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## THE MEDIATING ROLE OF PRO-ENVIRONMENTAL BEHAVIOR BETWEEN ENVIRONMENTAL PASSION, RESPONSIBLE LEADERSHIP AND ENVIRONMENTAL SUSTAINABILITY

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#### **Abstract**

Environmental sustainability has become a crucial concern at the global level due to its devastating consequences on performance-related perspectives, as climate change and energy crisis have emerged as a burning issue. The objective is to address environmental sustainability while identifying the foremost factors, including environmental passion and responsible leadership, to predict the phenomenon of environmental sustainability. The researcher also highlighted the crucial need to imbue the behavioral aspect in determining environmental sustainability by developing Pro-environmental behavior as a significant mediator between exogenous and endogenous constructs. This study enriches the knowledge by expressing the role of environmental passion in predicting environmental sustainability. The knowledge is enhanced by expressing the association between leadership responsibility and environmental sustainability. Moreover, this research paper also incorporated Pro-environmental behavior as the mediator in establishing the relationship between environmental passion, responsible leadership and environmental sustainability. The data was collected randomly from different categories of SMEs, and Smart-PLS was used for analysis. Interesting findings have depicted that environmental passion predicts environmental sustainability and influences pro-environmental behavior; therefore, the hypotheses H1 and H2 are accepted. The findings also reported that responsible leadership predicts environmental sustainability and pro-environmental behavior, therefore, the hypotheses H3 and H4 are also accepted. The study also reported that responsible leadership is also crucial factor that enables firms to achieve environmental sustainability and establishes the pro-environmental behavior that establishes relationship between environmental passion, responsible leadership and environmental sustainability. This means hypotheses H5, H6 and H7 are statistically significant. This study focuses on increasing the sense of responsibility towards environmental sustainability by considering the crucial importance of pro-environmental behavior in determining and establishing the relationship between environmental passion and environmental sustainability, between responsible leadership and environmental sustainability.

**Keywords**: Environmental passion, Responsible leadership, pro-environmental behavior, and environmental sustainability

#### **Introduction and Background**

Environmental concern has emerged as a pressing issue in the recent decades due to the devastating negative impact and causes global warming. Meeting the immediate needs of current generations in such a way that doesn't hinder or compromise the needs of future generations is expressed as environmental sustainability. Environmental sustainability entails the actions that strive to preserve the rights of future generations by saving soil, reducing water and air pollution, reducing wastage, conserving resources, and increasing the reuse and recycling of products. The improvements in



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reliability and legitimacy of environmental procedures are required to ensure environmental protection and to overcome related issues. However, various environmental antecedents are insignificant in boosting performance (Appannan et al., 2023). Numerous research articles have been published to address environmental sustainability with limited research scope and sample size, outdated data, and the intricate nature of sustainable development. It has been reported on the forum of the UN that environmental pollution negatively impacts human health and causes global warming, devastating impact on the financial sector, mobilization of resources and technology for promoting sustainability, according to a report of sustainable development.

Pakistan is pointed out as one of the most affected countries in South Asia due to pollution and is responsible for 0.87% of global emissions. The industrial sector is fueled by coal that contributes more than 49% of CO2 emissions in Pakistan, and a skyrocketed phenomenon has been observed in recent decades as it has increased from 17.21 to 95.2 Mt from the year 2020 (K. Ali et al., 2023). The environmental concern has gained the attention due to its globalized recognition and increased temperature, climate change and increased issue of global warming and organizations are required to ensure the such practices that mitigate negative impact on environment while utilization of appropriate natural resources, reduction in greenhouse toxic gasses and to strive for creating the awareness among consumers for adopting environmental friendly manufacturing and business practices (Tsuboi, 2019; Sarkis & Zhu, 2018; Afum et al., 2020).

The manufacturing sector provides large-scale employment and contributes in the economic perspective, however, it negatively impacts the environment, so therefore it was needed to develop regulations to control such business activities that bring a negative impact in any perspective (Jaca et al., 2018; Singh et al., 2019). It has also been explained that environmental sustainability entails the satisfaction of the stakeholders while ensuring environmentally friendly business operations and developing policies for protecting the climate. The political turmoil, economic and social chaos, and inappropriate governance reduces the capacity to face the challenges, recently the global attention has been given to the crucial situation of environmental damages as due to business operations the environment is deteriorate overtime due to non-compliance with climate and ecological changes (Durán-Romero et al., 2020).

