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# **The Role of Sustainable Human Resource Management Practices in Developing Sustainable Innovation**

International Business

Master's thesis

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### **Abstract**

Social and environmental challenges have created complex competitive environments while simultaneously encouraging companies to accept environmental and social responsibility towards people and planet. Companies are increasingly focusing on sustainable innovation to address global expectations and challenges. Sustainable Human Resource Management (SHRM) plays a key role in developing innovative culture within organizations. This research explores on the influence of sustainable human resource practices on the generation of sustainable innovation.

A qualitative case study approach was chosen, employing semi-structured interviews and documentation analysis. This study focuses on three core aspects of Sustainable Human Resource Management (SHRM), ecological, social and strategic. The ecological aspect of SHRM incorporates recruitments that are environmentally oriented, green trainings, performance evaluations which are sustainability focused and reward systems that are ecologically motivated which will eventually promote employee engagement in the sustainable initiatives. Social aspect of the SHRM emphasizes on the topics such as safety in workplaces, mental wellbeing, diversity, equity and inclusion and contribution to corporate social responsibility. Supportive environment within the organization will be created by fostering to these evaluations which will enhance the employee commitment towards creativity and team collaboration. The strategic aspect of SHRM highlights the importance of adaptation and innovation in the long-term planning by developing the leadership, an efficient HR, aligning HR policies, and proving job security. These practices contribute to sustainable innovations by cultivating a sustainability-conscious workforce.

The findings of this research reveal how ecological, social and strategic aspects of SHRM influence sustainable innovation across three stages, namely operational optimization, organizational transformation and system building. SHRM plays a significant role in influencing organizations to pursue a sustainable competitive advantage by integrating people management into innovation strategies.

**Key words:** Sustainable Human Resource Management, Sustainable Innovation, Operational Optimization, Organizational Transformation, System Building

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# 1 Introduction

## 1.1 Background of the study

Over the past few decades there have been several challenges identified as significant for the livelihood of the planet's sustainability. Climate change has remained one of the most critical concerns and always been the most important talking point alongside resource depletion, endangerment of various species, massive water and air pollution. These global concerns massively resulted from unsustainable production and consumption which happened after the industrial revolution (Rafferty 2017,4).

These challenges set a significant threat to the survival of the human being in the planet earth (European Environment Agency 2023; Victor, 2001). Finding solutions for the challenges the concept of sustainability and sustainable developments came to light. Sustainability encouraged corporate world to adapt and proactively engage in producing and maintaining practices to address these said challenges.

The United Nations platform, World Commission on Environment and Development (WCED) established sustainability as the blueprint for handling the connection between environmental, social and economic challenges encountered with the fast-growing population in the world. In the simplest term, sustainability is identified as systematic, durable and long-term approaches to the future (Filho 2000,1). As time passes, organizations are actively contributing to sustainability by enhancing their strategies and implementing sustainable developments into their policies and practices. So that it will be helpful to review and alleviate their operations that would have a positive impact on environmental, social and economic constraints (Ehnert 2009; Sharma & Gupta 2015,2). KPMG survey of Sustainability Reporting 2024,7 has mentioned that companies that are globally recognized highlights this trend. Furthermore, those reports have mentioned that 96% of the G250 companies and 79% of N100 companies repeatedly put their sustainability performances in their annual reports since 2022.

This is where Human Resource Management come to address above challenges. HRM plays a pivotal role acting as a key driver to implement sustainable development strategies successfully by enhancing and developing skills for sustainable workplace, promoting ethical work environment, encouraging innovation, creativity and adaptability among employees (Kadeni & Akmadani 2024,1882). Sustainable HRM provide the path by guiding people with support and resources to connect with practices that are innovative which are ultimately aligned with the organization's

sustainable goals (Wikhamn 2019,105). Sustainable Human Resource Management (SHRM) has not much of a history to refer into as it is a relatively recent concept, therefore the main problem is that SHRM has lack of recognised definitions, and the field itself is still developing.

Sustainable HRM can be defined as the implementation of HRM strategies and practices that provide the accomplishment of environmental, social and economic targets, that could have an impact, both externally and internally on the organization for a long time while controlling the unscheduled effects (Ehnert et al. 2016,90). At the same time, HRM exponentially influence how Corporate Social Responsibility (CSR) is implemented in the realms of particularly treating employees (Voegtlin & Greenwood 2016,13). There are other certain studies such as Gričnik et al. 2023; Kramar 2014a; Viitasaari 2021, explored how to use SHRM as an application or as a concept, contributing to the fact, the importance of having a labour force associated with long standing-term sustainability goals. Combining sustainable HRM with strategies implemented by organizations has the possibility of creating environments filled with innovation, cooperation, and extended value creation. As Sossa et al. (2022,18), justifies being innovative is just another trait of being knowledgeable, skilful and using technologies to adopt to the needs of an individual or the whole society.

As businesses started to be involved with challenges in demand, sustainable innovation has become an enormous topic of research such as environmental and social challenges. Sustainable innovation encompasses with product, services, processes or business models which addressing solutions for the environmental issues (Tello & Yoon 2008,165). There is a significant role played by sustainable innovation to battle climate change using tendencies such as smart grids powered by 5G, green hydrogen, foods that are grown in laboratories, and shared economic growth (Marketeer 2024). Adams et al. (2016,16-19) and Chesbrough & Crowther (2006, 232-235) identifying open innovation nurture sustainable innovation which are regularly dependent on human resources. According to Gupta (2024,4), those who invested and enthusiastically engaged for corporate environmental programs in the workplace, have a probability to steer sustainable innovation and they play an influential part as a change agent. Sustainable Human Resource Management will operate as the backbone of innovation, partnerships and governance of organizations and the successfulness of moving forward of the organization.

Orientation of sustainable HR practices and sustainable innovation provides a unique opportunity to organizations to have a competitive edge over their competitors. The advantage is that they simulta-

neously focus on environmental and social sustainability whilst attaining economic success. Numerous studies have revealed how sustainable HRM practices increase sustainable innovation. However, most of the recent research have concentrated on the ecological part, such as how green HRM act as an encouragement for green innovation (Faheem et al. 2024; Fang et al.2022; Mittal & Kaur 2023; Tu et al. 2024; Zihan & Makhbul 2023.) These studies have emphasized the necessity of exploring further on how HRM can integrate sustainable human resource management and sustainable innovation efficiently and productively.

## **1.2 Purpose of the study and research questions**

Sustainable Human Resource Management (SHRM) have ecological, social and economic concentrations and it take on an obvious approach for encouraging sustainability within organizations (Ehnert et al. 2016,14-16). There is a limited incorporation of sustainability principles within HRM research and practices, and it is highlighted that the link between sustainable HRM and wider Sustainable innovation strategies relatively unexplored.

There is an inclination of tendencies for studies published on the topic of Sustainable Human Resource Management (Järlström et al. 2023; Kumar 2018) and the improvements of Sustainable Innovation (Boons et al. 2013; Sossa et al.2022). There has been increasing attention only recently to the relationship between HRM and innovation, but much of the current research has dealt with these constructs in isolation. As illustrated above, several studies have investigated the relationship between green HRM and green innovation (Mittal & Kaur 2023; Renwick et al. 2016) as well as research which examined the connection between strategic HRM and green innovation (Peng et al. 2024) and how social HRM influence on innovation (Ramos-González et al. 2022).

Despite this, there is a major problem of lack of study on how the integration of ecological, social and strategic elements of the Sustainable HRM combine to positively bear on sustainable innovation. In such a scenario, HRM should involve a holistic approach in which efforts are directed not only towards environmental sustainability but also encompass employee well-being, social justice as well as long term strategic alignment (Kramar 2014b,1076).

In addition, sustainable innovation should be accompanied by organization systems that promote green capabilities, green values, and future perspective, which represent basic features of sustainable HRM practices. Failing to understand how these dimensions interact with each other to sustainable innovation, organizations will implement unsustainable initiatives in the hope for positive impact. This research therefore seeks to address this gap through integrated approach to

sustainable HRM and its role in sustainable innovation that provide new insights into effective human resources development for achieving environmental and social goals alongside competitiveness for the organizations.

Sustainable Human Resource Management (Sustainable HRM) is a combination of ecological HRM, social HRM and the strategic HRM, to support long term sustainable organization and organizational performance (Ehnert et al. 2016,90; Kramar 2014b,1076; Renwick et al. 2013,1).

The main research question which will be addressed through this research is “How do sustainable human resource practices influence the generation of sustainable innovation?” To respond this, the research examined four sub-questions:

1. What are the sustainable HRM practices implement in organizations?
2. How does the ecological aspect of SHRM practices foster sustainable innovation?
3. How does the social aspect of SHRM practices foster sustainable innovation?
4. How does the strategic aspect of SHRM practices foster sustainable innovation?

The study will find out which HR practices are implemented within aspects of environmental, economic and sociocultural sustainability in organizations. And this study aims to offer valuable perceptions into how organizations can support diverse sustainable HRM practices to drive sustainable innovation and improves competitive advantage and profitability but also contributes to more sustainable and reasonable future. This study is structured as follows. Chapter two provides the literature on Sustainable HRM, it's key dimensions and concept of sustainable innovation and models. Chapter three outlines the research approach, explaining how data was gathered and how it is ensured the trustworthiness of the study. It also discusses the basis behind the chosen method. The following sections focus on how data was analysed to get the results. In chapter four, it shares the key findings of the study, while chapter five highlights the research contribution to theoretical and practical aspects, discuss the limitations, and suggest future research studies. Finally, the last chapter wraps up with a summary of this research's main insights.

## 2 Literature review

### 2.1 The scope of sustainable human resource management

As a fundamental organizational management method, Human Resource Management (HRM) preserves its focus on the most important organizational asset which are workers (Ahmad 2015,2). The connection between Human Resource Management and sustainability has surged in recent times however Sustainable HRM remains under development with no standard definition agreed upon (Wikhamn 2019,103).

Academic experts and professionals maintain their study of HRM performance strategies aimed at achieving sustainable goals alongside organizational outcomes despite its expanded importance. Sustainable HRM joins HR policy frameworks to broader sustainability aims to enable companies in developing human capital who help create sustainable environmental and social and economic success (Ehnert 2009,421). Organizations must develop specified methodologies to hire and develop their workforce while maintaining long-term sustainability to make Sustainable HRM programs successful.

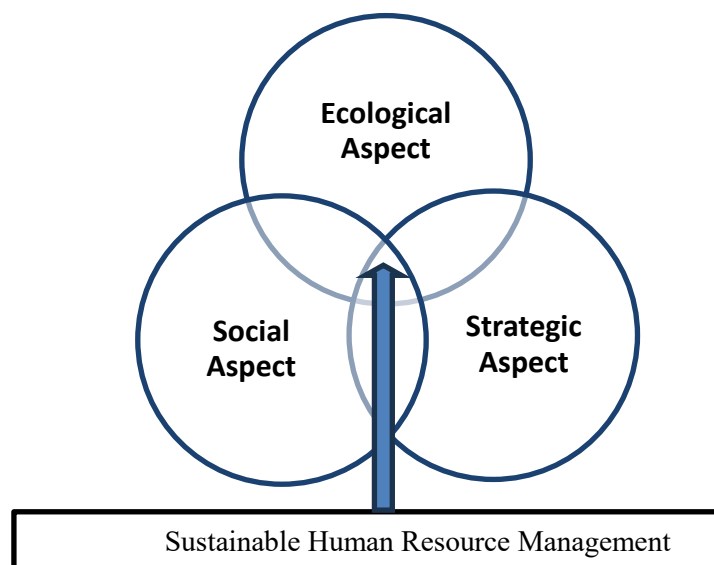


Figure 1 - Aspects of Sustainable Human Resource Management

The Triple Bottom Line (TBL) theory is applied for the sustainability matter of people, planet, and profit. SHRM is thus a useful framework to understand Sustainable Human Resource Management (Elkington's 1997). SHRM matches with TBL in demonstrating three related responsibilities. SHRM also has a social aspect that promotes employee wellbeing and fairness (people). And the encouragement to ecofriendly practices (planet) makes up ecological. The essence of strategic

aspect is as a tool for providing long term organizational sustainability (Profit). This indicates that HRM can contribute to achieving the wider sustainability goals.

Sustainable HRM as a planned or emerging system of human resource strategies and practices which deliver financial, social, environmental outcomes alongside long-term workforce excellence (Kumar 2018,170). The research by Aust et al. (2020,2) demonstrates how Sustainable HRM enables organizations to develop HR systems that resolve critical societal problems concerning employee welfare and workplace security alongside moral labor practices. Sustainable HRM represents HRM strategies and practices which support organizational financial goals and societal social and environmental objectives with external operations and internal operations (Ehnert et al. 2016,90). And it is mentioned that companies need to shift focus from temporary business success toward establishing HR policies which deliver enduring value across their workforce and businesses and their entire social system.

Much of research on sustainability has concerned Green HRM, discusses its significance in enhancing sustainability (Sharma & Gupta 2015; Zihan & Makhbul 2023) and exchanges green ideas of strategic HRM (Jackson & Seo 2010) as well as attempts to realize a green workplace (Stringer 2010). Existing research into the connection between CSR and HRM is studied by Voegtlin & Greenwood (2016), emphasizes the importance of the HR policies that establish the relation between the corporate responsibility initiatives and the HR functions like recruitment, employee engagement or the leadership development. However, the attention has not being attracted for these topics like it's being with social sustainability that could create proper employment practices, change and employee wellbeing. In this age of business development, environmental and social sustainability should be integrated within the human resource management practices (Boström 2012).

According to Järnlström et al. (2018), sustainable HRM is constructed by four main aspects from the point of view of top managers in Finland: justice and equality, profitability, employee well-being, and transparent HR practices. The authors had also identified four responsibility areas: legal-ethical, managerial, social, and economic. The research reveals key stakeholders in Sustainable HRM, managers, employees, customers as well as employee representatives. It can be supposed from these findings that the organizations need to consider a wide spectrum of other factors towards the implementation of the Sustainable HRM strategies in an organization.

Sustainable HRM has been investigated in Finnish companies in a later study by Järnlström et al. (2023), Utilizing Sustainable HRM, the research of their work found that businesses place attention

on employee long-term wellbeing and responsibility to the environment. Sustainability is integrated into human resource systems, employees are trained to preserve resources, employees are encouraged to work for social sustainability by aligning employee actions with company's sustainability goals. This illustrates how HRM can link sustainability strategies and operational business goals and objectives. Ehnert et al. (2016,90) argues that sustainable HRM is based on enhancing long term relationship between employers and employees, their families, education systems and environment. It follows from the above, that Sustainable HRM is a crucial component to help the organization meet its goals and they also lead to employee learning, enhancement of employee development and wellbeing. Those organizations that apply this approach will help to attract top talent, cultivate the culture of sustainability and innovation. According to Gollan & Xu (2014) a major challenge in Sustainable HRM is developing an HR policy that is corresponded to sustainability goals. HR practices on the other hand need to be designed for business success, improving equality, development and employee wellbeing. Sustainable HRM cannot be implemented by plan of the day, it is long term process and needed long term and visionary leadership and collaboration of different segments of an organization to prepare policy that benefits organization and benefit workers.

Nowadays, organizations are operating in ever changing environments, facing the challenges of more competition; much more complex work processes, shifting customers and demands, and short innovation cycles. As such, companies have to invest in the Sustainable HRM practices that are necessary for maintaining, developing and supporting their personnel in the long run (Griep et al. 2024,3). No more do business continuity only promise that the business will be there when the short coming or unpredicted manpower turnover has occurred, sustainable HRM promotes business continuity and encourages a more robust and flexible organization that is better equipped to meet economic and environmental uncertainties. Sustainable HRM can help organizations form a workforce that is ready to contribute toward a more sustainable future; a workforce that is motivated and skilled for such an end.

## **2.2 Models of sustainable human resource management**

Various models and frameworks have been articulated to explain how SHRM can support sustainability by integrating HRM practices with the broader corporate sustainability objectives. The models in Table 1 seek to link the HR strategy with sustainability goals. All these frameworks enable organizations to be viable and competitive in a dynamic business environment.

