

# Environmental Sustainability Performance: Conceptual Development, Propositions, and Future Research Directions

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## Abstract

**Purpose:** This paper aims to conceptually link environmental sustainability performance with sustainable consumption behavior and proactive work behavior with the moderating role of workplace spirituality and to propose expected relations with future research directions.

**Design/Methodology/Approach:** This paper develops the conceptual framework from existing literature which are published on the topic of sustainable consumption behavior, environmental sustainability performance, and other individual and organizational factors. The method of conceptual framework is reviews based on keyword searches in research databases. In addition, this paper also narrates empirical findings published in previous research to explain the conceptual model construct.

**Findings:** Theoretically, the literature is evident that organization emphasizes policies and management decisions on sustainability on a different dimension, but forget to support employees' workplace well-being, motivate their behaviors, and align individuals from values phenomenon by cultivating a pro-environment culture in behavioral and values perspectives (e.g. in this study, workplace spirituality, sustainable consumption behaviors). **Research Implications:** The increasing issues of environmental problems worldwide impact the lives of existing and future generations. The organizations working in line with SDG goals and policymakers will benefit from the conceptual relationship the managerial and research implications will be based on value and behavioral phenomenon (i.e. spirituality, proactive work behaviors) and supporting employees with contextual and situational factors (i.e. workplace wellbeing, pro-environment

culture) are the real research implication. **Originality/Value:** The study provides a novel attempt to propose a comprehensive framework for environmental sustainability performance by integrating several domains including organizational context, psychological support, and value-behavioral factors in alignment with SDG's global agenda. This study will contribute to combining individual behavioral factors (proactive work behaviors, sustainable consumption behaviors), psychological factors, value (workplace spirituality), and organizational factors (employee well-being; pro-environmental culture), which gives an edge over other studies.

**Keywords:** Sustainable Consumption Behaviors, Workplace Spirituality, Pro-Environmental Culture, and Environmental Sustainability Performance.

## **Introduction**

To preserve the environment, the three main priorities are global warming, environmental issues, and sustainable energy use (Geiger, Fischer, & Schrader, 2018). Increased carbon dioxide (CO<sub>2</sub>) emissions are primarily caused by deforestation, degradation, and greater use of fossil fuels (Wang, Ghadimi, Lim, & Tseng, 2019; Matharu, Jain, & Kamboj, 2020). As a result of rising global temperatures, glaciers are melting and greenhouse gas emissions are affecting the ozone layer. In 2012, 1.8% increase in the world's basic energy consumption as a result of growing urbanization and energy demand (Davis, & Challenger, 2013). Steg et al. (2015), revealed that 84% of gas emissions by greenhouses which affect the ozone layer are caused by modern living standards and environmental degradation. In 2011, the energy sector was highlighted as the highest contribution to emissions which is 76%, followed by the waste sector, industrial processes sector, agricultural sector, and LULUCF sector, which are 12%, 6%, 5%, and 1% respectively. From 2000 to 2011, emissions in the energy sector increased by 48% as compared to other sectors (Yusop, Adam, & Rahim, 2020).

Organizations are now under pressure to adopt sustainable practices to save the environment and overcome future generation environmental issues. The unsustainable human activities threaten the future life of the planet. As a consequence, environmental concerns, sustainability, energy consumption, and perseverance issues became the top concerns for organizations across the globe (Matharu, Jain, & Kamboj, 2020). The reason behind this is not only organizational contribution, but the employee's individual-level contribution, work ethic, moral responsibility, sense of accountability, and other values (Wahab, 2017). As a result, concerns over energy usage rose globally, and the energy sector underwent numerous changes. Sustainable consumption and production (12th agenda) is one of the primary concerns raised by the UN's 17 SDG goals target for the year 2030. This creates the need to study and explore the environmental phenomenon in the context of employees' behaviors.

Pertaining to this rising issue, the purpose of this study is to highlight the significance of employees' sustainable consumption practices at work to meet national and international 2050 agenda for environmental sustainability targets. Through the lens of proactive work behavior and predictive factors (such as workplace spirituality, workplace well-being, and pro-environmental culture), this study's theoretical and empirical contribution offers a comprehensive model to attain environmental sustainability performance. In line with the global agenda of the Sustainable Development Goals, this study is a novel attempt to integrate several domains, such as organizational context, psychological support, and value-behavioral aspects, to propose a comprehensive framework for environmental sustainability performance and add knowledge to the existing body of knowledge. In addition, research on

the energy sector will be another insightful endeavor that has not before been examined from a sustainability standpoint. This will give direction to the policymakers and managers to develop more sustainable programs to protect the environment.

