated, and they will be more inclined to engage in sustainable behaviour, leading to more successful EGB (Kim et al., 2019).

Employee green attitudes and behaviour are shown to be consistently linked with the workplace environment (Kuenzi et al., 2009). Norton et al. (2015) stated that it is essential to understand EGB and the workplace environment should be investigated in order to understand and support EGB. Employee views of organizational characteristics and behavioural norms inside a business that are related to environmental sustainability are captured by GWCP. TNC helps us to differentiate between colleague climate views, which are related to descriptive norms, and organisational climate perspectives, which are identical to injunctive norms. TNC is the foundation of our uniqueness. If an employee thinks her employer has a positive attitude towards environmental sustainability, the injunctive norm is that the organization promotes environmentally friendly activities. According to Cialdini et al. (1990), injunctive norms could be used to express an organization's official position on the environment and its participation

in environmental policies or initiatives (Norton et al., 2014). When an employee thinks that her colleagues are environmentally aware at work, the descriptive norm is that the organization employees are environmentally sensitive in general. The results of this study agree with previous research that said descriptive norms are what you see other people doing in a way that is sustainable (Goldstein et al., 2008).

The researcher suggests that workers' perceptions of an organization's green work climate represent the organization's injunctive norms, and that such notions moderate the relationship between GHRM practices and sustainable performance, because injunctive norms should be the most predominant when people work on organization tasks (Cialdini et al., 1990). In contrast, I expect that employees will minimize the link between GHRM practices and sustainable performance, which reflects the descriptive standards of the workplace. When employees are not working on tasks assigned by the organization, injunctive norms in the workplace should be given less weight. In these conditions, descriptive standards of what is frequently observed among colleagues should prevail and affect more discretionary kinds of EGB.

2.7 Green behaviours and attitude as mediators

Since employees are the ones who bring the organization green policies and practices into effect, it is important that employers encourage and align employee behaviour with the organization green values, goals and objectives (Chaudhary, 2020). "Green behaviour" refers to people's actions that are more ecologically friendly. Ones et al. (2012a), for example, showed a strong association of green behaviour with sustainability and have lately emphasized the need for encouraging green habits in the workplace (also known as EGB).

EGB is defined as quantifiable employee behaviours that contribute to workplace environmental sustainability objectives (Ones et al., 2012a). Blok et al. (2015) defined EGB as workplace practices aimed at minimizing the negative impacts of employees' activities on the

environment, such as optimizing paper usage, reducing energy waste and correctly recycling items. According to Tian et al. (2020), in-role and extra-role green behaviour, which are both different and complementary to the organization's EP, may be replaced by such green behaviour. In-role green behaviour is described as green behaviour that is required for performing structured activities that are evaluated as part of an employee's performance evaluation, such as reducing paper for copying and recycling appropriately (Rubel et al., 2021). Extra-role green behaviour is described as green behaviour that goes beyond an employee's necessary responsibilities, which is not officially recognized in their performance evaluation (Rubel et al., 2021). Giving suggestions to enhance an organization's environmental performance or encouraging staff to use eco-friendly workplace habits, including shutting off computers and lamps after use or identifying water leaks, are just a few examples of these strategies. Even though it's been said that in-role and extra-role green behaviour have different causes based on how much employees know about when and how to spread EGB at work, many people have said that typical EGB may include both in-role and extra-role green behaviour (Aboramadan, 2020).

The integration of sustainability into corporate activities is more important than previously, and now sustainability is a major organizational activity (Chillakuri et al., 2020; Lopes et al., 2017; Van Buren III, 2020). The increasing awareness of companies of environmental problems is one of the most important developments in sustainability issues (Nejati et al., 2017; Severo et al., 2017; Zawawi et al., 2019). Environmental management organizations may achieve first-class benefits, enabling them to adopt distinguishing methods for differentiation, increase their green image and ensure competitive advantages (Nejati et al., 2017; Wu, Wei, et al., 2018). Usually, firms that are committed to green practises get the benefits of higher employee performance (Hameed et al., 2020; Su et al., 2019). Organizations must promote green employee outcomes to benefit from green possibilities in organizations

(Zibarras et al., 2015). Green behaviours are thus receiving more attention. The importance of workers in addressing environmental issues is widely acknowledged (Kim et al., 2019; Luu, 2019). It is essential for an organization to investigate how the green management of HRs impacts the environmental behaviour of workers, ultimately ensuring sustainable performance (Kim et al., 2019).

GHRM is a significant contributor to an organization's sustainability (Yong et al., 2020). GHRM includes HRM actions that improve good environmental results (Kramar, 2014). It refers to the HRM elements of green management that promote workplace green behaviour (Renwick et al., 2013). Although progress is being made in GHRM and the green behaviour of workers at work (Ojo et al., 2020), current surveys indicate that comprehension of the impact of GHRM on green behaviour is inadequate, especially in empirical investigations (Dumont et al., 2017a; Hameed et al., 2020; Su et al., 2019). This is critical because organisations must understand how GHRM enhances green service behaviour (Al-Ghazali et al., 2021).

I propose that in developing GHRM, many organizations are implementing GHRM only for the purpose of carrying out corporate green goals, and the degree to which the adoption of GHRM improves the green behaviour of workers is never examined. I propose that the EP of an organization depends not only on the use of GHRM, but also on the sustainable performance of workers, such as green behaviour and green attitude. I suggest further that GHRM may have an indirect impact on the green behaviour of workers; I suggest that this is done via the sharing of green knowledge. Previous studies demonstrated that prospective and current parliamentary groupings, financial players, suppliers and (most significantly) employee attitudes to GHRM and understanding of GHRM affect the adoption of GHRM (Stahl et al., 2020). In this respect, GHRM has to meet at least two key conditions: workers' attitudes to and understanding of GHRM. The degree to which workers are aware of GHRM and the benefits of its implementation must be identified (Dumont et al., 2017a). The goal of this study is to

determine the impact of GHRM practices on sustainable performance through mediating role of green attitudes and green behaviour.

First, this research contributes significantly to the GHRM literature. Researchers asked for a deeper understanding of how GHRM supports the green behaviour and green attitude of workers at work (Pham et al., 2019). GHRM is now known to help solicit green behaviour, therefore opening up a new channel for GHRM research and employee findings. Second, this research emphasizes the mediation function of green attitude and green behaviour. GHRM has an effect on employees' green attitudes and behaviour, which in turn has a positive effect on their work (Bhatti et al., 2020). Considering such a connection, I argue that GHRM may impact green attitudes and green behaviour. Previous research showed heterogeneous mediation effects for green behaviour factors (partial mediation and no mediation) (Bhatti et al., 2020). Here I will investigate the nature of the mediation impact of green attitude and green behaviour on textile companies' sustainable performance.

Researchers have looked into the role of green attitudes, and norms in predicting internal effects on EGB (He et al., 2018). Some have used the concept of organizational assistance as an indicator of EGB, while others have used the interpretation of organizational help (Rubel et al., 2021). Researchers are investigating the importance of leadership styles, especially senior management commitment, as antecedent variables of EGB in terms of external influences (Graves et al., 2019) and GHRM (Pham et al., 2020; Saeed, Afsar, Hafeez, Khan, Tahir, Afridi, et al., 2019). GHRM research on EGB, on the other hand, is only in its early stages, and further research is needed to fully comprehend how GHRM affects EGB (Kim et al., 2019). Employee actions must be promoted and aligned with the organization sustainability policies and goals because workers are the ones that put the organization green strategies into practice (Oyedokun, 2019). The acts of people who are environmentally aware are referred to as "green behaviour" (Aboramadan, 2020); for example, they are committed to

environmental sustainability and stress the value of promoting green behaviour in the workplace, which is also known as EGB.

Despite the fact that GHRM has received some attention for its role in helping organizations achieve positive results, it has been claimed that organizational-level outcomes are too far away to assess the real and contextual impact of GHRM practices (Roscoe et al., 2019). As a result, it makes sense to take a closer look at the impact of GHRM innovations on individual-level performance, which serves as a bridge between GHRM and organizational performance (Ababneh, 2021). That being the case, this research looks at green behaviour at the individual and organizational levels in relation to GHRM initiatives.

GWCPs play an intermediary role between GHRM and organizational green behaviours (Likhitkar et al., 2017); GWCPs is a term used to describe how strongly people feel about something (Pinzone et al., 2016). This study reveals a novel underlying mechanism that explains how and why employees display green views at work-employee participation in environmental activities. A wider range of cognitive, attitudinal, and behavioural outcomes may be explained by employee engagement than by other attitudinal factors like job involvement, organisational commitment, and psychological environment since it is more comprehensive (Ababneh, 2021).

Green behaviour is sometimes termed prosocial behaviour (Chou, 2014). In practical terms, such behaviour may be seen as stand-alone and as additional roles (Ramus et al., 2007), where both kinds of behaviour provide value to the organization and lead to increased competitive advantages in the industry. Whether these behaviour are considered to be in-role or extra-role largely depends on the organization and its expectations (Paillé et al., 2013). Many kinds of employment need staff to induce green behaviour. For example, occupations need employees to ensure that dumped toxic fluid does not mix with local water and that dangerous materials are handled and processed in accordance with government policy and organizational

directives. To carry out this kind of work successfully, people must concern themselves with the environment, because green behaviour is recommended in accordance with the nature of the job; such job-related habits may be called green behaviour.

Extra-role or prosocial green behaviour is, however, more moderate. Recommendations can be as simple as enhancing environmental organizational performance by shutting off laptops/computers appropriately instead of leaving them on standby, switching off lamps when unused, and disseminating the same data across people or colleagues in the workplace (Paillé et al., 2013). These behaviours are not explicitly needed for work, but are optional or prosocial responsibilities for workers in environmental preservation. In-role and extra-role behaviours are considered important in achieving green organizational objectives (Norton et al., 2014). The achievement of such objectives may thus be a consequence of GHRM (Jabbour et al., 2016).

Research indicates that GHRM affects the green behaviour and attitude of workers, which has an impact on an organization sustainable performance (Alfes et al., 2013). GHRM may thus potentially influence EGB. For instance, GHRM involves the dissemination of information about the green motivations of an organization and enhances employees' green worth via measures such as GHRM practices (Uyun, 2021). Employees' duties must be connected to environmental commitments; green training methods assist in improving the knowledge, skills and the capacity of staff and they encourage staff commitment to green performance (Pless et al., 2012).

An evaluation of individual green contributions, incentives and green performance promotions may encourage workers to accomplish green goals (Roscoe et al., 2019). The position of workers on why companies choose various GHRM strategies may be debated to determine how and why such policies influence the behaviour of employees (Rubel et al., 2018). Similar to this, an organised and adaptable set of GHRM procedures shows the

organization's staff members' dedication to sustainability and is expected to inspire them to follow the company's green guidelines. Based on research, GHRM may thus be expected to help workers to perform green behaviour and to encourage extra-role green behaviours in service companies.

Individual green behaviours have been suggested to aggregate into a large variety of individual behaviours that represent their function (in accordance with the organization's environmental policy and GHRM efforts) and extra-role (show discretion and additional miles) activities (Ramus et al., 2007). In other words, businesses may, under certain circumstances, adopt a compliance approach. They expect their staff to carry out regular activities that are planned in line with the organization's quality control, power consumption, printing and recycling systems and waste disposal policies. On the other hand, some unforeseen occurrences may need new environmental management techniques. In other words, employees may be obliged to detect hazards in advance, and to contribute and integrate current environmental issues into the creation of leading green initiatives. Extra-role behaviour may range from the wise use of workplace lighting and unbleached paper to conducting independent energy audits and discovering further cost-saving and resource-saving options (Ababneh, 2021).

Similarly, research, such as that conducted by Pham et al. (2019), has created and tested theoretical models that demonstrate direct relationships between a range of GHRM core activities and green workplace behaviour. The impact on organizational results of various GHRM strategies (green hiring, GPMC, green training and employee involvement) has been researched in this field. A traditional Ability, Motivation and Opportunity framework could be used to examine the connection between GHRM and individual green behaviour (Renwick et al., 2013). GHRM methods increase GHRM strategies to strengthen the ability of workers (acquisition of the required skills), their motivation (positive position and willingness to engage in environmental activities) and their opportunities (the possibility for employees to take part

in developing and deciding on green initiatives). GHRM methods include: (a) improving employee skills via green hiring, and training of HRM practices; and (b) raising job performance through compensation and performance management systems that recognize EGB.

A good alignment between the attributes of the firm and its personnel will almost certainly result from the inclusion of environmental ideas and skills in recruiting and selection procedures and practises (Ababneh, 2021). People who share the objectives, vision, and strategic goals of the business will be more likely to be attracted to and hired if green criteria are included in the recruiting and selection process. In turn, this encourages a sense of shared purpose in the workplace and aids employees in achieving long-term success. By improving the skills and abilities of staff, putting in place customized training and development programs, and setting up a learning system that takes into account environmental challenges, environmental knowledge and skills will be improved (Ramus et al., 2007).

Green attitudes and motivation of employees are also determined by the performance and pay systems of an organization (Jabbour et al., 2016). Customizing performance evaluations to highlight the environmental behaviour of employees will enhance their feeling of employment significance and encourage them to apply extra discretion, and to show responsible attitudes and commitment when facing environmental challenges (Grobelna, 2019). Similarly, increased employee commitment may be achieved through modifying reward and incentive systems so that they recognize and strengthen the green activities of employees and the achievement of sustainability goals (Jackson et al., 2011). The evaluation of people's views of fairness and happiness affects the connection between an employee's green performance and the inherent and external incentives of the organization (Pinzone et al., 2019). Finally, it is anticipated that employee participation in green projects and activities would improve both individual and organisational performance (Jabbour et al., 2019).

While many studies have concentrated on the relationship between green behaviour and GHRM, a holistic approach that takes into consideration the general effect of these practices may aid understanding of the contextual factors that affect employees' green behaviours and attitudes (Ababneh, 2021). In this perspective, individual HRM techniques may compete, complement and/or replace one another (Dumont et al., 2017a). GHRM practices are based on a HRM configuration point, which combines the major components of HRM operations with a more intermediate approach (Ojo et al., 2019). The synergistic impact on individual abilities of training, development, recruitment and selection procedures, for example, is influenced by employee motivation and the organization performance management and compensation systems.

HRM affects organizational performance through its effect on employees' green attitudes and behaviour (Saeed, Afsar, Hafeez, Khan, Tahir, & Afridi, 2019). GHRM techniques encourage workers to behave responsibly in order to protect the environment (Cherian et al., 2012). GHRM practices assist employees in improving their environmental awareness and behaviour so that they develop environmentally friendly attitudes in both their personal and professional lives. By incorporating them into greener projects, GHRM encourages employees to engage in eco-friendly activities (Cincera et al., 2013).

GHRM techniques help businesses run in a more environmentally friendly way because they increase productivity, save money, and make the workplace happier (Saeed, Afsar, Hafeez, Khan, Tahir, & Afridi, 2019). GHRM practices that promote environmental sustainability include: establishing green targets, goals, and responsibilities; making new employees aware of the organization's greening efforts and encouraging them to engage in green interpersonal behaviour; providing regular feedback on environmental goals or performance; and recognizing and rewarding employees who go above and beyond their job descriptions (Renwick et al., 2013).

According to many studies, workers who implement green practises are more sustainable for the firm than those who do not (Sharifa, 2020). Qualified employees who are concerned about the environment may contribute significantly to companies' performance. Green attitude and behaviour greatly impact the GHRM–sustainable performance relationship (Malik et al., 2020). GHRM will be promoted at an organization if the HR department follows environmental activities closely; however, the degree to which the HR department focuses on environmental efforts affects the promotion of GHRM. For instance, Mansoor et al. (2021) stated that GHRM and the success of an organization are strongly linked. Nevertheless, green attitude and green behaviour should be regarded as a driving force in the relationship between GHRM and sustainable performance. In addition, Mansoor et al. (2021) emphasized the necessity to identify the impact of GHRM on sustainable performance. Yusoff et al. (2019) examined the strong relationship between GHRM and an organization sustainable performance.

2.8 Textile sector information

Pakistan's textile industry is the country's most significant industry, since it has the longest production chain and contains the greatest opportunities for value addition; this includes cotton ginning, fabric, spinning, dyeing, finishing and ready-to-wear products. About one-fourth of the overall industrial value added of Pakistan comes from this sector, which employs 40% of Pakistan's workforce. In spite of temporary and seasonal fluctuations, the average percentage of textiles in national exports has been about 60% (Finance Division, 2020-21).

2.8.1 Ancillary textile industry

Ancillary textile includes the cotton spinning sector, the cloth sector, the textile made-up sector, the hosiery industry, the readymade garments industry, the towel industry, canvas, synthetic textile fabrics, the woollen industry and the jute industry (Finance Division, 2020-

21). As per the Textile Commissioner's Organization, the ancillary textile industry is briefly described below.

2.8.1.1 Cotton spinning sector

The cotton spinning industry is the backbone of the country. In year 2021, this industry has 517 textile units including 477 spinning units and 40 composite units with 13.41 million spindles and 11.338 million spindles and 198,801 rotors installed and 126,583 rotors in operation, with capacity utilization of 84.55% and 63.67% respectively.

2.8.1.2 Cloth sector

The major issues in the clothing industry revolve around inadequate technology and a shortage of high-quality yarn. There are 9,084 looms installed in cotton textile factories, with 6,384 looms in use. From July-March 2019-2020 to July-March 2020-2021, cotton fabric production rose by 3.02%, but exports dropped by 56.3% in terms of quantity and 8.28% in terms of value.

2.8.1.3 Textile made-up sector

Towels, cotton bags, hosiery, bed-wear, tents and canvas, knitwear and readymade garments, and fashion apparel make up the textile made-up sector, which is a value-added component of the textile industry.

2.8.1.4 Hosiery industry

This industry supports the employment of 210,000 skilled workers and 490,000 unskilled people. A total of 350,000 people work in the linked hosiery industry. As a consequence, this industry employs over a million people directly and indirectly. Knitted apparel, as well as knitted bed linens and stockings, are made from knitted and processed fabrics through this industry.

2.8.1.5 Readymade garment industry

The readymade garment industry has grown to be one of Pakistan's most important small-scale industries. Its products are in great demand both in the United States and abroad. This industry almost totally fills the need for readymade clothing in the area. With a little initial investment, the garment industry is also an effective source of employment for a larger spectrum of users. Different types of readymade garment exports totalled US\$2268.56 million in the first half of financial year (FY) 2021, down from US\$2170.34 million in the first half of FY2020, a decline of 35.94% in quantity but a gain of 4.53% in value.

2.8.1.6 Towel industry

In the organised and unorganised sectors, there are around 10,000 looms for weaving towels, including shuttle and non-shuttle looms. This industry is mostly export-oriented, and its growth is largely dependent on foreign markets. Towel manufacturers are being upgraded in order to provide higher-quality towels.

2.8.1.7 Canvas

This sector has the capacity to create over 100 million square meters of manufacturing space. This sector is also referred to as the raw cotton consumption industry. This high-value-added-goods-producing business has a lot of export potential. Exports account for 60% of output, while local demand accounts for 40%. Tent and canvas-related product exports increased by 8.09% from 30.210 million kg to 32.7660 million kg between July and March of FY2021; they have increased in value by 23.460%.

2.8.1.8 Synthetic textile fabrics

Although silk is a natural fibre, artificial silk is almost entirely made from synthetic materials, with nylon, polyester, acrylic and polyolefin being the main ones. Pakistan has five primary synthetic fibre producers, which together have a total annual capacity of 636,000 tonnes. While being cheaper to make than silk, artificial silk is comparable in appearance. The

country's capacity for artificial silk looms is about 9,000. The value of synthetic textiles delivered between July and March FY2021 was US\$269.20 million, which is up 3.08% from the previous year's US\$261.16 million. The volume of synthetic textile exports decreased by 67.6%.

2.8.1.9 Woollen industry

Carpets and rugs are the primary items produced by the woollen industry. Carpet and woollen exports were reported at US\$540.32 million from July to March 2021, which is a 11.57% decrease from the previous year.

2.8.1.10 Jute industry

Jute sacks and hessian fabric are major products of the jute industry; they are used for the packaging and processing of wheat, rice and other grains. A total of 10 units of the jute industry are working in the country.

2.9 Present study

In the current literature, there are only a few studies that have attempted to investigate the connection among GHRM practices and sustainable performance. Furthermore, little exposure has been given to the mediating and moderating effect of green attitudes, behaviours, and GWCPs on sustainable performance in the literature. As a result, the current study aims to fill a research gap by expanding NRBV theory and theory of planned behaviour to assess the indirect and direct effects of GHRM on sustainable performance in Pakistan's textile sector, which has previously been overlooked.

2.10 Theoretical framework

To resolve environmental issues in the textile sector, organizations must seek the help of both business professionals and academics to develop a mechanism for ensuring sustainable practices. Many organizations face difficulties due to a lack of GHRM expertise and practical

skills, the possibility of failure, and a lack of consistent goals and adequate preparation, despite the fact that certain systems are already being implemented in many countries.

However, maintaining organizational stability has its own set of obstacles and difficulties. The concepts of GHRM and organizational sustainability are combined in this study. The research classifies the current literature using NRBV theory and theory of planned behaviour to show that GHRM practices are critical for environmental protection and organizational sustainability. The study looks into the function of green attitudes, behaviours and GWCPs in mediating and moderating the effect of GHRM (hiring, training and development, and GPMC) practices on organizational sustainability (social, economic and environmental). The theoretical framework model is shown below in Figure 1.

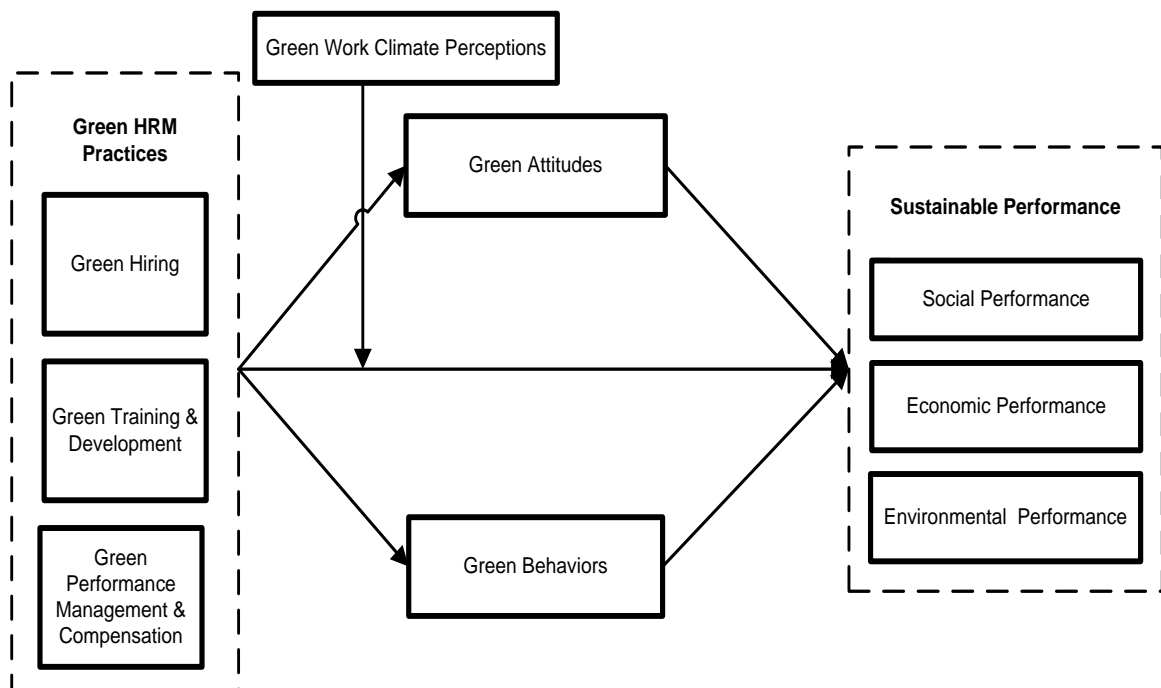


Figure 1. Schematic diagram of theoretical framework

2.11 Study hypotheses

The following hypotheses were formed as a consequence of the presented model:

H1: There is a significant and positive relationship between green hiring and social performance.

H2: There is a significant and positive relationship between green hiring and economic performance.

H3: There is a significant and positive relationship between green hiring and EP.

H4: There is a significant and positive relationship between green hiring and green attitude.

H5: There is a significant and positive relationship between green hiring and green behaviours.

H6: There is a significant and positive relationship between green hiring and GWCPs.

