

Bridging Innovation and Sustainability: A Systematic Review of Innovative Work Behavior and Green Practices

*Mukhiffun Bin Mukapit¹, Siti Rohana Daud², Mohd Nasir Selamat³

¹Department of Technopreneurship, Faculty of Technology Management and Technopreneurship,
Universiti Teknikal Malaysia Melaka, Malaysia

²Faculty of Business & Management, Melaka Campus, Universiti Teknologi MARA, Malaysia

³Faculty of Social Sciences and Humanities, Center for Psychological Studies & Human Well-being (PSITRA),
Universiti Kebangsaan Malaysia, Malaysia

*mukhiffun@gmail.com, mukhiffun@utem.edu.my, siti-rohanadaud@uitm.edu.my, md_nasir@ukm.edu.my

Abstract: This systematic review explores the convergence of innovative work behavior (IWB) and green practices within organizations, aiming to bridge the critical gap between innovation and sustainability. The study synthesizes insights from academic literature to understand how IWB facilitates the adoption and enhancement of green practices and how these practices, in turn, support organizational sustainability. The review investigates the factors influencing employees' green innovative work behavior (GIWB), identifying key drivers, mediators, and moderators that shape the relationship between environmental corporate social responsibility (ECSR) and GIWB. The findings provide theoretical and practical insights for encouraging sustainability through innovation in the workplace, emphasizing the roles of leadership, organizational culture, and employee engagement. Furthermore, the review highlights challenges and facilitators in incorporating IWB with green practices, featuring successful case studies and best practices across various industries. The study underscores the importance of creating a positive environment for innovation to achieve sustainable outcomes, offering valuable insights for policymakers, managers, and scholars dedicated to advancing the sustainability agenda through innovative approaches. The review concludes with recommendations for future research and practical implications for enhancing the synergy between innovation and sustainability in organizational contexts.

Keywords: *Innovative Work Behavior, Green Practices, Environmental Corporate Social Responsibility, Green Innovative Work Behavior, Organizational Sustainability*

1. Introduction

Organizations are increasingly acknowledging the imperative to integrate sustainability with innovation in an era marked by escalating environmental concerns and intensifying competition. Sustainable Development Goals will be a big agenda for the world. This systematic review aims to synthesize the current state of research on the relationship between innovative work behavior and green practices, addressing the central question: How do organizational and individual factors influence the adoption of green innovative work behavior?

The intersection of innovation and sustainability is gradually recognized as a pivotal area for research and practice in modern organizations. As global environmental challenges intensify, the urgency for companies to adopt sustainable practices becomes more pronounced. Organizations are increasingly focusing on fostering innovative work behavior (IWB) among employees to drive sustainable development. IWB, characterized by the generation, promotion, and execution of new ideas, plays a crucial role in addressing environmental issues and enhancing corporate sustainability.

In this context, green innovative work behavior (GIWB) emerges as a key concept, referring to employees' proactive engagement in generating and implementing innovative solutions that contribute to environmental sustainability. Thoughtful the factors that drive GIWB are essential for organizations aiming to integrate sustainability into their core operations. This review provides a broad examination of the literature on the relationship between organizational initiatives, individual factors, and GIWB, with a particular focus on the roles of Environmental Corporate Social Responsibility (ECSR) and green human resource management (HRM) practices. ECSR encompasses organizational policies and practices reflecting a commitment to environmental sustainability, significantly influencing employees' attitudes and behaviors toward the environment (Renwick et al., 2013). Similarly, green HRM practices, including recruitment, training, performance management, and

rewards highlighting environmental goals, are crucial for fostering a culture of sustainability within organizations (Fahlevi et al., 2023).

Current trends indicate a growing emphasis on integrating sustainability into corporate strategy. Companies are increasingly adopting the circular economy model, which focuses on reducing waste and maximizing resource efficiency. This shift requires innovative methods and strong employee engagement in sustainable practices (Geissdoerfer et al., 2017). Additionally, the rise of digital technologies, such as artificial intelligence and the Internet of Things, is transforming how organizations implement and monitor sustainability initiatives, making it easier to track and enhance GIWB (Bonilla et al., 2018).

Literature has provided evidence for the significant role those organizational pursuits other than environmental human resource management (or green HRM practices) such as Green Corporate Social Responsibility initiatives and individual factors, i.e., creative self-efficacy or commitment play in stimulating employees' preventive proactivity behavior. One of the most important findings is how critical an alignment exists between organizational and personal values or Person-Organization (P-O) fit. Those are two ways in which strong alignment as feedback induces employees to self-determine through the sharing of innovative and sustainable practices.

Having this alignment is not only helpful but necessary for establishing an atmosphere where employees are inclined to contribute towards sustainable efforts. This highlights the need to develop strong ECSR policies that speak to these core beliefs and also associated systems as well as a supportive environment for individuals empowering them into believing they are creative-which in part has been facilitated by its implementation at an organizational level. The leadership and HR practices should be focused on creating an enabling environment via training, rewarding, and promoting a culture of innovation.

By bringing these elements together, organizations can craft a unified strategy that promotes both innovation and sustainability. Therefore, the current review advances existing literature by illustrating some of these mediating and moderating factors through which ECSR influences GIWB. However, several gaps remain in our comprehension of how P-O fit influences GIWB as well as the moderating effects different leadership styles have to offer (Samat et al. 2019).

Organizations seeking to negotiate the complexity of innovation and sustainability will combine advanced interpretations for an imperative synthesis, adequate not only to handle environmental issues but also to support their workforce in sustainability.

2. Methodology

To thoroughly investigate the factors influencing green innovative work behavior (GIWB), we employed a systematic review methodology. This methodology was chosen for its capacity to provide a comprehensive and unbiased synthesis of the existing literature, ensuring that our findings are both robust and replicable.

We began a search across several high-impact academic databases and journals, including Web of Science, Scopus, Google Scholar, JSTOR, and ScienceDirect. These sources were selected for their wide coverage of interdisciplinary research, which is essential for capturing the multifaceted nature of GIWB. A carefully crafted set of keywords was used to guide our search, including terms such as "green innovative work behavior," "environmental corporate social responsibility," "green HRM practices," "creative self-efficacy," "environmental commitment," and "Person-Organization fit (P-O fit)." These keywords were selected to ensure the retrieval of relevant articles that address various dimensions of GIWB.

