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Sustainable Leadership: The Key to Driving Long-term Business Performance

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Abstract

This research evaluates the influence of sustainable leadership on organizational learning and sustainable performance, with psychological empowerment acting as a moderating element. The research uses a Resource-Based View (RBV), Dynamic Capability Theory, and the Job Demands-Resources (JD-R) Model to show how leadership builds learning cultures that help businesses overcome sustainability difficulties. The research data demonstrates that sustainable leadership positively affects organizational learning. Leaders are dedicated to sustainable environments that prioritize knowledge development. Organizational learning creates substantial enhancements in sustainable performance because companies dedicated to uninterrupted learning produce better sustainability results in the long run. The association between sustainable leadership and sustainable performance runs through organizational learning, so leadership indirectly improves performance by boosting learning functions. Psychological empowerment is an essential moderator demonstrating that sustainable performance benefits from organizational learning to a greater extent when employees experience autonomy and appreciation in their work environment. Organizations must create leadership approaches that combine learning development with empowerment rights and sustainability principles to boost their extended performance achievements. The study provides new empirical findings that explain the joint impact of leadership, learning, and empowerment in sustainable management practice. It provides actionable outcomes to business operations and government decision-makers alongside sustainability experts. It demonstrates how sustainable leadership must be supported with knowledge-sharing practices to empower teams that seek SDG completion and future business excellence.

Keywords: Sustainable Leadership, Organizational Learning, Sustainable Performance, Psychological Empowerment, Business Sustainability.

Introduction

The worldwide issue of climate change has developed into an urgent matter that affects both business operations and economic systems. In 2017 alone, extreme conditions and astounding climate misfortune accounted for around $ 306.2 billion to the U.S. National Centers for Environmental Information (Smith, 2018). Data from 2017 and 2018 indicate the rising intensity of climate change that requires businesses to establish effective solutions to reduce its negative impact (Hallinger & Suriyankietkaew, 2018). The Future of Sustainable Business report by Business for Social Responsibility (BSR) shows how climate change affects global businesses; therefore, organizations must implement sustainable practices during operations (James, 2017). Several organizations have shifted from traditional business models toward sustainable solutions to their present-day environmental problems. Using sustainable leadership, organizations can achieve resilience and responsible behaviors while delivering enduring profitability (Boiral et al., 2014). The United Nations established the Sustainable

Development Goals (SDGs) to steer businesses in their industry-independent global transition while promoting sustainable economic and social practices (Biermann et al., 2017). Organizations must sustain their profitability while protecting resources in present operations because today's consumption should not diminish what future generations need (Iqbal, Ahmad, Nasim, & Khan, 2020). Multiple stakeholders, like governments, non-governmental organizations, and public audiences, now expect businesses to practice responsible conduct because of the increased focus on sustainability (Smith & Ramirez, 2012). Corporate sustainability flourishes under sustainable leadership due to its ability to incorporate environmental, social and economic factors throughout decision-making systems (Metcalf & Benn, 2013). As an alpha leadership approach, sustainable leadership focuses on enduring business outcomes and superior stakeholder well-being (Shriberg & MacDonald, 2013). Sustainable leaders advance value-driven governance by championing social accountability and moral working conditions while pursuing employee welfare excellence because these essentials enhance sustainable business outcomes (Avery & Bergsteiner, 2011). Sustainable leadership encourages capacity development that enhances business resilience through the constant achievement of SDGs, according to Hallinger and Suriyankietkaew (2018). The double bottom-line framework includes economic, social, and environmental sustainability, and this leadership approach supports this structure. Research and implementation efforts regarding sustainable leadership remain at an initial stage, thus requiring additional studies to understand the effects of sustainability on business performance (Burawat, 2019). Through extensive research, Burawat (2019) established that scientists should investigate intermediary elements combined with regulatory components that strengthen the effects of sustainable leadership on business performance. Sustainable leadership enables organizations to learn better because this function drives the development of adaptive and innovative business strategies (Al-Zawahreh et al., 2019). Learning organizations develop sustainable decision-making through collaborative activities supported by systematic thinking and continuous innovation processes (Liao et al., 2017). The ability of organizations to learn effectively serves as their main tool for obtaining sustainable competitive advantage in response to changing environmental, social, and economic challenges (Hosseini et al., 2020). Organizations that learn effectively make better sustainability adaptations by implementing strong policies and improved structures (Naudé, 2012). Higher organizational learning orientation improves the capability for adopting sustainability principles across operations. Burawat (2019) guides this research that examines organizational learning's role in establishing a connection between sustainable leadership and business performance evaluation. This study utilizes the Job Demands-Resources (JD-R) model to evaluate how psychological empowerment affects the connection between sustainable leadership and business performance (Chen et al., 2019). Therefore, based on such interactions, the present study intends to contribute to developing knowledge about sustainable leadership and offer valuable recommendations for businesses seeking long-term success.