The financially strong firms also take initiatives for environmental protection and focus on such projects that consider social well-being while increasing economic responsibilities (Zhu et al., 2019). Small and medium-sized organizations play an important role in all other disciplines and contribute to strengthening the economy. The large-scale organizations have expanded for personal significance; however, the small and medium-sized organizations cover 95% of total firms and have a significant influence on economic strength and operational capacity. The prior literature has focused on technological innovation and usage to enhance the performance of SMEs while considering environmental concerns. It has been reported that environmental sustainability is also linked with the social impact of business firms that conduct large-scale operations. The firms are required and expected to conduct business operational activities in a responsible manner that harvests the profit for stakeholders but also protects the environment from any kind of carbon emission that damages the environment. The phenomenon of globalization has increased due to the rapid development of technologies, which causes inevitable circumstances, and managers are being pressurized to focus on economic strength, social impact management and environmental concerns (Chege & Wang, 2020).

The crucial challenges and issues have been faced by the pharmaceutical industry of Pakistan for environmental concerns so therefore, the prior literature has embarked on the need of green



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practices to be introduced, however, empirical investigation has been lacking (Dumont et al., 2017). The Pakistani pharmaceutical industry has the growth potential and has a value estimated at around 3.2 billion dollars and is expected to grow to gain a higher market share and expand at an international level. Pakistan is the 5th largest global market for the pharmaceutical and healthcare industry, which has the potential to achieve 5 billion in fiscal year 2024-2025. Despite all, Pakistani various industries, including the pharmaceutical industry, is facing environmental challenges due to limited capabilities and lack of resources, further the managerial lack and insufficient interest of higher-level of management are considered as major impeding factors in the implementation of environmental regulations. The industrial sector has been observed as one of the most crucial sectors for environmental degradation that needs proper and effective scrutiny in Pakistan (Nasir et al., 2023; Yang & Usman, 2021).

The performance of organizations is derived by the appropriateness of the leadership approach; the studies on various and diverse styles of leadership to govern and determine the performance. Prior literature has explored the relationship between authentic leadership and innovative behavior with the mediating role of affective commitment significantly (Javed et al., 2021). Further, it is reported that appropriate leadership tends to increase organizational innovation in the higher education sector significantly (Hussain et al., 2019). Further, the research embarked on assessing the relationship between transformation of leadership and sustainability in a digital context to use the industrial revolution, and the results depicted a strategically significant (Nasir et al., 2022). The sustainable performance of the health sector has been assessed by the role of transformational leadership as well. The significant influence of leadership on sustainable performance is reported (Azhar & Sultan, 2021). Further, it has been observed that responsible leadership is needed in the context of an environmental perspective. The study was conducted to determine the crucial importance and need of leadership responsibility in expressing the firm's performance, which reported significant results (Ur Rehman et al., 2023). The customer relationship management brings favorable results when influenced by the responsible leadership (Luu, 2023). Another study has reported that psychological ownership significantly intervenes the association between leadership and behavior towards being green. The responsible leadership tends to influence the adoption of green practices for environmental protection (Ismail & Hilal, 2023).

There is a dire need to research environmental concerns as Small and Medium enterprises have recognized and are under pressure to adopt environmentally friendly practices in order to address the environmental degradation (Djakasaputra et al., 2021). There is lack of greening approach in SME sector, the appropriate greening approach is required to be adopted among SME sector to reduce the carbon emission, for effective and efficient consumption of energy, to reduce the wastage production and significant research has to be conducted for exploring the environmental perspective (Awan et al., 2023). The appropriate leadership influence ethical decision-making, involvement of stakeholders and sustainability, it has been stressed that effective leadership has the tendency to support complex and modern business operations that impact society and the environment (Awan et al., 2023). The prior literature has reported the significant relationship and influence of workplace spirituality and responsible leadership on pro-environmental behavior through affective commitment as a mediator among the small and medium-sized firms of Pakistan. The research examined and reported a significant mediation impact of affective commitment to explain the relationship between workplace spirituality, responsible leadership and proenvironmental behavior. The study also identified that the SME sector of Pakistan has received less and insufficient attention from researchers to assess the role of appropriate leadership and



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development of pro-environmental behavior among employees that can further influence the performance-related outcomes (Shah, Fahlevi, Jamshed, et al., 2023). Therefore, there is a dire need to conduct a study to assess the environmental sustainability influenced by various overlooked and important factors.