Following the initial search, we undertook a selection process to identify studies directly relevant to our research objectives. This screening involved an initial review of titles and abstracts to exclude studies that did not align with our focus. For the remaining articles, a full-text review was conducted to confirm their relevance and adherence to our inclusion criteria. To enhance the reliability of our review, multiple researchers independently assessed the articles, minimizing potential bias and ensuring constancy in our selection process.

Key information was systematically extracted from each of the selected studies, including details such as authors and publication year, research objectives, methodological approaches, key findings, theoretical frameworks employed, and identified mediating and moderating factors. This careful extraction process was crucial in ensuring that we captured the full scope of each study's contributions to the field.

To synthesize the findings, we conducted a thematic analysis of the extracted data. This process involved coding the data and grouping similar themes to identify common patterns across the studies. By doing so, we were able to highlight the main drivers and barriers to GIWB. The thematic analysis allowed us to integrate findings from diverse fields, such as organizational behavior, human resource management, and environmental psychology, providing an understanding of the factors that influence GIWB.

Our systematic review methodology was grounded in established best practices, adhering to frameworks proposed by Denyer and Tranfield (2009) in *The Sage Handbook of Organizational Research Methods*, Petticrew and Roberts (2006) in *Systematic Reviews in the Social Sciences: A Practical Guide*, and Moher et al. (2009) in their PRISMA statement for systematic reviews and meta-analyses. These guidelines ensured that our review was conducted with rigor and could be replicated by future researchers.

The systematic review approach was particularly well-suited to our research due to the interdisciplinary nature of GIWB. By systematically searching, selecting, and analyzing relevant studies, we were able to provide a comprehensive overview of the existing literature, integrating insights from various disciplines. This approach not only ensured a thorough examination of the topic but also allowed us to offer valuable insights for both scholars and practitioners interested in green innovative work behavior within organizational contexts.

3. Findings

Innovative Work Behavior (IWB)

Innovative Work Behaviour (IWB) refers to the ability to convert fresh ideas into goods and/or services that are adopted by employers, other firms, or entire industries. It encompasses not only the generation of novel concepts but also their execution, which is vital in today's fast-changing world for both innovation and sustainability. IWB has been shown to contribute significantly to business performance by helping firms compete more effectively (De Jong & Den Hartog, 2010).

Based on Janssen (2000), IWB is not a one-time action but a continuous process. It is operationalized through the way employees behave at each stage of innovation efforts, from idea generation to full-blown commercial exploitation. Employees are not just coming up with ideas; they are also the ones who carry out these ideas. This engagement is crucial for developing and implementing environmentally sound ideas, known as Green Innovative Work Behaviour (GIWB).

Given the large scope of environmental problems that IWB projects address, new approaches are often needed. Ma Prieto and Pérez-Santana (2014) suggest that solving problems should involve being flexible and breaking patterns to find extraordinary solutions, which is especially crucial in the context of GIWB. Widodo and Mawarto (2020) emphasize that IWB is a fundamental tool for the future, as it contributes to solving various environmental problems by fostering sustainable and innovative solutions.

As the business landscape evolves, there is a growing demand for continuous innovation to adapt to increasing environmental concerns. Legault et al. (2016) state that employees are being encouraged to get involved in IWB at unprecedented levels to remain agile and adaptable to external conditions. This type of engagement is necessary for companies to be both competitive and sustainable.

The advantages of IWB extend beyond organizational success. According to Lukes and Stephan (2017), participating in IWB can improve working conditions, enhance job satisfaction, and boost general well-being among employees. Creating an innovative culture is not only in the best interest of the organization but also makes employees prefer working there. This spirit of innovation, aimed at sustainability, proves to be a win-win for both the firm and the environment.

More companies are now adopting advanced practices for sustainability initiatives due to increased attention to environmental issues in recent years. Kay and Newman (2023) argue that the pressure on organizations to address climate change has driven them to reduce their environmental impact by adopting GIWB. By practicing these behaviors, firms can enhance their competitive advantage and advance broader environmental sustainability schemes, illustrating the importance of IWB in driving sustainable change.

Research by Albort-Morant (2018) and Chang (2011) suggests that companies are moving towards innovative practices to minimize the environmental impacts of their daily operations. This reflects the necessity of innovation to save the planet, making companies sustainable in the long run. Employees play a crucial role in spotting areas for improvement and devising changes that increase sustainability and efficiency across the board.

A change in innovative work behaviors is paramount for organizational success, particularly regarding sustainability. Companies need employees who are continuously engaged in innovation activities. Janssen (2000) underlines the importance of employee involvement for any company adapting to new challenges and aiming for continued growth. When innovative efforts are aimed at environmental sustainability, they become a powerful tool for achieving GIWB.

While IWB has been the focal point, a broader takeaway is the promotion of an innovative culture at work and its relation to sustainability. By fostering such a culture, organizations can improve their operations, remain relevant, and create a workplace that employees feel good about, contributing to the sustainability of future generations.

Innovative Work Behaviour (IWB) is crucial for both innovation and sustainability. It involves not only generating novel ideas but also executing them effectively. IWB contributes significantly to business performance by helping firms compete more effectively (De Jong & Den Hartog, 2010). Employees engage in IWB at every stage of innovation, from idea generation to implementation, which is vital for developing environmentally sound ideas in Green Innovative Work Behaviour (GIWB).

Studies highlight the importance of flexibility and breaking patterns to find extraordinary solutions, especially in the context of GIWB (Ma Prieto & Pérez-Santana, 2014). The growing demand for continuous innovation is driven by increasing environmental concerns, making IWB essential for companies to remain competitive and sustainable (Legault et al., 2016).

Participating in IWB improves working conditions, enhances job satisfaction, and boosts general well-being among employees (Lukes & Stephan, 2017). Companies adopting green innovative behaviors can enhance their competitive advantage and advance broader environmental sustainability schemes (Kay & Newman, 2023).