Literature Review

Responsible leadership is fundamental in business organization circles, handling responsible, ethical, and sustainable business solutions. Many authors have analyzed how leadership activities affect performance sustainability, emphasizing knowledge update, innovative activity and flexibility in business sustainability (Udin, 2024; Zada et al., 2024). This literature review aims to synthesize the current literature on the concept of sustainable leadership, the change it brings to organizational sustainability, and the characteristics that affect the effectiveness of the concept.

Leadership Styles and Sustainable Performance

It is now widely recognized that various forms of leadership are very instrumental in the

process that leads to the creation of sustainability in an organization. According to Udin (2024), it is correct that transformational and servant leadership affect long-term organizational sustainability through innovation, employee engagement, and ethicality. According to the study by Suriyankietkaew (2023), leadership factors, including vision, ethical compass, and communication with stakeholders, improve business sustainability when brought into practice, especially in entrepreneurial companies. From these works of literature, it can be deduced that leadership characteristics that emphasize corporate social responsibility and sustainable business value impact business resilience. In addition, the current literature established by Zada et al. (2024) states that sustainable leadership impacts the project's performance. In their study, knowledge integration is a moderator between leadership and project success and top management knowledge values. This implies that organizations with leaders who give direction towards availing of knowledge-sharing and learning activities will likely excel in making sustainability goals.

Sustainable Leadership Practices in SMEs and Large Organizations

Thus, whether sustainable leadership applies only to big businesses or can be implemented in SMEs is clear; SMEs will benefit from sustainability strategies. K. Suriyankietkaew, J. K. K. Krittayaruangroj and S. Iamsawan explored the effects of sustainable leadership in SMEs, a particular type of business that is community-based social enterprises, specify that sustainable leadership of resilience, innovation and environmental consciousness is effective. In line with this, Achmad and Wiratmadja (2024) relate sustainable leadership with frugal innovation and dynamic capabilities in enhancing performance outcomes in SMEs. Their study reveals that cost leadership and innovation by the leaders create a more endurable environment in resource-scarce contexts. Nonetheless, larger organizations concentrate their sustainability through corporate social responsibility (CSR) and digitalization. GĂRDAN, GĂRDAN, and ȚICĂU (2022) believed that sustainable awareness of managers leads to sustainable leadership, innovation and competitive performance. They establish that it is related to companies with effective sustainability leadership structures adapting better to the lower level of innovation exhibits and have better, longer-term outcomes.

Knowledge Management and Organizational Learning

It will be seen that sustainable leadership is associated with knowledge management and organizational learning. Iqbal, Ahmad, and Halim (2020) have discussed the impact of leadership in establishing sustainable performance for ASEAN countries, particularly emphasizing creating an organizational learning culture. Decision makers' environmental awareness within sustainable organizations in knowledge management is advantageous to cope with environmental pressures and the business environment's instabilities. Moreover, along the same lines, Osibo (2024) agrees with the importance of leadership in decision-making, where sustainable leaders have the responsibility of managing the existing business environment and creating an organizational culture of innovation and ethical conduct. The article by Jayashree, El Barachi, and Hamza (2022) underlines the multi-stakeholder approach to identify the need for sustainability leadership and the effective involvement of all key players in the process to guarantee the company's future sustainability.

The Role of Green Innovation and Organizational Culture

Shafait and Huang (2024) explore the relationship between sustainable leadership and green innovation and establish that firms with C-level support for sustainability initiatives receive deeper green knowledge sharing and learning. Their study also discovers that green innovation mediates between sustainable leadership and organizational performance. Finally, Zavatin et al. (2023) assess the role of organizational cultures, information technology, and knowledge management in sustainable leadership. Their research indicates a positive correlation between IT digital initiatives and sustainability leadership, which leads to the company gaining a

competitive advantage. This will corroborate the idea that technology adoption can contribute to innovation in sustainable strategies in both conventional and modern forms of commerce.