H7: There is a significant and positive relationship between green training and development and social performance.

H8: There is a significant and positive relationship between green training and development and economic performance.

H9: There is a significant and positive relationship between green training and development and EP.

H10: There is a significant and positive relationship between green training and development and green attitude.

H11: There is a significant and positive relationship between green training and development and green behaviours.

H12: There is a significant and positive relationship between green training and development and GWCPs.

H13: There is a significant and positive relationship between GPMC and social performance.

H14: There is a significant and positive relationship between GPMC and economic performance.

H15: There is a significant and positive relationship between GPMC and EP.

H16: There is a significant and positive relationship between GPMC and green attitude.

- H17:** There is a significant and positive relationship between GPMC and green behaviours.
- H18:** There is a significant and positive relationship between GPMC and GWCPs.
- H19:** There is a significant and positive relationship between green attitude and social performance.
- H20:** There is a significant and positive relationship between green attitude and economic performance.
- H21:** There is a significant and positive relationship between green attitude and EP.
- H22:** There is a significant and positive relationship between green behaviours and social performance.
- H23:** There is a significant and positive relationship between green behaviours and economic performance.
- H24:** There is a significant and positive relationship between green behaviours and EP.
- H25:** There is a significant and positive relationship between GWCPs and social performance.
- H26:** There is a significant and positive relationship between GWCPs and economic performance.
- H27:** There is a significant and positive relationship between GWCPs and EP.
- H28:** Green attitude significantly and positively mediates the relationship between green hiring and social performance.
- H29:** Green attitude significantly and positively mediates the relationship between green hiring and economic performance.
- H30:** Green attitude significantly and positively mediates the relationship between green hiring and EP.
- H31:** Green behaviours significantly and positively mediate the relationship between green hiring and social performance.

H32: Green behaviours significantly and positively mediate the relationship between green hiring and economic performance.

H33: Green behaviours significantly and positively mediate the relationship between green hiring and EP.

H34: Green attitude significantly and positively mediates the relationship between green training and development and social performance.

H35: Green attitude significantly and positively mediates the relationship between green training and development and economic performance.

H36: Green attitude significantly and positively mediates the relationship between green training and development and EP.

H37: Green behaviours significantly and positively mediate the relationship between green training and development and social performance.

H38: Green behaviours significantly and positively mediate the relationship between green training and development and economic performance.

H39: Green behaviours significantly and positively mediate the relationship between green training and development and EP.

H40: Green attitude significantly and positively mediates the relationship between GPMC and social performance.

H41: Green attitude significantly and positively mediates the relationship between GPMC and economic performance.

H42: Green attitude significantly and positively mediates the relationship between GPMC and EP.

H43: Green behaviours significantly and positively mediate the relationship between GPMC and social performance.

H44: Green behaviours significantly and positively mediate the relationship between GPMC and economic performance.

H45: Green behaviours significantly and positively mediate the relationship between GPMC and EP.

H46: GWCPs significantly and positively moderate the relationship between green hiring and social performance.

H47: GWCPs significantly and positively moderate the relationship between green hiring and economic performance.

H48: GWCPs significantly and positively moderate the relationship between green hiring and EP.

H49: GWCPs significantly and positively moderate the relationship between green training and development and social performance.

H50: GWCPs significantly and positively moderate the relationship between green training and development and economic performance.

H51: GWCPs significantly and positively moderate the relationship between green training and development and EP.

H52: GWCPs significantly and positively moderate the relationship between GPMC and social performance.

H53: GWCPs significantly and positively moderate the relationship between GPMC and economic performance.

H54: GWCPs significantly and positively moderate the relationship between GPMC and EP.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

Many names are used to indicate methodology in the literature, including approach, technique, method of inquiry, strategy, system and paradigm. In order to develop an association between these expressions, researchers have used a combination of research approaches (quantitative and qualitative), paradigms (interpretive and positivist), investigation approaches (inductive and deductive), study purposes (contextual analysis, experimental investigation) and research methods (survey, questionnaire and experiment) (Pickard, 2013). The third chapter's goal is to go through the research methodology, techniques and tactics that were employed in this study. The research philosophy (interpretive and positivist) as well as the methodological strategies used are discussed in the third chapter (namely quantitative and qualitative). This chapter describes how to do research (i.e., deductive and inductive). Furthermore, the current chapter discusses the study's goals (explanatory, descriptive and exploratory). The researcher will next describe the instruments used in this study, their reliability and validity, factor analysis (FA), Cronbach's alpha, data collection processes and data analysis techniques; this chapter concludes with a chapter summary.

3.2 Philosophy of the research

Ontology is the study of the outcomes of research, while epistemology is the study of how people know them. Axiology is the investigation of how scholars' values affect research, and rhetoric is the language and writing techniques used to examine them (Creswell, 2013). There are various approaches to a researcher's philosophical perspective in the world and techniques for inquiry in multidisciplinary research, such as paradigm, method, mode of inquiry, strategy, technique and approach. Research hierarchies include research paradigms (positivism and interpretivism), research systems (quantitative and qualitative), research strategies (contextual analysis, pilot study, ethics, history research, technology, active research

and grounded theory), research procedures (interviews, surveys and exams) and revision tools (pencil, paper and human, among others) (Pickard, 2013). A paradigm is a collection of interconnected beliefs about a social region that serves as a philosophical and practical framework for investigating that environment (Filstead, 1979). Research is described as a systematic investigation of themes, implying that it is a methodical and deliberate procedure (Gay et al., 2011).

Fellows et al. (2015) explained that research is a "finding journey" aimed at revealing and creating the actuality of the truth. Philosophical assumptions provide the foundation for study and are associated with the researcher's perspective or understanding of what the truth is. Easterby-Smith et al. (2002) stated that epistemology and ontology may encompass such theoretical perspectives. Epistemology, an area of philosophy that deals with knowledge studies, investigates how people understand what they claim to know (Ryan, 2006). In this view, ontology is the researcher's understanding of the current world, or the art of being and presence as described (Easterby-Smith et al., 2002). Several philosophical assumptions have been made about the three ideal paradigms of interpretivism, positivism and pragmatism. The study of reality, or ontology, is related to positivism (Lincoln et al., 2011). Positivism is the study of a single fact that is free of the scholar's own biases and social biases. The purpose of this study is to discover the truth by using a set of consistent common cause and effect criteria. Earlier examples were sought through discussion among research participants as part of the study. The conclusions of the research may be summarized in a few sentences.

Behavioural and social science research has established alternative points of view on previous philosophical assumptions. As a consequence, positivism and interpretivism arose as two independent research streams, each with their own methodological basis. The concepts of positivism and interpretivism are discussed in the next section. Determining a paradigm may

help a researcher choose the philosophical assumptions, technology, tools, people and procedures to utilize in a study (Denzin et al., 2002).

3.2.1 Research paradigms for positivism and interpretivism

A research paradigm is a collection of principles that govern study and practice in a specific sector. The positivist paradigm is described as standardized and quantifiable by academics, whereas the interpretative paradigm is described as constructivist and subjective by professionals. Positivists believe that the world is real and tangible, and that a barrier between the researcher and the subject of the study is necessary to prevent subjective feelings from influencing the research process. Positivists believe in induction, which assumes that all logical attempts begin with perceptions and assumptions (Turyasingura, 2011). Scholars who believe in interpretivism think that the world has a qualitative structure because it is formed by people rather than distant facts (Easterby-Smith et al., 2002). According to Fellows et al. (2015), truth and reality are social constructions that are incompatible with one another. Interpretivism says that the researcher's main job during the research process is to give a general overview of the background of the thing being studied. Positivists believe that exclusive qualitative information is not available and that all data may be assessed. Interpreters think that all information is qualitative.

According to Creswell et al. (2007), the approach to use is determined by the research question being investigated. The positivistic technique is appropriate for this research, if, for example, the goal of the study is to identify variables that impact outcomes, estimate the value of a mediation, identify the best result indicators, and investigate a theory, hypothesis or clarification (Creswell et al., 2007). However, if a concept or idea must be comprehended, an interpretivism approach is suitable (because of the restricted scope of prior research on it). A realist approach configuration is effective when a researcher wants to examine and generalize some phenomena utilizing sequential and transformational methodologies (Creswell et al.,

2007). As a result, the appropriateness of a research design is assessed by how well it accomplishes the goal of the study.

This research uses a positivist paradigm based on quantifiable variables, established theory, statistics, objective reality, and acknowledged and impartial information (Bryman et al., 2015; Creswell, 2013). Sobh et al. (2006) described the techniques of research as practices and methods employed by an investigator to find answers to problems of inquiry. The same is carefully considered in this study to gather data to fulfil the research goals after considering ethics and issues on the ground. Accordingly, this study employed a quantitative approach to research. This method is used in business research to assess both empirical and analytical measures in order to answer research problems (Zikmund et al., 2010).

A descriptive research technique was employed in this study to describe the effects and connections between the studied variables. The impact of GHRM on sustainable performance through the integrating mediating and moderating role of green behaviours, attitudes, and work climate perceptions will be examined in this study, as mentioned in the research questions and hypotheses. According to Orodho (2005), descriptive research is utilized to describe a study's views, such as views of green attitudes, behaviours, and work climate perceptions related to a certain population. This approach was chosen since the research problems of the study were examined using numerical data and a methodological research approach.

3.3 Methodological approaches to research

Qualitative and quantitative approaches to social science research are becoming increasingly widespread, although they are still primarily two distinct forms of study (Creswell, 2013). Quantitative research focuses on numeric relationships among variables, objective evaluations and quantitative analysis in a controlled data collection environment. Quantitative research may be characterized as experimental or non-experimental (Ary et al., 2013). Experimentation is the most exact and intense study technique, and researchers use it to

discover the circumstances and outcomes of their investigation. In non-experimental research, instead of altering the behaviour or location of the participants in a study, every attempt is made to evaluate the real phenomena that are found (Sekaran, 2006). Survey research (if exploratory), link studies and other comparable causal evaluations are examples of non-experimental research. Survey research is used to find the features of different groups, as well as their ideas and thoughts on various topics. A correlation study is used to discover and investigate the characteristics and importance of a relationship between at least two factors in a group of people with similar characteristics (Ary et al., 2013). The aim of causal relative study is to develop the causes or effects of disparities between particular groups.

3.3.1 Qualitative methods

The relevant tactics and procedures for a study are determined by the research challenge and aim (Ghauri et al., 2005). It is widely accepted that qualitative research is a useful method for gaining a thorough understanding of a subject (Bryman et al., 2005). Qualitative research examines and analyses social realities like workplace culture. Interviews are an excellent option since the focus is on other people's feelings and explanations. As opposed to qualitative studies, which tend to emphasize data and estimates of factors, quantitative studies may be used for a wider variety of research topics.

According to Stangor (2014), qualitative research is a descriptive study that monitors and describes events in order to capture the majority of daily activities. Qualitative research is done in a setting that reflects the studied phenomenon (Ngulube, 2009). In quantitative research, the questionnaire is the primary data collection instrument; whereas in qualitative research studies, researchers are the most important data gatherers. Rather than using technology, qualitative researchers use their capacity to comprehend things, their intellect and human relationships to get direct information (Pilsmo, 2010).

Qualitative data can be presented in a narrative framework that attempts to represent the natural environment; field notes, audio or videos may be used as the foundation of qualitative research (Stangor, 2014). Qualitative research utilizes qualitative information such as interviews, reports and observations by the participants, and ethnography in order to better understand and explain social phenomena (Ngulube, 2009). In qualitative research, the facts are given in words along with information about feelings, traits, and states of mind. The focus is on words rather than assessments (Babbie, 2015). Qualitative research tends to underline the notion that social life is a consequence of social connections and interactions and that activity takes place in a social context (Babbie, 2015). In reality, qualitative research frequently focuses on the evaluation of interactions from the perspective of the interactions. One of its major flaws, or drawbacks, is the time-intensive nature of qualitative data collection methods, such as detailed interviews, observations and material tests. Qualitative research is also linked to researchers' preferences. Because of these problems with qualitative research, the quantitative survey technique is valued (Zikmund et al., 2013). Quantitative and qualitative methods complement one another in all cases.

A qualitative method is used to gather detailed data about a certain topic. This viewpoint assumes that a single individual represents a community of people, and that it is critical to comprehend a person's thoughts and sentiments, which the quantitative method overlooks (Creswell, 2013). The people who employ this strategy the most are Interpretivists. Researchers use this method to explain or describe a situation so they can come up with a hypothesis (Newman et al., 1998).

The qualitative method is not suitable for the present study since the aim is to evaluate employees' assumptions regarding motive factors that value sustainable performance as affected by GHRM practices, while the researcher concentrates on a single reality. Consequently, a qualitative approach to this research is not suggested as the purpose of this

study is not to create a theory while to aim is to test the theories. The one constant argument for not using qualitative research is its lack of statistical representation. It is merely a perspective-based research approach, which means that the replies are not quantified (Bell et al., 2015).

3.3.2 Quantitative methods

The researcher in this study confirmed the hypotheses with quantitative research. Research questions and hypotheses are developed based on theory and they are operationalized and elaborated on (Creswell, 2013). In this study, quantitative methods were widely utilized. Stangor (2014) stated that quantitative investigations are descriptive through the use of formal measures of opinions, attitudes, intentions and behaviours. Quantitative research often focuses on measurements in data collection and analysis; outcomes, including numbers, ratios, tables and other formats, may be presented in various ways in quantitative research (Babbie, 2015). Quantitative research requires the use of closed survey methods (Myers, 1997). Quantitative research highlights the need for thorough and comprehensive research, as well as the fact that the conclusions of a small sample should apply to the whole population. In the words of Ngulube (2009), the quantitative data approach is one of the most distinctive characteristics of quantitative research. Research conducted using quantitative methods is more controlled, predictable and methodical than research conducted using qualitative methods (Babbie, 2015; Ngulube, 2009). However, quantitative research has its own set of flaws.

Quantitative research uses evaluation, yet the social dynamics observed in the experiment may not be reproduced in the real world (Weingand, 1993). Data quantity is more important than data quality in quantitative research. The quantitative approach is a logical methodology with roots in positivism (Grinnell Jr et al., 2010); positivists are the most common users of the quantitative approach. This approach concentrates on collecting new data from a large population in line with the research issue and analysing it, but it ignores an individual's

feelings and views, as well as the natural surroundings (Bryman et al., 2007). According to Stangor (2014), the quantitative approach is objective and quantifies by means of tasks and hypotheses, allowing a scientist to describe the facts rather than understand them.

Researchers may use observation to observe and document the conduct of others without having to rely on the activities of respondents (Zikmund et al., 2013). It is possible to conduct both structured and unstructured observations. A structured technique is preferable if the investigator evaluates recommendations for a study topic that has not yet been established and the investigator seeks to infer what is going on in a circumstance (Manning et al., 2007). A study is one of the most frequent quantitative business research approaches in which the researcher purposely asks for answers to several similar questions (Punch, 2013). It is also a research approach in which a questionnaire is used to obtain data from a group of people (Zikmund, 2013). In quantitative studies, the most prevalent methodological approaches are questionnaires and experiments; questionnaire research is usually classified as descriptive research (Manning & Munro, 2007). The last kind of quantitative research approach is secondary data analysis, which makes use of data that was previously gathered and collected for a different project (Zikmund et al., 2013).

In comparison to conventional methods, an electronic or online survey has been argued to offer some advantages; it is considered the most cost-effective and time-efficient technique of data collection (Punch, 2013), and the sample size may be larger (Zikmund et al., 2013). In addition, due to the planned gathering of data and direct selection into a database, probable errors are eliminated and data analysis is simpler (Zikmund et al., 2013). However, the most severe concern raised for website page studies is the possibility of uneven internet access and use (Punch, 2013). A postal survey is a low-cost data collection method that may also be used to contact a large, geographically dispersed sample of people (Zikmund et al., 2013). Additionally, since respondents may react at their leisure without being disturbed, this method

may provide more reliable results. Respondents may also confer with other team members for vital information. Furthermore, by refusing to provide their own sensitive components in postal surveys, respondents can completely control their security and privacy (Bryman et al., 2015). Because of the short time allotted for responses, a long survey would be challenging (Zikmund, 2013). Getting in contact with the right people over the phone might be difficult at times.

Surveys are often used to gather descriptive data and to get the views of a broad group of individuals (Stangor, 2014). Survey research is perhaps best known in the area of library and information science. According to Babbie (2015), it is the best study plan since it uses multiple research methods, enabling it to take advantage of their different features. According to Stangor (2014), questionnaires have been the most frequently used approach for quickly gathering data on a group of individuals.

A self-reported questionnaire was used to collect data from textile organizations for this study. Because surveys are frequently employed in studies with many people as the analytical unit, the researcher considered it acceptable to utilize the survey method in this investigation (Babbie 2015). The most important goal of this research is to give a picture at some point in time of a group of people's ideas, emotions and actions (Stangor, 2014). Because of its demographic, sample size and the restricted research timeframe, it was possible to utilize the survey technique in this study.

Questionnaire examinations are one method by which researchers may verify, reject or improve what they have previously accepted or comprehended. The survey technique is extensively utilized because of its capacity to identify and describe many elements of significant issues that are both relevant and interesting to specific organizations (Chauvel et al., 2002). When engaging with the whole population is not feasible, surveys allow you to generalize results from a sample of respondents to a larger group. In contrast to other research techniques, it also offers immediate and direct findings, enabling researchers and specialists to

react more quickly and professionally (Chauvel et al., 2002). To conduct this research, a self-administered questionnaire survey was used for many reasons, such as cost, time, the availability of research offices, the researcher's abilities, research goals, the respondents' accessibility and quality, and sample design. In addition, the objective of this study is not to develop a theory but to use a technique as a research method.

3.3.3 Mixed methods approach

A mixed strategy is a type of study wherein the expert blends the methods, tactics, concepts or terminology of quantitative and qualitative research into a single study (Waqas et al., 2019). It is a novel approach, unlike qualitative and quantitative methods (Creswell, 2013). The researcher frequently triangulates using both methods in order to ensure that the data obtained by each method is correct, to reduce study failures and to respond to more in-depth research requests (McNeill et al., 2005). Gorman et al. (2005) stated advantages of mixed methods:

- First, the researcher may cover various elements of a single study subject by integrating at least two techniques, enhancing the project's depth.
- Second, the researcher may use techniques from several research paradigms (positivist and interpretivism) to compensate for inherent faults in any methodology (Tan, 2009).

The mixed strategy approach is founded on actual experience, and it prioritizes and gathers many kinds of data in a sequential and simultaneous way in order to better comprehend a study issue (Creswell, 2013). Combining techniques has both advantages and disadvantages, which are widely known. A mixed approach is used to investigate and analyse the feelings and emotions of respondents. It involves interviewing them and then creating a questionnaire to assess qualitatively the hypotheses already made. In the present study, a mixed methods technique is not required since the researcher verifies a theory by testing hypotheses through the gathering of information using a questionnaire.

3.4 Research methods

3.4.1 Inductive method

According to Collis et al. (2013), inductive research is a study in which theories are formulated from an exact real point of view and are thus induced by specific occasions to be extensively interpreted, which is the opposite of the deductive method because it leads from an individual's expertise to statements of common examples or laws. Researchers do not forecast using an inductive method. The induction technique is based on instruments such as interviews. It is used in research when new ideas and hypotheses emerge after collecting and analysing some or all of the data (Robson et al., 2016).

Researchers use the inductive approach when making generalizations or identifying correlations between occurrences based on observations or other confirmations (Duvenage, 2010). This usually follows as a result of prior information or intuition, and the researcher may draw quick conclusions (Krizan, 1999). Inductive reasoning has been used by experts since it was introduced in college classes in the social sciences. Most specialists continue to utilize this strategy, mostly because it is what they are used to and because they have not been educated about different techniques, tools or processes (Collier, 2005). Duvenage (2010) developed the inductive technique, demonstrating that researchers use a two-stage systematic approach. They use intuitive "trends and patterns analysis", which entails identifying repeating behaviour across time and demonstrating that behaviour development or expansion reflects changes in certain universal behaviour aspects.

When patterns are discovered, the meaning of the patterns is established using standards or mental models that have been developed especially for this purpose. The inductive approach provides a lot of space for supposition, belief and emotion (Collier, 2005). Because most inductive studies need systematic methods, they lack a basis for demonstrating the reliability

and validity of their findings. The linearity of the inductive approach may be another problem (Duvenage, 2010).

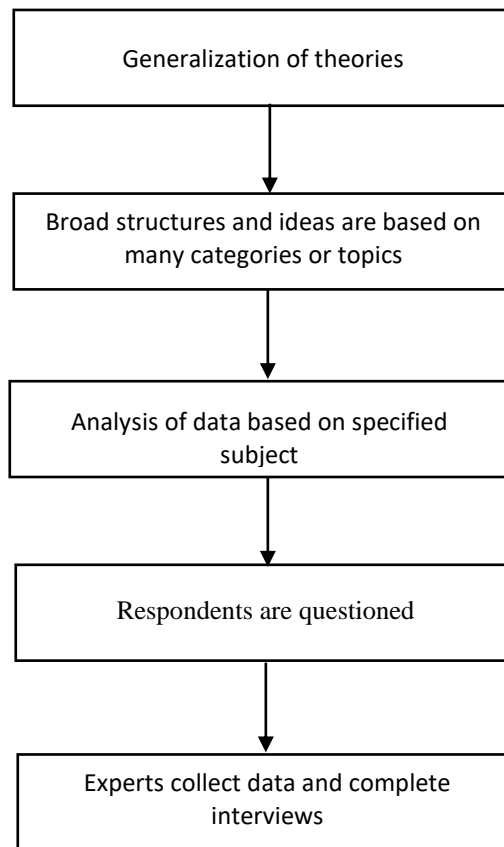


Figure 2. Inductive research logic

Source: Creswell (2013)

3.4.2 Deductive method

In the deductive approach, instruments like surveys and questionnaires are employed. The deductive approach is used in research to look at issues that are highlighted by hypotheses that emerge from theory (Haji, 2006). According to Robson et al. (2016), the deduction procedure has five stages:

- i. Create hypotheses based on the theory.
- ii. Data gathering occurs after hypotheses are presented in the form of operationalization.
- iii. Findings – the outcomes of the hypotheses analysis.
- iv. Acceptance or rejection of ideas based on evidence.

- v. If necessary, revise the theory.

The main distinction between the two approaches is that the deductive technique evaluates hypotheses while the inductive method generates theories (Haji, 2006).

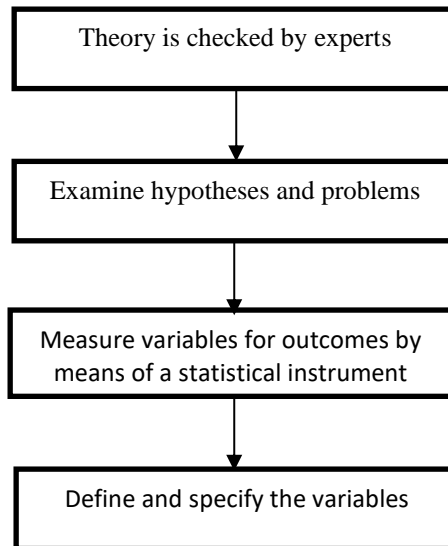


Figure 3. Deductive research logic

Source: adopted from Creswell (2013)

The deductive method is a mode of reasoning in which fundamental concepts are applied to specific circumstances, putting the theory to the test (Krizan, 1999). According to Collis et al. (2013) say that deductive research is a type of study in which a theoretical model and a figure are made, tested, and then specific representations are drawn from general effects. The goal of deductive research is for the researchers to evaluate hypotheses developed from the theory by gathering data from respondents and assessing their responses using various quantitative tests. Since the researcher in this study projected strategies for sharing information that influences sustainable performance, the deductive approach is the logical strategy since it aims to prove a hypothesis (Fraenkel et al., 2012).

3.5 Purpose of the study

Research is a method of investigation that tries to contribute to the current body of knowledge. Essentially, research has three primary goals: explaining how to organise and

identify another problem, to illustrate how a solution to an issue can be developed, and to assess the feasibility of a solution to a given issue by giving empirical evidence. Exploratory, descriptive and causal studies are the three types of business research (Robson et al., 2016; Zikmund et al., 2013).