## **Literature Review**

### *1 Sustainability*

All over the world, sustainability is an emerging concern with the emergence of the United Nation's SDG goal. Sustainability can be defined in simple words as "meeting the present need without compromising the ability of future generations to meet their own needs" (Geiger, Fischer, & Schrader, 2018). In addition, sustainability becoming a critical issue with the concern to save the planet for future life. Organizations show concerns for moral obligation and develop strategies to conduct business activity more ethically and securely to save the environment and ecological resources. The sustainability concept leads to promoting growth and development in a way to build a better world by reducing the impact of social, economic, and environmental factors of sustainability (Corral-Verdugo et al., 2010, Corral Verdugo, 2012).

### *2 Sustainable Developments*

Sustainable development is known as the guiding principle of development by the United Nations to secure social, economic, and environmental factors for current and future generations. The goal of this sustainable development is "to meet the need of the present without compromising the future generation resources and to meet equitable sharing of environmental resources". Sustainable development is also considered as one of the ethical and moral principles to ensure social just between and within countries. To achieve this sustainable development United Nations developed 17 points to be achieved by 2030 (United Nations Development Programme, 2015). To overcome obstacles raised by environmental changes, organizations must concentrate on each of the Sustainable Development Goals. Sustainable development goals demand organizations create a culture that cultivates the right behaviors, values, and attitudes toward long-term implementation and execution of sustainable businesses and work practices (Vargas-Hernández, 2021).

### *3 Environmental Sustainability*

Environmental sustainability refers to the inclination to preserve the attributes that help to protect the physical and ecological environment. This includes the natural environment, clean water, air, the life of people and other species, and other aspects of natural resources (Sutton, 2004). All actions that protect environmental behaviors and minimize the risk and threat to natural resources are considered environmental sustainability (Vargas-Hernández, 2021). Previously, when environmental-related issues arose in any organization, managers tried to solve that particular problem. Later on, realization occurs of increasing environmental problems. Now, the environmental sustainability program is considered a full sustainability program in line with SDG goals. Considering the fact that there is a risk in future generation resource needs, organizations now focus on sustainability targets in favor of all stakeholders. Many organizations competing globally develop strategic goals by cultivating and implementing these sustainability plans (Afzal, & Lim, 2022).

#### *4 Environmental Sustainability Performance (ESP)*

Environmental sustainability focuses on the activity that impacts people's lives while consuming the ecosystem (including energy, water, material, land, etc.) (Afzal, & Lim, 2022). To achieve sustainability in line with SDG goals and a call upon all government and private sector to support these SGD, organizations have pressure to achieve and maintain sustainable performance. Environmental sustainability performance is defined as "the extent to which a firm embraces environmental integrity into its operations, and ultimately the impact they exert on the firm and society" (Lourenco, Branco, Curto, and Eugenio, 2012). Given the potential of environmental sustainability performance, researchers have proposed and investigated several phenomena and factors to achieve sustainable performance. Few have discovered the ethical climate and cultural factors as antecedents of environmental sustainability performance (Vargas-Hernández, 2021; Islam, Tseng, & Karia, 2019). On the other side, ethical work norms, employees' behavior and attitude, beliefs and values, and employee psychological state are other significant variable that impact sustainable behaviors and environmental sustainability performance ultimately. Today, environmental sustainability performance is a crucial measure to report sustainable goals. The existing research shows several research on economic and corporate-level performance. However, the integration of value and behavior with sustainability goals lacks findings. The theoretical gap to analyze the relationship of workplace spirituality can be considered as a new dimension of sustainability (Wahab, 2017, Kao, Cho, 2020).

##### *4.1 Individual Factors Affecting Environmental Sustainability Performance*

The efforts and interventions of organizations toward sustainability goals cannot be achieved without initiatives taken by their employees on an individual level (Vargas-Hernández, 2021). The organization needs to develop a system relationship that engages individuals with connected units and different characteristics. Individuals become integrated with organizations to meet organizational needs and demands. Organizations that successfully foster a sense of community are those that internalize employees' values and behaviors in line with organizational aims. Nowadays, Organization's emphasis is more on individual factors to achieve organizational goals such as sustainability. Research showed several individual factors to achieve organizational sustainability or environmental sustainability. Individual factors refer to these initiatives taken by the employee of their own will. Therefore, to attain environmental sustainability performance, this study conceptualizes the role of proactive work behaviors and sustainable consumption behaviors of employees.

##### *4.2 Organizational Factors Affecting Environmental Sustainability Performance*

The psychological agreement between employer and worker is based on the fulfillment of the employee's expectations to meet personal development and work synergy level (Vargas-Hernández, 2021). The controversy between organizational setting and employee work demands results in stress, burnout, tension, anxiety, loss of job satisfaction, and turnover intentions (Slomp, et al. 2018). Organizations that operate in a stable and predictable context are no more now. The current world demands business in a complex and ambiguous environment. Organizations that want business successfully must take initiative for social, economic, and environmental concerns. This aim requires organizational support and the cultivation of such an environmental culture to engage employees with commitment. In this study, workplace well-being and pro-environmental culture are the organizational factors

that provoke proactive work behavior and sustainable consumption behavior, and ultimately organizational environmental performance can be achieved (Piwowar-Sulej, 2020).