Challenges and Future Directions

However, several challenges have been formed despite the overall increased appreciation of sustainable leadership. Murphy's article (2022) highlights and explains the importance of vision, courage, and resilience as key aspects of leadership in sustainability transformations within organizations operating in uncertain regulatory and environmental contexts of industries. Similarly, Sajjad, Eweje, and Raziq (2024) wrote an integrative review on sustainability leadership and urged for more empirical investigation to enhance the theory and investigate the industry-specific issues. This is a suggestion that future studies should look into the application of sustainable leadership in digital business environments, especially in higher learning institutions, as pointed out by Liao (2022) and Gao and Tsai (2024). Since education facilities are training tomorrow's leaders, they are a good example of sustainability, leadership, and future business success.

Theoretical Foundations: RBV, Dynamic Capability Theory, and JD-R Model

According to Barney and Clark (1994) and Barney (1991), RBV posits that resources are valuable, rare, and inimitable and may be a source of firms' sustained competitive capabilities. Leadership has been deemed one of the most important human capital assets, and sustained leaders build up organizational performance and, at the same time, do not drain resources (Hargreaves & Fink, 2012). Sustainable leadership creates more opportunities for innovation and increases stakeholders' motivation and commitment to achieving the company's long-term goals and taking care of the environment (Suriyankietkaew, 2023). They, therefore, ensure that human capital is utilized to enhance the firm's social and ecological responsibility towards sustainable business performance for competitiveness. In further elaborating RBV, Dynamic Capability relates to how firms alter and modify resources depending on certain environments and conditions (Teece et al., 1997). Organizational learning as a dynamic capability focuses on knowledge creation and integration to improve sustainable performance (GĂRDAN et al., 2022). Adaptability, innovativeness, and incorporation of sustainability into organizational markets lead to sustainability and competitiveness in business organizations (Zavatin et al., 2023). Organizational dynamic capabilities enable an organization to quickly adapt resources to meet the dynamic stakeholders' needs or address environmental issues (Chien & Tsai, 2012). Dynamic capabilities refer to the ability to acquire, store, and utilize knowledge, which creates opportunities for formulating effective sustainability strategies that correspond to the dynamic nature of the market environment. According to the JD-R Model, leadership and knowledge integration are resources, while market complexity and sustainability challenges are demands (Demerouti et al., 2001). Thus, psychological empowerment as an internal job resource helps to match the goals of an employee's personal development and corporate sustainability, encouraging creativity and knowledge acquisition (Iqbal & Piwowar-Sulej, 2022). The job demands bring about cognitive psychological demands for the organizational leaders to empower the employees and motivate them to engage in learning (Schaufeli and Taris, 2014). The following is a detailed description of how empowered employees achieve sustainable development by practicing sustainability within working environments. Previous findings by Seibert and his colleagues note that organizations with sustainable leaders who promote psychological empowerment exhibit satisfying organizational performance, innovation, and sustainable motivation (Seibert et al., 2011). The blend of these three theories gives a comprehensive guideline of how sustainable leadership can foster long-term organizational performance. RBV shows that sustainable leadership is a valuable organizational asset. At the same time, the Dynamic Capability Theory describes the process of how an organization acquires the capability of sustaining initiatives and transforming resources to accomplish sustainability objectives. The JD-R Model depicts the impact of job resources on uplifting

employee commitment and productivity in environments that focus on sustainability.

Hypotheses Development

Sustainable Leadership and Organizational Learning

It has been seen that leadership is an important part that helps manage employee behavior and facilitate organizational change (Zhou et al., 2015). Other positive attributes, including inclusive leadership, trust and behavioral integrity, are known to promote the learning environment, reduce precaution to errors and encourage participation in implementing quality improvement measures (Hirak et al., 2012). For this reason, leaders encourage organizational learning by creating awareness of organizational goals, encouraging communication and endowment of knowledge and skills (Ruggieri & Abbate, 2013). When culture is combined with clear lines of communication, an organization is better placed for learning (Seddighi & Mathew, 2020). Sustainable leaders foster a safe workplace culture, which is critical for sharing information and knowledge (LeRoy, 2012). A safe work environment fosters greater learning and collaboration. Similarly, other factors include common values in knowledge sharing and the need to share knowledge (Keyes & Benavides, 2018). Therefore, organizations that promote knowledge-sharing contribute to improved employee proficiency, erudition, and proficiency (Yin et al., 2019). Kantabutra and Avery (2013) further categorized sustainable leadership into the following key elements: innovation, people development, long-term planning, integrity, culture, and sustainability and society. Also, sustainable leaders define the organization because they effectively communicate the visions and goals needed to complete the projects (Sharma & Lenka, 2019). Besides, they enable knowledge-sharing behavior by giving vision-driven information, feedback, and innovative ideas (Park & Kim, 2018). Therefore, the following hypothesis would be developed:

H1: Sustainable leadership affects the level of learning within the organization.

Organizational Learning and Sustainable Performance

As stated earlier, learning is a critical activity that enables organizations to deal with change in the current business environment effectively. Thus, learning capabilities define the studied organization’s propensity to adapt to the contemporary market environment. Also, it ensures the increase of better experience and repeated actions of the firms, which in turn optimizes operation efficiency (Gunsel et al., 2011). Organizational learning empowers firms to enhance management practice through opportunities in the environment and collect ideas from the external environment (Salas-Vallina et al., 2017). Smith and Suresh (2014) observe that improved decision quality concerning financial and strategic fields directly implies improved learning. Moreover, the current study establishes that organizational learning also leads to extra-role performance of employees while other work attitudes are based on responsibility and pro-activity (Salas-Vallina et al., 2017). Organizational learning is dynamic since it enhances the firm’s capacity to sense new opportunities, pursue new opportunities, and adapt to market changes (Santos et al., 2020, p. 357). Dynamic capability theory points to learning being a way by which organizations deliver strategic flexibility and positioning, which improves financial, market, and customer-related performance (Santos-Vijande, Navas, and Reyes-González, 2012). As activities involving learning benefit long-term better performance, organizational learning is valuable for the consecration of these results (Hosseini et al., 2020). Thus, the study led to the development of the following hypothesis:

H2: Organizational learning has a positive impact on sustainable performance in organizations.

Organizational Learning as a Mediator

In this case, leadership requires employees to participate in their training and Condition themselves to solve organizational issues (Chang et al., 2011). Leadership practices affect employees' perceptions of an organization's commitment to sustainable development (Macke & Genari, 2019). Hence, leadership supplemented with learning helps enhance organizational performance (Dumdum et al., 2013). It is important to identify that psychological safety is one

of the core components enabling the creation of a learning organization (Lyman et al., 2017). As the researchers suggest, leadership support and psychological climate lead to a stimulating, engendering psychological climate that leads to positive workplace outcomes (Newman et al., 2017). Policies such as team building, motivation and change empower organizational learning to exploit sustainability opportunities (Hsiao & Chang, 2011). Furthermore, on the same note of kindness, compassion leads to learning, with the upshot being that the firm's performance will be enhanced (Guinot et al., 2020). On the same note, employee training can also be viewed as another mechanism that underlines the concept of organizational learning for better performance, as proposed by (Milhem et al., 2014). Where sustainable leadership is applied through knowledge sharing, respect for long-term employment, creativity, and innovation, organizations show increased learning in their culture and higher organizational citizenship behavior (Kim & Park, 2019). Therefore, the hypothesis that can be postulated based on the given understanding is as follows:

H3: Sustainable leadership impacts sustainable performance mediated by organizational learning.

Psychological Empowerment as a Moderator

Knowledge management and its application are very important factors for any society in the quest for development in the contemporary world (Smith & Ramirez, 2012). Since organizational learning is important in achieving a competitive advantage in sustainability (Zhou et al., 2015), the present study aims to discover its boundary conditions. It has been recognized that extra-role behaviors of employees play a critical role in the success of learning organizations (Eldor and Harpaz 2016). This can make or break knowledge sharing or may enhance the sharing of knowledge between employees, colleagues, supervisors or stakeholders (Van & Nafukho, 2019). Lack of interpersonal and poor interaction can hinder knowledge sharing (Rosendaal & Bijlsma-Frankema, 2015). Due to the cognitive effort as a result of learning being required from the employees, job stress and cognitive overload result (Messmann et al., 2017). According to them, based on the ‘‘Job Demands Resources’’ theory, high job demand can lead to exhaustion if not serviced by adequate resources (Demerouti & Bakker, 2011). Huang et al. (2010) state that psychological, physical, organizational, and social job resources lead to employee attitudes and engagement, as noted by Schaufeli and Taris (2014). As mentioned earlier, psychological empowerment is an important job resource because this sub-element ensures motivation and calls for self- and organizational control over certain workplace aspects (Witt, 2017). Spreitzer (1995) defines self-efficacy as employees' perception of their jobs' significance and their belief that they can change the context of their work. Organizational learning positively relates to extra-role behavior, and psychological empowerment matches this parameter (Messmann et al., 2017). Judging by the JD-R theory, this research assumes a moderate relationship exists between the conceptual framework constructs; more specifically, this research posits that psychological empowerment amplifies the relationship between organizational learning and sustainable performance. Thus, the hypothesis is as follows:

H4a: Psychological empowerment positively interacts with the relationship between organizational learning and sustainable performance, and the slope is higher when the level of psychological empowerment is high.

The Moderated-Mediating Effect of Psychological Empowerment

Leaders oriented towards sustainability are concerned with capacity enhancement, the long-term perspective, strategies, and promoting sustainable development (Peterlin et al., 2015). From various studies, it can be deduced that there exists a positive correlation between sustainable leadership and sustainable performance (Burawat 2019). Recruitment of management support, staff encouragement, and change provision encourages organizational learning, which maximizes various business opportunities available in organizations (Hsiao &

Chang, 2011). Sustainable leadership also encourages sharing knowledge and creativity, thus enhancing positive organizational citizenship behavior (Kim & Park, 2019). In the JD-R model proposed by Demerouti et al., 2001, job resources interfere with the adverse impacts of job demands to enhance positive work outcomes. Since psychological empowerment can be considered a job resource, it works as a multiplier of organizational learning and, thereby, improves sustainable performance. This implies that when psychological empowerment is high, the effect of sustainable leadership on sustainable performance will be enhanced through mediation by organizational learning. Another type of mediation is moderated mediation, which means that the strength of the indirect effect depends on another factor described by Preacher et al. (2007). This is a condition whereby the mediator (organizational learning) and the dependent variable (sustainable performance) are affected by a moderating factor, which is psychological empowerment (Morgan-Lopez & Mackinnon, 2006). Therefore, the following hypothesis is formulated:

H4b: The moderating effect of psychological empowerment: When the level of psychological empowerment is high, sustainable leadership's indirect effect on sustainable performance through learning organizations is also strong.

Research Methodology

The impact of the manufacturing sector on the ASEAN region's economy is highly correlated with carbon dioxide emissions in both air and marine transport (Hara, 2018). Although ASEAN countries are focused on attaining sustainable development goals, their industries are mainly aligned to the manufacturing sector, thus challenging the quest for sustainable performance. Some of the challenges regional organizations face include the difficulties in adapting to a low-carbon society and the difficulties in integrating sustainable resource management into their operations (Anbumozhi, 2017). ASEAN has fourteen member countries divided into lower-middle-income groups, upper-middle-income groups, and high-income groups. Indonesia is classified as a lower-middle-income country, Malaysia is an upper-middle-income country, and Brunei Darussalam is a high-income country. The data for the study were collected from only small and medium enterprises (SMEs) in these three ASEAN countries, where the Muslim population dominates a major part. The gross categorization of SMEs differs from country to country due to differences in economic systems and business climates. SMEs in Malaysia comprise 98.5% of the total business in Malaysia by sectors, which include 0.1% in mining, 1.1% in agriculture, 4.3% in construction, 5.3%manufacturing and 89.2% in service industries. The SMEs in Malaysia are identified according to the size of human resources employed and the annual sales turnover. Likewise, in Brunei Darussalam, the total business in the country is classified into SMEs, which make up 98.37% of all enterprises, and they are divided into groups by the number of employees they have. SMEs in Indonesia, the country with the largest Muslim population in the world, are delineated based on the annual investment, sales turnover, and the number of employees. SMEs make up 99% of all the businesses. To obtain the data, the study selected the employees in managerial positions in SMEs in Brunei, Indonesia and Malaysia using the cluster sampling technique. A total of 900 questionnaires were dispensed by other faculty members in these cities. The number of completed and usable ones collected was 36. When then divided by the number of questionnaires administered, it gave a response rate of 41.0%. Descriptive and frequency analyses were performed individually with the help of the statistical software package SPSS. The gender distribution of the respondents was 35.23 % males and 64.77% females. Most (44.72%) fall within 29-36 years of age and have work experience between 1 and 5 years. The largest fraction of respondents originated from Malaysia (45.26%], and the respondents from Indonesia had the lowest proportion ([21.41%. The respondents' demographic information is as follows: Information about the respondents is presented in Table 1.