3.5.1 Exploratory research

An exploratory study is a method for identifying what is going on and collecting information to evaluate events in a new manner, or it can be the first instance of a research study that is intended to enlighten and explain the way a problem is solved (Zikmund et al., 2013). Exploratory research is typically conducted when there is inadequate knowledge about the study subject. A quantitative researcher may use this technique to identify particular ideas, develop hypotheses or operationalize variables. As a consequence, in this exploratory study, hypotheses are generated and assessed. Qualitative research is exploratory in nature, and it gathers information through library searches, contextual analysis, expert advice, interviews, focus group discussions or perceptions (Sekaran, 2006).

3.5.2 Descriptive research

Descriptive research displays "a picture of the particular components of a scenario, social conditions, behaviours, or connections" and is intended to depict the features of a population or phenomena (Zikmund et al., 2013). Neuman (2006) argued that descriptive research is less confusing than exploratory research and requires a more well-thought-out approach. A survey questionnaire was used in the present study, which is the most frequently used research method for this kind of investigation (Bryman et al., 2015). In the context of prior research information, a descriptive study attempts to explain why, where, how, who and when (Sekaran, 2006). The purpose of descriptive research is to learn about the many features of a group or scenario, to be able to assess the components of a situation, to provide resources for future research, and to collect data on potential modifications (Cavana et al., 2001). The

present study employed descriptive research because a questionnaire was used to evaluate the hypotheses.

3.5.3 Explanatory research

The goal of explanatory or causal research is to discover circumstances and cause-and-effect correlations between different variables (Zikmund et al., 2013). It advances exploration and descriptive studies by determining the causes of events and expanding, explaining or testing a concept (Neuman, 2006). An association may be used to understand and forecast the effects of a studied issue after it has been shown (Zikmund et al., 2013). Testing and inquiry are the methodological tools most frequently used in such studies.

3.6 The study population and sample size determination

The term "population" refers to every possible incident that may be part of the research (David et al., 2011). In an ideal world, every group of people or objects has at least one common or equal trait (Busha et al., 1980) or a particular group of individuals that can be studied and characterized (Punch, 2013). Mills et al. (2015) reported that a population is a group of people that an expert or a group is interested in and for whom the researcher wants to generalize the results. According to Connaway et al. (2010), there should be careful evaluation of the selection criteria of the population, as well as of its size and limits. The group from which conclusions must be drawn is the number of inhabitants (population) in the study, or, in other words, every potential instance that may be included in the research (Babbie, 2015).

The target population of the current study consisted of employees at textile mills in Pakistan's Punjab region. According to Pakistan Stock Exchange (2021) statistics, at the time of data collection in July 2021, there were 70 textile mills registered in the Punjab province: 29 textile weaving mills and 41 textile spinning mills. The researcher in the current study included all the weaving and spinning mills (70) in the population as illustrated in Table 1.

Table 1. Textile mills in Punjab

Sector	Strata		Total
	Weaving	Spinning	
Textile weaving and spinning mills	29	41	70

Source: Pakistan Stock Exchange (2021)

A single research project cannot include anything or everything (Punch, 2013). A sample is required in order to carry out the investigation. What people, events, actions or social processes are observed is determined by sampling choices (Blanche et al., 2006). A subset is a small group or area inside a broader population that has been selected for study. Sampling is a technique used to choose which members of a population are worth investigating further (Bryman et al., 2015). Sampling serves two main purposes: it allows professionals to analyse the representativeness of the instances they observe, and it also allows them to assess the degree of confidence in any conclusions drawn from the cases (Silverman, 2016).

Sampling may be used to examine a wider population of items or phenomena as attributes of individual occurrences (Mouton, 1996). Distinguishing between the targeted population and the sample frame is crucial (Mouton, 1996). The targeted population, according to Stangor (2014), may be any collection of individuals or things that have at least one thing in common or that are equal. The "targeted population" can be any group of people or things that have at least one thing in common or that are the same. The "sampling outline" is a plan for how the cases from which a sample will be taken will be set up (Busha et al., 1980). Two criteria must be met in order to achieve a legitimate sample: first, the sample must be representative and illustrative; second, the sample must be adequate, with sufficient trust in the solidity of its attributes; finally, a genuine sample must meet both of these requirements.

Emory et al. (2003) stated that a subset of the population's components may be used to infer generalizations about the population as a whole (i.e., sampling). Probability sampling and

non-probability sampling are two types of sampling (Emory et al., 2003). Complex random sampling, cluster and stratified random sampling, and simple random sampling are all other types of probability sampling. Non-probability techniques include convenient sampling, snowball sampling and purposive sampling. Non-probability sampling is often employed in qualitative research that employs an inductive approach. This research employed a random sampling method. To make sure that the sample is representative of the total population and to exclude factors that may have impacted perceptions that were not expressly taken into consideration during the study (Black, 1999), random sampling is often employed. In probability sampling, all conceivable population components have equal chances of being chosen as a sample. It is better for qualitative researchers to use non-probability sampling since it relies less on the researcher's prejudice to pick the population to be sampled (i.e., this sampling strategy is preferred for qualitative research) (Babbie, 2015). The use of probability sampling allows a researcher to use criteria for projecting the findings of a big statistical study to the whole population from which the sample was drawn.

A method known as stratified random sampling, a kind of probability sampling, was used in this study. This technique of sampling is employed when respondents are chosen at random and building a list of respondents for sample selection is challenging (Babbie, 2015). Punjab has a large textile industry. The target population consisted of middle-level and upper-level management personnel in Punjab's textile industry. Punjab has 70 textile weaving and spinning mills, including 29 weaving mills and 41 textile spinning mills, making it Pakistan's most populated province.

As previously indicated, the population was divided into two categories based on demographics: textile weaving mills and textile spinning mills. Stratified random sampling is used when a study's population is separated into homogeneous subgroups that do not overlap. The term "strata" refers to these subgroups. Education, gender, age, locality and income level

are often included in the demographic section of an inquiry. On a statistical basis, stratification allows the most representative sample to be chosen. Table 1 shows the number of textile mills grouped into each stratum. These textile mills reflect a subset of the target demographic that was selected to ensure that the findings could be applied to the whole population.

As per the Pakistan Stock Exchange (2021) website, the 70 textile mills are listed under weaving and spinning categories. The details of said textile mills are available at Annexure A.

3.6.1 Stage One: sample design and selection

Multi-stage stratified random sample design

Textile weaving mills, Punjab

Textile spinning mills, Punjab

$$N_{11} = 29$$

$$N_{12} = 41$$

$$n_{11} = 05$$

$$n_{12} = 7$$

If the number "N" is equal to or less than 18, the number "n" will be two: $N_{18} = n2$.

If "N" is more than 18 and equal to 23, the value of "n" would be 3. $N_{23} = n3$.

If the number "N" is greater than 23 and equal to 36, the value of "n" will be 5. $N_{36} = n5$

If the number "N" is greater than 36 and equal to 49, the value of "n" will be 7. $N_{49} = n7$

Source: (Bell et al., 2015; Pervez, 2005).

Selection procedure

The researcher divided the population into two strata (weaving and spinning mills), and the following textile mills were selected at random for data collection based on the selection criteria stated above:

Textile weaving mills, Punjab

8, 10, 15, 19, 24

1. Interloop Limited.
2. Azgard Nine Limited.
3. Kohinoor Mills Ltd.
4. Kohinoor Textile Mills Ltd.
5. Nishat (Chunia) Ltd.

Textile spinning mills in Lahore 2, 11, 16, 21, 25, 28, 40

1. Crescent Fibres Limited.
2. Kohinoor Spinning Mills Ltd.
3. Shadman Cotton Mills Ltd
4. Nishat Mills Ltd
5. Zahidjee Textile Mills Ltd
6. Asim Textile Mills Ltd.
7. Masood Textile Mills Ltd.

The researcher personally visited the textile mills in order to get the questionnaire survey forms completed. The survey forms were handed over to the departmental heads and the departmental heads helped the researcher to get the survey forms filled by the respondents. Based on the preceding data, 5 (*n*) textile weaving mills were selected out of 29 (*N*) in Punjab. Similarly, 7 (*n*) textile spinning mills were picked out of 41 (*N*) in Punjab. Because the survey's population (70 textile weaving and spinning mills in Punjab province) was too large, a representative sample (group) was formed to gather data and for generalization (Babbie, 2015). To begin, the researcher created a list of each stratum, then chose textile mills at random from each stratum to gather data from. In the first stratum, textile weaving mills numbered 8, 10, 15, 19, 24 were chosen at random as sample '*n*' in Punjab. Similarly, sample '*n*' was selected from textile spinning mills numbered 2, 11, 16, 21, 25, 28, 40 in Punjab. In multi-stage sampling, it is preferable to draw a large number of samples; each sample becomes the population for the next stage, and the next step collects samples from the current population, which was really a sample from the previous stage. The researcher in this scenario established two strata. As a result of the stratification, 12 textile weaving and spinning mills were selected as samples for the next phase of sampling.

3.6.2 Stage Two: multi-stage sampling

Based on the population's demographic structure, the entire number of middle-level and high-level management employees in Punjab's textile mills is immeasurable. On the other hand, the number of employees at the textile mills in the sample may be counted. This analysis, based on Interloop Limited and Kohinoor Mills Ltd., created a high and low range.

A total of 450 questionnaires were forwarded to 12 textile weaving and spinning mills. Out of 450 surveys, 355 questionnaires were ready for data processing. According to the "Annual Report 2020" of Interloop Limited, the number of workers in this textile mill was 25,378, which is the highest number of workers in the chosen stratum when compared to other textile mills in the sample. In comparison to the other 11 textile mills in the sample, Kohinoor Mills Ltd. had the lowest number of employees, with 1,500 (from its annual report of 2020). It is essential to define the minimal sample size before collecting data in order to perform an effective statistical analysis and generalize the findings to the whole population (McQuitty, 2004; Zikmund et al., 2013).

The sample size may be calculated using a number of methods. To begin with, the sample size should be 306 when the population is between 1 and 1,500, and 379 when the population is between 20,000 and 30,000, according to (Krejcie et al., 1970). If I take each textile mill in the sample as a population for the purpose of selecting employees as a sample, Kohinoor Mills Ltd. has 1,500 employees, whereas Interloop Limited has 25,378. The sample size for each textile mill must be between 316 and 394 as stated below, and the average of these two figures is 355 (The Reseach Advisors, 2006). The lowest sample size that verifies the whole population with a 95% degree of confidence and a margin of error of 0.05 is 355. As a precaution, the researcher raised the number of questionnaires from 316 to 394 and sent roughly 450 questionnaires to 12 textile mills in the sample, treating them as if they were one population.

Multiple studies have been conducted in the last decade that give sufficient justification for selecting 300 as a minimal sample size (Boateng et al., 2015; Chin Wei et al., 2012; Jer Yuen et al., 2007; Sabbir Rahman et al., 2014; Zaqout et al., 2012). Further, Gull et al. (2021); Khan et al. (2021) recently did a research study in which they delivered 750 questionnaires to respondents in order to assess businesses' financial performance. Naz et al. (2020) did another study in which they sent 1,000 questionnaires to respondents. Fawehinmi et al. (2020) distributed 665 questionnaires to respondents to conduct research.

By taking into account the 25,378 population of Interloop Limited in the chosen statistics of the sample and using the method presented by Yamane (1967), it was possible to generate the smallest possible sample, which is given below:

$$n = \frac{N}{1 + Ne^2}$$

Where:

n = the sample size

N = the population of the study

e = level of significance (set at 0.05 in current research)

To determine sample size, the aforementioned formula is used to get the following minimal quantities:

$$n = \frac{25378}{1 + 25378 (0.05)^2}$$

$$n = \frac{25378}{1 + (25378 \times 0.0025)}$$

$$n = \frac{25378}{1 + (63.445)}$$

$$n = \frac{25378}{64.445}$$

$$n = 394$$

Furthermore, if we assume the lowest population in sample statistics to be 1,500 employees at Kohinoor Mills Ltd, we may use the same method presented by Yamane (1967) to determine the sample's minimum size.

$$n = \frac{N}{1 + Ne^2}$$

$$n = \frac{1500}{1 + 1500 (0.05)^2}$$

$$n = \frac{1500}{1 + (1500 \times 0.0025)}$$

$$n = \frac{1500}{1 + (3. +175)}$$

$$n = \frac{1500}{4.75}$$

$$n = 316$$

As a result, the top and lower limits of the sample are 394 and 316, respectively. The minimal sample size that should be gathered is 355 (average of 394 and 316). However, in this study, the researcher sent 450 questionnaires in order to increase the sample size and decrease sampling error (Ary et al., 2013).

Graves et al. (2018) found a way to fulfil the FA standards. According to their recommendations, the sample should be at least five times as large as the total number of items (variable observations) in the research. In the present research, 54 items were utilized. A 5:1 ratio predicts 270 observations (54 × 5). Hoelter (1983) and Garver et al. (1999) recommended a sample size of 200 for structural equation models. Principal component analysis (PCA) requires a sample size of at least 300 (Stevens, 1996). A sample size of at least 10 to 20 times the number of variables is required in order to do statistical analysis (Hair et al., 2011). Coverage error, which represents the sampling's strength, is reduced when a population has the

same representation of each parameter. Sampling error is taken into consideration with a large enough sample size.

3.7 Instrumentation

A questionnaire is a series of self-reporting questions answered at respondents' own discretion, typically without supervision (Stangor, 2014). The most effective method of gathering data from a large group of people is through a questionnaire (Babbie, 2015). Although some of the answers might be disputed, a questionnaire guarantees the privacy of the respondent and increases the possibility of gathering information in a less damaging manner. Surveys also encourage responders to speak honestly about their emotions. Prior studies showed that a questionnaire is frequently used to collect a huge quantity of data, to get real replies from respondents, and to encourage sensitive responses based on the anonymity of the survey (Kucharska et al., 2016; Moghavvemi et al., 2017).

Surveys are conducted using questionnaires to collect huge quantities of data in real time (Babbie, 2015). Keeping the current research goals in mind, data was gathered on factors such as GHRM practices (green hiring, green training and development and GPMC), GWCPs, green attitudes, green behaviours and sustainable performance (social, environmental and economic performance). The survey was split into two sections. The first part of the survey questionnaire included demographic data about participants, such as gender, age and time duration with an employer. The variables cover all items in the second portion of the questionnaire. In order to evaluate the designed conceptual model in the present research, the responses of the students were collected using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree) (Likert, 1932). The specifics of variable measurements are given below.

3.7.1 Operationalization of measures

3.7.1.1 Independent variables

Green hiring: To assess green hiring, seven items were identified, all of which were based on previous research (Malik et al., 2020; Masri et al., 2017; Yusliza et al., 2017). The answers were evaluated using a five-point Likert scale.

Green training and development: Six items were chosen to assess green training and development, all of which were based on previous research (Al Kerdawy, 2019; Dumont et al., 2017a; Nejati et al., 2017; Oyedokun, 2019). The answers were evaluated using a five-point Likert scale.

GPMC: To assess GPMC, a total of five items were selected. All of these were based on previous research (Nejati et al., 2017; Siyambalapitiya et al., 2018; Yusliza et al., 2017). The answers were evaluated using a five-point Likert scale.

3.7.1.2 Moderating variable

GWCPs: Six questions were selected to assess GWCPs, which are all supported by previous research (Norton et al., 2014). The answers were evaluated using a five-point Likert scale.

3.7.1.3 Mediating variables

Green attitudes: To assess green attitudes, seven items were selected, which were all based on previous research (Kautish et al., 2019; Paillé, Chen, et al., 2014). The answers were evaluated using a five-point Likert scale.

Green behaviours: A total of six elements were selected for evaluation of green behaviours, all based on previous research (Boiral et al., 2012; Dumont et al., 2017a). The answers were evaluated using a five-point Likert scale.

3.7.1.4 Dependent variables

Social performance: To assess social performance, a total of five items were selected, all of which were based on previous research (Chow et al., 2012). The answers were evaluated using a five-point Likert scale.

Economic performance: To assess economic performance, six factors were selected, all of which were based on previous research (Chow et al., 2012; Lozano, 2012). The answers were evaluated using a five-point Likert scale.

EP: A total of six items were chosen to evaluate EP, all of which were based on prior research (Chow et al., 2012; Jorge et al., 2015). The answers were evaluated using a five-point Likert scale.

Annexure B contains the complete questionnaire of the present research.

3.8 Instrument validity and reliability through pilot testing

After creating a questionnaire, the questionnaire must be pre-tested. A pilot study to assess the validity and reliability of the instrument is carried out. The main aim of a pilot study is to detect and rectify potential weaknesses in the data collection before the major research takes place (Malhotra, 2008; Polit et al., 2006) and, in most cases, to refine or modify a questionnaire to confirm its validity and reliability before carrying out the main survey (Malhotra, 2008; Polit et al., 2006). The pilot test may also be used to determine the sample size for the main questionnaire and to assess the responses to the questionnaire. Therefore, pilot research is frequently seen as a crucial stage in the creation of survey tools (Green et al., 1988).

When research questionnaires are derived from prior studies and are to be used in new situations, pilot testing is particularly essential (Hair et al., 2011). SPSS 25 has been used to assess a sample questionnaire data collection tool (measuring scale); both Cronbach's alpha and PCA have been used to validate the validity and reliability of a tool. Pilot testing, according to Green et al. (1988), should be done with respondents who are as close to the final group as feasible, and with a high number of respondents, or, to put it another way, the number should reflect the sample size of the main research survey. Additionally, convenience sampling (Hair et al., 2011) is frequently employed to create a pilot test sample with a recommended size of between 12 and 30 people (Hunt et al., 1982) or 25 to 100 (Emory et al., 2003). In this research,

the researcher conducted pilot testing by sending 50 questionnaires to randomly selected textile mills in Lahore and 50 questionnaires to randomly selected textile mills in other cities. To evaluate the instrument's validity and reliability, 100 questionnaires were delivered. Surprisingly, respondents were delighted to be a part of the pilot testing questionnaire distribution, with a 90% response rate (90 questionnaires were received from respondents).

3.8.1 Validity

Validity refers to the accurate measurement of an instrument and the goal for which it was developed (Fraenkel et al., 2012). It refers to the extent to which the results of the research are available and it encourages openness (David et al., 2011). The term "validity" means the degree to which the precise measure accurately represents the real significance of the underlying concept (Babbie, 2015). Validity ensures that the research instrument does not inadvertently measure anything else (Churchill Jr, 1979). An instrument's content and construct validity must be evaluated before it can be used to measure a phenomenon. The researcher in this study used a questionnaire that had been developed and used in countries other than Pakistan; the researcher thought it would be useful to assess the questionnaire's validity.

An instrument's validity may be evaluated from three perspectives: face validity, content validity and construct validity (Smith, 2012). The word "content validity" refers to how well the instrument evaluates the logical connection between the questions it asks. The content and structure of the instrument are referred to as "content validity". It is difficult to determine if the components' content and arrangement include the whole area of the construction being assessed. Content validity is determined as often as feasible by a study of the relevant literature or through interviews with experts on the subject. Following a preliminary review of the literature, questions or instruments are developed to encompass all of the available information in the literature. A subject expert should also be able to assess if the instrument accurately assesses the known content. On the other hand, content validity is insufficient as a measure of

validity due to its subjective nature (Fraenkel et al., 2012; Malhotra, 2008). Construct validity was used to address the issue of content validity, since it provides the most validation.

To ensure face validity, a random sample of textile mills was chosen. Personnel from the textile mills were given the instrument to read and they were asked to remark on their understanding of the instrument; they were asked to consider the items, and the amount of time spent considering their meaning was recorded. Following a thorough investigation and discussions with specialists, several things that were deemed inaccurate were reworded.

The manner in which an instrument evaluates a cognitive concept or set of characteristics is referred to as construct validity (both discriminant and convergent). It examines both convergent and discriminant validity in order to determine how well a concept accounts for variability in people's behaviour or performance in certain activities (Fraenkel et al., 2012). Fiske et al. (1992) defined factorial approaches as those that may be used to determine the convergent and discriminant validity of a group of questions included in an instrument. The most sophisticated approach for measuring validity is concept validity, which quantifies the extent to which each construct contributes to the total variance in the phenomena. Discriminant validity is more difficult to assess than convergent validity, and perspectives on what makes a good technique vary (Fiske et al., 1992). The FA technique is a widely recommended strategy for establishing validity (Babbie, 2015).

This research utilized the PCA method for FA with Varimax rotation to verify that the constructs were one-dimensional and validate the instrument. A PCA is a kind of FA that summarizes the relationships between variables given in a relationship matrix (Manning et al., 2007). PCA picks one component with a value greater than 1.0, a loading of at least 0.40, and no cross-loading of items greater than 0.04 when a variable component calculates a single basic concept (Straub et al., 2004). For better construction calculations, component loadings of more than 0.50 (Hair et al., 2006) or 0.40 (Gerbing et al., 1988) are advised. Any item with low

component loads should be removed from the questionnaire. A score plot is often used to minimize the number of components that may be accepted based on eigenvalues when PCA extracts a significant number of components with eigenvalues greater than 1.0. The relevance of PCA-derived main components (or "dimensions" or "factors") would be assessed using the Varimax pivot (Hair et al., 2006; Manning et al., 2007).

3.8.2 Reliability

Reliability refers to an instrument's capacity to demonstrate how constant the responses are over time (David et al., 2011). Reliability is all about dependability and consistency (Neuman et al., 2012). It is a metric for how repeatable the results are (Blanche et al., 2006). According to Punch (2013), dependability is the fundamental notion in estimation and includes consistency. Furthermore, reliability refers to an instrument's evaluations or answers (reactions) being consistent over time (Fraenkel et al., 2012). Complete reliability, according to Neuman et al. (2012), is difficult to achieve. According to Nunally et al. (1978), four techniques are often employed to evaluate instrument reliability:

- i. The *test–retest technique* involves administering a similar tool to a similar group of people at different times in order to assess response stability and determine whether their responses remain consistent over time. The correlation coefficients of the answers to the questions are calculated after this testing. When the correlation between the responses gathered in the main data collection and those acquired in the previous test is 0.70 then there is a significant positive relationship between the test and retest (Nunally et al., 1978).
- ii. The instrument is initially sent to a sample of respondents after they have completed and returned the surveys using the alternative form approach. The words of the instrument are rearranged in different places, but the substance and meaning of the phrases stay the same. After the alteration, the instrument is given to a new sample that

is equivalent to the prior one. As in the preceding example, a correlation is then processed for both responses. The instrument is considered dependable if the correlation coefficient between the first and second sets of responses is greater than 0.70.

- iii. The *split halves technique* entails dividing a large sample into two halves (splitting halves). Each side receives a reworded instrument. The correlation coefficients are calculated after each instrument has been completed and returned; if they are more than 0.70, then the instrument is deemed reliable.
- iv. The most popular statistical technique for instrument and scale assessment is internal consistency. This method plan demonstrates how well scaled items evaluate the ideas they are intended to measure. Objects that are thought to be capable of measuring one variable should clearly concentrate on that variable, such an assessment is fundamental and essential. Inner consistency is determined using Cronbach's alpha (Cronbach, 1951; Nunally et al., 1978), a measurement of instrument homogeneity. When Cronbach's alpha is high, it is seen as a good sign of reliability in social science research (Nunally et al., 1978): a general rule of thumb for high reliability is 0.70 or above. Cronbach's alpha is a measure of a scale's reliability. The scale is more trustworthy, the greater the alpha.

A deeper examination reveals that the first three of the four techniques listed above contain methodological problems. The test–retest procedure takes time, and repeated testing with the same equipment might reveal flaws in respondents' replies. Although the split-half methodology is susceptible to variation in the various sections of the sample involved, the alternative form method is difficult to direct and time-consuming when it comes to reformulating the items on the instrument. Internal consistency avoids these problems since it just needs a single structure and does not necessitate rephrasing of items. More importantly,

with such an approach, a novel test of reliability may be performed with just one sample. This technique was utilized in the current investigation to assess the instrument's reliability.

Table 2. Demographic profile of respondents

Demographics	Frequency	%
Gender (N = 90)		
• Male	84	93.3
• Female	6	6.7
Age bracket (N = 90)		
• 25 years	6	6.7
• 26–35 years	44	48.9
• 36–45 years	31	34.4
• 46–55 years	9	10

Table 2 indicates that of the 90 pilot survey respondents, 84 (93.3%) are male and 6 (6.7%) are female. Further, 6 (6.7%) employees had an age of up to 25 years, 44 (48.9%) were in the 26 to 35 years' age group, 31 (34.4%) were in the 36 to 45 years' age group and 9 (10%) were in the 46 to 55 years' age group. It is worth mentioning here that no respondent was older than 55 years.