#### *4.3 Individual Values & Environmental Sustainability Performance*

Values are defined as “a desirable situational goal varying in importance, which serves as a guiding principle in the life of a person or other social entity” (Schwartz, 1992). Values are a person’s thoughts, beliefs, and actions that reflect even in the absence of monitoring and without any external pressure. Organizations focused on sustainable development aimed to encourage common work values in alignment with employee motivations and encouragement. One of the studies explored values as a significant factor that influences employees’ behaviors toward sustainability in the workplace (Doran et al., 2016). In the case of environmental sustainability performance values such as workplace spirituality is a key determinant. Researchers wrote in the study the nexus between workplace spirituality, sustainability, and organizational success (Siddiqui, Salleh & Shamim, 2023; Beehner, 2019). Few conceptual frameworks exist for the understanding of values such as workplace spirituality, and its impact on sustainability performance.

#### *5 Sustainable Consumption Behaviors (SCB)*

By definition sustainable consumption behaviors refer to “individual acts of satisfying needs in different areas of life by acquiring, using and disposing of goods and services that do not compromise the ecological and socio-economic conditions of all people (currently living or in the future) to satisfy their own needs” (Siddiqui, Salleh & Shamim, 2023).

In other words, the actions for environmental safety and precautionous use of social-physical resources of the world are called sustainable consumption behaviors refer to actions towards preservation and care with integrity for the socio-physical resources of the world (Corral Verdugo, 2012; Corral-Verdugo et al., 2010). People and employees with sustainable consumption behaviors, use resources to safeguard the environment, consume less energy and produce less trash, and are driven to actively participate in the preservation of natural resources. According to Steg et al. (2015), within an organization, sustainable consumption practices not only benefit the economy but also the company itself. It improves the environment and lessens the effects of environmental issues (Siddiqui, Salleh & Shamim, 2023; Ma, Kao, & Cho, 2020; Wahab, 2017).

#### *6 Proactive Work Behavior (PWB)*

Proactive work behavior refers to “self-initiated and self-directed actions at the workplace by changing oneself and situation; including work activity, idea-generation, creativity and innovation, personal initiatives, and problem-solving” (Parker & Bindle, 2010; Parker et al., 2010). It is characterized as a self-directed behavior that improves work processes, problem-solving techniques, and other areas inside businesses. Proactive work behavior is considered an individual factor that is related to employees in this study. Changing the internal environment of an organization will be possible if employees implement sustainable practices proactively. The self-initiated measures of employees including improvement, creativity, taking control for responsible actions and others are some examples of proactive work behaviors.



### *7 Pro-Environmental Culture (PEC)*

Organizational culture is one of the crucial factors in achieving the sustainability goals. Pro-environmental culture or green culture is derived from the term organization culture. By definition, pro-environment culture is “a symbolic context about environmental management and protection within which interpretations guide behaviors and processes of members’ sense-making and set of values and norms describing how the company perceives the environmental variable” (Piwowar-Sulej, 2020). Environmental culture reflects an organization's interest in the environment. Pro-environmental culture is the organizational culture in which employees socialize based on the company’s environmental strategies. Several research identified the list of antecedents and consequences of pro-environmental culture explored. The factors that influence pro-environmental culture include origination strategies, policies and enforcements, leaders' roles, internal and external business requirements, structure, and operations. The pro-environmental culture is initiated by the top management and established from strategic decision-making and long-term sustainable goals (Vargas-Hernández, 2021).

### *8 Workplace Well-being (WWB)*

The term workplace well-being has been in literature since many decades. However, significant findings are still needed to better understand the antecedence, consequences, and relationship of workplace well-being in a sustainability context. Workplace well-being is defined as a state of mind in which a person feels and receives intrinsic and extrinsic satisfaction. Further, it can be explained as a subjective feeling of joy, happiness, and overall life experiences (Fisher, 2014). Several research explored different dimensions of workplace well-being. Carolan, Harris, & Cavanagh, (2017) explained several antecedents of workplace well-being including stress, anxiety, work pressure, abusive supervision, lack of autonomy and supervisor support, and HR practices. This causes many consequences including absenteeism, job dissatisfaction, employee turnover, and inefficient work output (Sharma, & Kumra, 2020; Luu, 2020). The major challenge to deal with such well-being is multiplied many times in pressure times and unpredictable environments. This creates the importance of workplace well-being not for employees only but it is beneficial for organizations as well.