Analysis and Results

Demographic data table

Categorical Variable	Frequency	%	Valid %	Cumulative %
Gender				
Male	130	35.23	35.23	35.23
Female	239	64.77	64.77	100.00
Age				
21–28	143	38.75	38.75	38.75
29–36	165	44.72	44.72	83.47
37–44	33	8.94	8.94	92.42
45–52	28	7.59	7.59	100.00
Experience (years)				
<1	39	10.57	10.57	10.57
1–5	225	60.98	60.98	71.55
6–10	60	16.26	16.26	87.81
11–15	5	1.36	1.36	89.16
16–20	17	4.61	4.61	93.77
21–25	18	4.88	4.88	98.65
>25	5	1.36	1.36	100.00
Country				
Malaysia	167	45.26	45.26	45.26
Pakistan	79	21.41	21.41	66.67
Indonesia	123	33.33	33.33	100.00

Table 1 is the distribution of the categorical data in frequency and percentage by gender, age, and experience in years, and country. Regarding the gender distribution of the respondents, 64.77% were females (239 people), and 35.23% were males (130 people). The given age groups are 21-28 (38.75%) and 29-36 (44.72%), accounting for 83 % of the sample population. When it comes to working experience, 60.98% of the respondents have identified as having 1–5 years of experience, and only 1.36% of the respondents have more than 25 years of experience. The majority (45.26%) of the samples are from Malaysia, followed by Indonesia 33.33% and the remaining 21.41% from Pakistan. The percentages by categories summed up similarly identify the distribution of a specific country, age, and number of years in a similar occupation to a young Malaysian workforce with limited experience.

Survey Design and Measurement Scales

The survey used in this research includes six parts: sustainable leadership, organization learning, sustainable performance, psychological empowerment and demographic data of the respondents. Due to their usability, Likert-type scales are widely used in the process of conducting research; AD Likert-type scales may have issues such as acquiescence bias, leading to a high response burden and, therefore, less accurate data quality (Revilla et al., 2014). Also, as depicted in this study, the increased response options in AD scales might deteriorate the reliability of the data collected (Robinson, 2018). Based on the survey questionnaires adopted from the prior studies of Cummins and Gullone (2000) and Revilla et al. (2014), a five (5) point Likert scale was used with response options ranging from strongly agree (5) to disagree (1). For this reason, this study used the 15-item sustainable leadership scale proposed by McCann and Holt (2010), which had a reliability of 0.93 (Al-Zawahreh et al., 2019). Sustainable performance was assessed based on fifteen items adapted from the study by Khan and Quaddus (2015). Organizational learning was measured using a four-item scale adapted from García-Morales et al. (2012). Lastly, three mechanisms of psychological empowerment were measured

based on Spreitzer's (1995) model, for which 12 items were developed for this study. The analysis of variance (ANOVA) test was used to compare the responses of the participants in the three countries, Pakistan, Indonesia and Malaysia. Concerning the analysis of the participants' responses' accuracy and level of agreement, the results did not depict any significant differences between these two groups. Hence, no issue of response bias emerged from this study. The ANOVA test results are shown below in Table 2.

Table 2: ANOVA

Variables	Sum of Squares	df	Mean Square	F	Sig.
Sustainable Performance					
Between groups	0.815	3	0.272	1.706	0.165
Within groups	63.888	401	0.159		
Total	64.703	404			
Psychological Empowerment					
Between groups	2.049	3	0.683	1.218	0.051
Within groups	37.943	401	0.095		
Total	39.992	404			
Organizational Learning					
Between groups	6.377	3	2.126	1.274	0.059
Within groups	150.227	401	0.375		
Total	156.604	404			
Sustainable Leadership					
Between groups	9.112	3	3.037	1.247	0.052
Within groups	96.311	401	0.240		
Total	105.424	404			

Note: ANOVA = Analysis of Variance.