3.8.3 Descriptive summary

Table 3. Questioner item descriptive statistics

Items	N	Minimum	Maximum	Mean	Standard deviation
Green hiring					
GH1	90	1.00	5.00	3.8556	1.20450
GH2	90	1.00	5.00	4.0333	1.12629
GH3	90	1.00	5.00	3.9333	1.14950
GH4	90	1.00	5.00	3.9556	1.08007
GH5	90	1.00	5.00	3.9111	1.14798

Items	N	Minimum	Maximum	Mean	Standard deviation
GH6	90	1.00	5.00	4.0778	.96253
GH7	90	1.00	5.00	4.1667	.97439
Green training and development					
GTD1	90	1.00	5.00	4.1000	.96045
GTD2	90	1.00	5.00	4.0111	1.02216
GTD3	90	1.00	5.00	3.8778	1.13996
GTD4	90	1.00	5.00	4.2111	.97721
GTD5	90	1.00	5.00	4.2333	.87474
GTD6	90	1.00	5.00	4.0111	1.10661
Green performance management and compensation					
GPMC1	90	1.00	5.00	3.8667	1.26491
GPMC2	90	1.00	5.00	3.7889	1.28513
GPMC3	90	1.00	5.00	3.8556	1.22301
GPMC4	90	1.00	5.00	3.9111	1.02381
GPMC5	90	1.00	5.00	3.9444	1.00963
Green work climate perceptions					
GWCP1	90	1.00	5.00	4.0222	.84770
GWCP2	90	1.00	5.00	3.9889	.89310
GWCP3	90	1.00	5.00	3.8444	1.19842
GWCP4	90	1.00	5.00	3.9778	.91157
GWCP5	90	1.00	5.00	3.9222	.98560
GWCP6	90	1.00	5.00	4.0444	.80603
Green attitudes					
GA1	90	1.00	5.00	4.0111	.90559

Items	N	Minimum	Maximum	Mean	Standard deviation
GA2	90	1.00	5.00	4.0222	.84770
GA3	90	1.00	5.00	3.7111	1.03038
GA4	90	1.00	5.00	3.8889	.98807
GA5	90	1.00	5.00	3.8889	1.08560
GA6	90	1.00	5.00	3.7889	1.13667
GA7	90	1.00	5.00	3.9778	.91157
Green behaviours					
GB1	90	1.00	5.00	4.0111	.95393
GB2	90	1.00	5.00	3.8111	1.03744
GB3	90	1.00	5.00	3.7222	1.16144
GB4	90	1.00	5.00	3.8222	1.10746
GB5	90	1.00	5.00	3.8778	1.10999
GB6	90	1.00	5.00	3.9778	1.07031
Social performance					
SO1	90	1.00	5.00	3.9889	1.02216
SO2	90	1.00	5.00	3.9556	.97048
SO3	90	1.00	5.00	3.6889	1.25997
SO4	90	1.00	5.00	4.0667	.87152
SO5	90	1.00	5.00	3.9556	.94704
Economic performance					
ECP1	90	1.00	5.00	3.9778	.94783
ECP2	90	1.00	5.00	3.7111	1.25639
ECP3	90	1.00	5.00	4.1111	.91730
ECP4	90	1.00	5.00	3.8444	1.19842

Items	N	Minimum	Maximum	Mean	Standard deviation
ECP5	90	1.00	5.00	4.0333	1.12629
ECP6	90	1.00	5.00	3.9333	1.14950
Environmental performance					
ENP1	90	1.00	5.00	3.9556	1.08007
ENP2	90	1.00	5.00	3.9111	1.14798
ENP3	90	1.00	5.00	4.0778	.96253
ENP4	90	1.00	5.00	4.1667	.97439
ENP5	90	1.00	5.00	4.0889	.95570
ENP6	90	1.00	5.00	4.0111	1.02216

Source: own calculation through SPSS 25.

Note: GH = Green hiring, GTD = Green training and development, GPMC = Green performance management and compensation, GWCP = Green work climate perceptions, GA = Green attitude, GB = Green behaviour, SOP = Social performance, ECP = Economic performance and ENP = Environmental performance.

Green hiring, GPMC, green training and development, GWCPs, green attitudes, green behaviours, social performance, economic performance and EP were the nine variables used to gather data for the pilot research. There were a total of 54 items used to gauge respondents' reactions. For all aspects of this study, Cronbach's alphas were determined using SPSS 25.

Table 4. Reliability of measurement

Constructs	Valid N	Items	Cronbach's alpha
Green hiring	90	7	.901
Green training and development	90	6	.878
Green performance management and compensation	90	5	.839
Green work climate perceptions	90	6	.904

Green attitudes	90	7	.884
Green behaviours	90	6	.894
Social performance	90	5	.815
Economic performance	90	6	.881
Environmental performance	90	6	.886
Overall reliability (all questions)	90	54	.914

Source: own calculation through SPSS 25.

Each measure of questionnaire reliability is shown in Table 4. Cronbach's coefficient alpha for the agreed sample varies from .815 to .914; green hiring with 90.1%, green training and development with 87.8%, GPMC with 83.9%, GWCPs with 90.4%, green attitudes with 88.4%, green behaviours with 89.4%, social performance with 81.5%, economic performance with 88.1% and EP with 88.6%. This demonstrates that the multi-item construct is very reliable. The strong Cronbach's alpha score for each construct indicates that they have been logically coherent. The questionnaire has a total reliability of 87.96%.

3.8.4 FA

The researcher used FA with the PCA methodology and the Varimax rotation method to validate construct validity (discriminant and convergent validity). Tables 5 and 6 show the results of the PCA. The Kaiser–Meyer–Olkin (KMO) measure of sample adequacy test and Bartlett's test of sphericity are utilized to determine if the data is suitable for FA.

Table 5. Kaiser-Meyer-Olkin test and Bartlett's test

Constructs	No of items	KMO measure of sample adequacy	Bartlett's test of sphericity Chi-square	Bartlett's test of sphericity Significance
Green hiring	7	.842	404.292	.000
Green training and development	6	.858	281.534	.000

Green performance management and compensation	5	.693	292.184	.000
Green work climate perceptions	6	.861	380.492	.000
Green attitudes	7	.817	453.831	.000
Green behaviours	6	.762	375.803	.000
Social performance	5	.756	189.186	.000
Economic performance	6	.774	361.536	.000
Environmental performance	6	.762	328.309	.000

Source: own calculation through SPSS 20.

There are three levels of acceptable KMO values for FA: $KMO = 0.5$; $KMO = 0.6$; and $KMO = 1$. It was later confirmed by Hutcheson et al. (1999), however, that $KMO = 0.5$ and 0.7 were undesirable, whereas $KMO = 0.8$ and 0.9 were considered sufficient, and $KMO \geq 0.9$ was considered to be completely perfect. According to the view of Hinton et al. (2004), the KMO values for all the constructs of the pilot study were adequate: $KMO = .842$ for green hiring, $KMO = .858$ for green training and development, $KMO = .693$ for GPMC, $KMO = .861$ for GWCPs, $KMO = .817$ for green attitudes, $KMO = .762$ for green behaviours, $KMO = .756$ for social performance, $KMO = .774$ for economic performance and $KMO = .762$ for EP. All of the KMO values are demonstrated to meet the basic requirements for further study.

The link between the construct's components was examined using Bartlett's sphericity test. It is assumed that all components in the construct are related if the significance value is less than 0.05 (p -value 0.05). Table 6 shows that all of the constructs have a significance value of less than 0.05 , indicating that the construct's components are related, allowing us to conduct the FA.

Table 6. Eigenvalues and total variance explained

Constructs	Components	Total	Initial eigenvalues	
			Percentage of variance explained	Cumulative percentage of variance explained
Green hiring	Component 1	4.440	63.423	63.423
Green training and development	Component 1	3.803	63.386	63.386
Green performance management and compensation	Component 1	3.047	60.935	60.935
Green work climate perceptions	Component 1	4.223	70.377	70.377
Green attitudes	Component 1	4.179	59.701	59.701
Green behaviours	Component 1	3.927	65.444	65.444
Social performance	Component 1	3.000	59.997	59.997
Economic performance	Component 1	3.774	62.895	62.895
Environmental performance	Component 1	3.879	64.646	64.646

Source: own calculation through SPSS 25.

If a construct's components have an eigenvalue greater than 1, they are called main components and are used for further investigation. All eigenvalues are shown in Table 7, along with the total variance computed for the constructs: green hiring (contains 7 items describing 63.423% discrepancy), green training and development (contains 6 items describing 63.386% discrepancy), GPMC (contains 5 items describing 60.935% discrepancy), GWCPs (contains 6 items describing 70.377% discrepancy), green attitudes (contains 7 items describing 59.701% discrepancy), green behaviours (contains 6 items describing 65.444% discrepancy), social performance (contains 5 items describing 59.997% discrepancy, economic performance

(contains 6 items describing 62.895% discrepancy and EP (contain 6 items describing 64.646% discrepancy).

Table 7. Pilot study

	Items	Loadings
Green hiring		
GH1	Our job positions are designed to emphasize our organization active participation.	.970
GH2	Job positions are designed to focus on a decrease in costs for energy consumption.	.834
GH3	Our organization recruits employees who have knowledge to decrease costs for materials purchasing.	.860
GH4	Job positions are designed to focus on the environmental management aspects of our organization.	.833
GH5	The organization prefers to recruit employees who have knowledge of environment sustainability.	.889
GH6	Environmental performance of the organization attracts highly qualified employees.	.905
GH7	Job seekers are attracted by the environmental image and policies of the organization.	.903
Green training and development		
GTD1	My organization provides employees with green training to promote green values.	.910
GTD2	My organization provides employees with green training to develop employees' knowledge and skills required for green management.	.901

GTD3	Topics offered through green training are modern and suitable for organization activities.	.739
GTD4	Employees who receive green training have the opportunity to apply green knowledge in everyday activities.	.623
GTD5	Evaluation of green training and development helps to measure the employees' level of green knowledge and awareness.	.749
GTD6	Our organization has continuously improved its training and development programmes on environmentally friendly practices.	.795
GPMC		
GPMC1	Specific environmental goals are adopted by every manager and employee in the organization.	.748
GPMC2	When environmental programmes are improved, employees are rewarded for their remarkable ideas.	.766
GPMC3	Employees who have achieved the objectives of environmental sustainability are well rewarded (financially or non-financially).	.720
GPMC4	Section managers reward staff in their departments when they improve environmental programmes.	.759
GPMC5	One of the criteria for employee performance assessment is the achievement of environmental objectives.	.808
Green work climate perceptions		
GWCP1	My organization is interested in preventing the causes of environmental degradation.	.839
GWCP2	My organization believes that it is important to protect the environment.	.799
GWCP3	My organization is concerned with becoming more environmentally friendly.	.976

GWCP4	Our organization is interested in supporting environmental causes.	.855
GWCP5	In our organization, employees pay attention to environmental issues.	.753
GWCP6	In our organization, employees care about the environment.	.762

Green attitudes

GA1	I believe that workplace practices that could improve sustainable performance.	.741
GA2	I encourage my colleagues to adopt more environmentally conscious, sustainable behaviour.	.739
GA3	I make suggestions about ways to protect the environment more effectively.	.807
GA4	I spontaneously give my time to help my colleagues with their jobs.	.854
GA5	I stay informed of my organization green human resource management efforts.	.849
GA6	I believe that green products help to reduce pollution.	.821
GA7	I believe that green products help to save nature and its resources.	.844

Green behaviours

GB1	My organization considers employees' workplace green behaviour in performance appraisals.	.844
GB2	My organization relates employees' workplace green behaviours to rewards and compensation.	.868
GB3	I spontaneously give my time to help my colleagues take the environment into account in everything they do at work.	.726
GB4	I encourage my colleagues to adopt more environmentally conscious behaviour.	.815
GB5	I suggest new practices that could improve the environmental performance of my organization.	.861

GB6 I encourage my colleagues to adopt more environmentally conscious, sustainable behaviour. .849

Social performance

SO1 This organization is helpful for developing economic activities in the community and providing more job opportunities. .807

SO2 This organization communicates the firm's environmental impacts and risks to the public. .828

SO3 This organization protects the claims and rights of local people or the local community. .831

SO4 This organization prioritizes employee and community health and safety. .735

SO5 This organization recognizes and acts on the need to fund the local community. .667

Economic performance

ECP1 This organization sells waste products for revenue. .663

ECP2 This organization reduces costs for waste management for an equal level of outputs. .840

ECP3 Our products and/or services satisfy national and international quality standards. .669

ECP4 We provide our customers with accurate and complete information about our products and/or services. .976

ECP5 We strive to enhance stable relationships of collaboration and mutual benefit with our suppliers. .834

ECP6 Our economic management is worthy of regional or national public support. .860

Environmental performance

ENP1 Our organization reduces energy consumption. .833

ENP2	Our organization reduces waste and emissions from operations.	.889
ENP3	Our organization reduces the risk of environmental accidents, spills and releases.	.905
ENP4	Our organization minimizes the environmental impact of its activities.	.903
ENP5	Our organization reuses and recycles materials.	.916
ENP6	Our organization regularly conducts environmental audits.	.901

Source: own calculation through SPSS 25.

Note: GH = Green hiring, GTD = Green training and development, GPMC = Green performance management and compensation, GWCP = Green work climate perceptions, GA = Green attitude, GB = Green behaviour, SOP = Social performance, ECP = Economic performance and ENP = Environmental performance.

A factor loading value of at least 0.5 is recommended (Straub et al., 2004). Table 7 shows factor loading values ranging from 0.623 to 0.976, indicating that all items have factor loading values greater than 0.05. Due to the above-mentioned reliability and validity findings (both discriminant and convergent), the questionnaire (data collection instrument) produced is considered trustworthy and valid (Hair et al., 2006).

3.9 Procedure for data collection

A self-administered questionnaire was developed based on current research and the study's objectives. In order to elicit answers from respondents, questionnaires need the deployment of a minimum of three resources (time, money and human capital). Because written surveys offer respondents confidentiality, they are the ideal technique for this research (Dillman, 2000; Salant et al., 1994). The first part of the survey asked respondents about their age group, gender, job title and duration of employment with the organization. The second part of the research examined the effects of GHRM practices on sustainable performance through the moderating and mediating functions of GWCPs, green attitudes and green behaviours. The

questionnaire was pilot tested on 100 textile employees in Punjab province. A total of 90 questionnaires were returned with all questions answered; the pre-test response rate was 90%. Despite the fact that the questionnaire is lengthy, owing to the fact that it is a collection of questions from previous instruments, the findings of the pre-test showed that there was no way to reduce the number of items in the questionnaire.

Using the self-administered survey technique, the researcher delivered 450 questionnaires to a sample of textile mills in Punjab province. The objective of getting a high response rate was accomplished due to my vast network of personal contacts in the textile mills; a total of 400 completed questionnaires were returned, which is an extremely high (89%) response rate. Out of 400 questionnaires, 355 valid responses were used and the remaining were discarded due to missing values. According to previous studies, this response rate is good (Babbie, 2015). For better analysis, many statistical methods require a sufficient response rate and number of occurrences. Thus, a high response rate is advantageous (Frohlich, 2002). Employees at textile mills in Punjab province were given questionnaires to complete. As previously mentioned, data was gathered from the textile mills in Punjab province, and the questionnaires were distributed among employees and a contact person was contacted. The questionnaires were sent to individuals who agreed to the research. Most individuals completed and submitted the questionnaire at the time they received it. This explains the incredibly high (89%) response rate. During the surveys, the role of voluntarism was preserved, and the information collected from respondents was kept confidential.

3.10 Data analysis

SmartPLS was used to assess and record the responses to the 400 completed surveys. Because the data came from a self-administered questionnaire, there was no way to verify that all of the items on the questionnaire were filled out properly. However, incomplete questionnaires were excluded from the research.

To analyse all the expected relationships, the researcher employed partial least squares-structural equation modelling (PLS-SEM). PLS-SEM is gaining traction in academia, particularly in the fields of business and green management. PLS-SEM was chosen because it is very resistant to changes in the data, can test complicated reflecting models, and doesn't need any assumptions about how the data is distributed (Peng et al., 2012). Furthermore, due to its highly predictive criteria, partial least squares (PLS) is ideally suited to evaluating causal relationships between constructs. PLS-SEM is better than other covariance-based SEM analytical methods because it can create composite constructs that often include extra theory-based indicator variables and improve both the accuracy and relevance of predictions.

For this reason, the model was checked to determine whether it had any issues with validity and reliability. To evaluate the construct's reliability, Cronbach's alpha and composite reliability were used. The average variance extracted (AVE), the Fornell-Larcker criteria, and cross-loadings were all used to figure out the discriminant validity. To assess construct reliability and validity, several researchers have established measurement criteria thresholds. As previously mentioned, factor loadings should be greater than 0.5 and Cronbach's alphas should be greater than 0.7 (Hair Jr et al., 2017; Yasin, 2021). It is recommended that the composite reliability be more than 0.6 and the AVE be greater than 0.4 (Fawehinmi et al., 2020; Fornell et al., 1981).

A diagram-based method, which was based on (Wright, 1921), was used to generate the term "path coefficients" to investigate the link between multivariate variables. The structural equation modelling (SEM) technique employs route coefficients, which are uniform linear regression weights, to investigate the possibility of a probable correlation between statistical data sets.

3.11 Summary of the chapter

Chapter 3 explains the research approach used to investigate the hypotheses and assess the conceptual model. An explanation of the current study's sampling procedures was presented in this chapter, along with the reason for utilizing a quantitative methodological approach. Other topics covered in this chapter were demographics and sample size, study design, sampling and data gathering methods. Also discussed in this chapter were instrument development and testing, as well as instrument validity and reliability. The last section of the chapter included an overview of the research's data gathering and analysis procedures.

CHAPTER FOUR: ANALYSIS AND RESULTS

This chapter presents an in-depth analysis and interpretation of the data. There is a section devoted to presenting an overview of the respondents' demographics, including mean values, ranges, and standard deviations for each of the several factors taken into consideration. Using the results of the analysis and hypothesis testing, this chapter explains the assumptions made in the conceptual framework.

4.1 Data screening and descriptive statistics

4.1.1 Demographic profile of respondents

A total of 450 questionnaires were given out to various employees in the textile mills of the Punjab province of Pakistan. A high response rate of 89% was achieved with 400 questionnaires returned. Out of 400 questionnaires, 355 valid responses were used; the remaining were discarded due to missing values. Table 8 shows the demographic characteristics of the respondents. This table includes gender, age and length of work experience for all of the respondents.

Table 8. Demographic profile of sample

Demographic variable	Characteristic	Frequency	Percentage (%)
Gender	Male	253	71.3
	Female	102	28.7
	Total	355	100
Age	Under 25	53	14.9
	26 – 35	161	45.4
	36 – 45	87	24.5
	46 – 55	40	11.3
	Above 55	14	3.9
	Total	355	100

Work experience	Less than 2 years	58	16.3
	2 – 4 years	111	31.3
	5 – 7 years	86	24.2
	Above 7 years	100	28.2
	Total	355	100.0

As per Table 8, 253 of the 355 respondents are men, while 102 are women. Of the 355 respondents, 53 (14.9%) are below the age of 25 years, 161 (45.4%) are aged 26–35 years, 87 (24.5%) are aged 36–45 years, 40 (11.3%) are in the age group of 46–55, and 14 (3.9%) are aged above 55. This indicates that the most majority of participants in this research are between the ages of 26 and 35. From 355 respondents, 58 (16.3) have work experience of less than 2 years, 111 (31.3%) between 2 and 4 years, 86 (24.2%) between 5 and 7 years, and 100 (28.2%) above 7 years. The majority of respondents surveyed had 2 to 4 years of experience.

At this point, it is crucial to debate whether the study's sample is typical of the whole population. The 355 individuals from textile mills in Lahore and other cities in the province can be considered an adequate sample size for this research, according to the demographic profile of the population. My research relies heavily on FA, and a sample size of 300 is regarded a decent starting point (Tabachnick et al., 1996). Butkus et al. (1999) added the general rule $N > 50 + 8X$, where N and X are the sample size and number of independent variables in a model, respectively. This study used SmartPLS with a maximum of three independent variables: green hiring, GPMC, and green training and development. Furthermore, a sample size of more than 130 people may be judged sufficient to achieve the necessary statistical significance for the tests (Green, 1991). This indicates that the sample used in my study is representative of the general population.

4.1.2 Descriptive summary

In this study, responses to 54 questions were graded on a Likert scale with a range of one to five. As given in Table 9, the standard deviations of various items vary from .838 to 1.191, while the mean scores of various items range from 3.61 to 4.27.

Table 9. Descriptive statistics of survey items

Items code	N	Minimum	Maximum	Mean	Std. D.
GH1	355	1	5	3.85	.999
GH2	355	1	5	3.86	.973
GH3	355	1	5	3.90	.952
GH4	355	1	5	3.94	.965
GH5	355	1	5	3.97	.948
GH6	355	1	5	3.96	1.005
GH7	355	1	5	3.61	1.191
GTD1	355	1	5	3.86	1.087
GTD2	355	1	5	3.91	1.052
GTD3	355	1	5	3.96	.959
GTD4	355	1	5	3.95	.961
GTD5	355	1	5	3.91	1.038
GTD6	355	1	5	3.93	.997
GPMC1	355	1	5	3.93	1.037
GPMC2	355	1	5	3.95	.973
GPMC3	355	1	5	3.86	1.026
GPMC4	355	1	5	3.92	.977
GPMC5	355	1	5	3.97	1.017
GWCP1	355	1	5	3.96	.931

GWCP2	355	1	5	3.87	.954
GWCP3	355	1	5	3.88	.925
GWCP4	355	1	5	3.96	.921
GWCP5	355	1	5	3.82	.985
GWCP6	355	1	5	3.86	.956
GA1	355	1	5	4.06	.850
GA2	355	1	5	4.06	.838
GA3	355	1	5	3.95	.938
GA4	355	1	5	4.11	.877
GA5	355	1	5	4.06	.926
GA6	355	1	5	4.12	.933
GA7	355	1	5	4.02	.967
GB1	355	1	5	4.10	.943
GB2	355	1	5	3.94	.962
GB3	355	1	5	3.98	.988
GB4	355	1	5	4.11	.928
GB5	355	1	5	4.07	.960
GB6	355	1	5	3.94	.963
SOP1	355	1	5	3.98	.990
SOP2	355	1	5	4.04	.973
SOP3	355	1	5	4.00	.924
SOP4	355	1	5	4.03	.936
SOP5	355	1	5	4.12	.913
ECP1	355	1	5	4.17	.909
ECP2	355	1	5	3.89	1.154

ECP3	355	1	5	4.18	.902
ECP4	355	1	5	4.17	.910
ECP5	355	1	5	4.19	.923
ECP6	355	1	5	4.27	.843
ENP1	355	1	5	3.88	1.075
ENP2	355	1	5	3.91	.954
ENP3	355	1	5	3.93	1.008
ENP4	355	1	5	3.99	.990
ENP5	355	1	5	4.16	.908
ENP6	355	1	5	4.20	.909

Note: GH = Green hiring, GTD = Green training and development, GPMC = Green performance management and compensation, GWCP = Green work climate perceptions, GA = Green attitude, GB = Green behaviour, SOP = Social performance, ECP = Economic performance and ENP = Environmental performance.

4.2 Reliability and validity

To examine all predicted relationships, the researcher used PLS-SEM. PLS-SEM has acquired academic traction, especially in the areas of business and green management (Peng et al., 2012). PLS-SEM was selected because it can test complicated reflecting models, does not require any distributional assumptions, and is highly resilient when dealing with data disturbance. Furthermore, PLS is ideally suited and effective in evaluating causal connections between constructs owing to its highly predictive nature (Ringle et al., 2015). The strength of PLS-SEM is its capacity to construct composite constructs that typically include additional theory-based indicator variables while simultaneously maximising predictive accuracy and relevance in contrast to other covariance-based SEM analytical tools that may remove relevant indicator variables, reducing construct validity.

Before testing for the expected relationships, it was necessary to see whether the model had any concerns with regard to reliability and validity. Cronbach's alpha and composite reliability were used to evaluate the construct reliability. Factor loadings and AVE were also used to evaluate convergent validity. Finally, the Fornell-Larcker criteria and cross-loadings were used to evaluate the discriminant validity of the results. Many academics have proposed evaluating construct validity and reliability through measurement criterion thresholds. As mentioned, Cronbach's alpha should be more than 0.7 and factor loadings should be greater than 0.5 (Hair Jr et al., 2017; Yasin, 2021). Composite reliability should be more than 0.6 and the AVE should be greater than 0.4 (Fawehinmi et al., 2020; Fornell et al., 1981).