### *9 Workplace Spirituality (WPS)*

In recent times, the concept of workplace spirituality has risen as an emerging topic in the field of sustainability (Grzeda, 2019; Beehner, 2019; Gupta, and Agrawal, 2017). To improve conceptual understanding and produce more empirical findings, workplace spirituality needs more investigation. By definition, workplace spirituality is “the individual feeling of mindfulness, senses of completeness, experiences of transcendence with peers and works for processes and community as a whole” (Petchsawang, & Duchon, 2009; Karakas, 2010). "Religion" is not the word that immediately connotes spirituality. It involves one's inner thoughts about honesty, responsibility, and assisting others even when no one is looking. Employees must possess strong workplace spirituality and moral principles in order to meet the sustainable aim for future generations (Siddiqui, Salleh & Shamim, 2023). This way, even if they are dissatisfied with their jobs, they will still be driven to care for the environment and have a sense of belonging and moral values such as spirituality. With this trait of spirituality, an organization can strengthen the inconsistency and dissonance of behaviors.

The integration of sustainability with workplace spirituality can be fruitful for organizations and individuals (Beehner, 2019). Laloux (2014) recommended that organizational management has become outdated gradually with the new world challenges including sustainability. In the framework of sustainable development, the integration of workplace spirituality represents a new stage of consciousness (Grzeda, 2019). The sense of connectedness, passion, community, and serving humanity are a few mechanisms that can enhance sustainable consumption behaviors to achieve environmental-related performance (Ashmos & Duchon, 2000). Traditional approach to sustainability requires change from the outside, there is a need to enable the concept of spirituality that approaches changes from an inside and individual level.

### *9.1 Workplace Spirituality and Sustainability Concept*

The integration of workplace spirituality and sustainability is based on the principles of individual values. According to the Value-belief-norm theory of environmentalism, certain factors influence environmental favorable behaviors (Stern, and Dietz, 1994). The combination of sustainability with workplace spirituality can be beneficial for employees as well as organizations (Beehner, 2019; Grzeda, 2019; Gupta, and Agrawal, 2017). The study conceptualized the significant relationship between spirituality, sustainability, and success (Doran et al., 2016). This demonstrates how spirituality at work can be crucial in fostering an environment and culture that are sustainable. Businesses having a spiritual workplace culture have performed better than those without such standards (Karakas, 2010; Lind et al. 2015).

Linking the four dimensions of workplace spirituality with the sustainability concept can further clarify the conceptual understanding (Ashmos & Duchon, 2000). Compassion toward each other, mindfulness, meaningful work, and transcendence, all are influencing sustainable behaviors. Compassion towards each other can generate feelings and sympathy for future generations' resource needs. Transcendence gives a sense of community feeling and high-order thinking of self-accountable behavior. Such behaviors will be consistent even in the absence of monitoring. Moreover, meaningful work and mindfulness can generate positive thoughts to care for the environment and save the environment from any damage, and any irrational use of resources. Such values provoke and strengthen the work-related positive organizational behaviors including sustainable consumption behaviors and proactive work behavior, which are conceptualized in this study.

### *9.2 Workplace Spirituality and Employees Behaviors*

Many studies were evident the positive effects of workplace spirituality on different employee behaviors including citizenship behaviors, sustainable behavior, etc. (Karakas, 2010; Sani, et al., 2018; Foster, & Foster, 2019; Beehner, 2019; Rezapouraghdam, H., Alipour, H., & Arasli, 2019; Aftab, et al. 2022; Siddiqui, Salleh & Shamim, 2023). The concept of spirituality is based on moral values and principles. Those principles restrict employees and individuals to avoid negative behaviors. These individuals are self-motivated by their moral values and they are not compromising others' resources and goods at the cost of their benefits. Similarly, such individuals will also not compromise the sustainability measures that are implemented by organizations such as switching off lights, sustainable actions, and other positive actions including sustainable consumption behaviors.

In this study, the role of proactive work behavior and sustainable consumption behaviors are conceptualized with workplace spirituality. However, contrary to this, there are some pressure times and loss of motivation when employees show job dissatisfaction (Maurer & Lippstreu, 2008). At this time, when individuals have moral values such as workplace spirituality, then these values can control the cognitive dissonance and behavioral inconsistency created due to loss of motivation.

According to Petchsawang, & Duchon, (2009), four sub-factors of workplace spirituality include Meaningful work, Mindfulness, Compassion, and Transcendence. Meaningful work is characterized by the feeling of joy and a pleasant experience on the job. Mindfulness is regarding how employees focus on themselves and experience a sense of fulfillment while doing a job. Compassion is the ability to comprehend and empathize with a colleague's needs and feelings. Lastly, Transcendence refers to the experiences of a higher power, a connection to blessings, a sense of community, and honest thoughts (Petchsawang, & Duchon, 2009; Jnaneswar, & Sulphrey, 2021).