Table 1 - Summary of the sustainable human resource management models

| Author                              | Research Title   | Business Model or Framework                          | Key Dimensions  |
|-------------------------------------|--|--|---|
| <b>Gričnik et al. (2023,6)</b>      | Sustainable Human Resource Management  | Holistic view of SHRM                                | Socially responsible HRM, Green HRM, Tripple Bottom Line HRM, Common Good HRM   |
| <b>Saini (2022,6459)</b>            | Sustainable Human Resource Management: A Conceptual Framework  | A Conceptual Framework for Sustainable HRM           | Society, Environment, Economy   |
| <b>Kumar et al. (2020,1022)</b>     | Sustainability Adoption through Sustainable Human Resource Management: A Systematic Literature Review and Conceptual Framework | SHRM framework for sustainability adoption           | Indicators (Environment, social and economic sustainability), Drivers, Benefits and Barriers of Sustainable Human Resource Management                           |
| <b>Tabatabaei et al. (2017,117)</b> | Presenting SHRM Model based on balanced Scorecard in knowledge-Based ICT companies (the case of Iran)                          | Sustainable HRM Model based on BSC                   | Stakeholder Perspective, Learning and Growth Perspective, Internal Processes Perspective, Value Creation Perspective.   |
| <b>Ehnert et al. (2009,228)</b>     | Sustainable Human Resource Management -A conceptual and exploratory analysis from a paradox perspective                        | Practice-Based Model for the Sustainability–HRM Link | Internal and external drivers, corporate level overall Sustainability objectives<br>HR-related sustainability objectives and HR-related activities at HRM level |

In this regard, Ehnert (2009,228) provides a practice-based model that consists of SHRM elements in organisational level. Under this model, Efficiency and competitiveness, demographic trends, tight labour markets, intensive work, failure of education systems are the internal and external drivers determine a firm's strategy towards developing customized sustainability strategy. Corporate sustainability objectives considered include things such as long-term success for the company, and enhancing the company's reputation, whereas HRM objectives could be to attract and retain the best talent, maintaining a healthy workforce and investing in employee development. The model details HR related activities like promoting good employee relations, providing supports for work life balance, promoting lifelong learning and career development. However, this model does not focus on the outcomes of HR actions; these outcomes are central in assessing the effectiveness of HRM systems in relation to the alignment of sustainability.

Tabatabaeiet al. (2017,117) offer a model that applies the Balanced Scorecard (BSC) framework to alleviate the difficulties of the Iranian knowledge-based ICT companies. Based on these four perspectives i.e. financial, customer, internal processes, and learning and growth it identifies 20 critical success factors. The model concentrates on these factors because it aims at having HRM practices that will contribute to organizational sustainability. The study demonstrates that crucial to successful implementation of this model is the improvement of HR practices which in turn will help in attracting and retaining skilled employees by tackling much broader sustainability issues in the global economy.

Kumar et al. (2020,1022) propose a framework of SHRM that includes environmental, social and economic sustainability in the HR practices. It identifies drivers, barriers and benefits of SHRM adoption with reference to Green HRM practices, employee welfare, compliance with environmental regulations and market pressures. The supporting relevance is brought to the conclusion that continuous support is critical in overcoming challenges and realizing the long-term benefits of SHRM to ensure sustainable outcomes in all the three sustainability dimensions.

There are 19 key factors of SHRM are further tabulated under three pillars: Economy, Society and Environment as portrayed by Saini (2022,6459). Economy pillars consist of remuneration, unprecedented growth of the gig, insufficient financial support, high labour cost. Mix of flexible working hours, new forms of workspaces, employee competency, employee rotation, partial replacement of employees, employee learning and development, globalization, growing domestic diversity are the factors environment pillar. The systematic literature review is conducted in the study of Sustainable Human Resource Management: A Conceptual Framework, to promote organizational long-term sustainability through employee well-being, workplace adaptability, financial sustainability and workforce development. A conceptual framework for the practice of SHRM consistent with the interconnectedness of economic, social and environmental dimensions of the stakeholder corporations and their human resources is proposed.

The business model of Sustainable HRM proposes to integrate sustainability in the HR practices to positively impact both the organizational performance and employees' well-being. Hence, the strategic plan of HR moves around economic, social and environmental goals. Four key types of SHRM outlined in the model are Socially Responsible HRM; Green HRM; Triple Bottom Line HRM; and Common Good HRM, dealing with specific aspects of sustainability. It highlights people centric practices like fair pays, work life balance and better learning practices for the staff thus increasing staff well-being and development. The model focuses on the long-term HR management

that helps attract and keep talent and thus draws employer branding. To attract environmentally conscious employees, the authors suggest embedding SHRM practices in recruitment, training, and involvement processes, and they advocate future researchers as well (Gričnik et al. 2023,6).

Various dimensions of Sustainable Human Resource Management (SHRM) in the reviewed models can be observed. Although different frameworks, these show the same foundation. A focus is on economic sustainability. Those factors are long term performance, financial stability and talent retention (Tabatabaei et al. 2017; Saini 2022; Kumar et al. 2020). It speaks on employee well-being, fair treatment and work life balance. They are clearly shown in the models of Gričnik et al. (2023) and Ehnert (2009). Based on the review by Kumar et al. (2020) and Gričnik et al. (2023), environmental sustainability, i.e. the ecological aspect of SHRM, is included. These models support the ecofriendly HR practices. Another point they have in common is on strategic alignment. The model shows how HRM facilitates the integrated corporate sustainability, as in the models of Ehnert and Tabatabaei. Many models are also centred around the necessity for the continuous learning. It keeps people flexible in the long term and helps the workforce to that end. When the dimensions are put together, they indicate that SHRM is about economic, social, environmental and strategic concerns.

### **2.3 Components of sustainable human resource management**

Three key aspects of Sustainable Human Resource Management (SHRM) are analysed from the planet-related, people-related and profit-related points of view. In other words, these dimensions constitute separable, but also interrelated dimensions of SHRM, which feed into overall sustainability goals for an organization (Ehnert et al. 2016,90). Ecological aspect of the HRM, Social aspect of the HRM, and Strategic aspect of the HRM are the holistic nature of the approach advocated by SHRM, encouraging all three dimensions to work together to achieve sustainable future for an organization. The rolling out of sustainability on core operations of HRM by different companies is on the increase in order to create a positive impact on the environmental, social and economic spheres. (Kumar et al. 2020,1017)

The environmental related dimension of HRM refers to the environmental aspects of HRM such as how HR practices can enhance environmental excellence of the planet. For example, this dimension is often called ecological aspect of the HRM which comprises of HR strategies to promote sustainability of the environment like energy conservation, a reduction in waste, and encouraging employees' eco-friendly practices. Integrating environmental concerns into HRM practices enables organizations integrate the workforce efforts to global environment objectives (Opatha 2016,6).

Under the social aspect of the HRM it considers how HRM can contribute to societal equity and social sustainability as far as its role and effect on the employee and society is concerned. Social HRM captures this dimension by focusing on fair employment practices, employee well-being, diversity etc (López-Fernández et al. 2018).

Profit related dimension relates to the financial and economics of sustainability and that is how HRM can influence organization profitability or economic growth (Dyllick & Hockerts 2002,133). Strategic HRM is one term that is used in talking of this dimension, one refers to the alignment of HR practices with business strategies so as to improve on the financial performance. According to Opatha (2016,6), strategic HRM is utilizing the workforce to make maximum efficiency, creativity and sustainability of the business which is much more than minimal impact on environment and society. As businesses continue to develop, it is obvious that sustainable human resource management practices should continue to create benefits for the planet, people, and profits among the three dimensions of sustainable development to ensure long term viability.

### 2.3.1 Ecological aspect of sustainable human resource management

Although the introduction of new and stricter regulations about the protection of the environment has caused organizations to introduce short term solutions, the role of Human Resource Management (HRM) in promoting the environmental management action is still evolving. According to Wagner (2013), green HRM involves integrating of environmental approaches into sustainable development through HRM practices that are directed to meet the environmental sustainability requirements of organizations.

With the development and awareness of worldwide environmental management and sustainable development, the term Green HRM has received much attention in recent research. Green HRM covers not only the environmental awareness, but its coverage also includes the organizations and the employees' social and economic well-being (Zihan & Makhbul 2023,2-4). Green movement and Green HRM are still her infancy but the growing demands for better treatment of the environment has compelled the organizations to adapt green HR practices. The typical practices often cover practices on waste management, recycling, reduction of the carbon footprint and promoting the use and production of green products (Ahmad 2015,11).

Opatha & Arulrajah (2014,104) 104 describe Green HRM “the aspect of HRM aimed at changing the normal employees into green employees in order to accomplish the environmental goals of the organization and thereby, substantially contribute to the environmental sustainability.” Green HRM,

in short, refers to policies, practices, and systems for making employees more ecologically conscious for the benefit of both the individual, society, the natural environment and the organisation. The objective of the Green HRM is simply to mould, promote and maintain the employee's commitment towards environmental sustainability so that each employee can progress optimally on the front of preservationist, conservationist, nonpolluter, and innovator.

As an environmental sustainability strategy, several Green HRM practices have been prominent in the organisations. These practices form a bridge between what happens in the human resource function of an organization and that organization's commitment to the environment. Green recruitment and selection are one of the most vital parts of Green HRM which merely focuses on the idea of recruiting environmentally sustainable individuals. Green hiring aims to attract people with an awareness of the environment and who are ready to accept a position connected directly to the organisation's sustainable goals. Many environmentally focused job descriptions include company's environmental responsibilities such as reducing waste and making better use of resources (Renwick et al. 2016,116).

The companies have to hire people with required skills and competencies. In the same vein, these individuals should have proven commitment to environmental values and sustainability. This demonstrates that it is becoming essential to enable the workforce to match the organization's goals on the environment and sustainability. (Das & Dash 2023,62.)

Recruitment and selection can reflect an organization's green values by attracting candidates who share its environmental goals. Using technology like video conferencing, online tests, and digital job postings makes the process faster, paperless, and cost-effective. Resumes, offer letters, and other documents can be exchanged online, reducing advertising costs and supporting eco-friendly practices. This modern approach enhances efficiency while promoting sustainability (Khurshid & Ahmad Darzi 2016,20).

Green Training and Development programs after hiring employees for the purpose of going forward with the organization's sustainability agenda. Green training must educate employees about how environmental management systems, policies and the very actions that they can undertake can contribute to the sustainability efforts. It could refer to areas such as waste reduction, energy conservation, recycling, emission reduction and in general the environmental challenges that the company is facing (Chander et al. 2020,5; Moradeke et al. 2021,12). Green training is not only about giving data however the aim to it is to additionally change the employee conduct and create an environmental obligation culture inside the organization. Green training and development are a

training and development that extends the required knowledge, skills and attitudes needed for the performing of environmentally responsible behavioural activities in workplaces. This training encourages pro-environmental practices. It is supportive for both individual as well as organizational efforts to meet environmental goals in the long term (Khattak et al. 2023,1344; Opatha & Arulrajah 2014,108).

Green Performance Management can also be embedded in the organization's general performance management system. Green Performance Management (GPM) is basically employee performance evaluation on the basis of work, actions, behaviour addressing environmental management (Akpobolokami 2022,145). Green performance management and appraisal systems connect employee performance to organization's environmental goals. It is done by appraising environmental criteria into the appraisal process. It has a positive impact on the promotion of employee's ecofriendly behaviours (Mandip 2012,246-247). Performance management, particularly through fair and continuous feedback during appraisals, helps employees understand their green contributions and make necessary improvements. This alignment enhances both individual awareness and the organization's overall environmental performance (Ahmad 2015,6.)

Green Reward Management can be aimed at incentivising workers who succeed in environmentally sustainable practices. For example, financial bonuses, recognition or other non-monetary benefits can be rewarded to the employees who significantly add to the goals related to environment for instance reduced energy use, introducing recycling standards or reaching carbon reduction targets(Jackson et al. 2011,107).

By introducing green compensation, environmental sustainability can be regarded as a main motivation for the employees. These organizations integrate rewards for environmental achievements by aligning this goal with employee's green practice and create a tangible relation between employee actions and the organizational sustainability outcomes (Dash & Das 2024,118).

Green Employee Relations aims at triggering employees' inclusion in environmental activities, employee participation in environmental decision making and share responsibility to achieve sustainability goals an employer must encourage its employees to join green initiatives. It provides a workplace which is considered to be environmental and resource efficient (Deshwal, 2015,179). The creation of channels for employees to propose, or to implement, green ideas and practices, that can reduce the environmental impact, is also a part of green employee relations and at the same time, how employee engagement helps push the environmental policies of firms and creates a working

environment in which sustainability is considered as a value and promoted at all levels in the organisation (Diri & Elisha 2022,12).

Green Human Resource Management (GHRM) spans the entire employee lifecycle, beginning with recruitment and selection based on alignment with environmental values and awareness of green practices. Once onboard, employees' performance is monitored against sustainability standards, and those needing improvement or skill enhancement may undergo training and development in environmental areas. This continuous learning boosts green performance and may lead to rewards based on improved or consistent eco-friendly behaviour. Ultimately, GHRM not only enhances individual environmental contributions but also strengthens the employee-organization relationship through shared commitment to sustainability goals (Lund & Smith 2023,13-14).

### 2.3.2 Social aspect of sustainable human resource management

Social sustainability of Human Resource Management (HRM) is an important concept for organizing a company's socially responsible workplace to care for employee welfare and make a positive contribution to communal needs. Human resource management (HRM) practices that are socially responsible are designed to shape employee attitudes and behaviours. The objective for these practices is to enhance internal as well as external social responsibility efforts of an organization (Luu 2021,780). Malaska (1997) explained that the four main cornerstones of sustainability were introduced in the Brundtland Report.

First of all, inequality between people is eliminated. Secondly, the participants state that destruction of the environment should cease, and the environment should be protected and renewed. Third is that people must not be perceived as merely tools to achieve economic ends over the short term. Their long-term care must be considered. Finally, sustainable development is aimed to be just, fair and caring while being environmentally, economically and socially sustainable.

HRM social responsibility does not limit itself to paying the competitive wages and also a conducive work environment. In this regard is also to hire and retain employees who are willing to consider social responsibility. Corporate social responsibility (CSR) is training that SRHRM may provide. It may also take into account the roles of the employees in ethical and social initiatives in formulating performance evaluation, promotion, and rewards decisions (Shen & Zhang 2019,10).

The study implies that employees are sensitive to SRHRM practices. This results in making them more likely to see their organisation as morally sound when they see these practices in their organisation. That is to say, when the employer cares for the workforce in the right way, employees tend to hold good opinions concerning ethical levels of the organization (Barreto & Ellemers, 2011).

Health and Safety, it's very important to have good leadership, efficient training, and to align the health and wellness initiatives. The methods used assist in successful integration of Occupational Health and Safety with HRM. Though it helps the corporate resilience and employee well-being as well (Melhem et al. 2024,314). The work between Health and Safety and Human Resource Management (HRM) reduces workplace risks. Apart from all this, they help improve productivity as they boost morale and develop the business resilience (Fernández-Muñiz et al. 2009,987). Maintaining an employee's health and safety is important in building trust and commitment of the employees towards the organization. These practices do not only comply with the legal standards but also ensure the workers in the company are taught to pay cautious attention to employee health(Quartey & Puplampu 2012,83).

Social Infrastructure within SHRM includes the second important component in social sustainability. This is the ones provided by the organization to employees to help ease their quality of life in general. They are staff housing schemes, transportation services, childcare facilities, and recreational spaces (Fernández et al. 2018,5). These services by organizations can help in cutting down economic burden on employees, balancing work life, creating a sense of community and belonging (Subramanian & Suresh 2022,476). Social infrastructure supports social stability, promotes coexistence of generations and improves the general employee satisfaction.

Corporate Social Responsibility (CSR) encourages employees to engage in social welfare projects and activities. HRM promotes the organizational CSR goal by fostering environment in which it encourages socially responsible behaviours and acts of employees (Vu 2022,9). Community service, volunteering, and charitable activities are these initiatives, forming part of their social responsibility programmes, that benefit the society too and also enhance employee morale and strengthening the relationship between employees and the organisation. (Dupont et al. 2013,153; Gollan & Xu 2014,241; Voegtlin & Greenwood 2016,191). It motivates employees who take part in CSR activities to feel committed to their work and the organization as well. Moreover, HR helps to engage employees by recognizing them for their contribution in CSR initiatives to further participate and fulfil the organization's goals (Aurora Training 2024).

It is proved in this study how some people within the organizations took leadership roles in corporate volunteering activities. They in turn motivated collective action and suggested collective responsibility among other participants (Lämsä et al. 2023,11).

Employee Well-being is a key focus area within socially responsible HRM practices. Most of the HRM strategies have shifted from promoting the physical, mental and emotional well-being of the employee gradually as several organizations are beginning to understand the importance of jobs being an employee's only purpose in life(Gupta 2024,6812). Employee well-being in Human Resource Management is taking a complete approach of understanding the employees by supporting them. It so they do not only have their physical and mental health in great shape but can also stay engaged and satisfied in work. It covers health and safety requirements, work-life balance, job contentment, meaningful work, good leadership and good chances for personal as well as professional development (Guest 2017,35). Companies are taken several initiatives for develop well-being of employees, such as employee assistance programs, wellness programs, work life balance initiatives, as well as health promotion efforts. These programs help to enhance employees' health in general, as well reduce stress and also improve job satisfaction that contributes to higher productivity and organizational success (Qamar et al. 2023,2329).