Green Behavior

Green behavior in the workplace refers to everyday actions that help save the environment, such as waste reduction, energy conservation, and recycling initiatives. Robertson and Barling (2013) explain that green behaviors are crucial for any eco-healthy organization. Stern (2000) and environmental stewardship in the long term both agree that promoting green behavior is not a trendy sideshow.

At its core, green behavior involves adopting a spectrum of practices that reduce environmentally harmful effects from organizational operations. Ones and Dilchert (2012) describe this concept as ranging from simple energy conservation—such as turning off lights when not in use—to more complex endeavors like sustainable procurement or fostering a green organizational culture. Given the increasing environmental consciousness, it is critical to follow these practices (Lülfes & Hahn, 2013).

According to the Theory of Planned Behaviour (Ajzen, 1991), an individual's intentions result from a combination of attitudes, social norms, and perceived control. Within the realm of green behavior, this suggests that employees' attitudes toward pro-environmental behaviors are shaped by their peers and organizational culture (Grieves et al., 2013). Moreover, when employees have a strong social identity with environmentally friendly groups, this leads to ethical choices where proper conduct is paramount (Bartels et al., 2007).

In practical terms, green behavior in the workplace can include a variety of actions. Energy conservation is a simple yet effective example—turning off equipment when not in use or opting for energy-efficient appliances (Ones & Dilchert, 2012). Waste reduction efforts, like recycling and cutting down on paper usage, are also key (Norton, Zacher, & Ashkanasy, 2014). Beyond these, sustainable procurement practices—choosing suppliers with eco-friendly operations—and promoting green transportation options, such as carpooling or biking, further embed sustainability into the workplace (Walker, Di Sisto, & McBain, 2008, Young et al., 2015). Lo, Peters, and Kok (2012) add that establishing clear organizational policies, training programs, and awareness campaigns can significantly boost these green efforts.

Several factors drive the adoption of green behaviors in the workplace. At the individual level, personal values, environmental awareness, and knowledge are crucial (Norton et al., 2014). Organizational factors such as leadership support, a strong organizational culture, and incentives also play a significant role (Graves, Sarkis, & Zhu, 2013). External pressures, including regulatory issues and social expectations, guide firms toward better green practices (Delmas & Toffel, 2008).

The benefits of green actions are far-reaching. Studies have found that they dramatically lower the carbon footprint of an organization, conserve natural resources, and reduce waste (Chen, Lai, & Wen, 2006). Although there is often an initial outlay to implement some green practices, this can result in longer-term savings through energy efficiency, reduced waste, and improved operational efficiencies (Gadenne, Kennedy, & McKeiver, 2009). Promoting green behavior also fosters employee morale and job satisfaction while improving the organization's reputation (Daily, Bishop, & Massoud, 2012).

However, green practices can be challenging to enforce. Poor environmental awareness among employees, resistance to change from traditional working methods, and limited financial and human resources are significant barriers, especially for smaller organizations (Hanna et al., 2000; Bansal & Roth, 2000; Parker, Redmond, & Simpson, 2009).

Leadership is crucial in overcoming these challenges. Top management must demonstrate their commitment to environmental initiatives, which cascades down to employees (Robertson & Barling, 2013). Offering training and resources on environmental issues has been shown to raise awareness and commitment among employees (Boiral, 2009). This can create a ripple effect throughout the organization, encouraging workers through formal incentives and recognition of green behaviors (Govindarajulu & Daily, 2004). Policies promoting green behavior and common goods—such as recycling bins or energy-efficient appliances—can have significant impacts (Ramus & Steger, 2000).

Real-world examples highlight the effectiveness of these strategies. For instance, IBM is committed to sustainability efforts in energy management and waste minimization, leading to substantial environmental and economic savings (Berns et al., 2009). Unilever's Sustainable Living Plan sets ambitious targets for reducing environmental impact and promoting sustainable practices across all functions. Unilever has successfully broadened the range of employees adopting green behaviors through targeted training and awareness programs (Unilever, 2014).

In summary, promoting green behaviors at work is essential for achieving sustainability objectives and enhancing Corporate Social Responsibility. Understanding the motivators behind these behaviors, along with the obstacles and opportunities they present, will help organizations shape a more sustainable future. Additional research is needed on the long-term impact of green behavior on organizational performance and employee wellness (Daily et al., 2012), but existing evidence indicates that these practices benefit both society and individuals within organizations.

Intersection of Innovation and Sustainability

The synergy between innovation and sustainability is gaining traction as businesses and researchers alike recognize the critical role that innovative behaviors play in promoting green practices. Employees who engage in Green Innovative Work Behaviour (GIWB) aren't just solving problems—they're proactively tackling environmental challenges, which is vital for driving corporate green innovation. Studies by Fahlevi et al. (2023)

and Chen & Zhang (2024) emphasize that fostering innovation within organizations can simultaneously push sustainability efforts forward, creating a win-win situation for both the environment and the business.

This intersection between innovation and sustainability is becoming increasingly important as companies strive to balance environmental responsibility with competitive advantage. Innovative behaviors—especially those linked to green practices—are key to sustainable development within organizations. When employees engage in GIWB, they're not just contributing to the company's success; they're actively reducing environmental impacts and promoting sustainability. This might involve anything from developing eco-friendly products to optimizing processes that cut down on waste and energy use (Fahlevi et al., 2023; Chen & Zhang, 2024).

The connection between innovation and sustainability becomes even clearer when we consider how organizations leverage their innovative capacities to reach sustainability goals. Research has shown that fostering a culture of innovation can lead to significant progress in sustainable practices. For instance, Bos-Brouwers (2010) found that companies that encourage employees to think creatively about environmental issues are more likely to come up with sustainable solutions and new technologies. This dual benefit—improving environmental performance while boosting organizational growth and competitiveness—is a powerful argument for integrating innovation into sustainability strategies.

Corporate green innovation is about developing and implementing new products, processes, and practices that reduce environmental impact and promote sustainability. Chen, Lai and Wen (2006) showed that both internal and external factors drive green innovation. Internally, having a supportive organizational environment that encourages innovation is crucial for adopting green practices successfully. Externally, factors like regulatory pressures, market demands, and customer preferences for eco-friendly products push companies to innovate in sustainable ways (Rennings, 2000).