The detailed discussion and conceptualization of each dimension are discussed in the sub-headings below:

## **Conceptual Underpinning and Hypotheses Development**

### ***1 Hypotheses Development***

#### ***10.1 Relationship with Environmental Sustainability Performance (ESP)***

In the literature, pro-environmental culture is considered a crucial factor in achieving environmental sustainability performance. This helps employees learn from social interactions, role models, policies, and green practices (Islam, Tseng, & Karia, 2019). The relationship between pro-environment culture and environmental performance can be understood on the conceptualization of culture and its consequence effects. Several studies showed the relationship between culture and its positive and negative influence on organizational success and performance. The culture plays the role of facilitator to teach as a guiding principle. Similarly, organizations that implement sustainable development need to develop a pro-environmental culture so their employee will adopt the behaviors accordingly. *Therefore, it is proposed as:*

**P1:** Pro-Environmental Culture positively influences Environmental Sustainability Performance.

However, when an organization needs to implement an environmental-related culture in the organization, it can be simultaneously strengthened by supporting the employee's workplace well-being. It is evident in the literature that despite several environmental change behavior interventions by organizations, employees feel the burden to go the extra mile for sustainable behaviors. Workplace well-being is viewed as a resource that enables and energizes an organization's related behaviors (Boudrias, Montani, & Vandenberghe, 2021). Workplace well-being is considered an organizational support factor. This organizational support will provoke goal achievement motivation in the employees. When employees feel supported by the organization, they happily follow and implement organizational tasks such as sustainable performance. According to studies, happy employees are more likely to be productive employees. One of the studies also highlighted the role of workplace well-being in achieving



employee green behaviors (Ahmed, et al., 2020). It is equally crucial to establish workplace wellness programs that can motivate employees to engage in sustainable behaviors to achieve environmental sustainability performance (Plomp et al, 2016; Boudrias, Montani, & Vandenberghe, 2021).

Hence, it is proposed as:

*P2: Workplace Well-being positively influences on Environmental Sustainability Performance.*

### *10.2 Mediating Role of Sustainable Consumption Behaviors (SCB)*

In earlier paragraphs, it can be seen that there are significant relationships found between workplace well-being with sustainable behaviors and pro-environmental culture with sustainable behaviors and outcomes (Siddiqui, Salleh & Shamim, 2023; Piwowar-Sulej, 2020; Roy et al., 2020). However, this study proposes, that if employees have a better work environment (workplace well-being) and cohesive culture (pro-environmental culture) but lack individual-level effort (sustainable consumption behaviors), it is hard to achieve overall environmental sustainability performance. Therefore, the theoretical gap highlighted the need for mediation with behavioral factors (sustainable consumption behaviors) to achieve environmental sustainability performance. The mediating role of sustainable consumption behaviors lacks significant findings to test environmental sustainability performance. Hence, four proposed are assumed as below:

*P3: Pro-Environmental Culture positively influences Sustainable Consumption Behavior.*

*P4: Workplace Well-being positively influences Sustainable Consumption Behavior.*

*P5: Sustainable Consumption Behavior mediates the relationship between Pro-Environmental Culture and Environmental Sustainability Performance.*

*P6: Sustainable Consumption Behavior mediates the relationship between Workplace Well-being and Environmental Sustainability Performance.*

### *10.3 Mediating Role of Proactive Work Behavior (PWB)*

Proactive work behavior is an individual trait to become a self-initiated person. Proactive employees can perform efficiently in an uncertain environment and help protect the company's long-term environmental solutions. However, studies found that organizational culture and perceived support (workplace well-being) can impact employees' behavior positively (Islam, Tseng, & Karia, 2019). In an understanding of behavioral theories on cultural factors, pro-environmental culture has the potential to improve environmental-related proactive work behavior of employees that can help to achieve environmental sustainability performance.

Hence, on the bases on theoretical understanding, it is proposed as:

*P7: Pro-Environmental Culture positively influences Proactive Work Behavior.*

Previously, a study identified a significant relationship between workplace well-being and proactive work behavior (Plomp et al., 2016). In the absence of mental peace, and job satisfaction, even proactive personalities lose interest and productivity. It is crucial to build

workplace well-being that can sustain proactive employees in the workplace. With the issues and concerns of behavioral inconsistency, well-being is a significant factor that can enhance the interest of proactive employees (Plomp, et al., 2016; Boudrias, Montani, & Vandenberghe, 2021). This study will assess workplace well-being as an impacting factor of proactive work behavior. Therefore, this study proposes the following hypothesis:

*P8: Workplace Well-being positively influences on Proactive Work Behavior.*

Few studies have demonstrated the relationship between proactive work practices and long-term economic, environmental, and social performance (Searle, & Rooney, 2013; Ali, 2021). However, more work needs to be done to evaluate employees' sustainable consumption behaviors through the lens of proactive work behaviors in energy consumption. Thus, this study hypothesizes the relationship between proactive work behavior and sustainable energy sector consumption behavior based on the idea of sustainability as a consequence variable of proactive work behavior. Hence; this study proposes:

*P9: Proactive Work Behavior positively influences Sustainable Consumption Behavior.*

Additionally, proactive work behaviors can boost productivity to get a competitive edge, increase efficiency, and work in an uncertain environment (Boudrias, Montani, & Vandenberghe, 2021). However, the demand for sustainable consumption behaviors is categorized as a difficult and unpredictable scenario for the future. Sustainable consumption behaviors have several causes and effects, including beliefs and values (Şener, & Hazer, 2008; Wahab, 2017), customer pressure (Cho & Yoo, 2021), social factors (Figueroa-García, García-Machado & Perez-Bustamante Yabar, 2018). Overall, many studies identified the influence of proactive work behaviors on sustainable performance positively (Searle & Rooney, 2013; Ali, 2021; Boudrias, Montani, & Vandenberghe, 2021).