Equal Employment Opportunities provide the employment of all employees without discriminating on factors such as race, gender, religion or national affiliation, disability or even political affiliation is defined as equal employment opportunity (Raghavi & Gopinathan 2013,302). The objective of this approach is to rid the society of some of its hurdles that deny people equitable and fair treatment without discrimination therefore allowing them to enjoy the ability to flourish based on merit and capabilities. Gehrels & Suleri (2016,66) argue that diversity and inclusion practices be included among the practices that are considered sustainable HRM. An example is that these would include inclusive recruitment, equitable development opportunities, and fair representation in leadership. These help in enhancing employee engagement, decreasing turnover, and kindling the association of trust and fairness. Only an organization with inclusive culture can ensure equal career development opportunities for everyone. Leadership should train them about the unconscious bias. In addition, fair policies in recruitment, training and promotion are more relevant. Diversity is supported because it brings diverse ideas and enhances performance. Fairness and inclusiveness culture attracts diverse talent and motivates the workforce into a united workforce (Thirusanku et al. 2021,214).

Human Resource Management (HRM) socially responsible integrates major elements such as health and safety, social infrastructure, corporate social responsibility (CSR), employee well-being, and equal employment opportunity. Better health and safety protect both well-being and productivity (Grawitch et al. 2006,137-138). Mental health support and flexible work also creates a more satisfied and retained employee. To promote fairness and encourage diversity and CSR, it is important that company provides equal employment opportunities and encourages ethical behaviour and social inclusion (Shen & Benson 2016,1739). Social investing that helps employee development, equity, and infrastructure through training and childcare helps to grow employees (Acquaye et al. 2014,126). Combined, these practices develop a more inclusive and sustainable, as well as more ethically responsible workplace.

According to the summary of the literature the figure 2 represents all HR practices in the three aspects. SHRM incorporates recruitments that are environmentally oriented, green trainings, performance evaluations which are sustainability focused and reward systems that are ecologically motivated which will eventually promote employee engagement in the sustainable initiatives. Social aspect of the SHRM focuses on the topics such as safety in workplaces, mental wellbeing of the employees, diversity, equity and inclusion and contribution to the corporate social responsibility. Supportive environment within the organization will be created by adhering to these evaluations which will enhance the employee commitment towards creativity and team collaboration. Strategic aspect of SHRM highlights the importance of adapting and innovating in the long-term planning. That is done by developing the leadership, developing an efficient HR, aligning HR policies, proving job security.

### 2.3.3 Strategic aspect of human resource management

Human Resource Management (HRM) strategic sustainability refers to HRM policies aligned with the objectives for sustainable business that ensures harmonization of economic prosperity and ethical and social responsibility. The aim of this approach is to enhance organizational profits as well as build good relations with other people in the business world usually concerned with economic growth and social responsibility (Cabralles & Cabrera 2020,8).

It is a planned set of actions and decisions designed to ensure the flexible development of the organization in line with the strategic development of Human Resource for its planned needs, directly or indirectly affecting its profits. HR activities are discussed in how they assist an organization to attain its goals. This includes building the HR systems for recruitment, training, performance management and employee development et al. Such systems must assist the organization in

pursuing its mission, vision, and competitive strategy (Wright & McMahan 1992,298). Strategic sustainability has a holistic vision that sees sustainability part of the key HRM strategies and therefore economic sustainability is in alignment with the social and environmental goals. At the same time, it emphasises HR practices that enhance long term profitability and organisational competitiveness with a view to social and environmental impacts.

Human Resource Efficiency is an essential factor of economic sustainability. The concept of this is to improve the utilization of human capital in order to elevate productivity, operational efficiency, and profitability. Total quality management, employee involvement, performance evaluation and process standardization are the ways that human resource efficiency in sustainable HRM is achieved. It also comprises investing in developing and acquisition of skill of the employee that would improve productivity and smooth performance (Copus & Crabtree 1996,42; Youndt et al. 1996,839). Human capital is utilized efficiently, and thus the company has high productivity and profitability, which are aspects of strategic sustainability. In addition, a resilient workforce connected to HR efficiency can adapt changes and opportunities. It can create long term organizational success within the sustainable framework. (Piwowar-Sulej et al. 2024,350)

Re-engineering & Restructuring is a part of sustainable HRM practices. These are such practices in which processes, systems and structures of the organization are redesigned to increase efficiency and reduce the operational costs. In the realm of economic sustainability, reengineering contributes to the streamlining HR processes, implementation of technology, and correlating HR practices with the sustainable thinking. (Love & Gunasekaran 1997,196; Zhang et al.2019,4) Moreover, Strategic reengineering also helps organizations to be agile and adaptable in responding to changing economic conditions, changing market demands, as well as new technological advances. In the rapidly changing business environment, sustainability and competitiveness over the long run require ability to structure or restructure HR processes and systems (Chiekezie 2022,55; Milan et al. 2014,219.)

Macroeconomic Policies refers to running the business activities adhering governmental regulations and fiscal policies that have a substantial effect on the economic sustainability of organizations. In the sustainable HRM approaches, the HR practices must follow the pattern of macroeconomic aspects including the labor market trend, economic regulations, and the market demand (Copus & Crabtree 1996,42; Epstein et al.2018,120-145). Organizational decision regarding workforce planning, compensation and other HR practices is influenced by governmental policies that relate to taxation, labour laws and social security policies. Organizations, therefore, have to transform in

sync to the economic fluctuations and ensuring that the HR policy continues to remain consistent with the national and international regulations (Eichenbaum et al. 2021,5150). Considering the broader economic environment enables organizations to find the right type of HRM practices needed for economic sustainability in the long run.

Employment Guarantee builds based on economic stability and income guarantee at the first layer. Organizations provide secure employment and stable income to those employees; this it provides for the broader social sustainability agenda on the organization and a committed and motivated workforce (Glaser & Diele 2004,323). These benefits extend beyond employees; stable employment and income possibilities increase employee wellbeing, financial security, and with them, job satisfaction and organizational loyalty. These factors also contribute significantly to cutting employee turnover and absenteeism, which is leading to higher operational efficiency and sustainable profitability (Groenendaal et al. 2022,6-9).

Senior Management Commitment to economic sustainability is necessary to ensure HRM practices are aligned with broader sustainability goals. Championing sustainability initiatives and advocating for long term economic goals are all organizational leadership and, to that end, HRM should be aligned with such goals (Glaser & Diele 2004,323). Executives who live sustainable business are top executives who are supportive to sustainable business practices. It includes the formulation of policies that promote economic sustainability, align HRM strategies with the financial goals, and develop a culture that supports both the profitability and social responsibility. (Subramanian & Suresh 2022,480; Wijethilake & Lama 2019,150) All levels of the organization are influenced by the leadership's commitment to sustainability, which is required for the execution of the sustainable HRM practices.

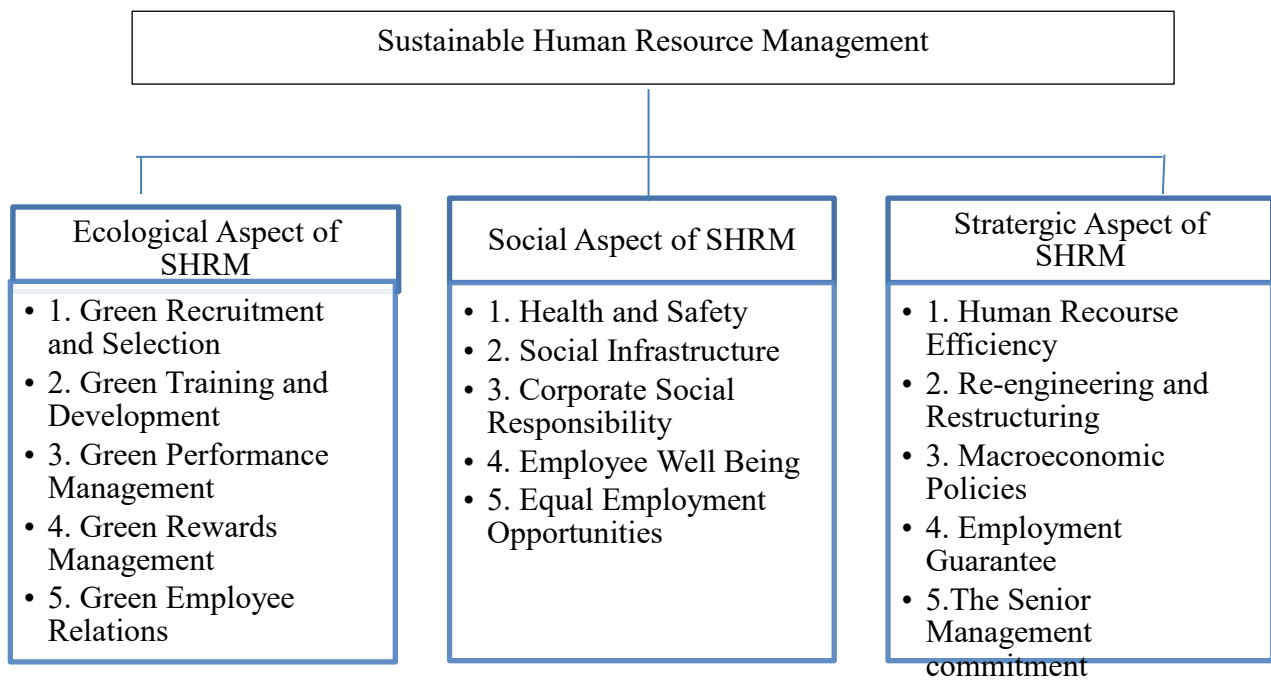


Figure 2 - Model of the sustainable human resource management practices from literature review

The provision of human capital practices fits with long term economic priorities of the organizations, thereby helping in achievement goals and attaining sustainable goals. For instance, human resource efficiency, restructuring, and re-engineering amongst other ideas, help to enhance productively and reduce operation costs. HR is therefore a key force for competitiveness and adaptability (Copus & Crabtree 1996,42; Zhang et al. 2019,4). HRM reacts to the macro-economic trends while endeavouring for keeping the employment stability and as a result in return it creates organizational resilience and employee commitment (Epstein et al. 2018,120; Glaser & Diele, 2004,323). By putting the sustainability values into ones HR polices, leadership is also strategic. With HR activities kept aligned with financial and social objectives, this is the case (Subramanian & Suresh 2022,480; Wijethilake & Lama 2019,150).

## 2.4 Sustainable innovation

Sustainability and innovation are the two important concepts that businesses have to integrate in order to be successful in the current competitive business environment. Sustainable innovation endeavours to reduce the negative impacts, where innovations are not only supposed to drive business growth but also to assure responsibility socially and environmentally. Sustainable innovation is different from the traditional innovation which primarily focused on technological innovation of products and processes whereas sustainable innovation sees a more holistic perspective that includes environmental and social aspects. (Ju Young Lee 2021)

### 2.4.1 Background of sustainable innovation

Sustainable innovation means that products, services and processes can make a positive contribution both in society and the environment, as well as generating value in the long term. Adams & Jeanrenaud (2012,13) highlight that, at first, companies may adopt an unsystematic and reactive approach to sustainability. But as sustainability thinking becomes more a part of organizational thinking and doing, such as managing inputs, processes, and suppliers, as managing products, the approach becomes more strategic, more deliberate. By using this transformation, companies can connect their innovation activities with other sustainability efforts (Von Stamm et al. 2014,12-13.)

The more pressing global sustainability challenges are rising, and the need to make better decisions with the use of sustainable innovation is growing with it, because they have turned into a business opportunity. Faced with these issues, innovation drives market and enhances opportunities for growth; an influx of capital confirms this as firms invest in sustainability innovation projects (Boons et al. 2013,5). An example of the upsurge in the development of eco- innovation is evidenced in the European Union's rise in eco- innovation. With 27.5% increase in its eco- innovation index since 2014, the main drive of which is in resource efficiency, the EU did a good job in eco- innovation. However, given the European Green Deal's demand on Europe to become the first climate neutral continent by 2050 and this growth is expected to grow even more. Having potential to address environmental challenges, and also to generate new business opportunities and markets, this shows great potential of sustainable innovation (European Environment Agency, 2024).

Creating a sustainable innovation is crucial to making a company pollution free and a sustainable production process. In support of the minimization of the environmental footprint of companies, innovations for these new eco-friendly technologies, towards the circular economy, and access to sustainable resources are in a higher demand. (Cosenz & Noto 2018,129; Medeiros et al. 2014,76-86) These innovations allow businesses to scale back waste, enhance resource efficiency, and lower carbon emissions that assist in accomplishing lengthy time period sustainability objectives.

There are recent studies available that have highlighted the importance of sustainable innovation in the various sectors including product development and supply chain management with an emphasis of environmental, social, and economic considerations (Fussler & James 1996) . According to Boons et al. (2013), sustainable innovation frequently necessitates significant changes, for example, about adopting new business models based on companies' taking green technologies seriously,

adopting circular economy principles, and addressing social equity. Change in these areas is not only required to enable businesses to remain competitive in a world that is paying increasing attention to sustainability but is an opportunity for long term success.

Yet there are still challenges on the way to sustainable innovation. For the barriers to be overcome and the practice to achieve widespread adoption it needs strong collaboration among businesses, policymakers and stakeholders. When working together, these groups establish an ecosystem that promotes innovation, where sustainable practices are supported and how businesses can contribute to society to attain economic growth (Adams et al. 2016b,1).

Companies seeking long-term success in an ever-changing global market, have an ethical responsibility and sustainable innovation is a strategic opportunity. Again, as sustainability issues will shape the future of business once more, innovation will again play a crucial role in managing these challenges, converting them into opportunities, and in creating the conditions for leading companies to prosper and contribute to the welfare of society and the planet.

#### 2.4.2 Definition of sustainable innovation

Researchers have thus far defined sustainable innovation as a broad and evolving concept in several ways, depending upon the focus of the studies. In most cases, it means the positive contribution towards environmental, social and economic sustainability, while generating business value. Multiple conceptualizations of a sustainable innovation from key studies are given below (Adams et al.2016; Boons et al.,2013b; Fussler & James 1996; Medeiros et al.2014). Lots of studies on the definition of sustainable innovation adopt eco- innovation point of view, in which eco-innovation emphasizes on the actual innovation on the reduction of environmental impact.

Sustainable innovation is the generation of new products, processes, services and technologies that support human development and wellbeing (Tello & Yoon 2008,165). They also must respect natural resources and the environment's regeneration capacity at the same time. Wilkerson & Trellevik (2021,2) described sustainable innovation as "the production, assimilation or exploitation of a product, production process, service, or management method that is new to the organisation and that over the course of its life cycle reduces environmental risk, pollution and other adverse impacts of resource use." In this definition, the approach to innovation is lifecycle, that is, aiming to reduce environmental impacts, for example, energy use, resource depletion, etc. Sustainability is rendered as a principal driver in the product design as well as in the process design.

In the second decade of the century, sustainable innovation in the turn of the century was extended beyond environmental subject matter to include a social dimension. For example, defined ‘inclusive innovation’ as another type of sustainable innovation that overlaps with the firm economic goals and the social and economic development of underprivileged part of the society. This definition broadens the conception of sustainable innovation to encompass social inequalities as part of the discussion, and in so doing particularly urges consideration of the need to involve various stakeholders in the process of innovation (Faheem et al.2024,3). Joller (2012,5) adds to the definition of sustainable innovation, considering it to be products, processes, marketing methods, and organizational methods as well as ... social and institutional structures. Besides technological and product innovations, this approach encompasses also innovations of business models and institutional framework since sustainability requires systemic changes in all sectors.

Hansen et al. (2009,684) propose a more structured framework of the sustainability innovation cube. In this model, innovations are classified into three types: business model innovation, product service-system innovation, and technological innovation; in three lifecycle stages of the product, specifically manufacture, use, and end of life. In this sense, the framework assesses the sustainability effects of these innovations under the three dimensions (ecological, social, and economic). The framework provides a better understanding of how innovations influence sustainability at different parts of a product’s life cycle, and in different areas of operations of business.

In essence, early definitions of sustainable innovation were about only environmental impacts and technological advances, but now it is broadened to cover how the social aspects and overall structural changes also influence it. Sustainable innovation, including numerous innovative practices such as product design, business models, etc, aiming at the high value creation with low harm to the environment and society.

### 2.4.3 Three maturity stages of sustainable innovation

In understanding how businesses evolve their sustainability practices through innovation, it is more accurate to examine the maturity stages of sustainable innovation, rather than categorizing them as distinct “types.” Adams and Jeanrenaud (2012) propose a three-stage framework of sustainable innovation maturity, which includes: Operational Optimization, Organizational Transformation and Systems Building are the stages illustrate a progression from incremental improvements to systemic, transformative change that contributes to long-term environmental and social sustainability (Adams et al. 2012, 10–25; Bocken et al. 2014, 49; Seebode et al. 2012, 202).