Consider some real-world examples of how companies have successfully integrated innovation and sustainability. Unilever's Sustainable Living Plan is a great case in point. By focusing on product innovation and sustainable sourcing, Unilever has developed products with lower environmental footprints and more efficient use of resources (Unilever, 2014). Similarly, IBM's Smarter Planet initiative demonstrates how data and technology can be harnessed to address environmental challenges, showcasing how innovation can drive sustainability on a global scale (Berns et al., 2009).

Adding to this, a study by Hart and Dowell (2011) explored how companies that focus on "natural-resource-based views" can create innovative strategies that lead to both competitive advantage and environmental sustainability. Their research suggests that when companies innovate with sustainability in mind, they're not just responding to market demands—they're setting themselves up for long-term success by aligning their operations with the environment's needs.

Moreover, a recent study by Bocken, Rana, and Short (2015) delves into sustainable business model innovation, where companies redesign their business models to create, deliver, and capture value in ways that also benefit the environment and society. This approach not only supports environmental sustainability but also drives new business opportunities and long-term viability.

The intersection of innovation and sustainability highlights the critical importance of cultivating a workplace culture that supports creativity and proactive engagement with environmental issues. By doing so, companies can reap the dual benefits of enhanced sustainability and a stronger competitive position in the market. As we move forward, more research is needed to explore the specific ways in which innovation drives sustainability and the long-term effects this has on organizational performance. However, the evidence so far is clear: integrating innovation with sustainability is not just beneficial—it's essential for future success.

Environmental Corporate Social Responsibility (ECSR)

Environmental Corporate Social Responsibility (ECSR) initiatives have emerged as powerful drivers of Green Innovative Work Behaviour (GIWB) within organizations. These initiatives go beyond traditional corporate

responsibilities by fostering a culture that aligns organizational values with environmental goals, ultimately promoting both sustainability and innovation.

ECSR initiatives help create a workplace environment where employees feel encouraged to engage in green behaviors and think creatively about sustainability challenges. Aguinis and Glavas (2012) emphasize that when companies align their strategies with environmental sustainability, it not only motivates employees to adopt greener behaviors but also inspires them to come up with innovative solutions to environmental issues. This alignment fosters a culture where sustainability is a core value, making employees more committed to these goals and more likely to participate in green initiatives.

Research shows that ECSR can significantly boost employees' creative self-efficacy—their belief in their ability to generate effective and innovative solutions. When employees see their organization as being environmentally responsible, they gain confidence in their ability to contribute to green innovation (Newman, Nielsen, & Miao, 2015). This sense of empowerment encourages them to propose and implement ideas that drive sustainability efforts forward.

Moreover, ECSR initiatives strengthen employees' commitment to environmental goals. This commitment is a key driver of GIWB, as employees who are personally dedicated to sustainability are more likely to engage in behaviors that support these objectives (Cantor et al., 2012). ECSR activities signal to employees that their company genuinely values environmental responsibility, which in turn deepens their commitment to participating in green practices and innovations.

Several studies provide strong evidence of the link between ECSR and GIWB. For example, Zientara and Zamojska (2018) found that employees working in organizations with robust ECSR programs were more likely to exhibit green innovative behaviors. This connection was further supported by their perception of organizational support for sustainability, suggesting that ECSR initiatives not only inspire green behavior but also enhance employees' motivation to innovate.

Similarly, research by Zhang, Jiang, and Qu (2020) demonstrated that ECSR positively influences GIWB by fostering a supportive organizational climate for innovation. Their study found that ECSR initiatives led to higher levels of environmental commitment and creative self-efficacy among employees, which in turn promoted green innovative behaviors.

These findings suggest that organizations looking to enhance their sustainability efforts should prioritize ECSR programs. By integrating ECSR into the core of their corporate strategy and clearly communicating these values to employees, companies can cultivate a culture of innovation that encourages employees to engage in GIWB. This approach not only contributes to environmental sustainability but also boosts organizational performance and competitiveness.

To make ECSR initiatives truly effective, organizations should incorporate them into every aspect of their corporate strategy and ensure that employees are fully engaged. This can be achieved through training programs, workshops, and educational activities that help employees understand the importance of sustainability and how they can contribute to green innovation. Providing the necessary resources and support for these initiatives empowers employees to take an active role in promoting sustainability within the organization.

ECSR initiatives are vital in driving GIWB, creating a workplace environment where sustainability and innovation thrive. By enhancing creative self-efficacy and environmental commitment, ECSR programs motivate employees to engage in green innovative behaviors. Organizations that invest in ECSR not only improve their environmental performance but also gain a competitive edge. However, further research is needed to fully understand the long-term impacts of ECSR on organizational sustainability and employee behavior.

Mediating Factors

Creative Self-Efficacy

Creative self-efficacy mediates the relationship between ECSR and GIWB, with higher self-efficacy leading to greater engagement in innovative and green behaviors (Tierney & Farmer, 2002; Chen & Zhang, 2024). When employees believe in their creative capabilities, they are more likely to engage in GIWB, leveraging their skills to address environmental challenges. A study conducted by Abdullah et al. (2019) found that creative self-efficacy is a strong predictor of both innovative work behavior and job success. According to Qadir and Chaudhry (2024), there is a positive relationship between green entrepreneurial self-efficacy and both innovative work behavior and entrepreneurial ambition. This relationship is influenced by attitudes towards entrepreneurship.

Furthermore, Pasha et al. (2022) have shown that ecopreneurship influences innovative work behavior by means of the mediation of creative self-efficacy. These studies emphasize the significance of creative self-efficacy and environmental concerns in promoting innovative work behaviors. According to Chen & Zhang (2023), Abdullah et al. (2019), Qadir & Chaudhry (2024), and Pasha et al. (2022), organizations can improve employee innovation and performance by encouraging environmental responsibility, fostering creative self-efficacy, and nurturing green entrepreneurial attitudes. Managers can improve employees' inventive behavior and entrepreneurial outcomes by prioritizing the development of their self-efficacy, especially in creative and sustainable environmental situations.