Hence; this is proposed as below:

*P10: Proactive Work Behavior positively influences Environmental Sustainability Performance.*

While understanding the antecedence and consequences of proactive work behavior, the moderating role is itself a potential to change the behavioral outcomes. In earlier paragraphs, the need for proactive work behaviors theoretically links among different relationships (Islam, Tseng, & Karia, 2019). However, the need to include proactive work behaviors as a mediator is another crucial concern. Pro-environmental culture and employee workplace well-being can help to achieve environmental sustainability performance, but in the absence of self-initiated steps and individual-level contribution to sustainable goals, it may be hard to achieve sustainability in the workplace. This is the reason to include proactive work behavior as a mediator that has the potential to strengthen the employee's sustainable consumption behaviors to achieve environmental sustainability performance.

Therefore, this study proposed:

*P11: Proactive Work Behavior mediates the relationship between Pro-Environmental Culture and Environmental Sustainability Performance.*

*P12:* Proactive Work Behavior mediates the relationship between Workplace Well-being and Environmental Sustainability Performance.

*P13:* Proactive Work Behavior mediates the relationship between Pro-Environmental Culture and Sustainable Consumption Behavior.

*P14:* Proactive Work Behavior mediates the relationship between Workplace Well-being and Sustainable Consumption Behavior.

Lastly, after analyzing the theoretical understanding of proactive work behaviors and sustainable consumption behaviors mediation to achieve environmental sustainability performance, this discussion is moving towards serial mediation among variables simultaneously. Workplace well-being is identified as a crucial factor in generating and maintaining positive work-related behaviors including proactive work behavior and employee green behaviors (Ahmed, et al., 2020). With the rising concerns of behavioral inconsistency (Carolan, Harris, & Cavanagh, 2017; Strauss, Parker, & O'Shea, 2017; Boudrias, Montani, & Vandenberghe, 2021), well-being can serve as an enabler to maintain behaviors over a longer time (Plomp, et al., 2016; Boudrias, Montani, & Vandenberghe, 2021). Organizational factors such as workplace well-being and pro-environmental culture may become ineffective if employees lose proactiveness and sustainable behaviors to achieve environmental sustainability performance (Searle, & Rooney, 2013; Ali, 2021). Hence, this study links the serial mediating role of proactive work behavior and sustainable consumption behaviors among proposed relationships as below:

*P15:* Proactive Work Behavior and Sustainable Consumption Behavior mediate the relationship between Pro-Environmental Culture and Environmental Sustainability Performance.

*P16:* Proactive Work Behavior and Sustainable Consumption Behavior mediate the relationship between Workplace Well-being and Environmental Sustainability Performance.

#### *10.4 Moderating Role of Workplace Spirituality (WPS)*

Research on workplace spirituality has shown that individuals may take proactive work behaviors when they experience meaning and values. These employees play a crucial role in a time when organizations are dealing with energy consumption issues in an unpredictable environment (Batool, Shabbir, Abrar, & Bilal, 2022). Employees' sense of ethics, values, and community demonstrated a successful and seamless operation that helped the firm move toward sustainable consumption behaviors (Ashmos & Duchon, 2000; Sani, et al. 2018; Wahab, 2017; Meng, Lee, Chua, & Han, 2022).

It is evident in the literature, that despite many efforts consumption patterns still not improving on a significant level (Schwab, 2019). The reason behind this is not only organizational contribution in sustainable development programs but also the employee individual level contribution, work ethics, moral responsibility, sense of accountability, and other values (Wahab, 2017). While having behaviors like proactive traits and sustainable consumption behavior, there is still a chance that the employee shows dishonesty in sustainable targets or there is some time when the employee feels too lazy to adopt

sustainable behaviors. To avoid this issue of behavioral dissonance and inconsistent behaviors, the alignment of individual values is necessary. When it comes to environmental concerns, workplace spirituality has the power to support and sustain sustainable consumption behaviors, which may be sustained over time across the conditions (Batool, Shabbir, Abrar, & Bilal, 2022; Sani, et al. 2018).

Self-determination theory can be used to infer a potential relationship between proactive work behavior and workplace spirituality (Deci & Ryan, 2012). Employee consumption behaviors about workplace spirituality are still in the area of exploration. A small number of studies discuss sustainable consumption behaviors with values, norms, good deeds, spiritual satisfaction, and here-after (Minton et al., 2015; Morrison, Duncan, and Parton, 2015; Ribeiro, Hoover, Burford, Buchebner, and Lindenthal, 2016).