The firms that come under the SME umbrella must emphasize environmental issues and the capability of managing environmental risks in routine operations, which promotes overall environmental protection that leads towards improvements in SME's performance (Ali et al., 2023). The performance of SMEs in Pakistan is reported to be lower than that do not reflect the higher benefits and profitability as compared to Malaysia, Thailand, China, Taiwan, and Indonesia (Arshad et al., 2024). The reason for this poor performance lies in the poor response and attention of leadership, passion and lack of interest in moving towards the modern production techniques that are based on the greening initiatives.

This research effort intends to address the burning issue and crucial challenge of environmental concern in terms of sustainability. Previous literature has overlooked the function and impact of environmental passion for responsible leadership in predicting environmental sustainability. The study also intends to incorporate the behavior of employees towards pro-environmental concerns and examine it as the mediator between environmental passion, responsible leadership and environmental sustainability.

#### Literature Review

#### **Environmental Passion and Environmental Sustainability**

Environmental protection has emerged as a crucial issue in today's world due to its significant impact on the performance and productivity of organizations and individual level. There is a dire need to take green initiatives by creating awareness, adoption of green practices and shaping attitudes and behavior of the general public towards environmental concerns. There is a need to address and promote green practices in firms for effective and efficient utilization of resources, and it is highly recommended to focus on the promotion of eco-friendly objectives and goals of firms (Kalyar et al., 2021). Environmental management has been addressed in the hospitality industry by initiating eco-friendly behavior, it has been indicated that environmental management tends to predict sustainable performance significantly. In a nutshell, eco-friendly behavior tends to influence performance significantly and leads towards the devising of policies related to environmental protection (Rehman et al., 2023).

Environmental passion plays a significant role in environmental protection, whereas passion is referred to as positive feelings, strong emotions, happiness, pride and motivation to encourage proenvironmental behavior for effective contribution to environmental protection. Environmental passion can be assured through the utilization and implementation of resources to influence environmental behavior for environmental protection and to address the burning issue of environmental pollution (Li et al., 2020). Corporate social responsibility and citizenship behavior have been examined in prior literature for environmental protection assurance and environmental passion empathy. A significant relationship has been reported between citizenship behavior and environmental passion through corporate social responsibility (Yin et al., 2021). The researchers have highlighted the role of corporate image in explaining the relationship between environmental passion and behavior. The institutional environment, passion and self-efficacy have been explained to shape environmental behavior to ensure performance and environmental protection (Ali et al., 2023). The prior empirical research depicted entrepreneurial passion as influential in developing



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such intention by promoting self-efficacy and significantly mediating the relationship (Chiengkul et al., 2023). The hypothesis is formed as under:

### H1: Environmental Passion tends to predict Environmental performance among SMEs of Pakistan

#### **Environmental Passion and Pro-Environmental Behavior**

This section hypothesized to explain and express the association of environmental passion and pro-environmental behavior. Currently, the firms are taking numerous initiatives to save the environment from dangerous things and implementing various steps to promote environmentally friendly practices. The topic has drawn the attention of researchers to establish sustainable practices and pro-environmental behavior in the organization (Faraz et al., 2021; Shah, Al-Ghazali, et al., 2023). The firms are taking corrective actions to promote sustainability in the organizations to enhance the employees' performance 4,5. Pro-environmental behavior related to the policies and procedures that contribute to protecting the natural environment by taking various initiatives such as effective utilization of the natural resources, reuse of waste and raw materials, changing the existing strategies and using the fundamental practices that resolve the harmful effects on the environment by implementing green products (Faraz et al., 2021; Shah, Fahlevi, Jamshed, et al., 2023).

Previously, the researcher investigated the complex relationship between environmental corporate social responsibility, corporate green image. The study also explored the sequential mediation effect of environmental passion and pro-environmental approach. It is stated that the social responsibility of firms has a positive impact on the corporate green image and is directly associated with environmental passion and behavior towards protecting the environment. The passion for environmental protection and behavior is reportedly mediated by corporate greening image and approach (Ali et al., 2023). Moreover, the influence of workplace spirituality on organizational citizenship behavior on the environment. The findings of the study revealed that workplace spirituality has a positive and significant indirect effect on organizational citizenship behavior on the environment. Workplace spirituality has significantly influenced environmental passion, and environmental passion significantly impacts the organization's citizenship behavior on the environment. The relationship is mediated by environmental passion between spirituality at the workplace and citizenship behavior significantly (Ni'mah & Ulya, 2023).