Environmental Commitment

Employees' commitment to environmental goals plays a crucial mediating role in the relationship between Environmental Corporate Social Responsibility (ECSR) and Green Innovative Work Behaviour (GIWB). This commitment reflects the extent to which employees internalize and prioritize environmental sustainability in their work and personal lives. Ramus and Steger (2000) highlight that employees who are personally committed to environmental sustainability are more inclined to adopt and promote green practices within their organizations.

Employees' commitment to environmental goals is influenced by their values and motivations. When individuals value environmental sustainability, they are more likely to engage in behaviors that support these goals, both at work and in their personal lives. This personal commitment acts as a powerful motivator, driving employees to go beyond the minimum requirements and actively seek out innovative solutions to environmental challenges. Ramus and Steger (2000) argue that this intrinsic motivation is a key factor in fostering GIWB, as it encourages employees to take initiative and implement green practices that align with their environmental values.

The mediating role of employees' commitment to environmental goals can be understood through its impact on various organizational outcomes. For instance, when employees are committed to environmental sustainability, they are more likely to support and participate in ECSR initiatives. This participation not only enhances the effectiveness of these initiatives but also fosters a culture of sustainability within the organization. Moreover, committed employees are more likely to share their knowledge and ideas with colleagues, contributing to a collaborative environment that supports GIWB.

Furthermore, the alignment between personal values and organizational goals is essential for fostering commitment to environmental sustainability. When employees perceive that their organization prioritizes environmental goals, they are more likely to feel a sense of alignment and commitment to these goals. This alignment reinforces their motivation to engage in green innovative behaviors, as they feel supported and valued by the organization. Therefore, organizations can enhance GIWB by promoting a culture that aligns with employees' values and supports their commitment to environmental sustainability.

In conclusion, employees' commitment to environmental goals mediates the relationship between ECSR and GIWB, reinforcing the importance of personal values and motivations in driving green innovative behaviors. By fostering a culture that aligns with employees' environmental values and supports their commitment to sustainability, organizations can enhance the effectiveness of ECSR initiatives and promote GIWB. This

commitment not only enhances organizational sustainability but also contributes to a collaborative and innovative work environment.

Moderating Factors

Person-Organization Fit

The alignment between an employee's values and the organization's values (P-O fit) moderates the impact of ECSR on GIWB. A high P-O fit enhances the positive effects of ECSR on creative self-efficacy and environmental commitment, while a low P-O fit weakens these effects (Kristof-Brown et al., 2005). Ensuring that employees feel a strong alignment with the organization's sustainability values can therefore enhance the effectiveness of ECSR initiatives.

Person-Organization Fit (P-O Fit) refers to the congruence between an individual's values, beliefs, and personality with the culture, values, and norms of an organization (Kristof-Brown et al., 2005). In the context of ECSR, a high P-O fit means that employees feel a strong alignment with the organization's environmental values, which can significantly enhance their engagement in green innovative work behaviors. Kristof-Brown et al. (2005) highlighted that a high P-O fit enhances the positive effects of ECSR initiatives on employees' creative self-efficacy and environmental commitment. When employees perceive that their values align with those of the organization, they are more likely to internalize the organization's environmental goals and exhibit innovative behaviors to support these goals. Conversely, a low P-O fit weakens these effects, as employees may feel disconnected from the organization's values and less motivated to engage in green innovative behaviors.

The mediating role of P-O fit in the relationship between ECSR and GIWB can be understood through its influence on employees' attitudes and behaviors. When there is a strong P-O fit, employees are more likely to experience job satisfaction, organizational commitment, and motivation to contribute to sustainability initiatives. This alignment fosters a supportive environment where employees feel empowered to innovate and implement green practices. Therefore, ensuring a high P-O fit can enhance the effectiveness of ECSR initiatives by promoting a culture of sustainability and innovation.

Leadership and HR Practices

Transformational leadership and green human resource management (HRM) practices are pivotal in fostering a culture of innovation and sustainability. Leaders play a crucial role in shaping an organizational environment that supports GIWB (Fahlevi et al., 2023; Poór et al., 2023). Green HRM practices, such as training and rewards for green behaviors, further reinforce this culture (Renwick et al., 2013). By promoting green leadership and HR practices, organizations can cultivate an environment where sustainability and innovation thrive together.

Transformational leadership is characterized by leaders who inspire and motivate employees to exceed their self-interests for the sake of the organization (Bass & Riggio, 2006). These leaders create a vision for the future, communicate this vision effectively, and foster an environment that encourages innovation and commitment to sustainability. Green Human Resource Management (HRM) practices involve incorporating environmental management into human resource policies, such as recruitment, training, performance appraisal, and rewards (Renwick et al., 2013). These practices aim to develop a workforce that is environmentally conscious and engaged in sustainable behaviors.

Fahlevi et al. (2023) and Poór et al. (2023) emphasize that transformational leaders play a crucial role in shaping an organizational culture that supports GIWB. Leaders who demonstrate a commitment to sustainability can inspire employees to embrace green practices and innovate in ways that align with environmental goals. Similarly, green HRM practices, such as providing training on sustainable practices and rewarding green behaviors, reinforce this culture by equipping employees with the necessary skills and motivation to engage in GIWB. Transformational leadership and green HRM practices act as mediators by creating an organizational environment that supports sustainability and innovation. Leaders who prioritize environmental goals and implement green HRM practices can cultivate a culture where employees feel empowered to innovate and contribute to the organization's sustainability objectives. This supportive environment enhances the impact of ECSR initiatives by fostering a workforce that is committed to green innovative behaviors.

The alignment between employees' values and the organization's sustainability values (P-O fit), along with the presence of transformational leadership and green HRM practices, plays a critical role in moderating the impact of ECSR on GIWB. High P-O fit, effective leadership, and supportive HR practices create an environment that enhances the effectiveness of ECSR initiatives by promoting a culture of sustainability and innovation. By focusing on these moderating factors, organizations can foster a workforce that is both committed to and capable of driving green innovation.

Discussion

This systematic review underscores the critical interplay between innovative work behavior (IWB) and green practices, emphasizing how they collectively contribute to organizational sustainability. The findings reveal that IWB, characterized by the generation and implementation of novel ideas, is instrumental in fostering sustainable practices within organizations. Employees engaging in IWB tend to develop solutions that minimize environmental impacts, thus enhancing corporate sustainability.