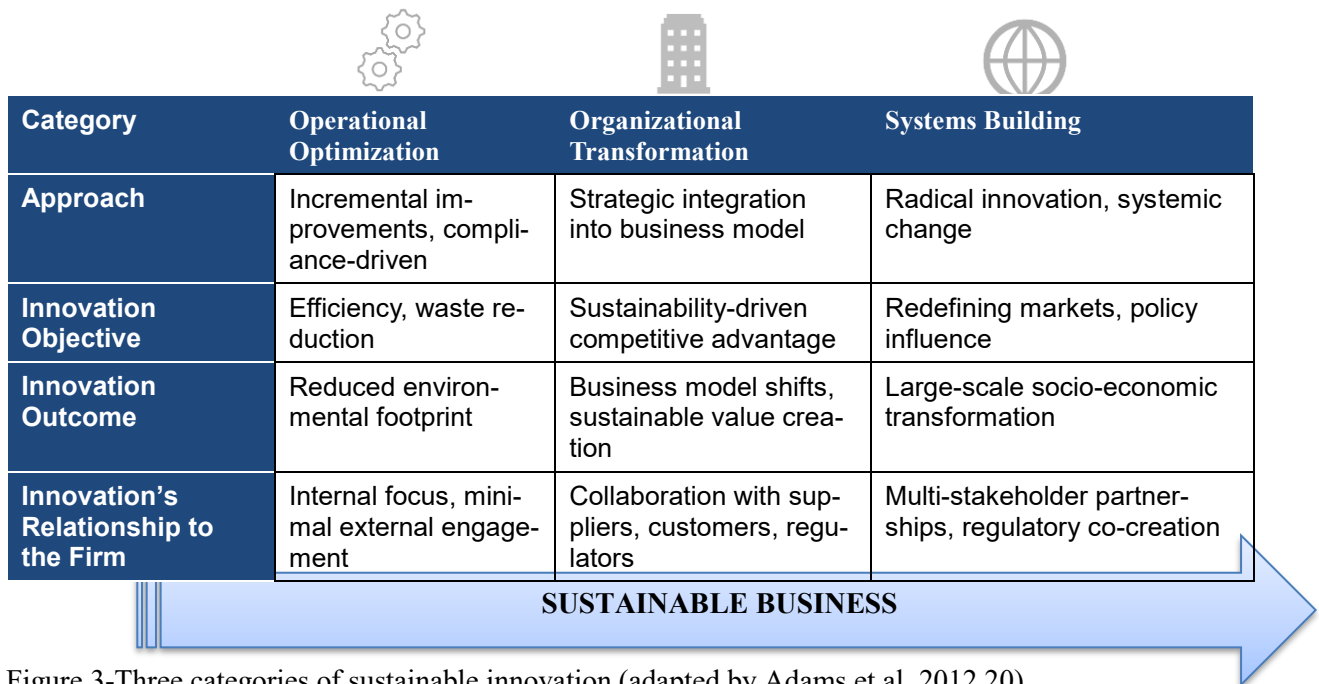


Figure 3-Three categories of sustainable innovation (adapted by Adams et al. 2012,20)

Operational Optimization in Sustainable Innovation focuses on incremental improvements in efficiency of existing business while decreasing the impact on environment and society (Adams et al.2012,10; Charter & Clark 2007,9). In this phase, firms work on fixing their existing processes by doing the same things 'better' without altering business model. To achieve its objectives, companies adopt eco-efficiency principles in order to optimize operations, thereby ensuring lower use of resources, less material or waste and greater use of renewable energy sources. The main innovation in this category is incremental innovation and concentrated on the improvement of the sustainability of existing products and processes (Hellström 2007,150-151).

Process innovations consist in improving resource efficiency and using environmentally advantaged materials; product innovations comprise of decreasing products energy consumption and increasing recyclability (Hermosilla et al. 2010,27). In this phase, knowledge management becomes important as firms need to learn and apply sustainability knowledge through employee training and interaction with the external stakeholders, i.e. research institution (Seebode et al. 2012,202). While this stage helps reduce environmental impact, its incremental nature means the benefits may be offset by growing production or consumption. It therefore serves as a necessary foundation for more transformative innovation (Jackson 2009, 87).

The concept of Organizational Transformation within Sustainable Innovation is a much more pronounced realization of the integration of sustainability. This phase denotes a paradigm shift in the way business is being conducted by moving away from "doing less harm to business as usual," to

producing literal systemic environmental and social value (Adams et al. 2012,16). Firms of this category aim at producing disruptive new products and services that fulfill social needs and are environmentally friendly. Instead of an emphasis on operational improvements, it reconsiders the basic structure of the business and the creation of new approaches that enable positive long-term impacts taken by the business (Bocken et al. 2014,49).

During this stage the product and process innovation include adoption of circular economy principles, cradle to cradle design, and sustainable business models. Firms also experiment openly, across industries, and in pushing hard for radical and systemic innovation. Sustainability integration into governance, commitment of strong leadership and reward systems motivating innovation are essential for organizational transformation. In this stage, companies engage proactively with external stakeholders ranging from government bureaus and nonprofit organizations to other companies in order to develop systemic solutions that advance the realization of environmental and social goals in the long run.(Adams et al. 2012; Ju Young Lee 2021)

Systems Building is the highest level of Sustainable Innovation, where companies partner with other organizations and stakeholders to develop far reaching, large scale systemic change. During this phase the company moves away from the making of incremental improvements or even radical change within the company towards moulding of broader societal and institutional systems(Adams et al. 2012,16; Bocken et al. 2014,54). In this stage, firms work in an ecosystem realizing that sustainability cannot be achieved by a single entity. It's only these organizations that have the mandate to create value network and partnerships across industries, sectors and even disciplines to tackle global challenges inter alia climate change, resource depletion or inequality (Bocken et al. 2014,50).

In systems building, companies must take the lead at creating new institutional structures, alongside path carving and affecting regulatory frameworks that put sustainability first. During this phase, businesses also promote sustainable practices by engaging policies for which they advocate through dialogues with policymakers to change institutional rules and frameworks (Adams et al. 2012,25; Seebode et al. 2012,204). Companies from this category also translate a redefined purpose in pursuit of social, environmental and economic outcomes rather than only shareholder value. Rather, they are seeking systemic transformation and target maximum impact through creation of global partnerships, open innovation platforms and technology sharing agreements.(Stubbs & Cocklin 2008,108) Visionary leadership, collaboration, and clever balancing of the Triple Bottom Line is

necessary for systems building; that is, to ensure that companies contribute to the long-term positive change for the environment, society, and the future generations (Schaltegger & Wagner 2011,227).

## **2.5 Integration of SHRM & sustainable innovation**

Several of the key TBL factors were identified as influencing the sustainable product innovation of SMEs in the research model by Muñoz Pascual et al. (2019). The study classifies under the economic pillar net exports and human resource costs. These also demonstrate how the global activity and spending on employees can help sustainability practices. Organizational learning capability belongs to the social pillar, and it represents supporting new ideas, risk taking, communication, and employee involvement. It also consists of knowledge sharing, which implies rapprochement with foreign partners, sharing ideas. Social factors guide the creation of a learning culture propitious to innovation. The environmental pillar encompasses a take on adopting environmental practices such as the use of ecofriendly products and use of energy and water saving practices. This study reveals that these environmental practices establish linkage between the three TBL dimensions and the better sustainable product innovation performance. In a nutshell, the economies and societies efforts combined with environmental efforts produce a stronger and sustainable innovation in SMEs.

Sustainable Human Resource Management (SHRM) is a good tool for ensuring HR strategies conform to or align with the sustainability objectives. In addition, it is supportive of continuous and transformative innovation (Zartha et al. 2024b,15). HR practices that are part of SHRM include those that are environmentally responsible, socially inclusive, and capable of being aligned with long term business sustainability. In using them in a complete manner, SHRM both enhances employee's wellbeing, and organizational performance. Sustainability also helps fuel sustainable innovation, which is the change process to new processes, services, and products that deliver environmental and social value (Kramar 2014b,1075).

SHRM encourages ecological awareness, skills development and employee participation in environment related innovation. Organizations develop a green workforce in commitment with ecological goals with green recruitment and training. The study demonstrates that the inclusion of environmental values in recruitment and training of staff, enhances the likelihood that organizations achieve sustainable innovation. For example, the knowledge gaps could be closed by hiring environmental specialists or people with ecological competencies and thereby, improve the firm's green innovation potential (Renwick et al.2013,8).

As Jabbour (2011, 147) put it, environmental training helps to develop employee skills necessary for conducting problem-solving oriented on sustainability. HRM's ecological aspect creates environmental skills by green training, performance appraisal and incentives, supporting innovation. By engaging in these practices, employees are empowered to engage in sustainable product; and process innovations such as waste reduction or energy saving (Jabbour & Santos 2008,148; Ramus 2002,163). Increasing responsibility for ecological results is undertaken through adding environmental KPIs to performance management systems (Daily & Huang 2001,1540). In this way, reward systems are linked to sustainability KPIs such as CO<sub>2</sub> reduction or waste minimization and make the environmental performance directly dependent upon innovation outcomes (Daily & Huang 2001,1541).

Employee wellbeing, diversity and inclusion, and social equity plough the way for the social dimension in sustainability in SHRM. A sustainable innovation depends on these important drivers. Physical, mental and emotional wellbeing is supported through programs that improve motivation and engagement (Guest 2017,37). According to Saxena et al. (2024,14), employee satisfaction and motivation leads to them supporting, and also being likely to support sustainable product and service innovation. In the case of such harmony, employees will showcase purpose driven behaviour and will be creative towards sustainability objectives of the company.

Also, innovation is strongly enabled by Diversity, Equity, and Inclusion (DEI). Both functional and demographic diversity enhance team innovation outputs (Horwitz & Horwitz 2007, 988). However, this is particularly true when participating in collaboration and respect is supported by inclusion practices. Diverse teams contain various perspectives, experiences and cognitive styles, that enhances creativity in creative problem solving. HR policies that are fair in wages, flexible work, and hiring opportunities ensure social equity in the workplace culture. This helps build trust and psychological safety, which are necessary to taking risk and inventing new approaches (Garrick et al.2024,146). Leadership development programs that focus on sustainability competencies help build a top-down commitment to sustainable innovation. Top management support has been shown to be critical in creating a culture that values innovation aligned with sustainability (Daily et al. 2009,250).

Thus, the conclusion is the use of Sustainable Human Resource Management (SHRM) practices helps to create the conditions for promoting the sustainable innovation in the organization. Firms that commit to employee training, diversity, inclusion and wellbeing have an improved ability to develop new solutions to global challenges of sustainability (Zartha et al.2024,15). There is also an

added benefit of increased employee engagement. Finally, sustainable HRM contributes to the innovation culture of the organization and deals with its environmental and social goals (Garrick et al. 2024,22).

### 3 Methodology

In this chapter the methodology used to explore the above research questions is discussed. The chapter begins by explaining the characteristics of the chosen research approach and the interpretation for choosing the chosen qualitative method. It then outlines the research strategy and the final motivation of selecting a company of this chose. Next, the data collection process is described and the tools used in the data collection are also described. The techniques available for data analysis have then been outlined explaining how themes were recognized and explored. The chapter assesses the dependability and the credibility of the study to guarantee reliable results.

#### 3.1 Qualitative case study approach

There are three ways one can approach empirical research. Such as Qualitative, quantitative or mix of both. Advantages of each specific approach differ, and choice of approach depends on the research question, research objective or type of data (Creswell 2009,22). If the data to be analysed is quantitative, quantitative research is effective in testing of hypotheses, forecasting outcomes and determining the relations of the quantitative data itself (Dehalwar & Sharma 2023,14). On the contrary, qualitative research can be a good opportunity for in depth research into human experience where context of the life experience of individuals in a selected group can be described better as a collective experience than quantified.

Several reasons explain the use of qualitative research approach for this research. The main reason is that it explores real world problems, situational and context individualised practise in sustainable human resource management. To have a deep insight into how the SHRM may enable sustainable innovation this is a more suitable and beneficial means to explore real world problems with open ended questions, for instance, 'how' and 'why' (Tenny et al., 2022). Another main reason for this is the flexibility. Also, this qualitative approach is less constrainable to a structure as compared to being quantitative approach (Azungah 2018,384). This will be another main benefit of following on the quality approach as it will help them uncover and explain human behavioural patterns which cannot quantify (Foley & Timonen 2015,1197). This will enable this qualitative approach to obtain experts' perception and experience based on their perspective on developing the relationship between two main concepts of the study that are SHRM and sustainable innovation.

This research employs single case qualitative analysis which aids in acquiring a holistic understanding and in-depth analysis of a bounded system; for an example; a person, group or organization (Merriam 2009,90). this approach is suitable because the goal of this study which is investigating

practices and experience in context (Merriam 2009,14). Saunders et al, (2023) note that, case study strategy is a tool that is employed to understand a particular subject or phenomenon in detail at its real-world scenario. It is particularly good when the boundaries between the case and its surroundings are not clear. Such an approach is suitable for answering suggestions (why, what, how), and it is quite typical of exploratory and explanatory studies (Saunders et al,2023,206–208). It enables the researcher to analyse the subject in entirety while relying on various sources of data.

### **3.2 Case selection**

A precise selection of an appropriate case company is made according to the specific criteria. It should be a bounded system as a case is to provide an integrated view in the context (Merriam 2009,40). Moreover, the chosen company needs to show a very explicit and determined manner toward the human resource practices and to actively practice on sustainability driven innovation. Another main requirement is being able to provide enough access to data and expert insights needed for solving the research question. The company is a well-established public figure in environmental and social responsibility that can be supported by accessible literature sources and published documents hence making it applicable as a decisively selected case company (Yin 2009,51).

With these conditions taken into account, a global leader in home furnishing company working in Finland was selected as case company. This multinational company has more than 60 countries and 231,000 employees working directly with it. They have millions of loyal consumers of their brand, warehouses, delivery centres, online presence. The products and services offered by this company are very vast and encompass things such as ready to build furnishings, home accessories, interior designs, among others, kitchen appliances. The company is renowned for their cheap home appliance which is sophisticated and practical and their sustainability related programs such as energy efficient plans and other ecofriendly provisions.

The company has been globally known for being in the core business strategy of sustainability. The first was that this is a company occurring sustainable innovations and, in addition, they have announced that they are going in the positive direction to develop and improve innovations that will lead to the climate positivity, circular economic practices, and take back of resources. The company is popular in maintaining fair and orderly employment opportunities and in addition to that, maintain of wellbeing of the employees, which indicates that the company has made its practices more sustainable in human resources management. Moreover, very few companies have a clear well-structured systems, structures and procedures for developing either HRM or sustainable innovation simultaneously. Because of this, this company is an ideal study subject. In addition to

meeting the criteria, the company was chosen due to its excellent reputations internationally and in Finland for sustainability, having a long history in the country, and effectively applying sustainable HRM approaches in creating innovative products.

### 3.3 Data collection

The main types of qualitative research methods are focus groups, interviews and observation. An unstructured interview is an interview of free form having open ended questions on a particular area and the interviewer customizes the process on responses being given by the participant. Verbal questionnaires are structured interviews where a predetermined list of questions on a prevailing set of questions is repeated often without the option to follow up on or elaborate more in the responses given. As a result, them they process quite reasonably fast and direct. Besides, unstructured interviews are done with little organization and are not influenced by given theories or ideas (Azungah 2018,387.)

Table 2 Description of interviews in the case company

| Interviewee | Title of interviewee                             | Interview Date (2025) | Duration   | Interview Method                   | Interview Data (Pages) |
|-------------|--|-----------------------|------------|------------------------------------|------------------------|
| A           | Manager-Equality, diversity and inclusion        | 28th February         | 45 minutes | Semi – structured online interview | 28                     |
| B           | Manager- Health and well-being                   | 26th February         | 30 minutes | Semi – structured online interview | 18                     |
| C           | Manager- Talent Development                      | 24th February         | 20 minutes | Semi – structured online interview | 8                      |
| D           | Chief Sustainability Officer                     | 27th February         | N/A        | Email interview                    | 1                      |
| E           | Recovery manager and sustainability co-ordinator | 14th February         | N/A        | Email interview                    | 1                      |

For this study, semi structured interview approach was used as it will enable comprehensive understanding of the relationship between sustainable HRM practices and sustainable innovation. Semi structured interviews do not follow the structured interviews or surveys but use an interview guide while asking open ended questions will assist the specialists to express their responses freely. Semi structured interviews are a set of key questions about specific areas of the object of research to be found but these questions allow the interviewer or the interviewee to go deeper into their perception or answer (Gill et al. 2008,291). This will bring about two-way communication very efficiently, triggering interviewees to pave their answers better while topics arise naturally as the conversation

progresses. The arrangement for the interview allows contributors to feel assured and free to keep talking without being limited by how difficult the questions should be. This semi structured interviews were effective in that it has real world examples and applications of the sustainable human resource management in the organization (Pin 2023,1-2). It allows the possibility to obtain more quality and relevant data by refining questions according to the given responses.