In conceptualization to, workplace spirituality is the impacting factor in achieving environmental sustainability performance from behavioral and value perspectives (Sani, et al. 2018; Şener, & Hazer, 2008). Therefore, the groundings of previous research in the field of values and behaviors and theoretical underpinnings of the value-belief-norm theory of environmentalism, this study proposes a relationship as below:

*P17: Workplace Spirituality moderated between Proactive Work Behavior and Sustainable Consumption Behavior.*

### Conceptual Framework

Self-determination theory and VBN theory are the foundations for the conceptual framework's explanation (Deci & Ryan, 2012; Stern, and Dietz, 1994). This framework presents the integration of organizational factors and individual factors to achieve environmental sustainability performance. Figure 1 depicts the organizational factors which include workplace well-being and pro-environmental culture. On the other side, individual factors include proactive work behaviors, sustainable consumption behaviors, and workplace spirituality. These two major factors collectively improve environmental sustainability performance.

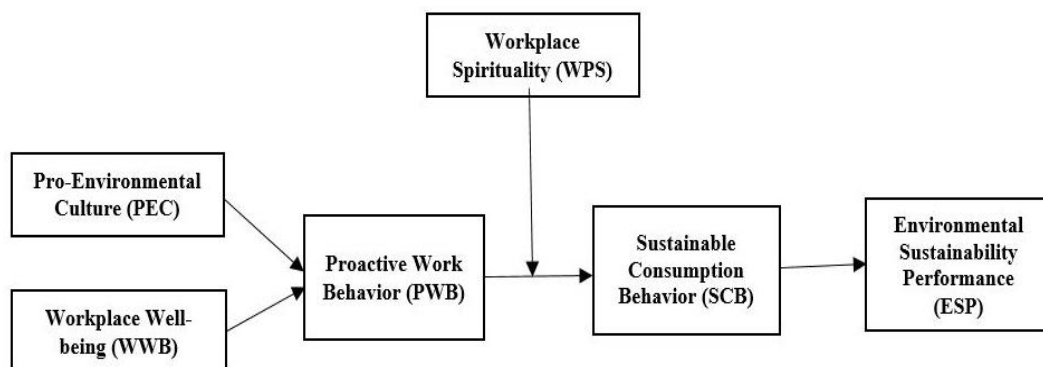


Figure 1 Conceptual Framework

**Discussion***1 United Nations' Global Agenda*

The United Nations (UN) established 17 points as global SDGs agendas to be achieved by 2030, one of them being sustainable consumption and production (12<sup>th</sup> Agenda). Global warming and climatic changes constitute a serious threat to the attainment of Sustainable Development Goals (SDGs) and seek immediate global response (United Nations Development Programme, 2015). Such a call for sustainable goals is highly justifiable on resources (energy, water, land) and several social, behavioral, value, cultural, and economic factors that are not positive all the time. The Malaysian government aligned country-level policy and emphasized the importance of sustainable consumption and pro-environmental behaviors in line with the United Nations' SDG goals. In response to environmental issues, organizations have a crucial role in adopting policies and principles in favor of the environment and sustainability. Many organizations adopted sustainable consumption practices in alignment with SDG goals. However, these organizations overlooked the individual level of contribution by employees. The organization that seeks sustainable performance must encourage employees towards sustainable consumption behavior by supporting environmental behavior and implementing values. Since employees spend major time in the workplace, consuming electricity and other resources, we must take energy usage into account and raise awareness to encourage more sustainable consumption practices from an employee's perspective in the workplace (Siddiqui, Salleh & Shamim, 2023; Wang, Ghadimi, Lim, & Tseng, 2019; Geiger, Fischer, & Schrader, 2018).

*2 Environmental Sustainability Performance and Sustainable Consumption Behaviors*

Pertaining to environmental sustainability performance and sustainable consumption behaviors issues, researchers identified several perspectives including policy-making, corporate social responsibility, and competitive strategic decision-making (Davis, & Challenger, 2013; Geiger, Fischer, & Schrader, 2018; Wang, Ghadimi, Lim, & Tseng, 2019; Siddiqui, Salleh & Shamim, 2023), but the value-behavioral phenomenon to maintain and stabilized sustainable consumption behaviors over time across situation is itself a new avenue to explore in energy sector (in this study workplace spirituality and proactive work behavior). The sense of responsibility, ownership, and moral accountability toward environmental protection is the key feature of workplace spirituality. Moreover, the proactive traits and self-initiative efforts by employees to achieve sustainable goals are equally important in the workplace. The materialistic and monetary measures to encourage employees towards sustainable behaviors are less effective now. Many scholars recommended Sustainable behaviors should transition from moral values to spiritual and ethical phenomena to avoid the issue of behavioral inconsistency towards sustainable consumption behaviors (Morrison, Duncan, and Parton, 2015; Boudrias, Montani, & Vandenberghe, 2021; Batool, Shabbir, Abrar, & Bilal, 2022). Concerning behavioral dissonance and consistency, few studies have shown that employees with certain moral principles are more inclined to engage in environmental preservation and sustainable actions (Meng, Lee, Chua, & Han, 2022).