4.2.1 Construct reliability and convergent validity

Table 10 displays the results of both Cronbach's alpha and the composite reliability. A careful examination of Table 10 reveals that the Cronbach alpha values were satisfactory in meeting the requirements for measurement (all values were between 0.866 and 0.929). The Cronbach alpha value for green hiring is 0.881, green training and development is 0.913, GPMC is 0.901, GWCPs is 0.921, green attitude is 0.912, green behaviour is 0.929, social performance is 0.882, economic performance is 0.924 and EP is 0.866. The composite reliability values were found to be above the minimum required level (all the values were between 0.900 and 0.945). The composite reliability value for green hiring is 0.910, green training and development is 0.933, GPMC is 0.926, GWCPs is 0.939, green attitude is 0.931, green behaviour is 0.945, social performance is 0.913, economic performance is 0.943 and EP is 0.900. Regarding convergent validity, finally, all the AVE values exceeded the minimum threshold (values were between 0.602 and 0.769). The AVE value for green hiring is 0.627, green training and development is 0.701, GPMC is 0.716, GWCPs is 0.719, green attitude is 0.659, green behaviour is 0.740, social performance is 0.678, economic performance is 0.769 and EP is 0.602. Based on the results, I can say that neither the construct reliability nor the

convergent validity of the model are in question. The Rho-A value of green hiring is 0.881, green training and development is 0.917, GPMCs is 0.901, GWCPs is 0.923, green attitude is 0.914, green behaviour is 0.930, social performance is 0.883, economic performance is 0.925 and EP is 0.877.

Table 10. Measurement model assessment – Convergent validity

Constructs	Cronbach's alpha	Rho_A	Composite reliability	Average variance extracted (AVE)
GH	0.881	0.881	0.910	0.627
GTD	0.913	0.917	0.933	0.701
GPMC	0.901	0.901	0.926	0.716
GWCP	0.921	0.923	0.939	0.719
GA	0.912	0.914	0.931	0.659
GB	0.929	0.930	0.945	0.740
SOP	0.882	0.883	0.913	0.678
ECP	0.924	0.925	0.943	0.769
ENP	0.866	0.877	0.900	0.602

Note: GH = Green hiring, GTD = Green training and development, GPMC = Green performance management and compensation, GWCP = Green work climate perceptions, GA = Green attitude, GB = Green behaviour, SOP = Social performance, ECP = Economic performance and ENP = Environmental performance.

A graphical representation of Cronbach's alpha is shown in Figure 4, in which variables are presented on the horizontal side and values against each variable are shown on the vertical side. The threshold value of Cronbach's alpha is 0.70. Figure 4 shows that all values of Cronbach's alpha are within 0.866 and 0.929, which satisfied the requirement.

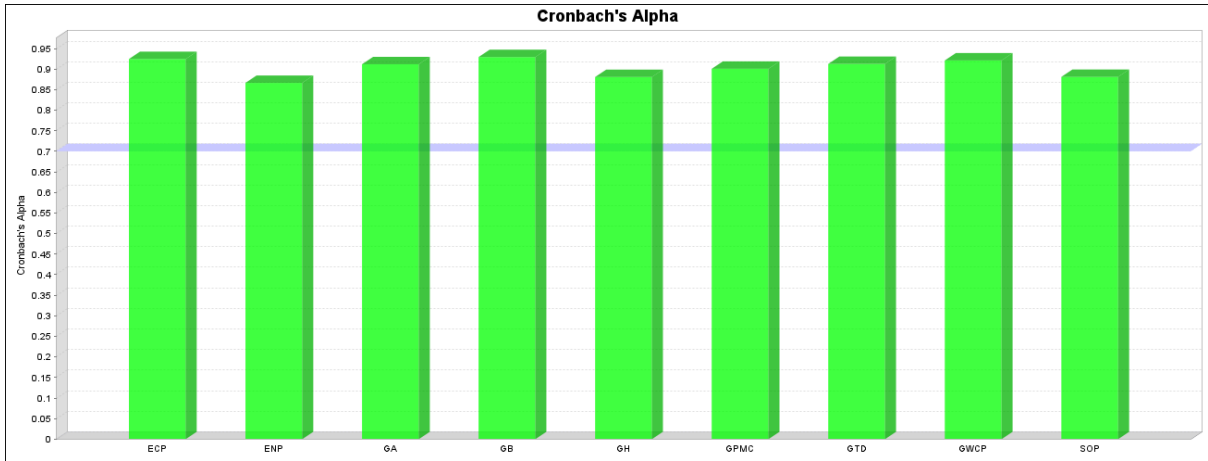


Figure 4. Graphical representation of Cronbach's Alpha

A graphical representation of rho-A is shown in Figure 5, in which variables are presented on the horizontal side and values against each variable are shown on the vertical side. Figure 5 shows that all values of rho-A are between 0.887 and 0.930, which satisfied the requirement.

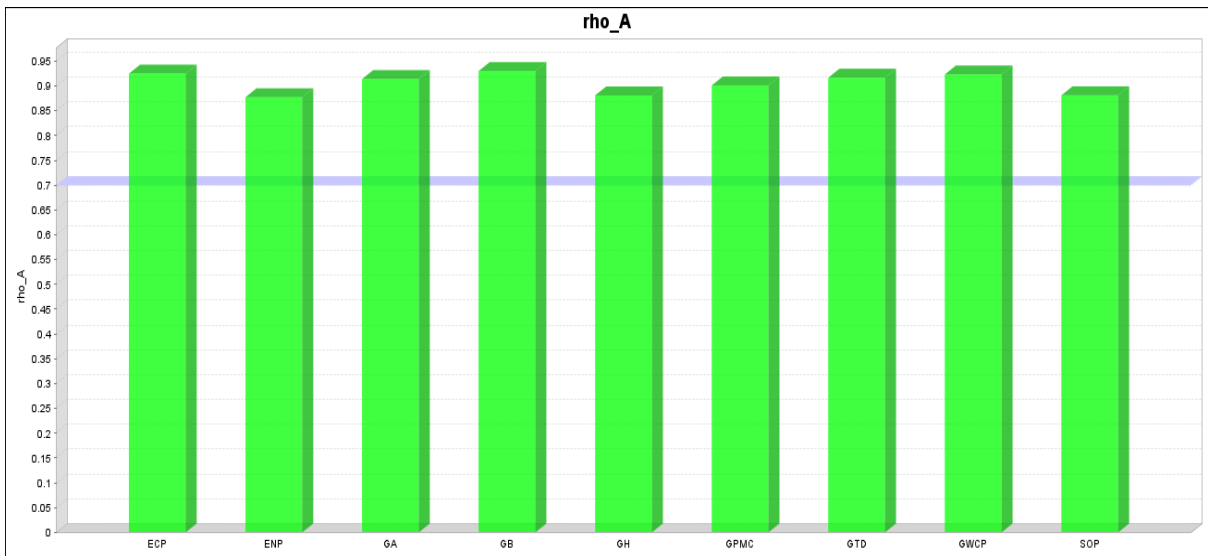


Figure 5. Graphical representation of Rho-A

A graphical representation of composite reliability is shown in Figure 6, in which variables are presented on the horizontal side and values against each variable are shown on the vertical side. The threshold value of composite reliability is 0.6. The minimum value of

composite reliability is 0.900 and the maximum value is 0.945. Figure 6 shows that all values of composite reliability are between 0.900 and 0.945, which satisfied the requirement.

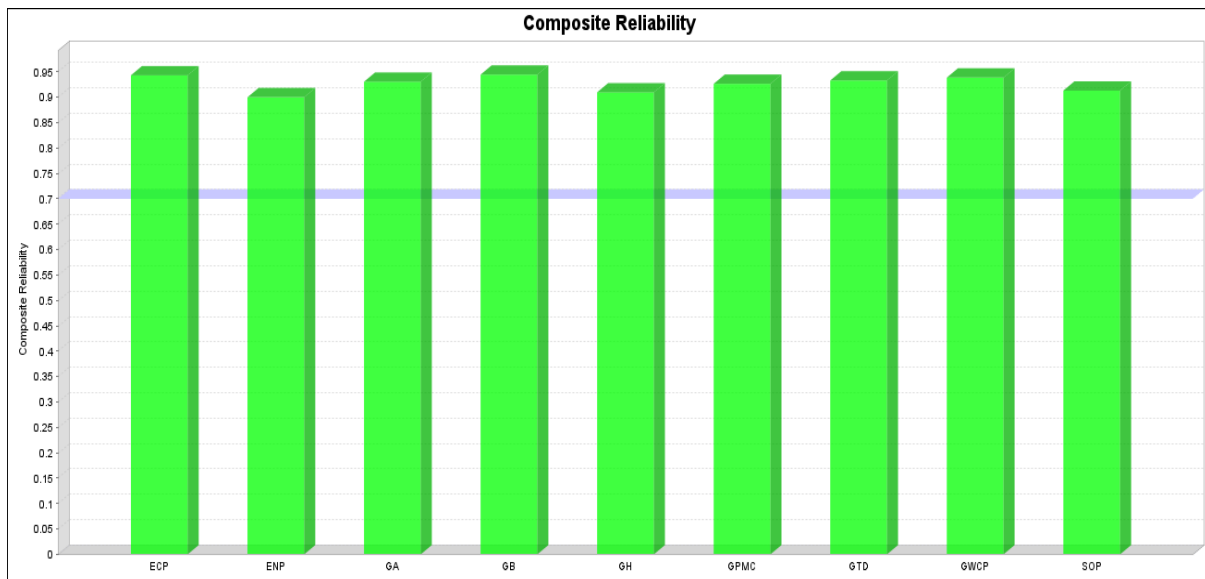


Figure 6. Graphical representation of Composite reliability

A graphical representation of AVE is shown in Figure 7, in which variables are presented on the horizontal side and values against each variable are shown on the vertical side. The threshold value of AVE is 0.40. The minimum value of AVE is 0.602 and the maximum value is 0.769. Figure 7 shows that all values of AVE are between .602 and .769, which satisfied the requirement.

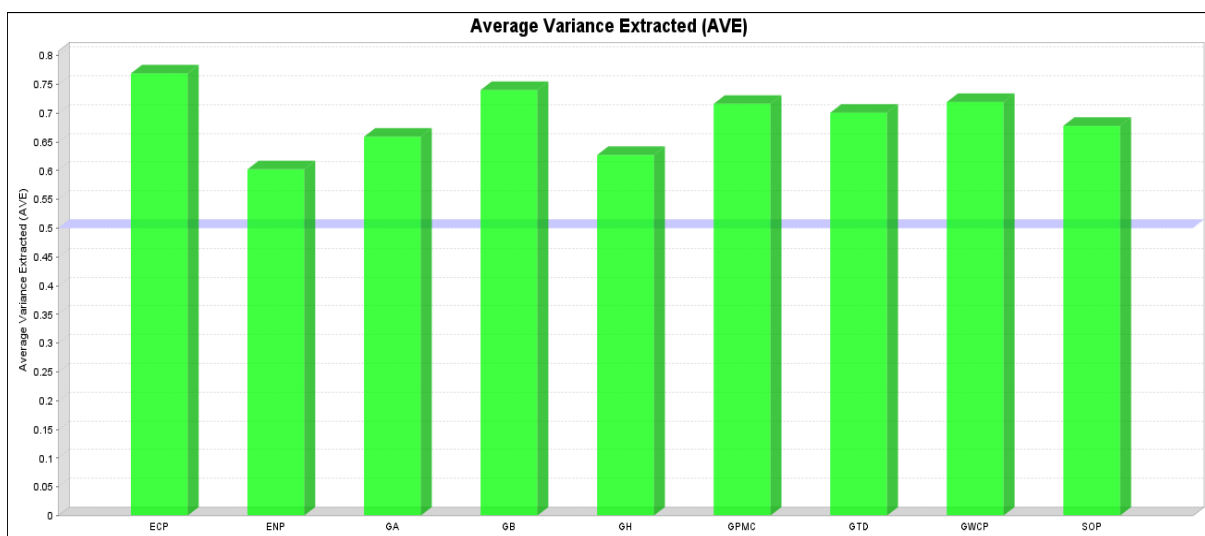


Figure 7. Graphical representation of Average variance extracted (AVE)

Table 11 shows that the factor loadings were within acceptable ranges (between 0.653 and 0.932). Factor loading values against each construct of green hiring: GH1 is 0.794, GH2 is 0.805, GH3 is 0.829, GH4 is 0.800, GH5 is 0.784 and GH6 is 0.737. The last item GH7 of the green hiring variable was deleted due to the lower factor loading value. Values for green training and development: GTD1 is 0.825, GTD2 is 0.932, GTD3 is 0.760, GTD4 is 0.792, GTD5 is 0.927 and GTD6 is 0.768. Values for GPMC are: GPMC1 is .855, GPMC2 is 0.817, GPMC3 is 0.884, GPMC4 is 0.842 and GPMC5 is 0.832. Values for GWCPs: GWCP1 is 0.895, GWCP2 is 0.866, GWCP3 is 0.798, GWCP4 is 0.893, GWCP5 is 0.762 and GWCP6 is 0.867. The values for green attitude: GA1 is 0.898, GA2 is 0.899, GA3 is 0.828, GA4 is 0.772, GA5 is 0.811, GA6 is 0.774 and GA7 is 0.677. The values for green behaviour: GB1 is 0.903, GB2 is 0.867, GB3 is 0.815, GB4 is 0.902, GB5 is 0.807 and GB6 is 0.862. The values for social performance: SOP1 is 0.797, SOP2 is 0.832, SOP3 is 0.841, SOP4 is 0.835 and SOP5 is 0.811. The values for economic performance: ECP1 is 0.907, ECP3 is 0.849, ECP4 is 0.919, ECP5 is 0.875 and ECP6 is 0.831. The value of item ECP2 was deleted due to the lower value of factor loading. The values for EP are ENP1 is 0.819, ENP2 is 0.811, ENP3 is 0.847, ENP4 is 0.807, ENP5 is 0.653 and ENP6 is 0.700.

Table 11. Factor loadings

Constructs	Construct items codes	Factor loadings
Green hiring	GH1	0.794
	GH2	0.805
	GH3	0.829
	GH4	0.800
	GH5	0.784
	GH6	0.737
	GH7	—
	GTD1	0.825

Green training and development	GTD2	0.932
	GTD3	0.760
	GTD4	0.792
	GTD5	0.927
	GTD6	0.768
	Green performance management and compensation	GPMC1
GPMC2		0.817
GPMC3		0.884
GPMC4		0.842
GPMC5		0.832
Green work climate and perception	GWCP1	0.895
	GWCP2	0.866
	GWCP3	0.798
	GWCP4	0.893
	GWCP5	0.762
	GWCP6	0.867
Green attitude	GA1	0.898
	GA2	0.899
	GA3	0.828
	GA4	0.772
	GA5	0.811
	GA6	0.774
	GA7	0.677
Green behaviour	GB1	0.903
	GB2	0.867
	GB3	0.815
	GB4	0.902
	GB5	0.807
	GB6	0.862
Social performance	SOP1	0.797
	SOP2	0.832
	SOP3	0.841

	SOP4	0.835
	SOP5	0.811
Economic performance	ECP1	0.907
	ECP2	–
	ECP3	0.849
	ECP4	0.919
	ECP5	0.875
	ECP6	0.831
Environmental performance	ENP1	0.819
	ENP2	0.811
	ENP3	0.847
	ENP4	0.807
	ENP5	0.653
	ENP6	0.700

Note: GH = Green hiring, GTD = Green training and development, GPMC = Green performance management and compensation, GWCP = Green work climate perceptions, GA = Green attitude, GB = Green behaviour, SOP = Social performance, ECP = Economic performance and ENP = Environmental performance.

4.2.2 Discriminant validity

For the assessment of discriminant reliability, the Fornell–Larcker criteria and cross-loading examination were used (Henseler et al., 2015). As indicated in Table 12, the results of the Fornell-Larcker criteria with the model validate this criterion. Discriminant validity is crucial to assessing the dissimilarity across measuring instruments of various components, where the square root of the AVE should be higher than other constructs' correlations (Fornell et al., 1981). Discriminant validity is helpful in obtaining the measurement error. It is used to adjust the attenuation, which helps to identify whether the ideas are connected or unrelated.

Table 12. Fornell–Larcker criterion

	1	2	3	4	5	6	7	8	9
Economic performance	0.877								
Environmental performance	0.734	0.776							
Green attitude	0.586	0.618	0.812						
Green behaviour	0.582	0.572	0.689	0.860					
Green hiring	0.461	0.692	0.583	0.513	0.792				
Green performance management and compensation	0.527	0.707	0.599	0.583	0.674	0.846			
Green training and development	0.482	0.700	0.582	0.565	0.717	0.791	0.837		
Green work climate perceptions	0.589	0.678	0.649	0.548	0.610	0.683	0.654	0.848	
Social performance	0.695	0.633	0.632	0.682	0.514	0.556	0.536	0.552	0.823

Based on Wright (1921), a diagram-based approach was used to investigate the relationship between multivariate variables, from which the “path coefficients” were created as shown in Figure 8. Path coefficients are uniform forms of linear regression weights that are employed in the SEM technique to investigate the potential connection between statistical data. The perceived values of the route coefficient that indicate the presence or non-existence of connections are shown in Table 13. Green hiring demonstrated a non-significant relationship with social and economic performance ($\beta = 0.067$, $M = 0.066$, $SD = 0.049$, $t = 1.369$ and $p = 0.172$; $\beta = 0.015$, $M = 0.012$, $SD = 0.058$, $t = 0.261$ and $p = 0.795$). Therefore, H1 and H2 were empirically not supported. Green hiring, on the other hand, had a significant relationship with EP, green attitude, green behaviour and GWCPs ($\beta = 0.158$, $M = 0.155$, $SD = 0.047$, $t = 3.363$ and $p = 0.001$; $\beta = 0.278$, $M = 0.281$, $SD = 0.057$, $t = 4.853$ and $p = 0.000$; $\beta = 0.150$, $M = 0.154$, $SD = 0.059$, $t = 2.530$ and $p = 0.012$; $\beta = 0.205$, $M = 0.207$, $SD = 0.060$, $t = 3.429$ and $p = 0.001$). Hence, H3 to H6 were supported. The results showed that green training and development had no significant relationship with social and economic performance ($\beta = 0.028$,

$M = 0.030$, $SD = 0.054$, $t = 0.523$ and $p = 0.601$; $\beta = -0.043$, $M = -0.036$, $SD = 0.059$, $t = 0.721$ and $p = 0.471$). Therefore, H7 and H8 were not supported. Whereas, green training and development had a positive and significant relationship with EP, green attitude, green behaviours and GWCPs ($\beta = 0.434$, $M = 0.437$, $SD = 0.057$, $t = 7.617$ and $p = 0.000$; $\beta = 0.154$, $M = 0.149$, $SD = 0.069$, $t = 2.232$ and $p = 0.026$; $\beta = 0.203$, $M = 0.198$, $SD = 0.065$, $t = 3.095$ and $p = 0.002$; $\beta = 2.202$, $M = 0.200$, $SD = 0.057$, $t = 3.572$ and $p = 0.000$). Therefore, H9 to H12 were supported. H13 to H15 were not supported as GPMC had non-significant relationships with social, economic and EP ($\beta = 0.071$, $M = 0.069$, $SD = 0.052$, $t = 1.356$ and $p = 0.176$; $\beta = 0.097$, $M = 0.094$, $SD = 0.066$, $t = 1.473$ and $p = 0.141$; $\beta = 0.051$, $M = 0.052$, $SD = 0.053$, $t = 0.947$ and $p = 0.344$). H16 to H18, on the other hand, were supported because GPMC had a positive and significant relationship with green attitude, green behaviours and GWCPs ($\beta = 0.290$, $M = 0.293$, $SD = 0.053$, $t = 5.436$ and $p = 0.000$; $\beta = 0.322$, $M = 0.325$, $SD = 0.058$, $t = 5.581$ and $p = 0.000$; $\beta = 0.385$, $M = 0.383$, $SD = 0.051$, $t = 7.539$ and $p = 0.000$). Green attitude had a positive and significant relationship with social, economic and EP ($\beta = 0.192$, $M = 0.195$, $SD = 0.055$, $t = 3.493$ and $p = 0.001$; $\beta = 0.181$, $M = 0.184$, $SD = 0.059$, $t = 3.052$ and $p = 0.002$; $\beta = 0.090$, $M = 0.092$, $SD = 0.039$, $t = 2.300$ and $p = 0.022$). Therefore, H19 to H21 were supported. Green behaviour has significant relationship with social performance and economic performance. Thus, H22 and H23 were supported. On the other hand, green behaviour did not have a significant relationship with EP ($\beta = 0.060$, $M = 0.059$, $SD = .043$, $t = 1.404$ and $p = 0.161$). Therefore, H24 was not supported. GWCPs had a positive and significant relationship with social, economic and EP ($\beta = 0.098$, $M = 0.095$, $SD = 0.042$, $t = 2.338$ and $p = 0.020$; $\beta = 0.280$, $M = 0.274$, $SD = 0.056$, $t = 5.037$ and $p = 0.000$; $\beta = 0.172$, $M = 0.170$, $SD = 0.050$, $t = 3.464$ and $p = 0.001$). Hence, hypothesis H25 to H27 were supported and acceptable.

Measurement model

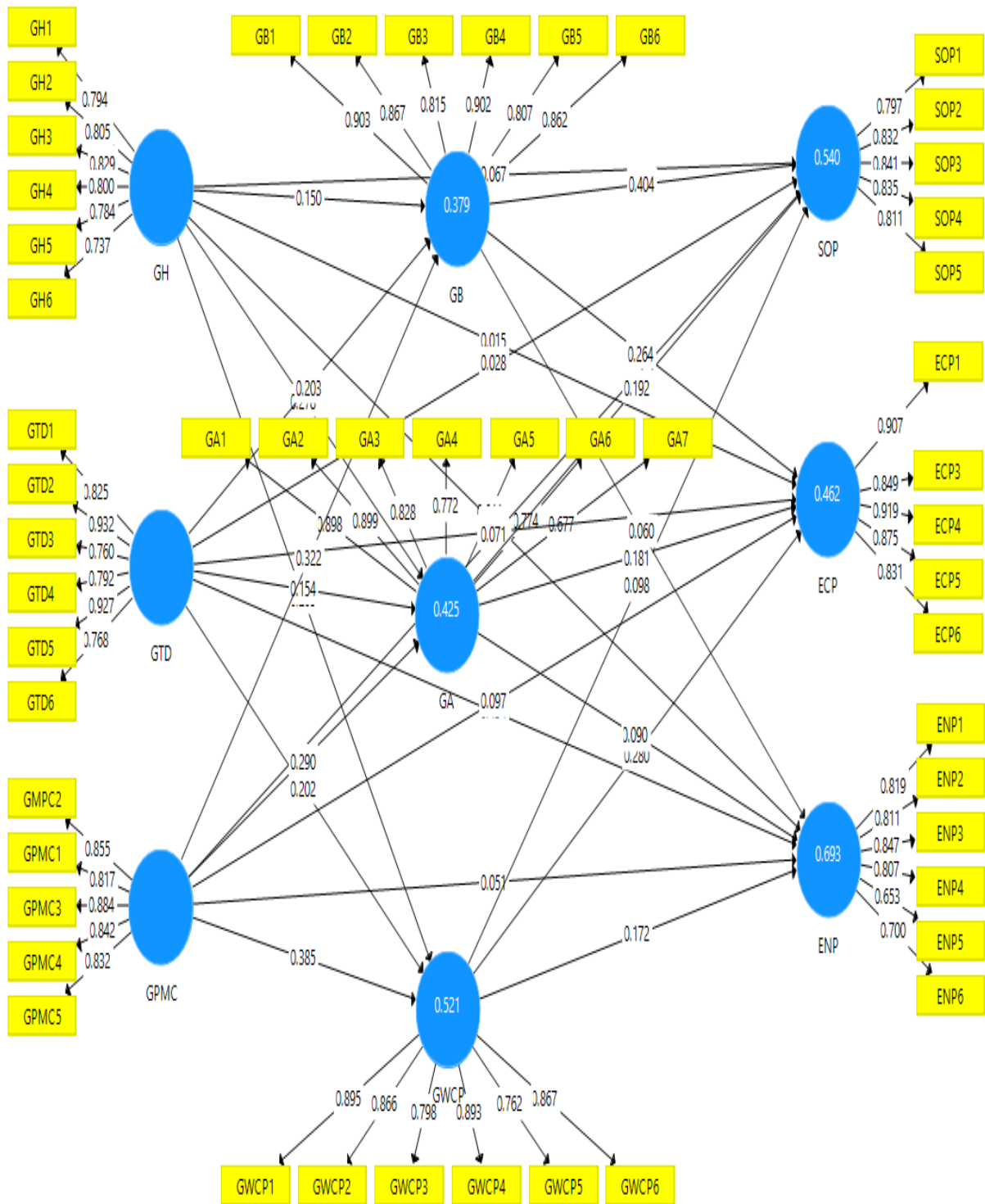


Figure 8. Confirmatory factor analysis

GH = Green hiring, GTD = Green training and development, GPMC = Green performance management and compensation, GWCP = Green work climate perceptions, GA = Green

attitude, GB = Green behaviour, SOP = Social performance, ECP = Economic performance and ENP = Environmental performance.