The following hypothesis is derived:

H2: Environmental passion influences pro-environmental behavior among SMEs of Pakistan

#### Responsible Leadership and Environmental Sustainability

The term responsible leadership defined as the leadership in which the leader focuses on the development of the organizations and made the policies that enhance the performance and financial productivity, responsible leadership emphasis on the management and maintenance of the organization that build the working environment friendly, the responsible leadership has the ability to create the relationship within the organization and with the employees of the firms which enhance the performance of the firms and relationship with the stakeholders and society, the responsible leadership take the initiatives that contribute to the organizations performance and solve the environmental, economic and social concerns (Zhao & Zhou, 2019). Responsible leadership consequentially enabled the organization to build the strong relationship with the stakeholders by providing the long term strategic planning, give the right direction, motivate the employees and assures that the organization achieve their objective and goals consistently, the



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managers of the firms are trying to adopt the responsible leadership strategies that have the long term results on the firms and focuses the organization environmental, economic and social performance which influence the sustainability (Liao & Zhang, 2020).

The prior studies addressed the influence of responsible leadership on the performance of firms. The findings of the study also examined the mediating role of environmental management practices and the moderating impact of institutional pressure between financial and environmental performance by responsible leadership. It is stated that the mediation and moderation influence of institutional pressure was found to be insignificant (Ur Rehman et al., 2023). According to the Sapta et al., (2021) investigated in the context of Indonesia and reported that the transformational leadership positively related to sustainable performance with the help of knowledge management. Another research effort has been done to investigate the association between leadership approach and sustainable performance. The leadership styles most discussed were sustainable leadership and transformational leadership. The findings of the systematic literature review revealed that the leadership is associated with sustainable performance (Piwowar-Sulej & Iqbal, 2023).

The following hypothesized relationship is to be tested:

H3: Responsible Leadership influences environmental sustainability among SMEs of Pakistan

#### Responsible Leadership and Pro-Environmental Behavior

In the success of the business, leadership plays an essential role, and responsible leadership are that individuals who address the environmental, social and economic concerns (Cao et al., 2021). Environmental problems such as environmental destruction, pollution and global climate change are the current issues for the world, which warn the organization to implement new strategies to compete with new challenges, through protecting the natural environment and promoting environmental sustainability (Pham et al., 2020:Nguyen et al., 2021). Firms are trying to focus on environmental responsibility and implement green policies and practices. The firm's management and the researchers take the corrective actions that refine the environmental sustainability as green firms' policies and practices, to enhance the employees' behaviors towards environmental sustainability (Nasir et al., 2021).

Previously, the literature investigated the association between pro-environmental behavior and corporate social responsibility. The mediation impact of ethical leadership in the domain of the Pakistani banking sector. The findings of the study revealed interesting information that a significant mediating effect is found between corporate social responsibility and environmental behavior by the ethical leadership approach (Wu et al., 2021). Another research effort has been made to explore the effect of green human resource management, green innovation and responsible leadership on the business sustainability practices. The findings of the study revealed that green human resource management, green innovation and responsible leadership positively influence sustainable business performance. The study also explored the mediating effect of proenvironmental behavior. The results of the study show that pro-environmental behavior significantly mediates the association among the green human resource management, responsible leadership and sustainable business performance (Liu et al., 2023).

Another prior literature has determined important factors, including workplace spirituality, leadership approach, and environmental concern, to explain the situation of Pakistani SMEs of diverse categories. The findings of the study stated that the a positive direct relationship among workplace spirituality, responsible leadership and pro-environmental behavior. The results of the study also explored the mediating effect of affective commitment. Effective commitment was



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found to be a significant mediator between spirituality, responsible leadership approach and environmental concerns (Shah, Fahlevi, et al., 2023).