*3 Workplace Spirituality and Support Proactive Work Behaviors*

To achieve this transition, organizations need to cultivate workplace spirituality and support proactive work behaviors by promoting a pro-environment culture and building workplace well-being. Proactive employees can operate independently, exercise initiative in line with objectives, propose and develop creative solutions to meet company goals, show



accountability, and function in an unpredictable environment (Svensson, & Padin, 2019; Ma, Kao, Kao, & Cho, 2020). In the absence of pro-environmental culture, they may not be able to initiate self-plan for sustainable consumption behaviors. Moreover, without workplace well-being, employees feel burnout, and hence lose interest in any organizational goals, in our study sustainable consumption behaviors (Plomp et al, 2016; Boudrias, Montani, & Vandenberghe, 2021). Hence, there is a need for a comprehensive phenomenon to be understood by organizations to implement and achieve employees' individual-level contribution towards environmental sustainability performance, which needs to be aligned from behavioral, values, personal, and organizational culture perspectives.

### **Theoretical and Practical Implication**

The study contributed theoretically and practically in several ways. The theoretical implication is based on the Value-Belief-Norms theory of environmentalism. First, this study conceptualized the value-behavioral phenomenon to suggest a model for employee sustainable consumption behaviors and its consequences on organizational environmental performances. Second, this study integrates different domains including workplace well-being as a psychological factor, proactive work behavior and sustainable consumption behaviors as behavioral factors, workplace spirituality as a value factor, and pro-environmental culture as an organizational factor by proposing insights for environmental sustainability performance. Third, this study also opens avenues for policymakers and managers to re-think/redesign strategies in line with the proposed model. Fourth, instead of developing environmental policies in general, policymakers should evaluate the implementation stage on the employee's side also. Fifth, managers should involve employees in the decision-making process and planning of environmental issues by practicing a decentralized management approach. In this way, employee can own their planning and implement smoothly. Finally, the practical implication goes to practitioners and policymakers who develop strategic goals in line with the SDG agenda initiated by the United Nations 2050 plan to secure world resources for existing and future generations. The recommended model can help to build the idea of a comprehensive analysis of employee behaviors toward sustainable goal fulfillment and managers can develop the training and culture accordingly.

### **Limitations and Future Research Directions**

This study also has limitations as there is no empirical analysis conducted on the proposed model. First, sustainable consumption behaviors, workplace spirituality, and environmental sustainability performance lack a measuring scale. In this way, it's strongly recommended to develop the measuring instruments for this variable specifically in the context of environmentally sustainable performance by employees. Second, data collection can be done to empirically test the model. Third, this study emphasizes the target population in an office setting. Future research can also be conducted on labor employees' energy consumption behaviors, and field workers who work offshore and on-site rotational work in energy companies, further a comparative study was also conducted. Lastly, see Table 1 for implications of future research directions.

Table 1	Implications for Future Research Directions
Measurement	<ol style="list-style-type: none"> <li>1. To develop the instrument on employee sustainable consumption behaviors.</li> <li>2. To develop the instrument for workplace spirituality in an energy consumption context.</li> <li>3. To develop the instruments on environmental sustainability performance.</li> <li>4. To explore the workplace spirituality construct in shaping employees' behaviors in sustainability implementation issues.</li> </ol>
Application	<ol style="list-style-type: none"> <li>1. How does the model apply to on-site and offshore employees working in energy companies?</li> <li>2. What will be the application of the proposed model in the SMEs and manufacturing firms?</li> <li>3. How do practitioners and managers see the pro-environment culture as an organizational support factor, constraint issues, or lead-by-example practices?</li> </ol>
Potential Research Questions	<ol style="list-style-type: none"> <li>1. How different mental stages of employees can affect sustainable consumption behaviors and environmental sustainability performance?</li> <li>2. How do mental health and life quality affect the positive motivation of employees to sustainable consumption behaviors?</li> <li>3. How are rewards and perks associated with achieving environmental sustainability performance?</li> <li>4. How employees' sustainable consumption behaviors and proactive work behaviors are linked with employees who have turnover intentions.</li> <li>5. How was the proposed model investigated and combined with the CO<sup>2</sup> emission calculator?</li> </ol>

### Conclusion

Conclusively, this study proposes multiple domains in one model by incorporating different constructs from individual factors including psychological factors, values and behavioral factors, and organizational factors including workplace well-being, and pro-environmental culture to achieve environmental sustainability performance. In addition, this research emphasizes more one workplace spirituality which has proven as a contingent role in strengthening the relationship between behavioral and organizational factors to achieve environmental sustainability goals in line with organizational SDG goals. All constructs significantly propose a new avenue of research in the field of workplace spirituality with sustainability.

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