Table 13. Assessment of structural model - direct effect of constructs

Hypothesis	Relationships	β	M	SD	<i>t</i>	<i>p</i>-value	Results
1	GH -> SOP	0.067	0.066	0.049	1.369	0.172	Rejected
2	GH -> ECP	0.015	0.012	0.058	0.261	0.795	Rejected
3	GH -> ENP	0.158	0.155	0.047	3.363	0.001	Accepted
4	GH -> GA	0.278	0.281	0.057	4.853	0.000	Accepted
5	GH -> GB	0.150	0.154	0.059	2.530	0.012	Accepted
6	GH -> GWCP	0.205	0.207	0.060	3.429	0.001	Accepted
7	GTD -> SOP	0.028	0.030	0.054	0.523	0.601	Rejected
8	GTD -> ECP	-0.043	-0.036	0.059	0.721	0.471	Rejected
9	GTD -> ENP	0.434	0.437	0.057	7.617	0.000	Accepted
10	GTD -> GA	0.154	0.149	0.069	2.232	0.026	Accepted
11	GTD -> GB	0.203	0.198	0.065	3.095	0.002	Accepted
12	GTD -> GWCP	0.202	0.200	0.057	3.572	0.000	Accepted
13	GPMC -> SOP	0.071	0.069	0.052	1.356	0.176	Rejected
14	GPMC -> ECP	0.097	0.094	0.066	1.473	0.141	Rejected
15	GPMC -> ENP	0.051	0.052	0.053	0.947	0.344	Rejected
16	GPMC -> GA	0.290	0.293	0.053	5.436	0.000	Accepted
17	GPMC -> GB	0.322	0.325	0.058	5.581	0.000	Accepted
18	GPMC -> GWCP	0.385	0.383	0.051	7.539	0.000	Accepted

19	GA -> SOP	0.192	0.195	0.055	3.493	0.001	Accepted
20	GA -> ECP	0.181	0.184	0.059	3.052	0.002	Accepted
21	GA -> ENP	0.090	0.092	0.039	2.300	0.022	Accepted
22	GB -> SOP	0.404	0.404	0.045	8.992	0.000	Accepted
23	GB -> ECP	0.264	0.265	0.049	5.422	0.000	Accepted
24	GB -> ENP	0.060	0.059	0.043	1.404	0.161	Rejected
25	GWCP -> SOP	0.098	0.095	0.042	2.338	0.020	Accepted
26	GWCP -> ECP	0.280	0.274	0.056	5.037	0.000	Accepted
27	GWCP -> ENP	0.172	0.170	0.050	3.464	0.001	Accepted

Source: Author designed by using smart PLS-3.

Note: GH = Green hiring, GTD = Green training and development, GPMC = Green performance management and compensation, GWCP = Green work climate perceptions, GA = Green attitude, GB = Green behaviour, SOP = Social performance, ECP = Economic performance and ENP = Environmental performance.

This study also highlighted the mediating effect of green attitudes and green behaviours in the relationship between green hiring, green training and development, GPMC and social, economic and EP as demonstrated in Table 14 and Figure 8. According to Argote et al. (2016), if the value of $p < 0.05$ and value of $t > 2$, then there is a positive and significant mediation relationship between the variables.

The results indicated that green attitude mediates the relationship between green hiring and social, economic and EP ($\beta = 0.053$, $M = 0.055$, $SD = 0.020$, $t = 2.703$ and $p = 0.007$; $\beta = 0.050$, $M = 0.051$, $SD = 0.019$, $t = 2.651$ and $p = 0.008$; $\beta = 0.025$, $M = 0.026$, $SD = 0.012$, $t = 2.092$ and $p = 0.037$). Therefore, H28 to H30 were supported. Green behaviours mediated the relationship between green hiring and social and economic performance ($\beta = 0.061$, $M = 0.062$,

SD = 0.025, $t = 2.405$ and $p = 0.017$; $\beta = 0.040$, $M = 0.041$, $SD = 0.019$, $t = 2.109$ and $p = 0.035$). Hence, H31 and H32 were supported. In contrast, green behaviours did not mediate the relationship between green hiring and EP ($\beta = 0.009$, $M = 0.009$, $SD = 0.008$, $t = 1.086$ and $p = 0.278$). Therefore, H33 was not supported. The results showed that green attitude did not mediate the relationship between green training and development and social, economic and EP ($\beta = 0.029$, $M = 0.029$, $SD = 0.017$, $t = 1.779$ and $p = 0.076$; $\beta = 0.028$, $M = 0.027$, $SD = 0.015$, $t = 1.827$ and $p = 0.068$; $\beta = 0.014$, $M = 0.014$, $SD = 0.009$, $t = 1.512$ and $p = 0.131$). Thus, H34 to H36 were not supported. Green behaviours mediated the relationship between green training and development and social and economic performance ($\beta = 0.082$, $M = 0.079$, $SD = 0.027$, $t = 3.075$ and $p = 0.002$; $\beta = 0.053$, $M = 0.052$, $SD = 0.018$, $t = 2.950$ and $p = 0.003$). Therefore, H37 and H38 were supported. However green behaviours did not mediate the relationship between green training and development and EP ($\beta = 0.012$, $M = 0.011$, $SD = 0.009$, $t = 1.296$ and $p = 0.195$); therefore, H39 was rejected. Green attitude mediated the relationship between GPMC and social, economic and EP ($\beta = 0.055$, $M = 0.057$, $SD = 0.019$, $t = 2.941$ and $p = 0.003$; $\beta = 0.052$, $M = 0.055$, $SD = 0.022$, $t = 2.374$ and $p = 0.018$; $\beta = 0.026$, $M = 0.027$, $SD = 0.013$, $t = 2.002$ and $p = 0.046$). Therefore, H40 to H42 were supported. Green behaviours mediated the relationship between GPMC and social and economic performance ($\beta = 0.130$, $M = 0.132$, $SD = 0.029$, $t = 4.545$ and $p = 0.000$; $\beta = 0.085$, $M = 0.087$, $SD = 0.024$, $t = 3.536$ and $p = 0.000$). Thus, H42 and H43 were accepted. In contrast, green behaviours did not mediate the relationship between GPMC and EP ($\beta = 0.019$, $M = 0.019$, $SD = 0.015$, $t = 1.329$ and $p = 0.184$). Thus, H45 was not supported.

Table 14. Indirect effects – mediation

Hypothesis	Relationships	B	M	SD	t	p-value	Results
28	GH -> GA -> SOP	0.053	0.055	0.020	2.703	0.007	Accepted
29	GH -> GA -> ECP	0.050	0.051	0.019	2.651	0.008	Accepted
30	GH -> GA -> ENP	0.025	0.026	0.012	2.092	0.037	Accepted
31	GH -> GB -> SOP	0.061	0.062	0.025	2.405	0.017	Accepted
32	GH -> GB -> ECP	0.040	0.041	0.019	2.109	0.035	Accepted
33	GH -> GB -> ENP	0.009	0.009	0.008	1.086	0.278	Rejected
34	GTD -> GA -> SOP	0.029	0.029	0.017	1.779	0.076	Rejected
35	GTD -> GA -> ECP	0.028	0.027	0.015	1.827	0.068	Rejected
36	GTD -> GA -> ENP	0.014	0.014	0.009	1.512	0.131	Rejected
37	GTD -> GB -> SOP	0.082	0.079	0.027	3.075	0.002	Accepted
38	GTD -> GB -> ECP	0.053	0.052	0.018	2.950	0.003	Accepted
39	GTD -> GB -> ENP	0.012	0.011	0.009	1.296	0.195	Rejected
40	GPMC -> GA -> SOP	0.055	0.057	0.019	2.941	0.003	Accepted
41	GPMC -> GA -> ECP	0.052	0.055	0.022	2.374	0.018	Accepted
42	GPMC -> GA -> ENP	0.026	0.027	0.013	2.002	0.046	Accepted
43	GPMC -> GB -> SOP	0.130	0.132	0.029	4.545	0.000	Accepted
44	GPMC -> GB -> ECP	0.085	0.087	0.024	3.536	0.000	Accepted
45	GPMC -> GB -> ENP	0.019	0.019	0.015	1.329	0.184	Rejected

Source: Author designed by using smart PLS-3.

Note: GH = Green hiring, GTD = Green training and development, GPMC = Green performance management and compensation, GWCP = Green work climate perceptions, GA = Green attitude, GB = Green behaviour, SOP = Social performance, ECP = Economic performance and ENP = Environmental performance.

The study also indicated the moderating effect of GWCPs on the relationship between green hiring, green training and development, GPMC and social, economic and EP. Based on the moderation analysis presented in Table 15 and Figure 9, the role of GWCPs was insignificant in moderating the relationship between green hiring and social performance ($\beta = 0.016$, $M = 0.016$, $SD = 0.009$, $t = 1.728$ and $p = 0.085$). Thus, H46 was not supported. In contrast, the role of GWCPs was significant in moderating the relationship between green hiring, economic, and EP ($\beta = 0.047$, $M = 0.049$, $SD = 0.019$, $t = 2.471$ and $p = 0.011$; $\beta = 0.032$, $M = 0.032$, $SD = 0.015$, $t = 2.140$ and $p = 0.033$). Therefore, H47 and H48 were supported. GWCP was insignificant in moderating the relationship between GTD and social performance ($\beta = 0.015$, $M = 0.017$, $SD = 0.010$, $t = 1.483$ and $p = 0.139$). Therefore, H49 was not supported. On the contrary, GWCP was significant moderating the relationship between GTD and economic and ENP ($\beta = 0.047$, $M = 0.048$, $SD = 0.018$, $t = 2.679$ and $p = 0.018$ $\beta = 0.031$, $M = 0.031$, $SD = 0.012$, $t = 2.555$ and $p = 0.011$). Thus, H50 and H51 were supported. Finally, GWCP was significantly moderating the relationship between GPMC and social, economic and EP ($\beta = 0.029$, $M = 0.030$, $SD = 0.016$, $t = 1.883$ and $p = 0.050$; $\beta = 0.089$, $M = 0.088$, $SD = 0.022$, $t = 4.074$ and $p = 0.000$; $\beta = 0.059$, $M = 0.057$, $SD = 0.018$, $t = 3.357$ and $p = 0.001$). Hence, H52 to H54 were supported.

GH = Green hiring, GTD = Green training and development, GPMC = Green performance management and compensation, GWCP = Green work climate perceptions, GA = Green attitude, GB = Green behaviour, SOP = Social performance, ECP = Economic performance and ENP = Environmental performance.

Table 15. Indirect effects – moderation

Hypothesis	Relationships	β	M	SD	<i>t</i>	<i>p</i>-value	Results
46	GH -> GWCP -> SOP	0.016	0.016	0.009	1.728	0.085	Rejected
47	GH -> GWCP -> ECP	0.047	0.049	0.019	2.471	0.014	Accepted
48	GH -> GWCP -> ENP	0.032	0.032	0.015	2.140	0.033	Accepted
49	GTD -> GWCP -> SOP	0.015	0.017	0.010	1.483	0.139	Rejected
50	GTD -> GWCP -> ECP	0.047	0.048	0.018	2.679	0.008	Accepted
51	GTD -> GWCP -> ENP	0.031	0.031	0.012	2.555	0.011	Accepted
52	GPMC -> GWCP -> SOP	0.029	0.030	0.016	1.883	0.050	Accepted
53	GPMC -> GWCP -> ECP	0.089	0.088	0.022	4.074	0.000	Accepted
54	GPMC -> GWCP -> ENP	0.059	0.057	0.018	3.357	0.001	Accepted

Source: Author designed by using smart PLS-3.

Note: GH = Green hiring, GTD = Green training and development, GPMC = Green performance management and compensation, GWCP = Green work climate perceptions, GA = Green attitude, GB = Green behaviour, SOP = Social performance, ECP = Economic performance and ENP = Environmental performance.

Table 16. Summary of results of hypotheses

Hypothesis	Results
H1: There is a significant and positive relationship between green hiring and social performance.	Not supported
H2: There is a significant and positive relationship between green hiring and economic performance.	Not supported
H3: There is a significant and positive relationship between green hiring and EP.	Supported
H4: There is a significant and positive relationship between green hiring and green attitude.	Supported
H5: There is a significant and positive relationship between green hiring and green behaviours.	Supported
H6: There is a significant and positive relationship between green hiring and GWCPs.	Supported
H7: There is a significant and positive relationship between green training and development and social performance.	Not Supported
H8: There is a significant and positive relationship between green training and development and economic performance.	Not supported
H9: There is a significant and positive relationship between green training and development and EP.	Supported
H10: There is a significant and positive relationship between green training and development and green attitude.	Supported
H11: There is a significant and positive relationship between green training and development and green behaviours.	Supported

H12: There is a significant and positive relationship between green training and development and GWCPs.	Supported
H13: There is a significant and positive relationship between GPMC and social performance.	Not supported
H14: There is a significant and positive relationship between GPMC and economic performance.	Not supported
H15: There is a significant and positive relationship between GPMC and EP.	Not supported
H16: There is a significant and positive relationship between GPMC and green attitude.	Supported
H17: There is a significant and positive relationship between GPMC and green behaviours.	Supported
H18: There is a significant and positive relationship between GPMC and GWCPs.	Supported
H19: There is a significant and positive relationship between green attitude and social performance.	Supported
H20: There is a significant and positive relationship between green attitude and economic performance.	Supported
H21: There is a significant and positive relationship between green attitude and EP.	Supported
H22: There is a significant and positive relationship between green behaviours and social performance.	Supported
H23: There is a significant and positive relationship between green behaviours and economic performance.	Supported

H24: There is a significant and positive relationship between green behaviours and EP.	Not supported
H25: There is a significant and positive relationship between GWCPs and social performance.	Supported
H26: There is a significant and positive relationship between GWCPs and economic performance.	Supported
H27: There is a significant and positive relationship between GWCPs and EP.	Supported
H28: Green attitude significantly and positively mediates the relationship between green hiring and social performance.	Supported
H29: Green attitude significantly and positively mediates the relationship between green hiring and economic performance.	Supported
H30: Green attitude significantly and positively mediates the relationship between green hiring and EP.	Supported
H31: Green behaviours significantly and positively mediate the relationship between green hiring and social performance.	Supported
H32: Green behaviours significantly and positively mediate the relationship between green hiring and economic performance.	Supported
H33: Green behaviours significantly and positively mediate the relationship between green hiring and EP.	Not supported
H34: Green attitude significantly and positively mediates the relationship between green training and development and social performance.	Not supported
H35: Green attitude significantly and positively mediates the relationship between green training and development and economic performance.	Not supported
H36: Green attitude significantly and positively mediates the relationship between green training and development and EP.	Not supported

H37: Green behaviours significantly and positively mediate the relationship between green training and development and social performance.	Supported
H38: Green behaviours significantly and positively mediate the relationship between green training and development and economic performance.	Supported
H39: Green behaviours significantly and positively mediate the relationship between green training and development and EP.	Not supported
H40: Green attitude significantly and positively mediates the relationship between GPMC and social performance.	Supported
H41: Green attitude significantly and positively mediates the relationship between GPMC and economic performance.	Supported
H42: Green attitude significantly and positively mediates the relationship between GPMC and EP.	Supported
H43: Green behaviours significantly and positively mediate the relationship between GPMC and social performance.	Supported
H44: Green behaviours significantly and positively mediate the relationship between GPMC and economic performance.	Supported
H45: Green behaviours significantly and positively mediate the relationship between GPMC and EP.	Not Supported
H46: GWCPs significantly and positively moderate the relationship between green hiring and social performance.	Not supported
H47: GWCPs significantly and positively moderate the relationship between green hiring and economic performance.	Supported
H48: GWCPs significantly and positively moderate the relationship between green hiring and EP.	Supported

H49: GWCPs significantly and positively moderate the relationship between green training and development and social performance.	Not supported
H50: GWCPs significantly and positively moderate the relationship between green training and development and economic performance.	Supported
H51: GWCPs significantly and positively moderate the relationship between green training and development and EP.	Supported
H52: GWCPs significantly and positively moderate the relationship between GPMC and social performance.	Supported
H53: GWCPs significantly and positively moderate the relationship between GPMC and economic performance.	Supported
H54: GWCPs significantly and positively moderate the relationship between GPMC and EP.	Supported

Source: Author designed by using smart PLS-3.

CHAPTER FIVE: DISCUSSION

The aim of this research was to investigate the effects of GHRM practices on sustainable performance in Pakistan's textile companies (economic, social and EP). The objective was to acquire a greater understanding of the impact of green behaviour, green attitude and GWCP on enhancing sustainable textile performance. Additionally, this study's objective was to assess the extent to which GHRM practises may aid in fostering a green culture in this significant industrial sector. The results showed that GHRM practices, especially green attitude and green behaviours, were not completely implemented by employees in Pakistan's textile industry, which was similar to findings from earlier manufacturing sector studies done in a national context (Ojo et al., 2020). This demonstrates that these environmental policies have yet to fully benefit the textile industry (Macke et al., 2019). The findings of previous research show that GHRM practices are related to social, economic and EP (Rehman et al., 2016).

The protection and maintenance of the natural eco-resource system has become a key concern for policymakers and senior management in many industries (Howard-Grenville et al., 2014). Companies now face increasing competition that forces managers to continuously discover new methods to maximize their most significant organizational resources, notably HRs, where HR is considered a major success factor in adopting policies and procedures, and in enhancing sustainable performance (Sheehan, 2014). HRs contribute to corporate success, which may lead to innovation, sustainable performance, and effective use of corporate resources to minimize risks and barriers that keep the organization competitive in the market (Singh, Chen, et al., 2019). The problem of managing the consumption of resources and economic development urges businesses to adopt efficient and effective business strategies that enhance their social, economic and EP (Chan et al., 2012). In order to improve operational, economic and social growth, states, governmental institutions, environmental bodies,

stakeholders, rivals, clients, workers and the community in general push businesses to extend green practices to a wider range (El-Kassar et al., 2019; Singh, Chen, et al., 2019).

Employees' environmental values, such as the expansion of green product strategies, sustainable resource usage, efficient energy use, reduction of pollutant emissions and waste, and recycling, have been addressed in numerous studies as an essential part of implementing green culture and values (Graves et al., 2018). In the twenty-first century, environmental businesses have prioritized finding innovative alternatives to the conventional management of HRs to ensure environmental sustainability. Future GHRM research may focus on the sustainability of the environment, and HR may be a powerful way to promote green and sustainable projects (Jabbour et al., 2019). As a consequence, as shown by the huge amount of important research on the topic, HRM academics have placed increasing emphasis on HRM's role in greening organizations (Jabbour et al., 2016). There is little dispute among environmental professionals about the extent of the impact of these issues (Mousa et al., 2020). However, since HRM have been reluctant to deal with these environmental problems, governments, consumers and academics face an ever increasing range of green possibilities and difficulties (Jackson et al., 2011).

Rapid advances in technology and market changes have pushed businesses to manage and use their resources in a sustainable manner, resulting in several sustainable economic and growth issues (Wang et al., 2014). Green technologies are not fully adopted in all functional sectors in underdeveloped nations like Pakistan; in fact, only a few departments have done so (Amjad et al., 2021). These countries have low economic performance for many reasons, such as delayed political transitions, undeveloped financial markets, dominant and poor performance of government sectors, and major trade barriers. In addition, these nations' pervasive lack of political stability has resulted in conflict, social unrest and massive emigration (Singh et al., 2018).

The textile industry is an important fabric provider in the manufacturing industry, and it is a target of environmental organizations concerned with the waste it produces (Romero et al., 2019). For a variety of reasons, including ignorance and a desire to save additional costs, the textile industry often disregards environmentally friendly practices and the sector's environmental impacts. (Yellowlees et al., 2010). The textile industry contributes 5% to the national CO₂ impact in OECD member states, China and India, which makes it comparable to the manufacturing sector, according to current research (Blass et al., 2017; Pichler et al., 2019). Managers in this industry are increasingly being pressured by society to address environmental problems. As a consequence, their duties should be extended to include environmental preservation and restricting the use of natural resources, in addition to delivering high-quality and low-cost services (Pinzone et al., 2016). This provides managers with more resources in the textile industry to undertake green programmes, such as recycling, efficient energy use, water conservation, green procurement and durable transport (McGain et al., 2014).

5.1 GHRM practices, attitude, behaviour and sustainable performance

Many theoretical advances have been made through this investigation. First, this research examined the elements that influence workers' intentions to adopt green behaviours, which are critical for the success of environmental programmes (Mousa et al., 2020). It also contributes to the research on employee motivations for green behaviour (Kim et al., 2016). Second, this study helps us to comprehend the green activities of employees in a field that requires more research. Third, this study discusses the impact of green management techniques on people's attitudes and behaviours, which has received little attention. The early effect of GHRM on employee outcomes is shown in this study (Dumont et al., 2017a). Fourth, this study provides a positive psychological environment that promotes environmental awareness and preservation, and it has lately received a lot of attention from environmental psychologists.

(Dumont et al., 2017b). Fifth, this study is essential for environmental education and awareness, which will help workers adopt green work practises (Safari et al., 2018).

Employees are increasingly aware that they may help their companies become green by participating in a range of green activities (Saeed, Afsar, Hafeez, Khan, Tahir, & Afridi, 2019). According to the Environmental Management Association, few studies have looked at the factors that influence employees' green behaviour, despite the growing focus on sustainable performance and the potential economic benefits it may offer. The pace at which irrevocable climate change, widespread pollution and increasing resource shortages has progressed has accelerated rapidly in recent years (Zibarras et al., 2015). Many corporate environmental programmes depend on workers' green behaviour to succeed (Saeed, Afsar, Hafeez, Khan, Tahir, & Afridi, 2019). This has resulted in significant contributions to businesses, not only in terms of the natural environment, but also in terms of the financial success of businesses and their employees (e.g., lead efficiency and employee satisfaction) (Blok et al., 2015).

In recent years, academics have begun to recognize the importance of employees' green attitudes and behaviours, resulting in an increasing amount of studies (Norton et al., 2015); however, many issues are still ignored. According to Dumont et al. (2017a), one interesting topic to investigate is the effect of GHRM practices on improving employees' behaviour. GHRM's impact on behaviour may be influenced by other psychological and personal variables. This study found that GHRM practices have a significant impact on green behaviour.

Academic interest in HRM's contribution to environmental management has increased in recent years (Renwick et al., 2013). The present research takes it a step even further, examining the impacts of GHRM on green workplace behaviour in an experimental setting. GHRM measurements were created to accomplish this study goal. Using the literature on behavioural HRM, the researcher looked at how GHRM techniques predict sustainable

performance that is mediated by green attitudes and behaviour (Dumont et al., 2017a) and organizational climate (Burke et al., 2002). The researcher used NRBV theory and theory of planned behaviour to examine the moderating effect of GWCPs on the relationships between green attitudes, green behaviour and sustainable performance.

As per the results, GHRM practices are linked to sustainable performance both directly and indirectly through the mediation of green attitudes and behaviours. In the following respects, this result lends empirical support to the literature on behavioural HRM: (1) the characteristics of HRM practices influence the type of employee behaviour that is likely to be affected (Nishii, Lepak, & Schneider, 2008); (2) GHRM practices influence sustainable performance by influencing green attitude and behaviour (Becker & Huselid, 2006); and (3) GHRM practices influence sustainable performance by influencing GWCPs (Jiang et al., 2012).