Based on the above literature, the following hypothesis is formed:

H4: Responsible Leadership influences pro-environmental behavior among SMEs of Pakistan

#### Pro-Environmental Behavior and Environmental Sustainability

Today in the current situation, the organization are struggling to survive from the environmental issues such as the change in the climate, the destruction pure environment and pollution. Change in the climate is one of the biggest issues that are currently organizations and society face at global, various firms have started to take corrective actions to promote environmentally friendly practices in their business to reduce the negative impact of global warming change (de Souza Freitas et al., 2020). Organizations persistently working for the well-being of the employees and influence the human resource management practices at the operational level to build an environmentally friendly culture (Talapatra et al., 2019). The organizations are developing their strategies and reshaping the business, and implementing the strategies that are related to the protection of the natural environment through creating awareness in employees and trained individuals to protect the environment (Nasir et al., 2021).

The study also explored the mediating role of green organizational culture and the moderating effect of green social capital and green values. The findings of the study demonstrated that green transformational leadership, training, performance and compensation are positively associated with green organizational culture. The results also explained that green social capital, values, and culture were found to be positively associated with environmental behavior and culture was reportedly highlighted as a significant mediator to harvest the required benefits by transformation and environmental behavior. The study found the insignificant moderating effect of the greening aspects, including social, and green values to explain relationship between culture and proenvironmental behavior (Ahmad et al., 2023). The findings of the study suggested that policy makers and organizational management to enhance leadership practices and strategies in the organization to the well-being for employees, which further leads to creating awareness in employees in the organization to protect the environment and enhance pro-environmental behavior (Soni, 2023). The above literature leads towards the development hypothesis:

## H5: Pro-environmental behavior tends to predict environmental sustainability Mediating Role of Pro-environmental Behavior

This research thesis incorporated the pro-environmental behavior as an essential element and factor to determine environmental sustainability. Climate change is an emerging and hot issue being faced by firms currently on the face of the earth, therefore, there is immense pressure for environmental concerns to protect the environment that is damaged due to various non-environmentally friendly behaviors. Currently, the organizations are striving to adopt such practices that produce required products/services according to environmental standards. The employees must be trained to shape their behavior towards environmental friendliness by engaging them in routine activities (Fatoki, 2019). The pro-environmental behavior is found to be influential towards pollution reduction and enhancing environmental performance. The research scholars have defined pro-environmental behavior as voluntary behavior of employees that is not part of their job or workplace system but assists in following and maintaining environmental sustainability. The environmental sustainability includes recycling, conservation of natural resources and development of green products and processes (Robertson & Carleton, 2018).

Previously, it is also depicted that pro-environmental behavior influences on financial performance; further, it predicts employee satisfaction and leaders' effectiveness (Afsar et al., 2018). The firms have started focusing on the phenomenon of environmental sustainability as several studies have stressed upon developing and shaping the attitude and behavior of workers towards inclined social responsibilities and commitment in assessing the sustainability, along with institutional support (Shah, Al-Ghazali, et al., 2023).

This study argues that pro-environmental behavior mediates the relationship between environmental passion, responsible leadership and environmental sustainability. Thus, the following hypothesis is formed:

H6: Pro-environmental behavior mediates the relationship between environmental passion and environmental sustainability among SMEs of Pakistan

H7: Pro-environmental behavior mediates the relationship between responsible leadership and environmental sustainability among SMEs of Pakistan

#### **Research Framework**

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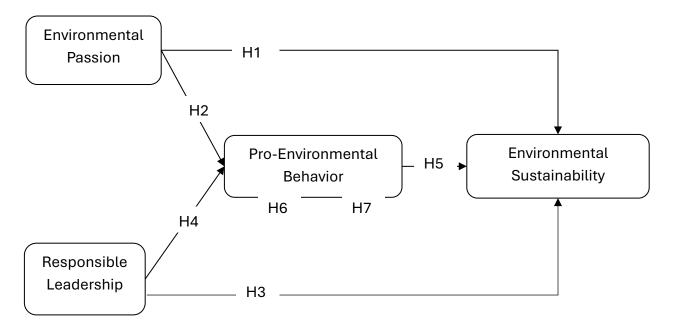


Figure 1 Research Framework

#### Research Methodology

This research study is quantitative in nature as data is collected through a questionnaire from different SMEs in Punjab, Pakistan. The quantitative approach is regarded as an effective, accurate, and trustworthy way to convey the findings on statistical grounds. It also incorporates a sizable sample size to help results be generalized to the entire population. The prime concern of current research is to determine the environmental sustainability initiatives taken by the SME sector of Pakistan, influenced by their eco-friendly behavior, environmental passion, and the presence of responsible leadership with the role of pro-environmental behavior. The SME sector of Pakistan