Although it serves its purposes, there are certain limitations. Some potential problems might include in language barrier on an interpreter and problems of communication and even losing meaning during an interview. The participants may not know well some of the themes or concepts will, therefore, end up providing poorer responses to questions. It is more time consuming when compared to other data collection methods such as surveys or questionnaires also communicating with professionals and allocating a time for the interviews is difficult considering their busy schedules (Kakilla 2021,3). In order to overcome these challenges, the company documents were examined, and a list of questions was created, which are interview guidelines (Appendix 1), and then interview responses were sought and cross checked.

This study did, therefore, involve the carrying out of Semi structured interviews through Microsoft team's platform and recording of the interviews to take the transcripts to assist in the data analysis. As a methodological tool, in order to execute the study, operationalization table (referred in table 3) was developed that would ensure the reliability between the research questions, literature review, and the data collection process of study. The main research question is interpreted in a table how ecological, social and strategic Human resource management practices that foster the development of sustainable innovation within organisations, and the table contains three sub questions of how ecological HRM practices foster the development of sustainable innovation, how do social HRM practices foster the development of sustainable innovation, how do strategic HRM practices foster the development of sustainable innovation.

Table 3 - Operationalization table

| Research Problem   | Sub Problems   | Themes                        | Practices and concepts           | Interview Questions |
|--|--|-------------------------------|----------------------------------|---------------------|
| <b>How do sustainable human resource practices influence the generation of sustainable innovation?</b> | What are the sustainable HRM practices implemented in organizations?                               | Green aspect of SHRM          | Green recruitment and selection  | 1,5                 |
|  |  |                               | Green training and development   | 1,5,13              |
|  |  |                               | Green performance management     | 1,5,9,14            |
|  |  |                               | Green rewards management         | 1,5,9,14            |
|  |  |                               | Green employee relations         | 1,5                 |
|  |  | Social aspect of SHRM         | Health and Safety                | 1,5,8               |
|  |  |                               | Social Infrastructure            | 1,5,7,8             |
|  |  |                               | Corporate Social Responsibility  | 1,5,8               |
|  |  |                               | Employee well being              | 1,5,8               |
|  |  |                               | Equal employment opportunities   | 1,5,6,8             |
|  |  | Strategic aspect of SHRM      | Human Recourse efficiency        | 1,5,12              |
|  |  |                               | Re-engineering and restructuring | 1,5,9               |
|  |  |                               | Macroeconomic policies           | 1,5,10,11           |
|  |  |                               | Employment guarantee             | 1,5,10,11,12        |
|  |  |                               | The senior management commitment | 1,5,10              |
|  | How does ecological, social and strategic aspects of SHRM practices foster sustainable innovation? | Operational Optimization      | Collaboration & Relationships    | 2,3,16              |
|  |  |                               | Capacity & Climate               | 2,3,16,17,18,19     |
|  |  |                               | Process & Product Innovation     | 2,3,16,17,18        |
|  |  |                               | Knowledge Management             | 2,3,16,17,18        |
|  |  | Organizational Transformation | Systemic Relationships           | 2,3,16,17,18,19     |
| Capacity & Climate   |  |                               | 2,3,16,17,18,19                  |                     |
| Process & Product Innovation   |  |                               | 2,3,16,17,18                     |                     |
| Systems Building   |  | Whole-Systems Approach        | 2,3,16,17,18,19                  |                     |

The literature review was next and three major themes came out of that namely, ecological, social and strategic HRM. This has resulted in the merging of the sub themes into operational optimization, organizational transformation and system building. Based on the sub questions, the interview questions have been designed (Appendix 1).

In the time period of February 14th to 28th mainly HRM experts were interviewed from sustainability HRM arena of health and well-being, leadership and competence development as well

as diversity and inclusion. Due to their demanding calendars, communicating with sustainability leadership was quite challenging. As a result, emails were the effective way of questioning to successfully collect information on sustainable innovation in the company and acquire a complete point of view on how to link sustainable HRM practices and sustainable innovation.

First the approval was taken for the recording video and transcripts before conducting the interviews. Background questions was the first question for everyone, and open-ended questions were asked. Communication continued to ask interviewees their own thinking as to the meaning of sustainability for them, how their organization incorporated sustainability into HRM, and how sustainability had helped in creating sustainable innovations in the organization as the interview progressed. Appendix (1) has the interview questions. Part of the data which is in the form of the interview transcripts was carefully reviewed. Cites of quotes coming from the data were similarly for maintaining the anonymity of the interviewees.

To enhance the quality of study and to better inform the outcome, secondary data sources can be combined with semi structured interview method that can also be more structured so as not to limit oneself to semi structured interviews. The publicly available material collected from the case company include officially provided websites and their available such as the Reports of Sustainability.

The insights from these materials provided an understanding of the company's goals, values, practices and achievements towards sustainability and innovation. As for this secondary data, the company's sustainability report and company website were useful to prepare for the interviews, data validation, and data clarification for the information that the interviewees provided.

### **3.4 Data analysis method**

There are many widely recognised approaches that may be followed to carry out the qualitative analysis. Such as, thematic analysis, content analysis, grounded theory, narrative analysis and disclosure analysis (Warren 2020). thematic analysis is usable in this study to look for the recurring patterns in data, appreciate and investigate them. It describes conceiving the dataset in detail and fuses the process description. Thematic analysis now and then utilizes interpretations of various stages of the exploration to offer moving experiences. It is an analysis that can be modified to other types of qualitative data interview transcripts, responses to questionnaires, and observational notes for use on a range of differing research settings (Braun & Clarke 2006,80).

The Braun & Clarke (2006,87) also stated that within the initial phase, interviews records need to be listened many times, and the transcripts of the interview should read over a number of times to get

the whole idea of the expert point of view followed by making initial notes after highlighting the main points in the transcript.

Next, NVivo, the next phase data analysis software, was used to import the interview transcripts to the data analysis. Moreover, in the first coding stage data was arranged systemically in line with the research questions which are broken down into small categories which are more contextual to the case. After all the data were coded, organizing and grouping codes into possible themes (Braun & Clarke 2006,88-89) follows.

However, while developing the key themes the experiences and opinions of the experts are important to in depth examination (Lucas 1998,138). To prepare the semi structured interview guideline, the inductive approach was taking as identifying key themes based on literature and theory. As well they generated preliminary themes, after importing data into NVivo, by the deductive approach.

In the phase of reviewing themes, the themes that were identified were reviewed against the entire dataset to ensure that they were appropriate and in line with the data. Data is examined by the researcher as to whether themes overlap, or if sub-themes exist and check if the data supports the themes fully.

Then, in the next step, the data was then analysed further for the interpretation of the purpose of each theme and to explain how subthemes are linked to the main themes and the relationships between the themes. The final step of the analysis process is summarization and reporting in which the results produced in the preceding step are synthesized into compiled reports. It gives a detailed thematic map (Braun & Clarke 2006,91.)

### **3.5 Evaluation of the study**

It is suggested by different authors that there are several research evaluation criteria including the Four criteria by Lincoln & Guba (1985), credibility, transferability, dependability, confirmability. Eriksson and Kovalainen (2008) recommend the thoughts of using the criteria of trustworthiness, credibility, transferability, dependability, and confirmability to evaluate the qualitative research as opposed to common quantitative methods of validity and reliability.

The credibility of a researcher is just to evaluate how well a researcher can produce findings results that represent reality effectively (Lincoln & Guba 1985,296). The research topic, purpose and its

research question are clearly defined, and these theories are being collected from different sources and data cross validation aims to bring credibility to this study.

Eriksson and Kovalainen (2008,294) clarify that the transferability means appearing to demonstrate if the findings of the study could be useful in other similar conditions but never repeating the exact same findings. Even though the results are based on one case, the context is described elaborately for the readers to determine whether the results may be relevant to other organisations that experience sustainable human resource management and sustainable innovation. Making that decision is not the researcher's job but instead of doing so, the information should be provided so as other people can make the decision (Lincoln & Guba 1985,296-297).

The dependability test involves being able to demonstrate that the researcher is producing a systematic, accurate and reliable picture of the study (Lincoln & Guba 1985,299). Dependability was established in this research by the way of developing and pilot testing the semi-structured interview guide in a well-defined step-by-step process. All interviews were conducted in a standard manner using the same guide and procedures. The process of data analysis is described well, including the way how the themes were created out of the interview material. Notes were taken carefully, and the steps of analysis are clearly elaborated so that other researchers do follow the same procedure. This enhances the prospects of similar findings being achieved in a similar setup of a research like this, validating that the study is reliable.

This research concerned itself with trustworthiness by selecting literature, and by using reliable academic sources and databases throughout the research process. The quality of the present research was enhanced by use of an interview guide that was thoroughly prepared. The guide was designed based on the five-step framework by Kallio et al (2016), to ensure trustworthiness. Which are, firstly, testing the appropriateness of semi-structured interviews for the study, secondly, based on the existing knowledge, thirdly, developing the first version of the interview guide, fourthly, testing the guide during the pilot interview, lastly, providing the final version of the guide (Kallio et al, 2016,2959).

Confirmability employs connection of conclusions of the study directly into the data provided so that readers can see how analysis of the data arrived at the findings of the study (Lincoln & Guba 1985,300). The confirmability in this study is provided by giving a detailed and transparent presentation of the research process from data collection to analysis and interpretation. The study was direct quotation from the participants and had concrete examples from data as to how the conclusion was drawn.

### **3.6 Ethical consideration of the study**

This research study adopted the principles of ethics in the whole process. According to Eriksson and Kovalainen, ethical problems are to be taken into account at all stages of a study. All the participants were well informed about the goal of the research, and they volunteered themselves. They had a right to back out at any time without giving any reason and without being faced with any results of doing so. Each participant gave his or her consent prior to the interviews. The Informed Consent Form that was used in this study is found in Appendix 4.

To preserve participant privacy, no names or details of companies are used in this report. Participants were offered the option of identifying themselves by pseudonym, or professional role, or anonymity. These were discussed in the consent form. During the course of the research, cultural, social, and personal differences were respected.

Furthermore, data privacy and storage were paid attention with regard to GDPR and university principles. A data management plan (Appendix 2) and a privacy notice (Appendix 3) which describes how personal data was gathered, used and handled. Finally, the study was also set up to attain important qualitative research credibility, transferability, dependability and confirmability criteria (Lincoln & Guba, 1985). These principles were guided by transparent reporting, ethical conduct, and good handling of data at all the levels of study. The writing process was supported in an ethical and responsible manner in this study through the use of artificial intelligence (AI). The Appendix 5 shows the tools used. They assisted in enhancing grammar and sentence punctuality. AI was further used to understand academic texts better and structure the literature review. However, no direct copy of content from AI tools was made. Every work was the author's own, and AI was only employed as a complementary writing assistance tool to produce clear and professional writing work.

## **4 Research findings and analysis**

This chapter provides a comprehensive analysis of the findings which were gathered from the empirical data. Different themes have been identified from the thematic analysis such as ecological, social and strategic HRM in the field of SHRM. Operational optimization, organizational transformation and system building are the other identified themes for sustainable innovation. This chapter will end by providing a synthesis of those themes.

### **4.1 Sustainable human resource management practices in the case company**

This selected case company is a multinational organization has been doing business in Finland for nearly 30 years. Global vision of the company reflects in the operations, that are carried out in Finland. They dedicate themselves into progressing towards lower environmental impact, increasing diversity and inclusion and benefiting local communities. The reasons for selecting this company as a case for this research were because the company is a well-structured and transparent company on its sustainability practices and documents its integration of sustainable human resource management (SHRM) to support innovation in sustainability.

In this section, the empirical findings about sustainable human resource management (SHRM) practices in the case company based on three main themes, i.e. Ecological, Social, and Strategic aspect of SHRM are presented. Relevant academic theories are used, and supported by these findings, to support the importance of SHRM in coordinating HR practices to help organizations achieve ecological, social, and economic sustainability goals.

#### **4.1.1 Theme 1 - Ecological aspect of SHRM**

The case company has involved SHRM practices to develop an environmental consciousness in the company culture among their employees. The company sustainability report illustrates the growing impact of climate change on communities and the eco systems, escalating geopolitical tensions, economic pressures being spread widely due to inflation, and rising cost of living as massive challenges faced in the financial year of 2024. They concluded taking immediate and concrete actions to address “climate change, biodiversity loss and social inequality” are the best and only way to move forward with the business. Empowering employees, integrating sustainability into every function of business operations and promoting culture of social responsibility will be the most important approaches towards development and they can be achieved through SHRM practices targeting having to meet environmental sustainability needs of organizations.

Green Recruitment and Selection, the company engages in values-based recruitment, when sustainability is part of how they choose to find talent. Manager - Equality, Diversity and Inclusion (Interviewee A) states that, “We have that value-based recruitment. So, for us, above everything, values are more important.”

The organization’s recruitment process mainly conducted via online applications and virtual interviews. Since there is less paper wastage due to the recruiting process mainly focused on virtual interviews, online tests as well as advertising of job postings which will eventually led to have an eco-friendly practice (Khurshid & Ahmad Darzi 2016,20). The companies own website communicates clearly their sustainability values such as togetherness, caring for people and planet; cost consciousness, simplicity, renew and improve; give and take responsibility, and lead by example. And this is what the new hires will have to align to. From the above view, Opatha & Arulrajah (2014,104) and Renwick et al. (2016,6) outline green recruitment as a process that seeks to attract mainly environmentally conscious individuals to the organization.

Green Training and Development, the company’s learning strategy includes green training and development. Workers are instructed on the sustainability properties of products and the conservation of resources and are trained on environmental management systems. “What certificates we have, which are the sustainable products that we are selling, which one are recycled, which products made from recycled materials and so on. That needs to be communicated for the customers when they buy products, and we have really high goals. For example, in waste management. This fiscal year one of the priorities has been ensuring that it’s mandatory for all coworkers to complete basic training” (Interviewee C, Manager – Talent Development).

These statements show how the approach to building up employees’ environmental competencies is structured. In line with Khattak et al. (2023,1344), that green training is meant to improve pro-environmental behaviour and promote sustainability culture within organizations. The training also shows how the company moved toward the circular economy business model, emphasizing the training in product’s life cycle, renewable materials and minimizing the environmental impact. In accordance with this, Chief Sustainability Officer (Interviewee D) in Finland states, “Sustainability topics are also a part of our mandatory training package... including recycling and other topics related to this field.”

Environment education practices directly support the frameworks by Jabbour (2011,147) and Chander et al. (2020,5) and environmental education relates to building innovation capability. Performance evaluation and rewards at the company are a part of the company's holistic approach to considering sustainability goals. In how well an employee demonstrates organisational values, specifically environmental responsibility, they are assessed.

“Performance evaluation, potential evaluation and everything is based on the values. When it comes to sustainability, we have really good ways to recognize good ideas” (Interviewee C, Manager – Talent Development). A recognition system rewarding environmental contribution is also in place, this being a means of encouraging employees to share ideas of how improvements can be made to increase sustainability. Mandip (2012,246-247) as well as Dash & Das (2024,118) underline that by linking rewards to green performance, it can help embed the environmental accountability in the organisational culture. Green Employee Relations, the study from Oyewale (2019b,24) classifies that green employee relation is another way of interpreting activities organized by the company to encourage employee participation and engagement in providing possible solutions to environmental problems. Company sustainability report displays opportunities for the employee's teamwork when it comes to addressing issues of environmental nature such as greenhouse gas emissions, supply chain improvements, restoration of the degraded lands and waste management.

For instance, there are other initiatives in which employees can participate on a voluntary basis in the community engagement projects in areas like the improvement of biodiversity, educational activities and joint projects of circular economy. By undertaking such sustainability projects with employees, the company can reinforce a sense of ownership and joint responsibility for the environment as well as reinforce employee relation. Nevertheless, there is no doubt this company is carrying out sustainable HR practices as far as green human resource management is a concern and it comprises green recruitment and selection, green training and development, green performance management, green reward and compensation, and green employment engagement.

#### 4.1.2 Theme 2 - Social aspect of SHRM

This case company incorporates social aspect of SHRM through the HR practices of enhance employee health and safety, facilitating social infrastructure, engaging corporate social responsibility, developing employee well-being and maintaining equity, diversity and inclusion. This is in line with the opinion of Luu (2021, 780), that the socially responsible HRM enhances employee behaviour and ethical engagement as well as the motivation. Health and Safety, one of the

fundamental areas in an organisation is ensure health and safety of their employees. As a safe and healthy workplace this company name is quite popular.

“A very high emphasis on health and safety” above industry standards” (Interviewee B, Manager - Health & Wellbeing). There is an emphasis on encouraging employees to report the potential hazards, and HR works with the teams towards proactive safety measures. In 2022, the company implemented the “Road Safety Index” and took steps forward in promoting the road safety performance of the suppliers and good distributors, added the company’s sustainability report. Proactive leadership and risk management strategies make the culture of the company safer to ensure health and safety. The company has taken some actions to build a safe and healthy culture of their employees such as conducting continuous safety awareness sessions, risk assessments around “high priority risks”, and risk mitigation as an integrated part of the daily operation of this case organization. The workers, have special attention on the health risks; it is prioritized in the health and safety strategy of the company to provide the safe and efficient use of all chemical products also.