This research contributes to the body of knowledge in a variety of ways. The development of GHRM techniques adds to the body of knowledge on HRM and green management. This measure was created after a study of the literature and empirical confirmation. As a consequence, when it comes to developing a more broadly applicable GHRM measure, it is a great place to start. As a relatively new idea, GHRM has received little attention in the literature, with academics only recently realizing its management potential. The majority of GHRM research has focused on developing GHRM employee workplace outcomes (Cherian et al., 2012; Renwick et al., 2013). Only a small amount of empirical research has looked at the relationship between HRM and green behaviour among employees. However, these studies (Paillé, Chen, et al., 2014) either employed small sample sizes or focused on conventional HRM rather than GHRM. As a consequence, there is a scarcity of theory-based empirical research on the impact of GHRM on staff productivity. This research adds to the body of knowledge in the area of HRM by examining the impact of GHRM on the workplace.

Furthermore, I investigated the impact of GHRM practices (green hiring, training and development, and GPMC) on sustainable performance (social, economic and EP) through the mediating role of green attitude and green behaviour. The findings revealed that a green attitude has a direct impact on social, economic and EP, supporting hypotheses H19 to H21. Green behaviours were also associated with social and economic performance, which supported H22 and H23. A number of studies have backed this up (Daily et al., 2001; Jackson et al., 2010; Renwick et al., 2013). Whereas, green behaviour did not have a significant relationship with EP, which contradicted H24. The data supports the significance of hypotheses H28 to H30 and H40 to H42 that green attitudes mediate the relationships between green hiring, and social, economic and EP and between GPMC and social, economic and EP. In contrast, the results demonstrated that green attitude did not mediate between green training and development and social, economic and EP; this was because of the lack of a green training and development culture with regard to green attitude awareness in the textile mills of Punjab province, Pakistan. So, green attitude was not a useful mediator between green training and development and social and economic performance. H34 to H36 were not supported; this finding is similar to the outcome of previous research conducted by (Kim et al., 2019). A green attitude can be defined as a commitment to environmentally friendly practices and concerns (Chan et al., 2014; Luo et al., 2008; Schultz et al., 2004). According to some research (Gamba et al., 1994; Lansana, 1992; Oskamp et al., 1991), green attitudes do not have a relationship with sustainable performance. Other studies indicate that there is weak relationship between green attitude and performance and between green behaviour and performance (Axelrod et al., 1993; Hines et al., 1987; Smith et al., 1994), but other studies proposed that green attitude has a strong influence on green behaviour and sustainable performance (Ellen et al., 1991; Fishbein et al., 1980; Mohai, 1992; Pooley et al., 2000; Weaver, 1996).

As stated by Dyllick et al. (2002), businesses must preserve and grow their economic, social and environmental assets in order to create sustainable communities. According to Shrivastava et al. (2017), green management techniques can assist the manufacturing industry in its dealing with issues such as pollution and sustainable development. Environmental and sustainability education is essential for the well-being of all people (Fryxell et al., 2003). Green attitude and behaviour play a vital role in the achievement of long-term environmental harmony through economic and social progress (Jamison, 2003).

A person's knowledge of waste management, such as recycling, improves as their understanding of sustainable green practices rises (Tudor et al., 2008). Having a great organization green culture provides a number of benefits for employees, including better productivity and morale. When it comes to the adoption of sustainable practices, research has shown that green culture is an important factor (Porter et al., 2016). The management of an organization should promote their firm's green culture to their staff in order to enable job seekers to better understand the organization's qualities (Renwick et al., 2013). In addition, it is recommended that firms emphasize green activities in their marketing, websites and job descriptions in order to recruit eco-conscious employees (Nyahunzvi, 2013).

In order for an organization's rules, actions and language to have a lasting impact on its culture, workers must be aware of these factors (Norton et al., 2015). Improved knowledge and awareness may be gained by fostering a green culture in an organization. For example, printing on both sides of a sheet of paper, separating trash, employing smart LED lighting and faucets, and shutting off lights and systems at night are all ways to promote a green culture in the workplace. Organizational internal norms should be enhanced to aid managers and workers in developing EGB since the norms are regarded as a source of incentive (Norton et al., 2015). It is suggested that companies incorporate environmental protection into their policymaking, systems and processes since organizational norms reflect workers' perceptions of the

organization's policies, procedures and activities. In addition, Kirkwood et al. (2014) stressed the need to consider the green climate in planning.

Green behaviours refer to behaviours that have a positive influence on the environment. Environmentally friendly behaviours, ecologically sustainable behaviours and environmentally friendly behavioural patterns are all interchangeable terms. In terms of environmental sustainability and ethical behaviour, there is no distinction (Wang, 2016). EGB is an acronym for environmentally friendly behaviour in the workplace (Andersson et al., 2013; Norton et al., 2014). Many academics have recently emphasized the need to create green attitudes and behaviours in the workplace (Norton et al., 2014; Ones et al., 2012b; Paillé et al., 2013). According to Kirkwood et al. (2014), these include reusing and minimizing waste as well as reducing energy and water consumption through technological changes, as well as implementing action plans to reduce carbon dioxide generation, having supply chains committed to green issues, conducting life-cycle analyses and assessing environmental impacts, and having an EMS in place. The amount of time and effort workers commit to environmental endeavours may also be used as a measure of their green behaviour (Bissing-Olson et al., 2013).

Green behaviour is influenced by the organization, employees' and managers' green attitudes. After all, it is they who will carry out eco-friendly activities. A study by Marshall et al. (2005) found that managers' attitudes and behaviours might impact employees' green activities. According to studies (Chan et al., 2014), people are more likely to participate in environmentally beneficial activities when it becomes second nature to them. There have been a lot of studies on employee engagement in green programmes, and the findings have been contradictory (Chan et al., 2010; Rondinelli et al., 2000). The introduction of environmental initiatives may face resistance from staff unwilling to alter ordinary operations (Chan et al., 2014). It is critical to change people's attitudes towards the environment in order for

environmental programmes to be successful, yet influencing people is difficult. As a result, environmentally conscious businesses must hire employees that have the proper attitude towards the environment (Chan et al., 2014). Workers' desires and environmental knowledge and awareness may be assessed by HR managers during job interviews in order to choose those employees who have a favourable attitude towards environmental concerns. Such a move aids the organization in aligning its goals and policies with those of its workers.

Studies have shown that GHRM may encourage people to engage in environmentally friendly practices (Daily et al., 2001; Jackson et al., 2010; Renwick et al., 2013). Green behaviour mediated the relationship between green hiring and social and economic performance, which supported H31 and H32, and the relationship between green training and development and social and economic performance, which supported H37 and H38. Green behaviour, on the other hand, did not appear to mediate the relationship between green hiring and EP or the relationship between green training and development and EP. As a result, hypotheses H33 and H39 were not supported. These findings are consistent with earlier studies (Ojo et al., 2020). Finally, green behaviour mediates the relationship between GPMC and social and economic performance. Therefore, H43 and H44 were supported. Green behaviour did not mediate the relationship between GPMC and EP; thus, H45 was not supported. The results showed that employee behaviour is formally assessed, acknowledged and rewarded, and therefore represents typical workplace behaviour that is influenced by GHRM practices. Because green behaviour is not officially recognized and rewarded, GHRM practices influence individuals' perceptions of an organization's green work environment more than GHRM procedures themselves.

This study looks at the present challenges that workers face in achieving sustainable corporate goals. It joins a growing body of GHRM research that examines the effect of GHRM practices on sustainable performance in terms of work assignments and behaviours. By offering

insights from textile organizations in Pakistan, the study adds to the literature on GHRM, green attitudes and green behaviour in a developing economic context. At present, little is known about the mediating influence of green attitudes and green behaviour on sustainable performance. In Pakistan's textile industry, GHRM has been shown to be a good predictor of green hiring, green training and development, and GPMC. In comparison to previous research, there are no significant correlations between green hiring, green attitude, green behaviour, GWCPs, and social, economic, or EP. (Rubel et al., 2018). This significant result may be attributed to respondents' environmental awareness and behavioural responses to GHRM as reflected in green responsibilities. Previous research by Rubel et al. (2018) showed that GHRM practices have a significant impact on managers' overall performance as well as job-specific and discretionary performance. Similarly, the present findings show that the textile sector responds similarly to another component of HRM, namely GHRM, in fulfilling both assigned and voluntary green responsibilities. Both studies support the widely held belief that GHRM influences employee responses and, as a result, how they perform.

GHRM may be used to promote and support green information exchange among workers as an organizational approach. GHRM is a platform and a valuable indication of an organization's commitment to environmental issues, and it ultimately enables workers to exchange green expertise. Research also shows that HRM contributes to increasing employee engagement through green knowledge sharing among colleagues (Renwick et al., 2013). The results therefore support the notion that if an organization shows its environmental responsibility by using GHRM practices, it will result in the dissemination of green information and the building of green awareness among workers.

As per the findings, green attitudes and green behaviours in majority of cases have a mediation effect on the relationship between hiring, green training and development, GPMC, and social, economic and EP. On the other hand, green attitude and behaviour did not appear

to mediate the relationship between GH, GTD, GPMC and environmental performance, social performance and EP.

The findings of the mediation process in this study show that green attitude and behaviour through their mediation of employee involvement in environmental efforts are connected to GHRM practices. For example, workers are more willing to participate in environmental efforts when well-designed training programmes promote a sustainability culture and the goals of the organization, and enhance employees' capacity to deal with environmental problems (Roscoe et al., 2019). Employees are also more motivated to achieve environmental objectives if they feel that their job performance has a positive connection with these stated aims (Grobelna, 2019). Workers' involvement in environmental activities grows in a similar way: the active participation of employees in environmental decision making strengthens their cognitive and emotional connections with the values and ideals of business. Employees, in turn, will address and resolve issues of sustainability with passion, excitement and energy (Pinzone et al., 2016). Finally, hiring employees whose knowledge, abilities, perspectives and attitudes align with the organization environmental policies, processes, aims and goals is likely to result in green behaviour at work and beyond (Dumont et al., 2017b).

5.2 Green hiring, green attitude and green behaviour, and social, economic, and EP

Despite the fact that green hiring was the first green practice to gain popularity, only a few companies have integrated environmental considerations into their recruiting procedures (Jabbour, 2011). Green hiring, as a key approach for attracting talent, was shown to be more successful and cost-effective than traditional environmental training courses (Martins et al., 2021). As per the results of this research, green hiring has a direct impact on EP, green attitude, green behaviours and GWCPs. Thus, hypotheses H3 to H6 were supported. Mousa et al. (2020) and Dumont et al. (2017b) found that green hiring had a favourable impact on EP as well as on green attitude, green behaviours and work climate perceptions. Green hiring, on the other hand,

had no direct impact on social and economic performance, contradicting hypotheses H1 and H2. This is because not all the textile mills are currently doing business through online portals and social media (Mousa et al., 2020). Additionally, incorporating green criteria into job descriptions is still irrelevant in this sector for recruiting and selecting green skills and personalities. As a result, the job description should be explicit about the environmental obligations inherent in the position. Notably, HR managers may contribute to the development of an environmental culture by developing a staff base that is aware of environmental issues and capable of improving EP (Arulrajah et al., 2015). Although establishing an environmental culture in the textile industry requires government and top management support, the results indicate a lack of commitment to this issue from top practices (Ji et al., 2012).

This research shows how GHRM impacts the individual identity of an employee, and how it affects employees' reactions to sustainable performance. This research demonstrates that green hiring promotes the exchange of green information to influence workers' sustainable performance. Green hiring is concerned with sustainable methods for workers to accomplish the ecological objectives of the organization, thus establishing a clear connection between their conduct and their corporate expectations. Such a connection would enhance employee identification with the organization. This research shows that by realizing that green hiring is an integral component of green organizational policies and objectives, workers may engage in green behaviour and experience the informational advantages of a green working environment. The results of this research show that green hiring has a significant role in green attitude, behaviours, GWCPs as well as EP in textile organizations.

5.3 Green training and development, green attitude and green behaviour, and social, economic and EP

Masri et al. (2017) focused on how green training and development has a significant effect on employee performance. Similar results in other developing nations, such as India,

were found by Mishra et al. (2014) in terms of obtaining benefits from employees by using green training and development concepts. These results suggest that in order to more successfully implement GHRM practices, Pakistan should invest more in green training and development. The results of this research revealed that green training and development has a positive and significant impact on EP, green attitude, green behaviours and GWCPs, which supports H9 to H12. The results of this research are in line with other studies (Dumont et al., 2017b; Mousa et al., 2020). The findings of this research agree with those of Mousa et al. (2020), who suggested that training may enhance employee performance. According to Amjad et al. (2021), employee training and development programmes must cover a wide range of social and environmental issues. In contrast, the results of this study showed that green training and development has no direct relationship with social and economic performance, which did not support H7 and H8. However, in line with Sharifa (2020), these findings indicate that the connection between GHRM practices and EP is favourable. Previous research showed a positive and substantial relationship between GHRM practices and social performance, and a strong relationship between GHRM practices and EP (Sharifa, 2020).

Green training and development in the Mexican industrial sector had a major impact on environmental performance (Jabbour et al., 2013). In the Pakistani manufacturing business, training is based on monetary incentive, and Pakistani manufacturers employ a more cost-effective green training strategy. The Pakistani textile sector lacks training and development activities owing to the absence of green training efforts and foreign exchange programmes with other manufacturing companies. According to Zoogah (2011), companies focusing on good behaviour while ignoring bad habits will witness an increase in employees' training as a consequence of incentives and pay. To this end, training programmes must demonstrate management's commitment to employee performance and strengthen and motivate employees' environmental behaviour at the same time.

Most textile businesses depend on informal methods and training to increase environmental awareness among their workers, since this needs less financial resources than official environmental and green training (Mishra, 2017). Mousa et al. (2020) stressed that, regardless of cost, firms must provide their workers with formal training and promote green policies and behaviours. The most important practices in pollution avoidance have been recognized by green training and development (Daily et al., 2012); these activities need government and senior management attention, which would promote the environment in the textile sector. Green training programmes need both administrative and financial resources to be effective. Environmental and green training and participation practices are likely to cost textile businesses more, which means that they should spend more on green education rather than on informal training. This will change them from a moderate to a high green training implementation level.

5.4 GPMC, green attitude and green behaviour, and social, economic and EP

Incentives and remuneration, as per Jackson et al. (2011), may help with GHRM implementation. Importantly, in Pakistan, textile firms have paid little attention to utilizing green incentives and compensation to encourage employees to adopt a green attitude. According to Fernández et al. (2003), different types of incentives for different types of employees may be required, posing administrative challenges in terms of the resources required to link benefits with individual behaviour. Because of the aforementioned factors, this study found that GPMC has no significant impact on social, economic and EP. Therefore, GPMC did not support H13 to H15. This is due to the non-availability of green incentive culture in textile organizations.

According to Daily et al. (2012), it is critical to communicate performance evaluation reports with workers in order to evaluate and encourage them to attain economic objectives. The results showed that GPMC has a direct relationship with green attitude, behaviour and

work climate perceptions. Thus, this research supported H16 to H18. These results are in line with other studies (Dumont et al., 2017b; Mousa et al., 2020). According to Fernández et al. (2017), implementing an efficient incentive scheme for all workers is challenging. This is because different methods have varied effects on different people. As a result, manufacturing companies are limited in their ability to connect incentives to employee engagement. In order to measure environmental sustainability and technical and behavioural abilities, HR departments should change the number of employee performance evaluations.

According to Renwick et al. (2013), the application of performance management in environment management offers a range of difficulties in terms of assessing EP requirements across various organizational divisions. Some businesses have taken measures to address this issue by establishing green attitude and behaviour standards across the board, as well as green information system initiatives aimed at long-term sustainability (Blessinger, 2005). Overall performance management frameworks should be used to boost overall performance indicators. One issue is that environmental evaluation methods seem to be limited to plant or department managers and senior management, rather than being available to all workers (Emel et al., 2019). Performance management systems may be used to establish employee performance standards in order to achieve the intended sustainable performance.

The results revealed that the GHRM practice of GPMC had a reasonable level of acceptance. Using incentives and rewards as a strategy for adopting GHRM concepts has been proven to be helpful in many studies (Ahmad, 2015). GPMC, as per results, is not often utilized to create an employee green culture. The idea of "green performance and incentives" was not extensively utilized to encourage green behaviour. Another reason for the limited adoption of a pay and incentive system is that employees are motivated for reasons other than environmental objectives. Consequently, it is a challenge to establish a reward system that meets the needs of workers. The finding of this study is unique because it is only produced in

businesses and companies with a high EP level (Fernández et al., 2003). Based on this, it is likely that GPMC is not utilized as extensively to promote environmental behaviour as other techniques, for increasing productivity and improving the quality of textile services provided, particularly in large textile businesses. Top management should reward employees who are ready to assist an organization environmental system. Finally, in the developing countries context, a supervisory performance management indicator is suggested to encourage engagement and involvement, as well as the flow of innovative ideas, and its linkages to performance management should be permitted in the organizational structure (Malik et al., 2017).

5.5 GHRM practices, GWCPs, green attitude, green behaviour and sustainable performance

In order to meet overall performance standards, companies must implement environmental management information systems and conduct environmental audits (Arulrajah et al., 2015). Employee performance may be evaluated more easily if managers establish green objectives and activities (Emel et al., 2019). Many studies have emphasized the need to establish green management teams that include workers as members (Jabbar et al., 2014). The green team's work is put to practical use in industrial settings. This research investigated whether understanding of green work climate methods maximized profit in manufacturing firms. According to Mousa et al. (2020), senior management involvement and support for environmental protection initiatives have an important impact on organizational sustainability. This research found that green attitudes and behaviours seem to change the connection between GHRM and organizational sustainability.

Many criteria (e.g., environmental management) and standards for environmental conduct, as well as criteria for environmental circumstances, are included in EP (Romero et al., 2019). The reason for this is the culture of poor nations, where recycling, decreasing resource

use and environmental activities are not widely practiced. According to industrial producers and services (Geng et al., 2017), green practices are unattainable in a developing nation. The findings of this study corroborated those of Chaudhary (2020), namely, that the effect of an indirect approach, (i.e., GWCPs on sustainability) is influenced by workers' behaviours and attitudes. The implementation of GHRM practices in an organization operation will reflect the organization environmental concerns. Furthermore, there is a strong link between GHRM practices and economic performance, as shown by other research, such as Rawashdeh (2018). GHRM practices clearly play a significant role in spreading environmental norms and ideas, as well as allowing workers to engage in and execute environmental activities (Jackson et al., 2010).

The textile industry is a manufacturing sector that tries to provide high-quality fabrics at a low cost to all segments of society due to a huge number of competitors. Investing in a green work climate enhances environmental and financial performance, giving companies a competitive advantage (Longoni et al., 2018). The results of this research showed that GWCPs have a direct relationship with social, economic, as well as EP, which supported H25 to H27. The results showed that workers' views of the green work climate in the organization are favourably linked to the sustainable performance of textile companies. This is consistent with earlier studies (Ritala et al., 2015), which found a substantial beneficial link between the working environment and the performance of workers. As a consequence, improving the green work climate will result in better sustainable performance without necessarily increasing expenditures (Yasin, 2021). Furthermore, the problem of sustainability offers both an opportunity and a concern in emerging countries like Pakistan. Green practices are still evolving, and more attention is needed in this area; it is worth mentioning that textile businesses are less supportive of greening current HRM processes (Mishra et al., 2014).

Finally, a connection between GHRM practices and social, economic and EP was found. Traditional performance management techniques placed a premium on objectives like improving an organization ability to maximize profit while ignoring environmental issues (Ramasamy, 2017). The findings of this study are in line with those of (Al Kerdawy, 2019), who found a positive relationship between GHRM and sustainable performance. The textile sector's humanitarian services serve as an ultimate goal in terms of sustainable performance, leading to a high degree of performance. Many studies have looked at the advantages of green work climate and sustainable performance for businesses (Chen et al., 2017). In certain cases, a green work climate is required as it is good for both society and the environment. In recent studies, "green work climate" has caught the attention of sustainable strategists because it can make a positive difference in social, economic, and environmental settings (Mousa et al., 2020).

The role of GWCPs determines how passionate employees are about an organization environmental initiatives. The alignment of individual employees' perceptions, beliefs and norms with an organization's practices, goals and standards influences their behaviour (Paillé et al., 2013). The result is that a confluence of human and organizational ecological factors (represented by GHRM) may encourage workers to participate in environmental efforts in the organization (Dumont et al., 2017a). However, GWCPs did not moderate the relationship between green hiring and social performance (H46, $p > 0.05$) or between green training and development and social performance (H49, $p > 0.05$). This is because the cultural standards, attitudes and values of participants may have had an unclear impact on how they see the needs and processes of their job, as well as how they view GWCPs. The findings of this research, together, confirm the ideas put forth by previous research and therefore add to GHRM behavioural research theory and practice.

Further, in contrast to the above, GWCPs moderate the relationship between green hiring and economic and EP (H47 and H48, $p < 0.05$), green training and development and economic and EP (H50 and H51, $p < 0.05$) and GPMC and social, economic and EP (H52 to H54, $p < 0.05$). This study's findings support a green resource viewpoint, showing the moderating effect of GWCPs on the link between GHRM practices and sustainable performance. This finding is similar to that of Bissing-Olson et al. (2013).

5.6 Chapter summary

This chapter addressed the findings of the research. The purpose of this research is to determine to what extent GHRM practices in the textile industry of Pakistan are being implemented and their effect on the sector's sustainable performance. In addition, the study found a mediating and moderating effect of green attitudes, green behaviours and green work environment perceptions on the connection between GHRM practices and sustainable performance. The results indicated that only a limited range of GHRM practices have been utilized, where green hiring, GPMC, and green training and development are the most important activities. This research aims to provide academics with GHRM practices in a developing country setting and empirical data that demonstrates the significance of GHRM practices in enhancing employee attitudes towards behaviours and sustainable performance. Green attitude and green behaviours are shown to be major mediators between green hiring, green training and development, GPMC and sustainable performance in terms of social, economic, and EP. However, green behaviour did not appear to mediate the relationship between green hiring and EP or the association among green training and development and social, economic and EP. Furthermore, research findings revealed that GWCPs have a significant moderating impact on GHRM practices and sustainable performance on social, economic and environmental dimensions. However, GWCP is not appear to moderate the relationship between GH, GTD and social performance.

CHAPTER SIX: RECOMMENDATIONS AND CONCLUSION

This chapter provides recommendations based on the current research. This chapter also summarizes the findings and the implications for practitioners and academics. Section 6.1 focuses on management implications, and section 6.2 on theoretical and practical contributions. Finally, section 6.3 discusses limitations and future research.

Several empirical studies (Mishra, 2017) highlighted the critical importance of GHRM practices, including green hiring, training and incentives, and assessments, in greening firms and improving sustainable performance. However, GHRM practices continue to develop in underdeveloped nations, and textile decision-makers must pay more attention to them. Furthermore, stakeholder pressure on environmental protection will put pressure on textile companies to develop, adopt and execute environmentally friendly practices. The present study findings are supported by Pinzone et al. (2016).

This research offers four implications for GHRM policymakers and sustainability. First, by evaluating the degree of application of GHRM practices in the textile industry, this research extends the knowledge of GHRM practices provided in the current literature, especially in developing countries. When decision makers know the implementation level, they may enhance their strategic plans by selecting green practices that influence the pillars of sustainability. Textile managers should spend more on green practices to take full advantage of these techniques. The research examined the connections between the use of GHRM and sustainable performance in textile organizations and added evidence of the beneficial links between GHRM practices and sustainability to existing literature in conjunction with the three sustainable performance pillars (social, economic and environmental). Second, managers can also increase staff's knowledge of the beneficial effects of green initiatives on environmental and sustainable organizational performance. These measures include trash minimization, recycling and energy conservation. Third, the current research investigated the textile industry's

GHRM by concentrating on the textile organizations in the cities of Lahore and other cities of Punjab province, which are referred to as the country's textile centres. All textile organizations working in Lahore and other cities of Punjab province were included in the present research. Since the textile industry substantially contributes to the deterioration of the environment (Sharifa, 2020) data was gathered from middle-level and upper-level employees from different textile organizations to cover the whole sector throughout the data analysis. In this research, a framework was established to help textile industry managers promote green practices to reduce waste generation and facilitate the application of green culture. This would result in good sustainable future performance through waste avoidance. In addition, the connections between green strategic plans and HRM practices were highlighted as improving organizational sustainability. As a result, sustainability managers must encourage textile organizations to foster sustainable performance engagement between top management and workers, as well as strengthen collective behaviour and attitudes towards environmental concerns.