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has different categories operating in diverse regions and provinces; a significant chunk is operating in Punjab, which represents 60% of SMEs. The Pakistani business market consists of 3.3 million SMEs, which comprise 90% of the total business sector. The role of the SME sector in economic development has been acknowledged; there is a need to promote organizational performance through the involvement of basic factors that have contributed to the body of knowledge (Shah et al., 2020). In the present study, the sample size is crucial from the SME sector. It has been established that the determination of an efficient sample size is required to confirm the appropriate sample selection from a given population. In Punjab, there are approximately 15000 SME units. According to Krejcie & Morgan (1970) table the appropriate sample size is 375, so the SMEs are segregated in four different categories, and taken from the province of Punjab from Sialkot, Gujranwala, Gujrat, Lahore, Rawalpindi and Faisalabad.

Table 1

Sr#	Industry	Firms
1	Textile	100
2	Leather/Footwear	90
3	Sports	100
4	Wood and Furniture	85
	TOTAL	375

#### **Measurement scale**

The measurement scales for each construct is adopted from prior literature, and each item is assessed on a 5-point Likert Scale ranging from 1-5, whereas 1 is strongly disagree, and 5 is strongly agree.

The 07 items to measure the construct of environmental sustainability is taken from (Chege & Wang, 2020). The 10-item measurement scale to measure environmental passion was adopted from the study (Robertson & Barling, 2013). Responsible leadership is assessed based on 05 items, adopted from the study of (Voegtlin, 2012). The seven-item scale of pro-environmental behavior was adopted from the research study of (Robertson & Barling, 2013).

#### **Analysis and Discussion**

This section of the research paper entails the analysis of collected data. Smart-PLS is utilized for data analysis that consists of two separate sections, including measurement model assessment and structural equation model. Measurement model assessment assists in examining construct reliability and validity, whereas the structural equation model assists in investigating the hypothesized relationships.

#### **Measurement Model Assessment**

This phase of analysis presents the reliability and validity of constructs. Reliability is assessed on Cronbach's alpha and composite reliability. The values for Cronbach's alpha and CR must be higher than 0.70 for acceptable reliability (Hair Jr et al., 2014). Convergent validity is also an integral part of measurement model assessment that demonstrates convergent validity. The value of AVE presents the convergent validity, which must be higher than 0.50 for acceptable validity (Hair Jr et al., 2021). Table 2 below presents the construct reliability and validity.

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Table 2

Constructs	Cronbach's Alpha	CR	AVE	
EP	0.906	0.912	0.543	
ES	0.850	0.857	0.571	
PEB	0.921	0.927	0.680	
RLs	0.925	0.924	0.773	

Note: Environmental Passion (EP), Environmental Sustainability (ES), Pro-Environmental Behavior (PEB), Responsible Leadership (RLs)

The result in the above table demonstrates acceptable reliability and validity. The values of Cronbach's alpha and composite reliability show acceptable measures, which means reliability and validity conditions are met. Acceptable reliability is determined by Cronbach's alpha and composite reliability. Convergent validity is assessed based on the AVE's value. Both conditions for acceptable reliability and validity are accepted. The figure 2 shows the measurement model assessment extracted from Smart-PLS.

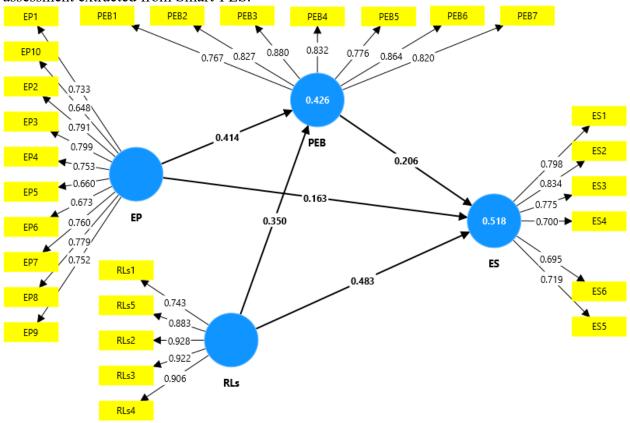


Figure 2: Measurement Model Assessment

Note: Environmental Passion (EP), Environmental Sustainability (ES), Pro-Environmental Behavior (PEB), Responsible Leadership (RLs)

#### **Discriminant Validity**

This section relates to the discriminant nature of variables and is assessed on the criteria of (Fornell & Larcker, 1981). The criteria for discriminant validity express the correlation value comparison; the square root of AVE must be higher than other correlational values. The intersectional values of

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same construct should be higher than correlational values with other variables for acceptable discriminant validity. Table 3 below presents the discriminant validity.