“We offer psychological counselling, short therapy, but I am trying to work with the root cause of mental health issues” (Interviewee B, Manager - Health & Wellbeing). Physical and psychological wellbeing are both part of the organization’s health and safety strategy. Additionally, the company acts as occupational health care, risk assessments, psychological counselling and promotes mental health together with institutions in Finland. These practices are interpreted as proactive, as suggested by Melhem et al. (2024,314), who argue that health and HRM integration strengthens the organization’s resilience.

Social Infrastructure, the case company has built a very strong social infrastructure which focuses on the employee wellbeing, inclusivity, and a supportive work culture. Chief Sustainability officer Finland stated that when it is designed the landscape of the company, it is considered public transport access, walkways and cycling roads.

“We have open offices; we do not have it closed offices for nobody” (Interviewee A, Manager - Equality, Diversity and Inclusion). The company has removed the concept of specific working areas and brought open break areas for their employees where all type of workers interacts with each other. Team members can have their business conversations without having to book for meeting rooms and it has relaxed and open space working environment. The company shows a whole view of human resource management by offering facilities which enable both the physical and mental health of the employees

As per the company website, this company provides facilities and institutions that enhance coworkers' quality of life. A core practice here is flexible working arrangement. They provide company restaurants where employees can enjoy their mealtime fresh and hot meals. For coworkers, the company provides free car parking facilities and cycle to work. Smoking rooms, restrooms, watching TV areas and the internet facilities also help to work in the office which looks like a home. The purpose of such facilities is to provide these as pleasant and inclusive workplaces which conform to the company's employee satisfaction and work-life balance policy. A study from Fernández et al. (2018,14-15) proves that physical and organisational structure is significant for employee's wellbeing and for its production.

Corporate Social Responsibility (CSR), Through HRM, employees are empowered to volunteer in community service or social charity project. Company employee support for some socially engaging activities can be in terms of taking up educational programs, providing financial support for water management projects, biodiversity improvement activities, refugee employment projects and partnerships with NGOs such as SOS Children's Village.

"We are cooperating with SOS Children Village to assist vulnerable persons" (Interviewee E, Recovery Manager & Sustainability Coordinator). This demonstrates, greater sustainability strategies of the organization, a focus is placed on fair and equal opportunities for everyone. The sustainability report of this company reveals that there are multiple CSR projects which are currently operating. Such commitment is clearly marked in the case company's social entrepreneurship program, which has been working together with social enterprises to offer inclusive job opportunities for marginalized groups. That program partnered with social businesses to make handmade products, which has accounted for more than 20,000 long term jobs. Also, the company operates in accelerator programs help social entrepreneurs to scale the impact. This company provides mentorship and resources to help these entrepreneurs tackle the systemic social issues at hand. The company has made these CSR efforts as an effort to make positive social change both within its workforce and in the wider community. Integrating CSR into core business practices of organization not only improve its social impact but also build company reputation and employee engagement. These findings reflect CSR practices that, according to Vu (2022,9), strengthen employees' moral alignment with organizational values.

Employee Well-being, the company is well known for caring for employees. It is believed that maintaining employee wellbeing by facilitating benefits for them and their families will enhance their mental satisfaction.

Our vision is to create a better everyday life for many people including our customers and our employees. We have that holistic approach about to take care employees. Sustainability is caring about our co-workers ( Interviewee B, Manager - Health & Wellbeing).

The words 'take care' employees and their physical and mental wellbeing' best describe what sustainability means among the employees in Health and Wellbeing. In order to achieve this, the company has come up with several initiatives involving financial stability, home-related support, family benefits, mental and physical health, and professional growth. The primary ways of ensuring financial stability for employees consist of providing competitive salary packages, bonuses, pension benefits, and supplying insurance and loan facilities. In addition, employees enjoy healthy meal choices like in the company's restaurants as they have salad bars, fruits and beverages. For instance, services include the "Virtual GP Service", private health insurance and digital health assessments, which can help create a healthy lifestyle for the staffs.

"If we compare benefits that we can give to our coworkers, for example, Smartum voucher that one can use for physical exercise, for theatre, for transport, that's a tax-free benefit for all employees" (Interviewee B, Manager - Health & Wellbeing). In addition, the company provides free mortgage advice, home furnishing discounts, and a flexible loan program to support employees in becoming homeowners beyond salary and their bonuses. It has been demonstrated, with flexible working hours, remote work, additional leave benefits, better parental leave, a first day of school off for parents, and fertility support as just some examples. In addition, employees get online learning platforms, career breaks, and global opportunities for job rotation so that they can build up their careers.

"We obviously want to sell furniture, but we want our coworkers to have a better life. With regards to the customers, we want them to have a better life, which we want everyone to have" (Interviewee A, Manager - Equality, Diversity and Inclusion). The manager also noted that every year, they discuss with their employees to know their preference on benefits, and they try to incorporate new benefits into the system every year. The culture of the company is dedicated to giving equal significance to employees' work and personal life and it offers extensive benefits to ensure holistic wellbeing. However, they are convinced that a happy workforce is instrumental for ensuring the success of the company.

"Smartum voucher that one can use for physical exercise, for theatre, for transport, that's a tax-free benefit for all employees" (Interviewee B, Manager - Health & Wellbeing). In the framework of well-being in SHRM, whilst taking into consideration of mental, emotional and physical health can

be taken as a physical health as a part of job satisfaction and retention. Diversity, Equity, and Inclusion (DEI), Equal employment opportunities were found to be a key theme in studies previously conducted in literature. However, upon interviewing, this concept has been extended to Diversity, Equity, and Inclusion (DEI). Diversity is having staff with different genders, age groups, ethnicity, disability and sexual orientation as mentioned in the study of Raghavi & Gopinathan (2013,302). Equity implies equal opportunity for the same amount to everyone; an equal amount but equal opportunities are based on individual needs. Including means to make diversity alive by promoting the atmosphere of respect, acceptance, and encouraging them to grow.

“We focus on age, on gender, on sexual orientation, where people belong to the LGBT plus community and other nationalities and disabilities and for that we need a diverse team and Big 5 is that diversity” (Interviewee A, Manager - Equality, Diversity and Inclusion). Recruitment starts with hiring employees from different nationalities and backgrounds. According to EDI experts, the company seeks to transcend. Today, multiple nationalities account for more than 70% of workers in the logistics and food sector, and continuing attempts are being made to expand this portion. The HR department provides additional support to multinational employees operating within the company according to the leader. In addition to that, this organization is a gender equality maintaining organization, aiming at achieving 50/50 gender balance at country levels, positions, including boards and committees. Another motto is the global “LGBTQ+ Inclusion Plan,” aimed at helping a company create an inclusive environment for the employees of different sexual orientations and gender identities. In addition, the company offers a few job openings for people who have disabilities with flexible working hours. Nonetheless, as the interviewee also mentions, there is still work to do to increase the number of employees hiring with disabilities.

“Certainly, I think, the benefits are for everyone, including if you work 12 hours or 37 hours a week. In that sense, everyone is equal, all the benefits apply equally on everyone” (Interviewee B, Manager - Health & Wellbeing) Equity implies equal opportunity for the same amount to everyone; an equal amount but equal opportunities are based on individual needs. Including means to make diversity alive by promoting the atmosphere of respect, acceptance, and encouraging them to grow (Dunn 2020).

Our service office is standing ‘on the roof’ of the store. However, our ‘coffee area’ is also joined by coworkers of the store like those from logistics or another department. Our CEO is also looking for a desk, just like everyone else (Interviewee A, Manager - Equality, Diversity and Inclusion).

The further fostering of a low hierarchy workplace culture promotes the equality of all levels of employees. Senior members of management and entry level employees have access to open areas and shared facilities. Employees greet each other with their first names as they are encouraged to talk openly to their supervisors, managers and even directors.

“Inclusion means they will always have the chance to decide, participate and speak up” (Interviewee A, Manager - Equality, Diversity and Inclusion). The company seemingly takes all and welcomes everybody, no one is judged by their origins, looks, gender or beliefs. They admire team spirit and search for a group of different people that will add fun, good humour and good values in the workplace. Strategies such as these encourage diversity and equity, which can increase organizational innovation, trust and unity (Thirusanku et al.2021,214). Such practices demonstrate a complete organization’s willingness to foster fairness and inclusivity that contribute to the feeling of belonging among employees. This action resonates with the argument that Gehrels & Suleri (2016,66) presented, that practices of diversity and inclusion such as inclusive recruitment, reasonable employee development opportunities and fair leadership representation are the top indicators in a sustainable HRM. In addition to taking care of the employee engagement and lesser employee turnover, these practices also help grow such a culture within an organization that is trust based and also unbiased, which are two key elements towards organizational long-term sustainability.

#### 4.1.3 Theme 3 - Strategic aspect of SHRM

The consideration of economic and social aspects of employees in the strategic HRM framework is also an essential component of an enduring HRM practice. The themes identified here are not pertaining to human resource efficiency, macroeconomic policies, re-engineering, employment guarantees and senior management commitment. The majority of these themes are drawn from studies of the past, with the rest drawn from company published data. In the case company, the strategic HRM practices link workforce policies to the long term economic and operational sustainability as mentioned by Wright & McMahan (1992,298) and Cabrales & Cabrera (2020,8).

Human Resource Management Efficiency, At the company, there are several steps this has been implemented to enhance the productivity and efficiency of the employees. The company’s way of approaching human resource efficiency is always unique leading to the creation of human resource efficiency in the company through trying to increase value and creating the learning culture to build the employee’s skills and knowledge. As the recruitment period ends, the company has an onboarding course to assist people who come on board to interact with their colleagues,

companions, or supervisors. It also allows them to become familiar with the company's culture and values.

This belief applies to all employees since the company provides leadership development programs for all employees. The company knows that regardless of titles, leadership is necessary for everyone. Performance evaluations also include evaluations of leadership skills.

The way to encourage your current coworkers to take leadership on everything they do. So, all the support that we can give them when they know that we can do it better is there. I've talked of leadership by all, and leadership by idea, and the intent is to create an environment where absolutely everyone can lead in their role. We demand that they take responsibility and expect our performance evaluation is based on that. We do so only in the ways that they're taking responsibility for each part of their job including sustainability and working toward our goals (Interviewee C, Manager – Talent Development).

As the day goes by, company operations, systems and requirements need to be changed, and this makes it very necessary to develop employees' skill set after identifying the skill gaps. This company knows what skills are lacking and fills in the gaps by identifying what employees need within the team and in what areas they need to train or hire. "We do research about coworkers experiences to recognize their competence needs, then find competence gaps specifically" (Interviewee C, Manager – Talent Development).

The company has a series of platforms that facilitates self-learning for employees which are related to them being employees of that company. Employees can also study online skill development courses via LinkedIn Learning and language programs so that their skills and knowledge are enhanced. Employees can learn for themselves and take lessons from the outside. The company operates in many countries around the world; another advantage is that they also can rotate job roles and consider foreign working opportunities. This can be achieved through the provision of flexible working arrangements in an environment that is conducive to work, optimistic and joyful.

This proves the notes of Copus & Crabtree (1996,42) and Youndt et al. (1996,839) that, strategic planning, skill mapping, identify future need and employee development are some strategic human resource managements which enhancing the employee productivity and achieving organizational objectives.

Macroeconomic Policies, the company Sustainability Report shows the company has dedicated itself towards affordable and quality products in all its operations despite global economic pressure such as inflation and rising cost of living. In over 60 markets with 216,000 employees, HR

strategies and practices are adapted to labour market policies, minimum wage regulations and employment laws. The company reflects its commitment to government widening workforce development by investing in upgrading the skills to adjust to the digitalization and automation in line with the strategy.

In one instance, one leader said that, as HR professionals, they need to be aware of local legal requirements of having to operate in line with the way or not, depending on what is needed. Manager - Health & Wellbeing (Interviewee B) explained, "We are well aware of the local legal requirements and all such related matters, and we always strive to do a little bit more than what it is required by the laws."

The company also has an agreement with and integrated its business operation to macroeconomic climate-based policies and adopting circular economy models. The company has employee related regulations line up with ethical business practices and carries out training for their coworkers on ethical trading, ethical recruitment, ethical data handling and other ethical business practices as a means of reducing corruption.

Inclusive specifically, the company's work in the workplace, human rights protections for workers in the supply chain and sustainability initiatives with community groups. Such efforts are consistent with the macroeconomic policy concerning social responsibility and labour fair practices. This case company HR practices relating to macro-economic policies are aligned with the studies which mentioned that the HR practices should adhere to labour market trends, economic regulations and the demand of the market (Copus & Crabtree 1996,42; Epstein et al., 2018,120).

Employment Guarantee, there is a high employment guarantee and workforce stability in this organization. As discussed in the social HR practices, the company has lots of investment in the development of the employees and in their health and wellbeing and this makes the employees feel secure in their job roles and it leads to motivates their current employees as mentioned from the study by Glaser & Diele (2004,323).

"Obviously, about the minimum salary and all that in our company, I think we are competitive with industry standards, and give so many incentives" (Interviewee B, Manager - Health & Wellbeing). The standard package of salary with loans, bonuses, incentives, allowances and other support received the employees from a company are competitive. Employment stability comes in as a result of equitable salary structures that match up to living wage standards and industry standards in general. The company's intergroup has implemented responsible wage practices at the salary review

stage and has performed workshops and assessments for franchises. This program is being extended to the supply chain to identify living wage gaps, collaborate with suppliers, and provide suggestions for improvement. In addition to that continuous learning opportunities, career development programs, job rotation, employment in the other location of the company, and in the pension, plan are supports to guarantee of their current jobs. The study of Groenendaal et al. (2022,6-9) ensures that the above-mentioned HR practices on employment guarantee supports to build a strong employee involvement and minimise labour turnover while increasing the productivity.

Senior Management Commitment, integrating sustainability in strategic human resource management depends majorly on the commitment of senior management towards the functioning of the organization without negatively impacting it in any way and achieving business growth with due consideration to social and environmental responsibilities. Sustainability in this organization is driven by leadership, where the leadership secures fair and responsible employment practices and meeting long term health and wellbeing of workforce. For instance, it is stated in the company's sustainability report that they work with these experts to shape the initiatives of integrating sustainability into the company which supports to the study of Glaser & Diele (2004). It works with groups of experts and oversees how the company and its business operations operate under the strategy, the practices, policies and the performance that fall under sustainability. With the support of senior management, these forms of governance structures, codes of conduct, grievance handling mechanisms, and the development of workers' rights and compliance are developed.

“If you want to implement sustainable HRM, the first thing you can do is begin with senior management and obtain their commitment” (Interviewee A, Manager - Equality, Diversity and Inclusion). Managers are from the leadership role within the company, and they think that encouraging responsible company' remuneration practices inside the HR setting, encouraging the growth of a culture that incorporates ethical awareness of making choices, learning, and worker engagement, are results of senior management support.

As a leader the best thing is I try to keep in my head, what's best for our coworkers and what they need. The thing with your leader is if they are able to give that the psychologically safe environment where you feel like you are able to talk openly and you are able to ask for help. And get help when you need it makes a difference, said, (Interviewee B, Manager - Health & Wellbeing.)

Furthermore, the leaders assist in the formation of a performing, diverse, safe and friendly work environment for the employees. The company obtained its positive long-term development sustainability from strong leadership and governance. And as mentioned in the studies from

Subramanian & Suresh (2022,480) and Wijethilake & Lama (2019,150) the above discussed senior management roles help to align HR practices with financial or profitability goals.

## **4.2 The influence of sustainable human resource management on fostering sustainable innovation**

### **4.2.1 Ecological aspect of the SHRM on sustainable innovation**

Ecological HRM is managing HR practices such as recruitment, training, performance appraisal, etc. in such a way as to contribute to environmental sustainability. These practices support employee behaviour consistent with ecological values and develop capabilities that aid innovation of different levels of organisational development (Adams et al. 2012; Opatha & Arulrajah 2014; Renwick et al. 2013). In the case company, Green HRM supports innovation in three stages: operational optimization, organizational transformation, and systems building.

Theme 4- Operational Optimization, on this stage, the company tries to raise resources effectiveness and reduce the environmental effects, as it makes moderate organizational changes (Adams et al.2012,10). This is supported by green HRM by integrating sustainability within the recruitment, training, and performance systems.

In line with what has been pointed out in Section 4.2.1, the company is very keen to recruit employees who share its core values. Throughout every HR practice, from onboard, to training, to our evaluations, these values are shown to exist. It is also a way to make sure all employees know and are responsible for using ecological principles in their work. As stated by Renwick et al. (2013,8), integrating sustainability in HR systems can in turn allow the construction of green behaviour from the beginning.