The study's conceptual framework may be helpful in analysing the association among GHRM practices and sustainable organizational performance in textile organizations. This research shows that green management techniques have become a significant component of the environmental sustainability of businesses. A strong emphasis on GHRM practices enables workers to develop the skills required to protect companies' environmental issues. As a result, such knowledgeable and competent staff may feel encouraged to take advantage of all the possibilities that their organization must provide to become environmentally efficient and competitive. The research also attempted a preliminary integration of several ideas for green management practices into the NRBV and theory of planned behaviour. However, the potential impact of such behaviours in the present environment remains understudied.

The present research has shown a favourable connection between GHRM practices and sustainable performance. Companies should thus focus on GHRM practices to enhance

sustainable performance. Many academics have already emphasized the significance of GHRM (Huang et al., 2011). It is essential to embrace GHRM in order to achieve an organizational green agenda (Arda et al., 2019; Hameed et al., 2020; Shafaei et al., 2020b). The connection between GHRM practices and sustainable performance, in particular in Pakistan's industrial sector, is, nevertheless, understudied; to address the gap, the textile production sector was chosen in this research to test the predicted connection.

The majority of GHRM practices have been shown to have a beneficial impact on green attitudes, green behaviours, GWCPs and sustainable performance. This finding is consistent with earlier research (Chen et al., 2013; Yong, Yusliza, Ramayah, et al., 2019). Due to a lack of green culture in organizations, some GHRM practices do not have a significant impact on green attitude, green behaviour, and social, economic and EP. GHRM practices are an invaluable intangible resource that greatly helps with organization innovation and development (Shoaib et al., 2021). Green hiring, green training and development and GPMC also play a key role in improving companies' green performance (Massaro et al., 2018). This study demonstrates that workers are not fully aware of GHRM practices in their workplaces for the greening of organizations. Companies with a high level of usage of GHRM tend to have self-motivated employees who voluntarily comply with environmental legislation. Green employees not only comply with environmental requirements or surpass them, but also create a competitive advantage for the organization.

The research demonstrated the mediating and moderating functions of green attitude, green behaviour and GWCPs in GHRM practices, which is a sustainable performance connection. However, green attitude did not fully mediate all the relationships between green training and development and social, economic and EP, whereas green behaviours are mostly mediating the relationship. Further, green behaviour did not mediate the association among green hiring, GTD, GPMC and environmental performance. This is due to the HR department's

lack of sufficient understanding of environmental care in organizations; owing to this, the staff do not participate in green initiatives. This can be overcome if companies connect their HR practices with the broader corporate green objectives. Various HR strategies would influence the organization green attitude and working environment. GHRM practices are thus largely dependent on the emphasis of the HR department on promoting environmental initiatives inside the business.

Finally, this study offers a theoretical addition to the NRBV and theory of planned behaviour hypothesis. This idea suggests that GHRM practices are vital to an organization's development. The present research has thus expanded the argument by utilizing GHRM practices as a precedent for an organization sustainable performance. The literature on the association among GHRM and the green environment is still in its early stages. Shafaei et al. (2020a) made a major contribution by exploring the connection between GHRM and competitive advantage. This new line of study has thus been investigated in current research and has contributed significantly to the literature on sustainable performance and GHRM practices. The mediating and moderating impact of green behaviours, attitudes and work climate perceptions also offers researchers a new perspective. Finally, the most recent research has examined the connection between GHRM practices in developed economies and sustainable performance. The findings of earlier studies are expanded and confirmed by studies in a growing economy such as Pakistan's.

6.1 Managerial implications

The research improves leaders' and managers' understanding by providing a number of implications of improving the sustainable of their organization. The model of this study gives important insights into how GHRM practices in companies are successfully used, managed and promoted. It further explores the key role of green behaviours, attitude and work climate perceptions in promoting sustainable performance. In addition, this model may serve as a

guideline for manufacturing companies that consider GHRM practices as important activities that may contribute to better sustainability.

Organizations must therefore implement GHRM strategies to protect the expertise of their employees (Shoaib et al., 2021). In addition, leaders should establish a culture of collaboration to encourage the sharing of information among workers. By using this approach, all workers will improve their level of competence. In an age of increasing environmental awareness, the demand from stakeholders to implement green initiatives is very strong. Companies must establish a good connection with their clients, suppliers, distributors and environmental authorities to better understand the requirements of different stakeholders (Amjad et al., 2021). Connections with many groups would not only be helpful in reducing the environmental impact, but would also lead to joint efforts to produce eco-friendly goods.

Organizational initiatives should focus on improving the environmental knowledge of personnel. The EMS should harmonize all HR processes. The HR representative should start a dialogue with senior management to develop an organizational policy on environmental protection efforts and to adopt GHRM practices and other activities inside a textile organization. The recruitment and selection policies of an HR department should be based on the identification of the environmental knowledge of candidates. Training programmes for environmental protection must be established. This will assist workers to embrace green manufacturing methods that are designed to meet the needs of environmentally aware consumers. Promotion criteria must also include the commitment of workers to adopt green environment at work. Employees who show enthusiasm for the environment must be recognized and utilized as environmental catalysts. In addition, workers who continue to be actively involved in environmental protection activities, such as waste reduction, recycling and volunteer cleaning, should be rewarded.

The success of a system for environmental preservation needs the dedication of senior management. The HR department, which aims at preserving knowledge and greening its HRs, should get full backing from top management. Without strategic support from corporate leaders, green HRs cannot be maintained. Politicians must thus understand the significance of GHRM and environmental protection. Due to the rising demands from stakeholders and consumers, industrial companies must comply with environmental legislation to achieve corporate environmentalism.

The results of this research contribute to the existing body of research in environmental psychology by highlighting the crucial importance of green hiring, training and development, GPMC, attitude, behaviour and work climate perceptions in attaining social, economic and EP. There are a number of practical ways to improve processes, including the use of electronic documents in place of paper ones, a reduction in the amount of paperwork in the organization, monitoring the implementation of eco-friendly laws, a focus on long-term development, the management of products, regular reporting, and environmental education for employees, suppliers and contractors.

6.2 Theoretical contributions

There are also theoretical implications of this research. This research provided evidence that GHRM practices are pivotal in attaining desired SDGs, especially in developing countries such as Pakistan. The results of this research demonstrate this connection by providing unique insights into the role of green training and development, green hiring and GPMC in environmentally friendly companies. In addition, the research utilizes NRBV theory and theory of planned behaviour to investigate the mediating and moderating impact of green attitudes, green behaviours and GWCPs to explain the relationship between GHRM practices and sustainable organizational performance. This NRBV-based discussing way in which workers can contribute to an organization's EP. The findings of this research recommend an in-depth

study to solve the environmental problems faced by businesses, especially with respect to developing nations.

This study is a scholarly contribution in which the researcher talks about the organization's sustainability, as well as the less obvious areas of sustainability in traditional management. Previous research highlights the significance of GHRM practices in recruiting, training and development, reward and assessment for greening an organization and improving employee performance (Mishra et al., 2014; Ramus et al., 2007). However, this study investigated these phenomena's relevance to the context of developing nations as GHRM practices are still evolving in underdeveloped nations and require the attention of decision makers. Although the present study was performed in the local context of Pakistan, the results can be more widely generalized, particularly to developing nations, since green and sustainable management has become a worldwide problem (Dumont et al., 2017b). The following are the three significant theoretical contributions of this study:

- i. First, it addresses a gap in the literature by providing empirical data for the degree of implementation of green attitudes, behaviours and work climate perceptions in this key industrial sector (textiles), and it does so in a unique way in a developing country context. In reality, this is pioneer research that addresses the key issues of GHRM and sustainable development in the context of Pakistan.
- ii. Second, it investigates the influence of green attitudes, behaviours and work climate perceptions on sustainable performance, and adds a valuable contribution. The implications of this research in the context of Pakistan in relation to GHRM practices and sustainable development are considered. No previous research has examined these connections in a manufacturing industry, such as textiles.
- iii. A conceptual framework was established for textile businesses that provides a legitimate process and relevant insights for employing GHRM practices as a way of

enhancing sustainable development. This type of combination in a research framework has not been used before. In this regard, this study is important as it contributes to the body of knowledge for academics and researchers.

This research gives valuable insights to industrial managers into how GHRM practices can be selected for their organization's sustainability. The research also helps managers to learn how to inspire their workers to solve environmental problems in a more meaningful and positive manner. This research focuses on the significance of GHRM practices in the textile industry in Pakistan. In the era of globalization, senior management and HRM are responsible for adopting green practices by including GHRM ideas in the vision and purpose statement of their organizations. Senior management should thus integrate environmental efforts, as reflected in its operating choices, into organization views and images. The research may support and inspire managers to create and connect sustainable strategic objectives with GHRM in particular. This may help workers deepen their involvement in sustainable environmental practices for more successful EP. The research can benefit green education and development, and green performance management and assessment in the textile sector. It establishes a connection between GHRM and sustainability that is vital to the Pakistani textile industry's threefold (social, economic and environmental) performance bottom line.

Researchers and industries are responsible for creating and promoting a green culture among internal customers, external consumers and all other stakeholders in environmental protection and conservation of natural resources for future generations. The results of this research should thus encourage industries to increase their workers' knowledge and to provide training in GHRM practices that are needed in the modern era. Another benefit of this study is that it helps to build a culture of rewarding employees for their environmental attitudes and behaviours, which could help Pakistan's textile image in the world market. This study further presents an outline of a research subject for managers that is very important when GHRM

practices are integrated with the organization's sustainability. It also discusses how managers may incorporate sustainability into everyday business issues. Researchers and management are encouraged to carry out additional studies to evaluate and enhance these proposals as part of future studies.

The organization's sustainable development strategy should initially include GHRM practises. The adoption of environmental HRM practises may help businesses encourage environmentally responsible behaviour on an individual level. According to a growing number of academics, firms should successfully integrate GHRM practises to establish green organisational policies (Dumont et al., 2017a; Hameed et al., 2020; Jyoti, 2019).

The study suggests that organizations should integrate environmentally friendly behaviour in HRM processes. Management should incorporate environmental concerns into job descriptions and environmental standards for job design and recruitment messaging (Srivastava et al., 2019). During interviews, environmental questions should be asked in order to understand the degree of environmental knowledge, awareness, concern and dedication of the applicants. In addition, workers need to know their green objectives, goals and duties. An organization's performance evaluation system can be improved by including environmental management objectives and goals; providing regular feedback to help employees achieve environmental goals or improve their EP; and including EP as an indicator for evaluation in order to improve the organization's performance management system (Rawashdeh, 2018). Another factor to take into account is the need for green training and development. Providing environmental education to every employee is essential to promoting environmentally friendly attitudes and behaviour. Organizations should do a training requirements analysis to find out what kind of training their employees need in terms of being environmentally friendly. Financial and non-financial incentives for staff with excellent EP would encourage other workers to conduct themselves pro-environmentally. Opportunities for participation in green

suggestion programmes and collaborative discussions on environmental problems may also be helpful in improving employees' sustainable performance.

6.3 Limitations and future research work

This research has limitations, as is common with research. The first limitation is that experts and HR managers working in textile companies in developing countries lack GHRM experience, which necessitated extra data and information from participants that might have influenced outcomes. Only a few studies on GHRM practises and their impact on sustainable development have been conducted in this manufacturing sector, so the researcher advises testing the current study's hypotheses in the textile sector in other developed and developing countries in order to confirm the study's findings. To understand the impact of GHRM practises in sustainable performance in a range of situations, the proposed conceptual GHRM framework should be applied to various contexts. According to recent studies, additional cross-functional investigations, such as the evaluation of the relationship between green management systems in HR and supply chain operations, are required (Massaro et al., 2018). This relationship might perhaps be investigated further in the textile sector in future studies. Finally, this study employed three pillars to examine the impact of GHRM practices on sustainability (social, economic and environmental). Because few studies in this field have been done, future studies may focus on crucial topics in this area, such as social performance, the role of GHRM and mediation factors associated with the manufacturing sector (e.g., corporate citizenship behaviour) (Massaro et al., 2018; Pinzone et al., 2016).

The textile industry in Pakistan provided the data used in this research. The results need to be applied to other cultures and business sectors, nevertheless, in order to achieve long-term organizational success in the field of GHRM. Further investigation should be conducted to determine how GHRM practices could assist businesses in producing cleaner goods and lowering environmental risk due to the dearth of experimental trials. To broaden the

generalization of recent findings and determine the best combination of GHRM practices necessary for environmental sustainability, which will eventually contribute to organizational sustainability, in the context of other developing countries, in-depth investigations into the textile and other manufacturing industries are required. The generalizability of the study's findings is constrained in a number of ways. This is mostly because of the small sample size and the constrained geographic area.

The focus of this study was on a specific sector (manufacturing) and a single nation, namely Pakistan. It therefore restricts the generalization of results to other industries. For validation purposes, this model should also be used in other industries. In addition, a cross-sectional study design was employed and longitudinal and experimental research methods are thus recommended.

The literature is not sufficiently available to develop the narration of the said matters particularly in the context of the textile sector in Pakistan. The industry itself is not supportive to provide insights about GHRM practices, attitude, behaviour, work climate perceptions and sustainable performance. The policies of the government are not clear and readily available for use by researchers. The Pakistan Environmental Protection Act (1997) is not fully functional and cannot provide guidelines and support to industries, especially the textile sector.

In addition, the research utilized a self-reported survey of textile organization employees. Although self-reported measurements (Wall et al., 2004) are deemed valid, future investigations should recruit respondents from many organizations. In addition, this research was based solely on internal stakeholders' answers, whereas the participation of external stakeholders may offer important insights into the EP of organizations. Despite many constraints, the present study examined the connection between GHRM practices, green attitude, behaviours, work climate perceptions and sustainable performance, particularly in the Pakistani textile industry. It showed that green workers are a significant asset for an

organization. These intangible assets could become a source of competitive advantage and may generate better sustainability through organizational processes (e.g., HR rules). More objective green behaviours should be investigated in future studies. Future investigations could examine the effects of GHRM practices on green behaviours using other mediators (e.g., employment satisfaction, green engagement and green lifestyle) and moderators (e.g., green self-efficacy and environmental awareness).

The findings of this research offer helpful insights for managers who wish to enhance the EP of their organization. Progressive firms require a clear strategy for green management to satisfy worldwide customers' expectations and stay competitive in international marketplaces. In order to do this, managers need to understand green management techniques and their possible results in detail. Textile managers must provide green training to enable the achievement of environmental objectives and a paradigm shift towards pro-environment. In addition, Pakistan's expanding textile industry should critically evaluate the results of these policies via periodic workplace surveys to further organizational choices. It is also essential for Pakistani government authorities to develop environmental laws that require the inclusion of green corporate practices. Continuous monitoring and balancing by government would also help to improve environmental sustainability in Pakistan's industries.

Advanced research should include an in-depth study of the variables studied in this research across different Pakistani industrial sectors. In the future, some additional factors, such as culture, gender, transformative leadership and employee resistance, could also be examined to enhance research into environmental sustainability. This research can be expanded to other industrial sectors or a cross-country analysis could be carried out including numerous intermediate variables, particularly for green management organizations.

In the present research, the relationship between GHRM practices and sustainable performance is moderated by GWCPs. It is recommended that the influence of leadership style

on the relationship between GHRM practices and sustainable performance be investigated. Many studies have shown a link between how employees perceive their organization rules, beliefs and goals and the leadership practices and actions of those executives (Altinay et al., 2019). Accordingly, workers are likely to comply with organization regulations and expectations of their roles if they feel they have a positive relationship with their manager (Černe et al., 2018). As a result, future research might benefit from adding the moderating influence of leadership styles to the green framework of the present study.

Paillé and Mejía-Morelos (2014) recommended that future research could combine the theory of planned behaviour, social exchange theory and value-belief-norm theory. In this way, research could contribute to a better understanding of green behaviour and attitudes as mediators in the workplace. Future research should employ other theories, such as social exchange theory, or develop new theories using qualitative methods that could contribute to knowledge. Future researchers are encouraged to depict the model in a multi-level analysis.

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Annexure A

List of Textile Weaving and Spinning Mills

Textile weaving mills in Punjab:

1. Hakkim Textile Mills Limited
2. ICC Industries Ltd.
3. Sadoon Textile Industries Ltd.
4. Service Fabrics Ltd.
5. Samin Textiles Ltd.
6. Prosperity Weaving Mills Ltd.
7. Yousuf Weaving Mills Limited.
8. Interloop Limited.
9. Zephyr Textile Limited
10. Azgard Nine Limited.
11. Aruj Industries Limited.
12. Cordoba Logistics & Ventures Limited
13. Ghazi Fabrics International Ltd.
14. Hala Enterprises Limited
15. Kohinoor Mills Ltd.
16. Hamid Textile Mills Limited
17. Jubilee Spinning & Weaving Mill
18. Kohinoor Industries Ltd.
19. Kohinoor Textile Mills Ltd.
20. Mubarak Textile Mills Ltd.
21. Ashfaq Textile Mills Ltd.
22. Mohib Exports Ltd.

23. Ahmed Hassan Textile Mills Ltd. (XD)
24. Nishat (Chunia) Ltd.
25. AN Textile Mills Ltd.
26. Chenab Limited
27. Crescent Textile Mills Ltd.
28. Fazal Cloth Mills Ltd. (XD)
29. Jubilee Spinning & Weaving Mill

Textile spinning mills in Punjab:

1. Bilal Fibres Ltd.
2. Crescent Fibres Limited.
3. Colony Textile Mills Ltd.
4. Chakwal Spinning Mills Limited.
5. Data Textile Ltd.
6. D. S. Industries Ltd.
7. Dar-es-Salam Textile Mills Ltd
8. Ellcot Spinning Mills Ltd.
9. Hajra Textile Milla Ltd.
10. J. K. Spinning Mills Ltd.
11. Kohinoor Spinning Mills Ltd.
12. Khalid Siraj Textile Mills Ltd.
13. Nazir Cotton Mills Ltd.
14. Salman Noman Enterprises Ltd.
15. Service Textile Mills Ltd.
16. Shadman Cotton Mills Ltd.
17. Shadab Textile Mills Ltd.

18. Sally Textile Mills Ltd.
19. Saritow Spinning Mills Ltd.
20. Shahzad Textile Mills Ltd.
21. Nishat Mills Ltd.
22. Shams Textile Mills Ltd.
23. Suraj Cotton Mills Ltd. (XB)
24. Taj Textile Mills Ltd.
25. Zahidjee Textile Mills Ltd.
26. Zahur Cotton Mills
27. Amtex Limited.
28. Asim Textile Mills Ltd.
29. Allawasaya Tex. & Finishing Mills.
30. Crescent Cotton Mills Limited.
31. D. M. Textile Mills Ltd.
32. Fatima Enterprises Ltd.
33. Hira Textile Mills Ltd.
34. J. A. Textile Mills Ltd.
35. Khurshid Spinning Mills Ltd.
36. Kohat Textile Mills Ltd.
37. Maqbool Textile Mills Ltd.
38. Saif Textile Mills Ltd.
39. Mehmood Textile Mills Ltd. (XD)
40. Masood Textile Mills Ltd.
41. Reliance Weaving Mills Ltd.

Annexure B

Section A: General Information

1. Gender

Male []

Female []

2. Please indicate your age bracket below;

25 years []

26–35 years []

36–45 years []

46–55 years []

Over 55 years []

2. Designation & Organization

4. For how long have you worked in the organization?

Less than 2 years []

between 2 and 4 years []

Between 5 and 7 years []

Over 7 years []

Section B:

Please indicate your level of agreement with the following statements concerning the extent to which people who are committed and sensitive to social, economic and environmental issues, with the potential to contribute to the environmental management of an organization, are selected. Where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree.

5. Green Hiring		1	2	3	4	5
5.1	Our job positions are designed to emphasize our organization active participation.					
5.2	Job positions are designed to focus on a decrease in costs for energy consumption.					
5.3	Our organization recruits employees who have knowledge to decrease costs for materials purchasing.					
5.4	Job positions are designed to focus on the environmental management aspects of our organization.					

5.5	The organization prefers to recruit employees who have knowledge of environment sustainability.					
5.6	Environmental performance of the organization attracts highly qualified employees.					
5.7	Job seekers are attracted by the environmental image and policies of the organization.					

Section C:

6. Please indicate your level of agreement with the following statements concerning the extent to which employees ensure adequate resource utilization, reduce waste, energy safeguarding and climate change. Where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree.

6. Green training and development		1	2	3	4	5
6.1	My organization provides employees with green training to promote green values.					
6.2	My organization provides employees with green training to develop employees' knowledge and skills required for green management.					
6.3	Topics offered through green training are modern and suitable for organization activities.					
6.4	Employees who receive green training have the opportunity to apply green knowledge in everyday activities.					
6.5	Evaluation of green training and development helps to measure the employees' level of green knowledge and awareness.					

6.6	Our organization has continuously improved its training and development programmes on environmentally friendly practices.					
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Section D:

7. Please indicate your level of agreement with the following statements concerning the reward and monitoring system of your organization. Where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree.

7. Green performance management and compensation		1	2	3	4	5
7.1	Specific environmental goals are adopted by every manager and employee in the organization.					
7.2	When environmental programmes are improved, employees are rewarded for their remarkable ideas.					
7.3	Employees who have achieved the objectives of environmental sustainability are well rewarded (financially or non-financially).					
7.4	Section managers reward staff in their departments when they improve environmental programmes.					
7.5	One of the criteria for employee performance assessment is the achievement of environmental objectives.					

Section E:

8. Please indicate your level of agreement with the following statements concerning the extent to which environmentally friendly working is supported by the organization concerned. Where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree.

8. Green work climate perceptions		1	2	3	4	5
8.1	My organization is interested in supporting environmental degradation causes.					
8.2	My organization believes that it is important to protect the environment.					
8.3	My organization is concerned with becoming more environmentally friendly.					
8.4	Our organization is interested in supporting environmental causes.					
8.5	In our organization, employees pay attention to environmental issues.					
8.6	In our organization, employees care about the environment.					

Section F:

9. Please indicate your level of agreement with the following statements concerning the extent to which green attitudes are a tendency to react consistently positively or negatively to environmental issues. Where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree.

9. Green attitudes		1	2	3	4	5
9.1	I believe that workplace practices that could improve sustainable performance.					
9.2	I encourage my colleagues to adopt more environmentally conscious, sustainable behaviour.					

9.3	I make suggestions about ways to protect the environment more effectively.					
9.4	I spontaneously give my time to help my colleagues with their jobs.					
9.5	I stay informed of my organization green human resource management efforts.					
9.6	I believe that green products help to reduce pollution.					
9.7	I believe that green products help to save nature and its resources.					

Section G:

10. Please indicate your level of agreement with the following statements concerning the extent to which there is individual friendly behavior toward the environment. Where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree.

10. Green behaviours		1	2	3	4	5
10.1	My organization considers employees' workplace green behaviour in performance appraisals.					
10.2	My organization relates employees' workplace green behaviours to rewards and compensation.					
10.3	I spontaneously give my time to help my colleagues take the environment into account in everything they do at work.					
10.4	I encourage my colleagues to adopt more environmentally conscious behaviour.					

10.5	I suggest new practices that could improve the environmental performance of my organization.					
10.6	I encourage my colleagues to adopt more environmentally conscious, sustainable behaviour.					

Section H:

11. Please indicate your level of agreement with the following statements concerning social performance. Where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree.

11. Social performance		1	2	3	4	5
11.1	This organization is helpful for developing economic activities in the community and providing more job opportunities.					
11.2	This organization communicates the firm's environmental impacts and risks to the public.					
11.3	This organization protects the claims and rights of local people or the local community.					
11.4	This organization prioritizes employee and community health and safety.					
11.5	This organization recognizes and acts on the need to fund the local community.					

Section I:

12. Please indicate your level of agreement with the following statements concerning economic performance. Where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree.

12. Economic performance		1	2	3	4	5
12.1	This organization sells waste products for revenue.					
12.2	This organization reduces costs for waste management for an equal level of outputs.					
12.3	Our products and/or services satisfy national and international quality standards.					
12.4	We provide our customers with accurate and complete information about our products and/or services.					
12.5	We strive to enhance stable relationships of collaboration and mutual benefit with our suppliers.					
12.6	Our economic management is worthy of regional or national public support.					

Section J:

13. Please indicate your level of agreement with the following statements concerning environmental performance. Where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree.

13. Environmental performance		1	2	3	4	5
13.1	Our organization reduces energy consumption.					
13.2	Our organization reduces waste and emissions from operations.					
13.3	Our organization reduces the risk of environmental accidents, spills and releases.					
13.4	Our organization minimizes the environmental impact of its activities.					
13.5	Our organization reuses and recycles materials.					

13.6	Our organization regularly conducts environmental audits.					
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