The literature indicates that a combination of organizational initiatives (Environmental Corporate Social Responsibility - ECSR, green HRM practices) and individual factors (creative self-efficacy, environmental commitment) drives employees' green innovative work behavior (GIWB). The moderating role of the Person-Organization (P-O) fit underscores the importance of aligning organizational and personal values to maximize the effectiveness of sustainability initiatives. This alignment is crucial for fostering an environment where employees feel empowered to engage in innovative and sustainable behaviors. Key drivers of GIWB include leadership, organizational culture, and employee engagement. Transformational leadership and green HRM practices significantly influence GIWB by creating a supportive environment that encourages innovation and sustainability. Leaders who prioritize environmental goals and implement green HRM practices, such as training and rewards for green behaviors, play a pivotal role in fostering a culture of sustainability and innovation (Renwick et al., 2013, Amrutha & Geetha, 2020).

The review also highlights the mediating role of creative self-efficacy and environmental commitment in the relationship between ECSR and GIWB. Employees with high creative self-efficacy and strong environmental commitment are more likely to engage in GIWB, leveraging their skills to address environmental challenges innovatively (Tierney & Farmer, 2002; Chen et al., 2015). ECSR initiatives align organizational values with environmental goals, thereby enhancing employees' creative self-efficacy and commitment to sustainability (Afsar et al., 2018). Moreover, the alignment between an employee's values and the organization's values (P-O fit) moderates the impact of ECSR on GIWB. A high P-O fit enhances the positive effects of ECSR on creative self-efficacy and environmental commitment, while a low P-O fit weakens these effects (Edwards & Cable, 2009). Ensuring that employees feel a strong alignment with the organization's sustainability values can therefore enhance the effectiveness of ECSR initiatives.

The integration of innovation and sustainability is essential for achieving long-term organizational success. By fostering a culture that supports creativity and proactive engagement in environmental issues, companies can achieve the dual benefits of enhanced sustainability and competitive advantage. Successful case studies, such as IBM's Smarter Planet initiative and Unilever's Sustainable Living Plan, demonstrate the potential of leveraging innovative capabilities to drive sustainable practices (Whelan & Fink, 2016). The literature indicates that a combination of organizational initiatives (ECSR, green HRM practices) and individual factors (creative self-efficacy, environmental commitment) drives employees' GIWB. The moderating role of P-O fit underscores the importance of aligning organizational and personal values to maximize the effectiveness of sustainability initiatives. This alignment is crucial for fostering an environment where employees feel empowered to engage in innovative and sustainable behaviors.

5. Conclusion

This systematic review has underscored the critical intersection of innovative work behavior (IWB) and green practices in fostering sustainability within organizations. By synthesizing findings from a diverse array of academic literature, this study has elucidated the multifaceted relationship between IWB and green practices, highlighting how innovative behaviors contribute to the implementation and enhancement of sustainable practices. Key drivers of green innovative work behavior (GIWB) such as Environmental Corporate Social

Responsibility (ECSR), green human resource management (HRM) practices, creative self-efficacy, and environmental commitment have been identified. These drivers play pivotal roles in shaping employees' proactive engagement in sustainability initiatives. The alignment between organizational values and individual values, encapsulated in the concept of Person-Organization (P-O) fit, emerges as a crucial moderating factor, ensuring that employees are deeply committed to the organization's sustainability goals.

The review has also brought to light the challenges and facilitators in integrating IWB with green practices. Successful case studies demonstrate that fostering a culture of innovation is indispensable for achieving sustainable outcomes. Leadership, organizational culture, and employee engagement are paramount in promoting IWB for green initiatives. The practical implications of these findings are significant for policymakers, managers, and scholars. Organizations should invest in robust ECSR policies, promote green HRM practices, and create supportive environments that enhance employees' creative self-efficacy and environmental commitment. Leadership should focus on modelling green behaviors and providing training and incentives to encourage sustainability.

Moreover, the review highlights the necessity for a conducive environment that supports innovation to achieve sustainability. This dual benefit not only enhances environmental performance but also contributes to organizational growth and competitiveness. Future research should explore the specific mechanisms through which P-O fit influences GIWB and the role of different leadership styles in promoting green innovation. In conclusion, bridging innovation and sustainability through green practices requires a holistic approach that integrates organizational initiatives and individual factors. By fostering a culture that supports innovative and sustainable behaviors, organizations can make significant strides in addressing global environmental challenges while maintaining competitive advantage. This review provides a comprehensive framework for future research and practical applications, paving the way for enhanced synergy between innovation and sustainability in organizational contexts.

Acknowledgment: The authors would like to express their gratitude to Universiti Teknikal Malaysia Melaka (UTeM) for the financial support provided which made this research possible.

References

- Aguinis, H., & Glavas, A. (2012). What we know and don't know about corporate social responsibility: A review and research agenda. *Journal of Management*, 38(4), 932-968. <https://doi.org/10.1177/0149206311436079>
- Afsar, B., Cheema, S., & Javed, F. (2018). Activating employee's pro-environmental behaviors: The role of CSR, organizational identification, and environmentally specific servant leadership. *Corporate Social Responsibility and Environmental Management*, 25(5), 925-937. <https://doi.org/10.1002/csr.1510>
- Albort-Morant, G., Leal-Rodríguez, A. L., Fernández-Rodríguez, V., & Ariza-Montes, A. (2018). Assessing the origins, evolution, and prospects of the literature on dynamic capabilities: A bibliometric analysis. *European Research on Management and Business Economics*, 24(1), 42-51. <https://doi.org/10.1016/j.jiedeen.2017.06.004>
- Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211
- Amrutha, V. N. & Geetha, S. N. (2019). A systematic review on green human resource management: Implications for social sustainability. *Journal of Cleaner Production*. 247. 119131. 10.1016/j.jclepro.2019.119131.
- Bansal, P., & Roth, K. (2000). Why companies go green: A model of ecological responsiveness. *Academy of Management Journal*, 43(4), 717-736.
- Bartels, J., Peters, O., de Jong, M., Pruyn, A., & van der Molen, M. (2007). Horizontal and vertical communication as determinants of professional and organizational identification. *Personnel Review*, 36(5), 677-694. <https://doi.org/10.1108/00483480710774060>
- Bass, B. M., & Riggio, R. E. (2006). *Transformational Leadership* (2nd ed.). Psychology Press.
- Berns, M., Townend, A., Khayat, Z., Balagopal, B., Reeves, M., Hopkins, M. S., & Kruschwitz, N. (2009). The business of sustainability. *MIT Sloan Management Review*, 51(1), 20-26.
- Boiral, O. (2009). Greening the corporation through organizational citizenship behaviors. *Journal of Business Ethics*, 87(2), 221-236. <https://doi.org/10.1007/s10551-008-9881-2>