The mandatory training programs within the company also include environmental topics such as recycling. These trainings aid employees to build the skills and awareness of how to utilize sustainable practices at work. According to Jabbour (2011,147), training in this way enables employees to identify places to save resources and implement effective processes. The company has systems in place to recognize and reward contributions of sustainability related ideas from employees. This also builds a culture that is driven by people, not external pressure. It is noted by Daily & Huang (2001,1540-1541) that emphasizing performance and rewards relative to environmental outcomes enhances accountability and encourages innovation.

Product level innovation in the company includes employee-driven improvements like creating a product such as the LADDA rechargeable battery and introducing energy efficient appliances towards implementing the company's sustainability goals. Through embedding environmental values into work routines, Green HRM can support the daily activities of the organization in another way, by assisting innovations in efficiency and product design.

Theme 5- Organizational Transformation, At this stage the business models, roles of employees, and internal systems need to be adjusted to enable long term sustainability (Bocken et al. 2014,49). At this point, HRM has made the transition from small incremental process improvement to more strategic innovation.

For instance, employees are trained to communicate to customers the product sustainability, for example, certifications or recycled materials. This contributes to responsible consumption and is meant to turn employees as sustainability ambassadors as shows by the Seebode et al. (2012,204). Additionally, the company also aspires to fully adopt a circular economy model that is based on renewable energy and sustainable resources. To do this, HR offers training on areas such as lifecycle design and circular production. Sossa et al. (2022,15). According to Zartha et al. (2024), such skills are necessary for creating sustainable innovations. One example of this evolution toward new product innovation is the DÅNHULT foamless sofa and MITTZON sit/stand desk. Fewer raw materials are involved in the manufacture of these products, and they help promote the sustainable lifestyle. To enable such innovations, employees trained in sustainability work with product developers. Overall, ecological HRM is one of the ways to support deeper change in which employee capabilities are developed to help redesign products and communicate sustainable values.

Theme 6- System Building, Systems building at the most advanced level means reshaping systems at a broader system such as markets and regulations through partnership and cooperation (Adams et al.2012,16). Supporting employee participation in such efforts is a part of HRM. For instance, biodiversity, education, and circular economy community projects that offer employees the chance to join in. Additionally, these voluntary activities reveal the larger initiative taken by the company to be sustainable. As Deshwal (2015,179) mentions, by involving employees in such efforts, employees' commitment in documenting and achieving the environmental goals increases and systems thinking is enhanced.

Recruitment and professional development also include sustainability, with good internal communication and collaboration between departments. These support of shared learning, as well as group learning, and helps to align the sustainability goals across the organization. Garrick et al. (2024)

stress for the creation of system level change, it is a question of cross functional collaboration. These practices, among others, have given the company the chance to join their global initiatives such as the 50L Home Coalition and shipping renewable biofuel, also overseas biodiversity work. This participation is further facilitated by HR in training, reporting, and coordination. Ecological HRM bridges internal practices to global environmental goals and positions employees to participate in the transformation of wider systems for a large-scale sustainability.

#### 4.2.2 Social aspect of HRM on sustainable innovation

Social HRM is involved in promoting social equity, wellbeing, diversity and community engagement through the HR practices. Inclusive, resilient and collaborative workplaces will be facilitated with the help of legal compliance. Sustainable innovation occurs in the case company at three levels of Social HRM: operational optimization, organizational transformation, and systems building.

Theme 4-Operational Optimization, Social HRM diminishes operationally on the level of a healthy and inclusive work environment which can ensure employee performance and effectiveness as a team. This foundation paves the way for employees to give better sustainability objectives (Adams et al.2012,10).

In addition, the company provides full range of occupational health services, including psychological counselling and short-term therapy. The aim of these services is that they are focused on mental wellbeing and addressing of the root causes of stress. This is a proactive way of answering the issue, reflecting a larger dedication to workplace health. According to Guest (2017,23) organization support of employee wellbeing is critical to nurturing employee engagement and performance, notably change complex changes and supports to create innovative ideas. Also, the company uses open office layouts, which increase openness and lessen workplace hierarchy which encourages its employees to use these spaces to facilitate communication and collaboration between teams to boost innovation through knowledge sharing and more inclusive interactions. This program has decreased absenteeism and increased team efficiency on roles being sustainability related. In general, Social HRM acts as a tool to optimize operations by creating a secure and welcoming ecosystem that ensures that employees perform optimally and contribute to innovation.

Theme 5-Organizational Transformation, Transformation of the organization means a change in the manner with which the company works towards ensuring diversity, inclusiveness and internal career development. This is supported by social HRM, which regards diversity, inclusion and equity

(or DEI) principles as intrinsic to hiring, leadership or mobility systems. “We really believe they will learn a lot, but teams will also learn a lot because they bring something new” stated the Manager - Equality, Diversity and Inclusion (Interviewee A).

In other ways too, the company seeks to promote diversity among staff in age, gender, sexual orientation, nationality, and disability. In its “Big 5” diversity framework, it is captured this broad approach and is applied in recruitment and building teams. Different combinations of perspectives lend more creativity to teams. As it was mentioned by Horwitz & Horwitz (2007,986). Certain programs are implemented to boost the employees from underrepresented groups like job rotation, mentoring, buddy, and hosting managers to help with onboarding. These do enhance skills and confidence and promote inclusion and increase internal innovation by producing a rich pool of talent with leadership potential.

Besides, the company considers mutual learning. It thinks that new employees learn what it is like to work at the company but also that those on existing teams receive new ways of thinking due to the diversity among new employees. According to Bocken et al. (2014,52), transformation is possible through the utilization of different relative advantages that cater to various individuals’ innovation needs. As a result, Social HRM helps to improve the transformation of organizations through systematization of inclusivity in career development systems, which strengthens the capacity of the innovation.

Theme 6- Systems Building, the form that the company can take on in order to improve social sustainability is that of partnerships and mutual work with other segments to grant social input, community engagement, inclusive employment practices; this is systems building. Social HRM is then helping to set up the whole social structure at this level, and help the vulnerable (Adams et al., (2012,25).

SOS Children’s Village is one of the organizations the company is working with, and the company is supporting refugee employment in Finland. The nature of these partnerships has assisted to integrate disadvantaged groups into the workforce as well as promote social inclusion by improving the living conditions of disadvantaged groups and its citizens. HR’s influence on broader employment systems is evident in these actions. As stated by Voegtlin & Greenwood (2016,1152), it has been argued that aligned HR and CSR will enable organizations to contribute to a fairer labor market.

The company also works in partnership with its employees to support community projects such as furnishing homes, giving financial support and delivering skill building workshops. Grossly summarized, these projects are indicators of the long-range efforts made to facilitate social wellbeing. Adams et al. (2012,61) point out such collaborations as examples of systemic social innovation. Social HRM facilitates system building through the construction of partnerships and inclusive practices that promote equity and constitute broader social change.

#### 4.2.3 Strategic aspect of the SHRM on innovation

Strategic Human Resource Management (SHRM) aligns HR practices to the organization's long-term goals i.e. sustainability, economic growth, and development of the workforce. SHRM is an important component to how the case company supports sustainable innovation by means of structured workforce planning, leadership development, digital tools, and inclusive policy design. All of these practices manifest themselves at three levels of innovation: Operational Optimization, Organizational Transformation, and Systems Building.

Theme-4- Operational Optimization, at this level, SHRM will enhance efficiency along with employees through learning experience of the ways to develop skills to cope with sustainability challenges. This involves daily skills assessments, leadership programs, as well as training.

The employees often get feedback from the company to know their development needs and identify the gaps in the skills. Based on the information, they come up with targeted learning initiatives that aim to improve performance. It is so because Sulej et al. (2024,350) refer to human resource efficiency, in which strategic workforce development increases productivity. The company also encourages employees to own work and establish leadership in everyday work. Therefore, we recognize and reinforce these behaviours through performance evaluations. This is in line with Wright & McMahan (1992,298) definition of SHRM which implies purposefully using human resources for long term competitive advantage. The company reskills its employees for sustainability related roles by using LinkedIn Learning and internal leadership programs. This allows for continuous learning and enhancing of the flexibility of operations. SHRM at the operational level develops a workforce with a good profile, responsible and timely, improving the skills of tasks, accountability and performance systems to help improve innovation.

Theme 5- Organizational Transformation, in this stage, HR systems, leadership culture and digital tools are changed to support sustainable business models. Today, the company adopts new technologies and ethical standards in accordance with sustainability goals with the help of SHRM.

While many of the initiatives to support sustainability are not generally ‘labeled’ as HR practices, they are part of a value-based culture to which how people are managed is aligned. This illustrates that there is a balance being made to integrate sustainability more into everyday business practices.

As Love & Gunasekaran (1997,196) remark, such reengineering is vital to long term adaptability. For instance, the company keeps an AI register and steers people on how they should ethically deploy artificial intelligence. This position aligns with HR function’s role of ensuring responsible use of technology and enabling sustainable innovation processes. According to Garrick et al. (2024,22) in modern business models, innovation is built on grounds of digital skills and AI readiness. The AI Register helps to protect innovation integrity and trust through the ethical use of AI in hiring, training and operations. From an employee idea and leadership approval, SHRM developed a real-time interpretation tool that enables deaf employees and customers to understand the work environment and to interact with coworkers and customers. Embedding ethical, digital and employee driven innovation into HR systems is what SHRM does to support organizational transformation.

Theme 6- System Building, At the systems building area, SHRM fills and forms the connection between the organization’s HR strategies and systems with wider social, legal and economic systems. This covers labor standards compliance, development of leadership and support to worldwide sustainability goals. The company is very much aware of all local legal requirements and strives after surpassing those for example, in the area of employee wellbeing. Moreover, building up sustainable HRM takes off by having the backing of senior leadership.

Company’s leadership approach is ‘leadership by all’, which means employees can exercise initiative. Their authority is to make that decision themselves when they see that we can do something better (Interviewee C, Manager – Talent Development).

In this it is seen that leadership commitment plays a critical role in driving changes in innovation. The employees have chance to work as leaders and take the own decisions while working. Senior management believe that giving decision making power will support to bring new ideas from employees. According to Glaser & Diele (2004,323), sustainability must be part of organizational culture and therefore strong leadership plays an essential role for this to happen.

Chief Sustainability Officer (Interviewee D) stated that,

Hence, companies can use their sustainability development as a feature and to be a new standard/expectation of consumers. Companies can push for adoption of new policies and the change itself. This will take a considerable amount of time and much effort. Ad-

ditionally, companies can also facilitate a collaboration that provides a faster rate of development rather than modifying policies or requirements. New ESG-reporting can drive the speed of change by reporting and transparency. Today, many of these happen to be automatically integrated into the HR role, as every single one of them has the people factor: work conditions, equality, inclusion, diversity, salaries etc.

Sustainability is presented by the company as a strategic aspect, that satisfies growing consumer expectations. Fair pay, inclusion and working conditions are now what HR are responsible for. This is an indication of the role that HR is going to increasingly play in managing Environmental, Social and Governance (ESG) issues. According to Adams et al. (2012,25), systems-building companies need to set regulations and societal expectations. HR was responsible for sustainability training all levels of employees on sustainability development. The company's policy on the Living Wage and Equal Pay ensures fairness on a global basis, within the context of international labour standards. Systems building is embraced by Strategic HRM, with HR being the alliance between HR policy and global sustainability goals, fair employment and long-term leadership in order to foster sustainable innovation.

This chapter went through a detailed study of the SHRM practices used by the company using the three major dimensions: ecology, society, and strategy. In reviews with employees and company reports, it was clear that sustainability is built into the HR department's usual practices, such as recruitment and performance evaluations. The results of this analysis showed that using these SHRM tools supports the three phases of the Innovation Maturity Model. The program serves to optimize operations, transform each organization, and create new systems. In particular, using ecological aspect of SHRM, companies encouraged both green behaviour and new product creation. Because of social aspect of SHRM, cultures in the organization became more inclusive and stronger, encouraging employees to collaborate. An important point is that all three SHRM dimensions acting together made a stronger contribution to innovation. For example, when these three practices are carried out together, a company is more capable of transforming and innovating on a larger scale. This study shows that having all of these components together is the key to promoting sustainable innovation. Such an approach is necessary for companies wanting to tackle sustainability issues and stay competitive at the same time.

## 5 Conclusion

### 5.1 Theoretical contribution

The major aim of this study is to connect Sustainable Human Resource Management with Sustainable Innovation. Elkington's (1997) famous Triple Bottom Line (TBL) theory and the Sustainable Innovation framework developed by Adams et al. (2012) are used in this approach. Previously, SHRM and innovation have been researched as two different areas. However, this research combined these three different aspects SHRM, such as, ecological, social and strategic aspects into a novel combined framework which will integrate into three categories of innovation maturity, optimization of work, changes in organization, and construction of new systems.

Thus, this model (Figure 4) provides a different perspective on how innovation is supported by SHRM. It first points out that the three aspects of SHRM, when share, assist with different types of innovation, instead of working individually. In fact, this study suggests that linking green activities, diverse policies, and strategy can boost and maintain innovation success. Second, the article reveals that SHRM is important for more than employees; it also supports the company with sustainability and encourages new ideas. SHRM is involved in product development, employee engagement, work with external stakeholders, and offering long-term support to leaders.

The findings of this study are supports for the earlier researchers. Jabbour and Santos (2008,148) indicated that green training develops a culture of sustainability, and Ramus (2002,163) pointed out that employees are more creative when HR organizations encourage and reward green behaviour. In this study, it is shown that importance is placed on green recruitment, green training and development, innovation systems, and compensation in encouraging both internal innovation and cooperation with the outside world. The social aspect of SHRM, such as emphasizing fairness, health and safety, and inclusion in motivates people and promotes ethical values, which are valuable for teamwork and coming up with new ideas (Guest 2017,35; Luu 2021,780). The strategic aspect, supporting both new and experienced leaders can help an organization become stronger and adapt to any transformations (Wright & McMahan1992,298; Shen & Zhang 2019,4).

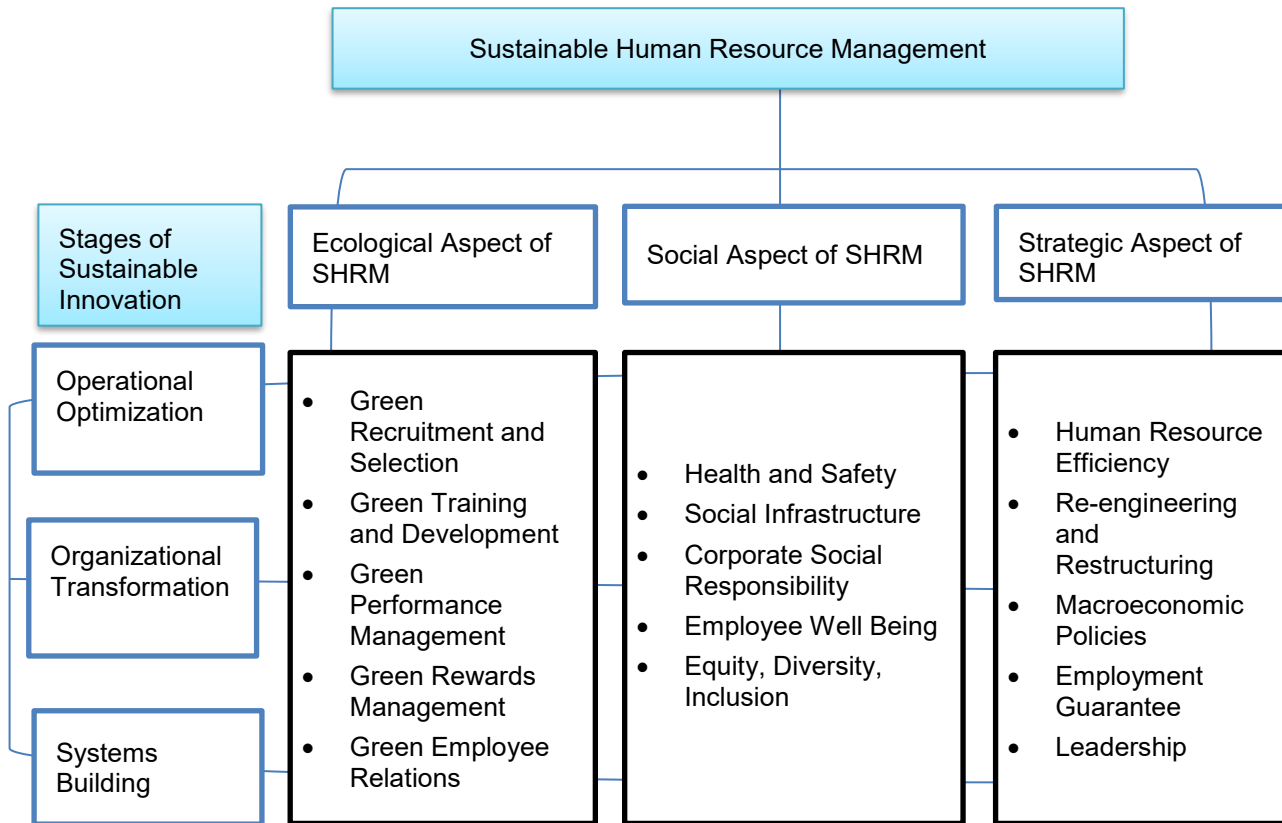


Figure 4 - The model of SHRM influence on SI

All in all, the integrated model outlines a useful approach for how SHRM can help develop sustainable innovation throughout an organization. It points out that by bringing together ecological, social, and strategic HR activities, innovation can be accelerated.