Table 3

Constructs	EP	ES	PEB	RLs
EP	0.737			
ES	0.500	0.755		
PEB	0.573	0.559	0.842	
RLs	0.453	0.667	0.538	0.879

Note: Environmental Passion (EP), Environmental Sustainability (ES), Pro-Environmental Behavior (PEB), Responsible Leadership (RLs)

The result in the above table demonstrates the acceptable discriminant validity. The diagonal values are required to be higher than the other correlational values of the same column. The acceptable discriminant validity verifies that this research is suitable for testing hypothesized relationships, as shown in Figure 1 research framework.

#### **Structural Equation Model (SEM)**

This section assists in investigating the hypothesized relationships. There are five direct hypotheses as shown in Figure 1 research framework as expressed in a subsequent section. The framework also presents the two mediating indirect hypotheses as well. The bootstrapping method of smart-PLS is utilized for hypothesis testing. The relationship is assessed on the basis of  $\beta$ -value, t-statistics and p-value. The  $\beta$  shows the strength and direction of the relationship, the t-value must be higher than a cutoff point of 1.96 with 5% error margin for an acceptable significance of the relationship (Sarstedt et al., 2014). Figure 3 demonstrates the SEM model extracted from PLS.

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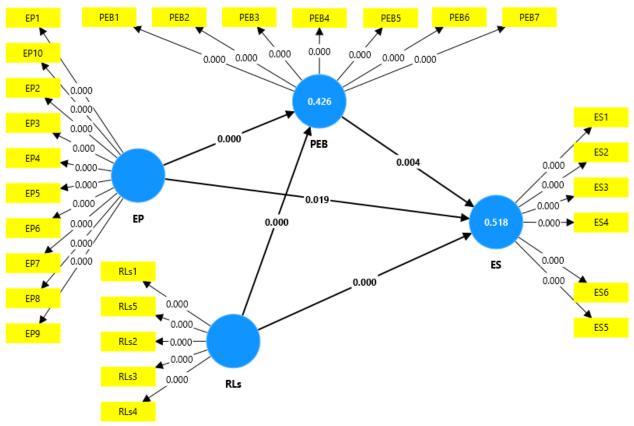


Figure 3: Structural Equation Model

Note: Environmental Passion (EP), Environmental Sustainability (ES), Pro-Environmental Behavior (PEB), Responsible Leadership (RLs)

#### **Direct hypothesis testing**

This section presents direct hypothesis testing.

Each direct hypothesis is investigated on the given criteria of significance. The t-value and the p-value is examined through the bootstrapping method. The result in Table 4 presents the direct relationship significance.

The first hypothesis relates to the assessment of the association between environmental passion and environmental sustainability. The researcher argued and developed the hypothesis on the basis of the literature review that the presence of environmental passion enables for attainment of environmental sustainability. The result in Table 4 shows that the first hypothesis is accepted, based on the  $\beta$  value, the t-value, and the p-value as reported in Table 4. That means the direct hypothesis H1 is accepted.

The second hypothesis relates to the assessment of the association between environmental passion and pro-environmental behavior. The researcher argued and developed the hypothesis on the basis of the literature review that the presence of environmental passion tends to depict pro-environmental behavior. The result in Table 4 shows that the second hypothesis is accepted, based on the  $\beta$  value, the t-value, and the p-value as reported in Table 4. That means the direct hypothesis H2 is accepted.

The third hypothesis relates to the assessment of the association between responsible leadership and environmental sustainability. The researcher argued and developed the hypothesis on the basis

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of the literature review that the presence of responsible leadership enables for attainment of environmental sustainability. The result in Table 4 shows that the third hypothesis is accepted, based significance criteria suggested by (Hair Jr et al., 2014). That means the direct hypothesis H3 is accepted.