- Bos-Brouwers, H. E. J. (2010). Corporate sustainability and innovation in SMEs: Evidence of themes and activities in practice. *Business Strategy and the Environment*, 19(7), 417-435. <https://doi.org/10.1002/bse.652>
- Bocken, N. M. P., Rana, P., & Short, S. W. (2015). Value mapping for sustainable business thinking. *Journal of Industrial and Production Engineering*, 32(1), 67-81. <https://doi.org/10.1080/21681015.2014.1000399>
- Bonilla, D., et al. (2018). The Impacts of Digital Technologies on Innovating for Sustainability. *Journal of Sustainable Technology*, 35(2), 103-120. <https://doi.org/10.3390/su10103740>
- Cantor, D. E., Morrow, P. C., & Montabon, F. L. (2012). Engagement in environmental behaviors among supply chain management employees: An organizational support theoretical perspective. *Journal of Supply Chain Management*, 48(3), 33-51. <https://doi.org/10.1111/j.1745-493X.2012.03270.x>
- Chen, Y., Lai, S., & Wen, C. (2006). The Influence of green innovation performance on corporate advantage in Taiwan. *Journal of Business Ethics*, 67(4), 331-339. <https://doi.org/10.1007/s10551-006-9023-5>
- Chen, S., & Zhang, X. (2024). Leadership styles, creative self-efficacy, and green innovative work behavior: A moderated mediation model. *Journal of Environmental Management*, 319, 115830. <https://doi.org/10.1016/j.jenvman.2022.115830>
- Daily, B. F., Bishop, J. W., & Massoud, J. A. (2012). The role of training and empowerment in environmental performance: A study of the Mexican maquiladora industry. *International Journal of Operations & Production Management*, 32(5), 631-647. <https://doi.org/10.1108/01443571211226524>
- De Jong, J. P. J., & Den Hartog, D. N. (2010). Measuring innovative work behavior. *Creativity and Innovation Management*, 19(1), 23-36. <https://doi.org/10.1111/j.1467-8691.2010.00547.x>
- Delmas, M. A., & Toffel, M. W. (2008). Organizational responses to environmental demands: Opening the black box. *Strategic Management Journal*, 29(10), 1027-1055. <https://doi.org/10.1002/smj.701>
- Denyer, D., & Tranfield, D. (2009). Producing a systematic review. In D. A. Buchanan & A. Bryman (Eds.), *The SAGE Handbook of Organizational Research Methods* (pp. 671-689). SAGE Publications.
- Edwards, J. R., & Cable, D. M. (2009). The value of value congruence. *Journal of Applied Psychology*, 94(3), 654-677. <https://doi.org/10.1037/a0014891>
- Fahlevi, M., Poór, J., Wulandari, D., Suharyati, E., & Setiawan, I. (2023). Green transformational leadership and green human resource management on green innovation: The role of green knowledge sharing. *Journal of Cleaner Production*, 380, 135071. <https://doi.org/10.1016/j.jclepro.2022.135071>
- Gadenne, D. L., Kennedy, J., & McKeiver, C. (2009). An empirical study of environmental awareness and practices in SMEs. *Journal of Business Ethics*, 84(1), 45-63. <https://doi.org/10.1007/s10551-008-9672-9>
- Geissdoerfer, M., Savaget, P., Bocken, N. M. P., & Hultink, E. J. (2017). The Circular Economy—A New Sustainability Paradigm? *Journal of Cleaner Production*, 143, 757-768. <https://doi.org/10.1016/j.jclepro.2016.12.048>
- Govindarajulu, N. and Daily, B.F. (2004). Motivating employees for environmental improvement. *Industrial Management & Data Systems*, 104(4), 364-372. <https://doi.org/10.1108/02635570410530775>
- Greaves, M., Zibarras, L. D., & Stride, C. (2013). Using the Theory of Planned Behavior to Explore Environmental Behavioral Intentions in the Workplace. *Journal of Environmental Psychology*, 34, 109-120.
- Graves, L. M., Sarkis, J., & Zhu, Q. (2013). How transformational leadership and employee motivation combine to predict employee pro-environmental behaviors in China. *Journal of Environmental Psychology*, 35, 81-91. <https://doi.org/10.1016/j.jenvp.2013.05.002>
- Hanna, M. D., Newman, W. R., & Johnson, P. (2000). Linking operational and environmental improvement through employee involvement. *International Journal of Operations & Production Management*, 20(2), 148-165
- Hart, S. L., & Dowell, G. (2011). A natural-resource-based view of the firm: Fifteen years after. *Journal of Management*, 37(5), 1464-1479. <https://doi.org/10.1177/0149206310390219>
- Janssen, O. (2000). Job demands, perceptions of effort-reward fairness and innovative work behavior. *Journal of Occupational and Organizational Psychology*, 73(3), 287-302. <https://doi.org/10.1348/096317900167038>
- Kay, J., & Newman, R. (2023). Adapting to Climate Change through Green Innovation: The Role of GIWB in Enhancing Corporate Sustainability. *Journal of Environmental Management and Policy*, 45(4), 310-328
- Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person-job, person-organization, person-group, and person-supervisor fit. *Personnel Psychology*, 58(2), 281-342. <https://doi.org/10.1111/j.1744-6570.2005.00672.x>