## 5.2 Managerial implication

SHRM is highlighted in this study as being important for achieving sustainable innovation. The role of HRM should be bigger than just handling employee tasks and should include leading the organization's efforts on environmental and social responsibility. To back innovation, managers should apply SHRM techniques that get employees involved, support their education, and support continuing growth. First, it is important to provide employees the chance to take part in teamwork to resolve actual sustainability issues. Temporary projects might deal with issues such as minimizing waste, managing energy appropriately, or making their activities more inclusive. People in a company can be helped to improve their ideas by offering guidance, time, and support. It brings about a sense of belonging, and makes sure new ideas are valued.

Also, businesses can create programs that motivate their staff to take little steps every day for sustainability. It be taken part by suggesting improvements, using resources wisely, or taking part in

activities that support everyone. People in the workplace can gain recognition in a number of ways including learning, development, or autonomy. It encourages people to stay involved and allows for further progress. Also, making tools available for managers to track and assess employees' work towards sustainability goals is a good idea. For instance, a basic reporting system could highlight the details of worker participation in eco-friendly initiatives. Performance reviews and important decisions can make use of this data. It keeps employees interested in making advancements when their efforts are recognized.

This tool can also help organizations see which workers are knowledgeable in this area. Managers can build teams, distribute work among members, and provide specific training with the information gathered. It helps to ensure everyone is working on what they are best at, leading to high performance and greater engagement. In the end, it allows companies to have junior staff learn from senior staff. In such cases, individuals who have obtained sustainability training interact with experienced leaders, gaining from their problem-solving approaches. By using this learning approach, an organization can bring about changes in leadership, innovative ideas, and improve inclusion for all levels.

All in all, SHRM is key in helping organizations promote teamwork, support learning, and improve accountability for sustainable innovation. Allowing employees to play defined roles in sustainability and motivating their involvement can build a successful and innovative company culture.

### **5.3 Limitations and recommendations for future research**

While this study offers useful insights into how Sustainable Human Resource Management (SHRM) supports Sustainable Innovation, it is important to recognize the limitations that may affect how the findings should be understood. Pointing out these limitations helps make the research process more transparent and also highlights areas where future research can build on these findings and explore new directions.

One of the key limitations of this study is that it focused on just one organization in a specific industry and country. Future research could expand this scope by studying multiple companies across different sectors and locations. Comparing different types of organizations such as large versus small businesses, or companies in different cultural or economic settings could help reveal how SHRM practices vary and which factors influence their success. This would help determine whether the patterns found in this study apply more broadly.

In addition, the study mostly includes the views of people in HR related roles such as diversity and inclusion, talent development, and wellbeing. It does not include feedback from employees in other parts of the organization, such as those working in operations, product development, or customer service. As a result, the findings mainly reflect the views of people in strategic or management positions. Future studies should also include the experiences and opinions of employees from different levels within the organization. Hearing from operational staff, technical workers, and even external partners like suppliers or customers could provide a more complete picture of how SHRM is actually understood and practiced. It could also help identify any gaps between what managers plan and what employees experience on the ground information that is valuable for improving the overall effectiveness of SHRM strategies.

The study was also limited by time. Since it was conducted within a specific academic schedule, it only captures a view of the company's HR and innovation practices at one point in time. Future research could also benefit from looking at changes over time. Both sustainability and innovation are long term goals that develop gradually. A study that follows an organization over several months or years could reveal how HR practices evolve and how they affect innovation outcomes in the long run. Another limitation relates to the method of data collection. The study used qualitative methods, especially semi-structured interviews, with a small group of HR and sustainability experts from the company. Combining interviews and observations (qualitative data) with measurable results (quantitative data) such as employee performance, innovation achievements, or sustainability targets would help create a more complete and reliable understanding of SHRM's impact. This kind of mixed method approach could make the findings even more useful for theory and practice.

Leadership is another area worth deeper investigation. In this study, strong support from senior management played a major role in aligning HR practices with sustainability goals. Future research could explore how different leadership styles, decision making processes, or management systems influence the success of SHRM. Understanding how leadership can either support or block sustainability efforts would help organizations design better leadership training and more effective sustainability strategies.

As workplaces continue to evolve, it is also important to study how digital tools and technologies affect SHRM and innovation. The growing use of artificial intelligence (AI), automation, online training platforms, and data tracking tools is changing how HR operates. Future research could look into how these digital tools help or hinder sustainability efforts particularly when it comes to employee learning, engagement, and performance management. This is especially important as

many organizations are trying to achieve sustainability goals while managing digital transformation at the same time.

There is also a need to better understand how SHRM is included in company strategies and policies. Future research could examine how HR departments formally include sustainability goals in their planning, evaluation systems, and reports. This would help show whether SHRM is being used as a core part of business planning or simply as an add on. A clearer view of SHRM's role in organizational governance could also support stronger accountability and long-term planning.

Finally, because sustainability is a global issue, future research should pay close attention to cultural and legal differences. SHRM practices may look very different in various countries due to local traditions, employment laws, or sustainability rules. Comparing how different regions approach SHRM could reveal best practices and common challenges. This would be especially useful for multinational companies that need to adapt their strategies across different countries while still staying consistent with their global values. There are many valuable directions for future research in this field. By expanding the number and types of organizations studied, including a wider range of voices, and exploring long-term trends, researchers can build on this study and provide a deeper understanding of how SHRM helps drive sustainable innovation in different environments. These insights will not only add to academic knowledge but also support organizations in building more sustainable and forward-thinking HR strategies.

## 6 Summary

This research shed light on how Sustainable Human Resource Management (SHRM) affect the development of sustainable innovation in an organization. The research answered the main question by conducting a qualitative case study that focused on how sustainable human resource practices influence the generation of sustainable innovation. The study investigated the implementation of SHRM practices and how the ecological, social, and strategic aspects play part in innovation so as to answer this.

The main research question which will be addressed through this research is

“How do sustainable human resource practices influence the generation of sustainable innovation?”

To respond this, the research examined four sub-questions:

1. What are the sustainable HRM practices implement in organizations?
2. How does the ecological aspect of SHRM practices foster sustainable innovation?
3. How does the social aspect of SHRM practices foster sustainable innovation?
4. How does the strategic aspect of SHRM practices foster sustainable innovation?

The research was based on Elkington’s (1997) Triple Bottom Line (TBL) theory and Sustainable Innovation framework as presented by Adams et al. (2012). With these theories as basis, a clear structure was provided for SHRM analysis in the ecological, social and strategic aspects as well as making the relationship of HR practices with the three innovation maturity stages of operational optimization, organizational transformation and systems building. The development of an integrated understanding of how HRM contributes to sustainable innovation is supported theoretically by this foundation.

Semi structured interviews and documented published by the organization were the source for data collection. The findings were corroborative in that organizations cited active use of SHRM in all the three mentioned aspects. The ecological aspect involves recruitment of personnel who support environment values, ecofriendly training, integration of sustainability issues into performance reviews, and offering ecological involvement with incentives and participation in ecological projects. It was found that these practices support innovation through raising awareness and capacity for eco-innovation in the environmental aspects.

It displayed how the social aspect of SHRM may boost the employee well-being, fairness, and social engagement. Workplace safety, mental health support, having CSR policies and inclusion policies all contributed to greater morale and more commitment to the company. In this way, these outcomes enabled new ideas and collaborative innovation to occur. And because diversity, equity and inclusion were woven throughout every level, it allowed for the trust and the communication needed to foster innovation.

The efforts of this dissertation provide a parsimonious system for companies to implement when aiming to realize strategic organization. This required HR to collaborate with the organization's long-term goals of sustainability and included practices like becoming more efficient, following regulation standards, being beneficial to employees and maintaining leadership engagement in sustainability plans. With these strategic practices, it became possible for organizations to manage change, restructure and allocate resources for innovation initiatives.

Also, the study revealed that the case company's sustainable innovation adhered to the SOI framework. The innovations were on the operational level and aimed at reducing the waste and enhancing the collaboration of stakeholders. At the transformational level, new products, new partnerships and internal systems were developed that support sustainability. During the systems building stage the company entered into cross industry collaboration and long-term planning of goals, such as net zero emission.

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## Appendices

### Appendix 1 - Interview Guideline

#### General Questions

1. How would you define Sustainable HRM and its practices?
2. Do you think sustainable HRM is important for encouraging sustainable innovation in a company?
3. Can you share a situation or example where an employee came up with a sustainable innovation?
4. Do you see any challenges in implementing HR practices in your area?
5. Are there any HR practices you believe add more value to innovation?  
(From recruitment to employee exist)

#### Questions relating to key areas- Human Resource Management Practices

6. How can a company maintain Equity, Diversity, and Inclusion?
7. Do you have any social infrastructure facilities in the company?
8. How can Social HR practices help create a sustainable and innovative environment?
9. Does the company implement reengineering or restructuring initiatives on HRM to match sustainable requirements?
10. What is the impact from senior management or leadership towards sustainable development?
11. Do you believe that your company's wages and benefits are competitive with industry standards and aligned with the current economic conditions to support employee well-being?
12. Do you feel that employee skill development programs improve efficiency and contribute to job security?
13. Do you think green awareness training brings innovative ideas among employees?

14. Do you think linking sustainability to performance evaluations and reward management can contribute to fostering innovation within the company?
15. How do employee development programs lead to more innovative ideas in the company?

Questions relating to key area- Sustainable Innovation

16. What are the current sustainable innovations in your company?
17. What are some practical ways companies can create an eco-friendlier workplace?
18. How do you think HR department can contribute to promoting a circular economy and driving sustainable innovation in products and services?
19. In your experience, how can businesses influence sustainability beyond their own operations for instance, through industry standards or policies? Do you see HR playing a role in this?
20. What developments or suggestions would you give HR departments to improve sustainability initiatives and drive innovation in the future?

## Appendix 2: Data management plan

### Research data

| Research data type                                  | Contains personal details/information* | I will gather/produce the data myself | Someone else has gathered/produced the data | Other notes |
|---|--|---------------------------------------|---|-------------|
| Data type 1:<br>Interviews                          | x                                      | x                                     |   |             |
| Data type 2:<br>Transcripts                         | x                                      | x                                     |   |             |
| Data type 3:<br>Notes                               | x                                      | x                                     |   |             |
| Data type 4:<br>Published reports of case companies |  |                                       | x   |             |
| Data type 5:<br>Websites of case companies          |  |                                       | x   |             |

\* Personal details/information are all information based on which a person can be identified directly or indirectly, for example by connecting a specific piece of data to another, which makes identification possible. For more information about what data is considered personal go to the [Office of the Finnish Data Protection Ombudsman's website](#)

### Processing personal data in research

I will prepare an email and give it to the research participants before collecting data

The controller\*\* for the personal details is the student themselves  the university

My data does not contain any personal data

\*\* More information at the university's intranet page, [Data Protection Guideline for Thesis Research](#)

### Permissions and rights related to the use of data

#### Data type 1: Interviews

- The collected data will be used for research purposes only and this will be recorded on my personal computer

#### Data type 2: Transcripts

- The collected data will be used for research purposes only and the recorded interviews will be used to get the transcripts

#### Data type 3: Notes

- The collected data will be used for research purposes only and the recorded interviews will be used to get the notes

#### Data type 4: Published reports of case companies

- The collected data will be used for research purposes only and published reports will be used for the data analysis

#### Data type 5: Websites of case companies

- The collected data will be used for research purposes only and website details will be used for the data analysis

### **Storing the data during the research process**

In the university's network drive

In the university-provided Seafire Cloud Service

Other location: Researcher's personal computer

### **Documenting the data and metadata**

To document the data, I will use:

A field/research journal

A separate document where I will record the main points of the data, such as changes made, phases of analysis, and significance of variables

A readme file linked to the data that describes the main points of the data

Other, please specify:

### **Data arrangement and integrity**

I will keep the original data files separate from the data I am using in the research process, so that I can always revert back to the original, if need be.

Version control: I will plan before starting the research how I will name the different data versions, and I will adhere to the plan consistently.

I recognise the life span of the data from the beginning of the research and am already prepared for situations, where the data can alter unnoticed, for example while recording, transcribing, downloading, or in data conversions from one file format to another, etc.

### **Metadata**

Metadata is a description of you research data. Based on metadata someone unfamiliar with your data will understand what it consists of. Metadata should include, among others, the file name, location, file size, and information about the producer of the data. Will you require metadata?

I will save my data into an archive or a repository that will take care of the metadata for me.

I will have to create the metadata myself, because the archive/repository where I am uploading the data requires it.

I will not store my data into a public archive/repository, and therefore I will not need to create any metadata.

### **Data after completing the research**

The researcher will store the data till the research is completed, approved and assessed. Data will be stored on the researcher's computer until destroyed.

### Appendix 3 - Privacy Notice

|  |  |
|--|--|
| Name of the register   | The role of sustainable human resource management practices in developing sustainable innovation   |
| Data controller  | Bopage Ishara Melaka Nugaela, +358417225587<br><a href="mailto:melaka.b.nugaela@utu.fi">melaka.b.nugaela@utu.fi</a> Turku School of Economics, University of Turku, Rehtorinpellonkatu 3, 20500 Turku  |
| Contact information of the responsible person                                  | Bopage Ishara Melaka Nugaela, +358417225587<br><a href="mailto:melaka.b.nugaela@utu.fi">melaka.b.nugaela@utu.fi</a>  |
| Purpose and legal basis for the processing of personal data                    | The research collects perspectives and experiences of HR & sustainability experts in the case company.<br>The legal basis for processing personal data in Article 6 of the EU General Data Protection Regulation is:<br><input checked="" type="checkbox"/> Processing is necessary for scientific research (public interest, Point 1a of Article 6)<br>Data subject has given their consent to process personal data (consent, Point 1e of Article 6)<br>Other, what_____   |
| Processes personal data  | The following information of the data subjects is stored in the register: Name, contact number, position, experiences, and views on the research topic.  |
| Recipients and recipient groups of personal data                               | The data will not be transferred or disclosed to parties outside the researcher or his supervisors.  |
| Information on transferring data to third countries                            | Personal data will not be disclosed to parties outside the EU or the European Economic Area.   |
| Retention period of personal data or criteria for its determination            | The recorded interviews will be transcribed into text files and the recordings will be automatically removed from the University MS Teams account after three months. Simultaneously, the research data will be anonymized by using some pseudonyms. The text files of the interviews will be kept stored till the research process ends.  |
| Rights of the data subject   | The data subject has the right to access their personal data retained by the Data Controller, the right to rectify or erasure data, and the right to restrict or object to the processing of data. The right to erasure is not applied for scientific or historical research purposes in so far as the right to erasure is likely to render impossible or seriously impair the achievement of the objectives of that processing.<br>The realization of the right to erasure is assessed on a case-by-case basis.<br>The data subject has the right to complain with supervisory authority. |
| Information on the source of personal data                                     | In order to send the invitations to interviewees, email addresses were used. It will only be done after a primary contact and consent to participate have been given by the subject. The other data is collected directly from those who participate in the interviews for the study.  |
| Information on the existence of automatic decision-making, including profiling | The data will not be used for automatic decision-making or profiling.  |

## Appendix 4 - Informed Consent form for participation in scientific research

**Research project title:** The role of sustainable human resource management practices in developing sustainable innovation

**Place of research:** Turku, Finland

**The person responsible for the research:** Bopage Ishara Melaka Nugaela

I have been invited to participate in the above-mentioned research. I have read and understood the information given and I agree to participate in the project. I understand that participating in the research is voluntary and that I can at any point withdraw from participating in the research without giving any reason or cancel my consent without any negative consequences. I have received sufficient information about the research and how my personal data is processed. I have had the opportunity to ask questions from the researchers. With my signature, I give consent for participating in the research.

Yes  No

I consent that my interview can be audio-recorded

Yes  No

I consent that my interview can be video recorded

Yes  No

I agree to be identified in the following way in the research outputs

[Pseudonym; alternative name/code chosen for the participant by the researcher]

Yes  No

Impersonal attribution

[e.g. by profession: company official, firm official]

Yes  No

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### Contact information

\_\_\_\_\_  
Name of participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name of the interviewer

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

**Appendix 5 – Usage of AI**

| Tool       | Purpose                      | Usage Description                                    |
|------------|------------------------------|--|
| Grammarly  | Language & grammar checking  | Used to check grammar, spelling                      |
| SciSummary | Article summarization        | To get a summarized idea from long research articles |
| ChatGPT    | Support for academic writing | for improving paragraph flow                         |