The fourth hypothesis relates to the assessment of the association between responsible leadership and environmental sustainability. The researcher argued and developed the hypothesis on the basis of the literature review that the presence of responsible leadership predicts pro-environmental behavior. The result in Table 4 shows that the fourth hypothesis is accepted based on the  $\beta$  value, the t-value, and the p-value as reported in Table 4 below. That means the direct hypothesis H4 is accepted.

The fifth hypothesis relates to the assessment of the association between pro-environmental behavior and environmental sustainability. The researcher argued and developed the hypothesis on the basis of the literature review that the presence of pro-environmental behavior predicts environmental sustainability. The result in Table 4 shows that the fifth hypothesis is accepted, based on the  $\beta$  value, the t-value, and the p-value as reported. That means the direct hypothesis H5 is accepted.

Table 4

Hypotheses	β	t-stat	p-value	Remarks
EP→ES	0.163	2.345	0.019	Accepted
EP <b>→</b> PEB	0.414	6.166	0.000	Accepted
RLs→ES	0.483	8.584	0.000	Accepted
RLs→PEB	0.350	5.204	0.000	Accepted
PEB→ES	0.206	2.856	0.004	Accepted

Note: Environmental Passion (EP), Environmental Sustainability (ES), Pro-Environmental Behavior (PEB), Responsible Leadership (RLs)

#### **Mediating hypothesis testing**

The sixth hypothesis investigates the mediating effect of pro-environmental behavior between environmental passion and environmental sustainability. The researcher argues that the relationship between environmental passion and environmental sustainability tends to be mediated by pro-environmental behavior. The argument is based on the cause-and-effect relationship, which means environmental passion and environmental sustainability are carried out by pro-environmental behavior. This shows that pro-environmental behavior tends to establish the relationship between environmental passion and environmental sustainability. The result in Table 4 shows that the sixth hypothesis is accepted and significant based on the  $\beta$  value, the t-value, and the p-value as reported in Table 5. That means the direct hypothesis H6 is accepted. Table 2 (Mediating test)

Hypotheses	β	t-stat	p-value	Remarks
EP→PEB→ES	0.072	2.645	0.008	Accepted
RLs→PEB→ES	0.085	2.555	0.011	Accepted

Note: Environmental Passion (EP), Environmental Sustainability (ES), Pro-Environmental Behavior (PEB), Responsible Leadership (RLs)



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The seventh hypothesis investigates the mediating effect of pro-environmental behavior between responsible leadership and environmental sustainability. The researcher argues that the relationship between responsible leadership and environmental sustainability tends to be mediated by pro-environmental behavior. The argument is based on the cause-and-effect relationship, which means that responsible leadership and environmental sustainability are carried out by pro-environmental behavior. This shows that pro-environmental behavior tends to establish the relationship between responsible leadership and environmental sustainability. The results in Table 4 show that the seventh hypothesis is significant based on the  $\beta$  value, the t-value, and the p-value as reported. That means the direct hypothesis H7 is accepted.

#### **Conclusion**

This research effort has been made to address the burning issue of the environment, pollution, climate change, and global warming in the present turbulent business era. Currently, the world is facing crucial challenges and issues related to environmental damage due to business operations and various external factors. This study indicated the rising issues related to passion among the general public and employees working in the SME industry. The industrialists are reported as one significant element that is less concerned with the environment and more eager to maximize business returns. The leadership dilemma is another fact that is lacking who respond to changing environmental perspectives and take innovative initiatives, and depict a sense of responsibility. The Pro-environmental behavior is an essential element that must be present to ensure environmental performance among the SME sector. The researcher coined two constructs, namely environment passion and responsible leadership, to ensure environmental sustainability through the mediating effect of pro-environmental behavior. The simple random sampling technique was employed for data collection, and Smart-PLS was utilized for analysis. The study reported interesting findings that environmental passion has a tendency to predict sustainable performance and is useful for creating awareness about environmental issues. Therefore, it is required to conduct and spread information based on facts on how business operations in the SME sector cause huge damage to the environment and what corrective measures have to be taken in order to protect the environment. The findings of this research paper reported that environmental passion is necessary, responsible leadership should be in place, and Pro-environmental behavior is required to be developed among employees to achieve environmental sustainability. The importance of proenvironmental behavior is evident as it significantly mediated the relationship between environmental passion, responsible leadership and environmental sustainability.

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