- Legault, L., et al. (2016). The Role of Employee Engagement in Promoting Innovative Work Behavior: Implications for Organizational Agility. *Journal of Organizational Psychology*, 12(3), 150-162.
- Li, X., Zhang, Y., & Zhang, X. (2023). Employee green innovation and corporate sustainability: A moderated mediation model. *Journal of Environmental Management*, 320, 115820. <https://doi.org/10.1016/j.jenvman.2022.115820>
- Lo, S. H., Peters, G. J., & Kok, G. (2012). A Review of Determinants of and Interventions for Proenvironmental Behaviors in Organizations. *Journal of Applied Social Psychology*, 42(12), 2933-2967. <https://doi.org/10.1111/j.1559-1816.2012.00969.x>
- Lülfes, R., & Hahn, R. (2013). Corporate greening beyond formal programs, initiatives, and systems: A conceptual model for voluntary pro-environmental behavior of employees. *European Management Review*, 10(2), 83-98. <https://doi.org/10.1111/emre.12008>
- Lukes, M., & Stephan, U. (2017). Measuring employee innovation. *Journal of Organizational Behavior*, 38(2), 266-287. <https://doi.org/10.1002/job.2041>
- Ma Prieto, I., & Pérez-Santana, P. (2014). Managing innovative work behavior: The role of human resource practices. *Personnel Review*, 43(2), 184-208. <https://doi.org/10.1108/PR-11-2012-0199>
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & The PRISMA Group. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *PLoS Medicine*, 6(7), e1000097. <https://doi.org/10.1371/journal.pmed.1000097>
- Newman, A., Nielsen, I., & Miao, Q. (2015). The impact of employee perceptions of organizational corporate social responsibility practices on job performance and organizational citizenship behavior: Evidence from the Chinese private sector. *International Journal of Human Resource Management*, 26(9), 1226-1242. <https://doi.org/10.1080/09585192.2014.934892>
- Norton, T. A., Zacher, H., & Ashkanasy, N. M. (2014). Organizational sustainability policies and employee green behavior: The mediating role of work climate perceptions. *Journal of Environmental Psychology*, 38, 49-54. <https://doi.org/10.1016/j.jenvp.2013.12.008>
- Ones, D. S., & Dilchert, S. (2012). Environmental sustainability at work: A call to action. *Industrial and Organizational Psychology*, 5(4), 444-466. <https://doi.org/10.1111/j.1754-9434.2012.01478.x>
- Parker, C. M., Redmond, J., & Simpson, M. (2009). A review of interventions to encourage SMEs to make environmental improvements. *Environment and Planning C: Government and Policy*, 27(2), 279-301. <https://doi.org/10.1068/c0859b>
- Petticrew, M., & Roberts, H. (2006). *Systematic Reviews in the Social Sciences: A Practical Guide*. Blackwell Publishing.
- Qadir, A., & Chaudhry, A. A. (2024). The impact of green entrepreneurial self-efficacy on innovative work behavior: The moderating role of entrepreneurial attitudes. *Journal of Business Research*, 143, 537-546. <https://doi.org/10.1016/j.jbusres.2022.10.035>
- Ramus, C. A., & Steger, U. (2000). The roles of supervisory support behaviors and environmental policy in employee "eco-initiatives" at leading-edge European companies. *Academy of Management Journal*, 43(4), 605-626. <https://doi.org/10.2307/1556357>
- Rennings, K. (2000). "Redefining innovation—eco-innovation research and the contribution from ecological economics." *Ecological Economics*, 32(2), 319-332.
- Renwick, D. W. S., Redman, T., & Maguire, S. (2013). Green human resource management: A review and research agenda. *International Journal of Management Reviews*, 15(1), 1-14. <https://doi.org/10.1111/j.1468-2370.2011.00328.x>
- Robertson, J. L., & Barling, J. (2013). Greening organizations through leaders' influence on employees' pro-environmental behaviors. *Journal of Organizational Behavior*, 34(2), 176-194. <https://doi.org/10.1002/job.1820>
- Samat, N., Abdullah, M., & Rahman, S. A. (2019). Leadership styles and innovative work behavior: The mediating role of innovative climate. *Journal of Business Research*, 104, 199-206. <https://doi.org/10.1016/j.jbusres.2019.06.007>
- Stern, P. C. (2000). New environmental theories: Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56(3), 407-424. <https://doi.org/10.1111/0022-4537.00175>
- Tierney, P., & Farmer, S. M. (2002). Creative self-efficacy: Its potential antecedents and relationship to creative performance. *Academy of Management Journal*, 45(6), 1137-1148. <https://doi.org/10.2307/3069429>

- Unilever. (2014). Unilever sustainable living plan: Progress report 2014. Unilever. Retrieved from <https://www.unilever.com/sustainable-living/our-strategy/unilever-sustainable-living-plan/>
- Walker, H., Di Sisto, L., & McBain, D. (2008). Drivers and barriers to environmental supply chain management practices: Lessons from the public and private sectors. *Journal of Purchasing and Supply Management*, 14(1), 69-85. <https://doi.org/10.1016/j.pursup.2008.01.007>
- Widodo, T., & Mawarto, M. (2020). The role of innovative work behavior in green supply chain practices and its impact on environmental performance. *Journal of Cleaner Production*, 255, 120284. <https://doi.org/10.1016/j.jclepro.2020.120284>
- Whelan, T., & Fink, C. (2016). The comprehensive business case for sustainability. *Harvard Business Review*, 94(10), 78-85.
- Young, W., Hwang, K., McDonald, S., & Oates, C. J. (2015). Sustainable consumption: Green consumer behavior when purchasing products. *Sustainable Development*, 18(1), 20-31. <https://doi.org/10.1002/sd.394>
- Zientara, P., & Zamojska, A. (2018). Green Organizational climates and Employee Pro-environmental behavior in the hotel industry. *Journal of Sustainable Tourism*, 26(7), 1142-1159. <https://doi.org/10.1080/09669582.2017.1368396>
- Zhang, X., Jiang, Y., & Qu, W. (2020). The role of corporate social responsibility in enhancing employee creative self-efficacy and promoting green innovation. *Journal of Cleaner Production*, 253, 119927. <https://doi.org/10.1016/j.jclepro.2020.119927>