When pre-collecting data, specifically in the context of recent survey implementation research, strict data cleaning is crucial to achieve data accuracy. Missing data, outliers, normality and CMV must be dealt with since they have a negative impact on the overall statistical analysis. Forcing respondents to make selections in an online survey also eliminates the problem of blank entries, even though it may be more invasive for the respondents (DeSimone and Harms, 2017). Techniques like standardized residual or other methods of robust regression help prevent or control the influence of outliers (DeSimone & Harms, 2017). Usually considered by skewness and kurtosis coefficients, normality testing should be backed by graphs such as the Q-Q plots, especially for large sample sizes that will make the test sensitive (DeSimone and Harms, 2017). When data are gathered from a single source, CMV poses a questionable threat, so it is possible to use procedural measures to address it; these may include anon, improving the scale and using different scale points. Furthermore, statistical methods comprising Harman's single-factor test or applying a common method factor in structural equation modeling assist in identifying and mitigating CMV (DeSimone and Harms, 2017). The current practices improve the quality of the collected data, increasing the reliability of any findings made.

Table 3: Descriptive Statistics:

Constructs	M	SD	Skewness	SE	Kurtosis	SE
Psychological Empowerment	3.185	0.448	0.102	0.168	0.198	0.334
Organizational Learning	3.017	0.637	0.044	0.168	0.210	0.334
Sustainable Leadership	3.022	0.422	0.075	0.121	0.210	0.334
Sustainable Performance	3.453	0.414	0.833	0.168	0.250	0.334

A 5-point Likert Scale has been employed in this study, and whereby in operation to categorize the mean values, a scale of 2.99 and below is considered low; 3.00-3.99 is moderate, while 4.00 and above is high. Table 3 shows a mean score of 3.017, which states that organizational learning is moderately practiced according to the participants' perceptions. Likewise, the mean values of psychological empowerment and sustainable leadership also lie within the moderate range, indicating that the employees know their existence in the workplace. In order to carry out structural analysis, the measurement model was assessed for reliability and validity. This entailed internal consistency, convergent validity, and discriminant validity. Thus, convergent validity is considered adequate if at least the AVE is higher than 0.5 and factor loading is more than 0.70. Standardized factor loadings between 0.50 and 0.70 are considered reasonable, whereas excluding items below 0.40 is advised. According to this criterion, one item related to sustainable leadership was removed because its loading values were equal to 0.39 and AVE, below the permissible levels. The results illustrated in Table 4 indicate that all the remaining factor loadings are higher than 0.70, while the AVE values of the constructs are also above the cutoff line, specifying that the convergent validity is acceptable. The Fornell-Larcker criterion was accepted to check the validity of the discriminant. From the tables, it is also evident that the AVE of each construct is greater than the correlation between constructs, suggesting that discriminant validity is sufficiently met. Table 5 rows also substantiate this understanding by affirming the conceptual discrete of each construct in the model.

Table 4: Validity of convergent

Construct	Item	Factor Loadings	AVE	CR
Sustainable Leadership	SL01	0.642	0.513	0.939
	SL02	0.467		
	SL03	0.853		
	SL04	0.701		
	SL05	0.747		
	SL06	0.777		
	SL07	0.691		
	SL08	0.591		
	SL09	0.671		
	SL10	0.713		
	SL11	0.886		
	SL12	0.672		
	SL13	0.803		
	SL14	0.756		
	SL15	0.671		
Organizational Learning	OL01	0.706	0.558	0.834
	OL02	0.839		

	OL03	0.674		
	OL04	0.759		
Psychological Empowerment	PE01	0.853	0.573	0.707
	PE02	0.779		
	PE03	0.891		
	PE04	0.691		
	PE05	0.669		
	PE06	0.701		
	PE07	0.777		
	PE08	0.678		
	PE09	0.678		
	PE10	0.667		
	PE11	0.773		
	PE12	0.876		
Sustainable Performance	Economic Performance	0.731	0.501	0.744
	Environmental Performance	0.605		
	Social Performance	0.763		
Economic Performance	EP01	0.762	0.597	0.881
	EP02	0.816		
	EP03	0.764		
	EP04	0.759		
	EP05	0.762		
Environmental Performance	EnP01	0.731	0.515	0.842
	EnP02	0.696		
	EnP03	0.766		
	EnP04	0.691		
	EnP05	0.703		
Social Performance	SoP01	0.751	0.537	0.852
	SoP02	0.702		
	SoP03	0.674		
	SoP04	0.713		
	SoP05	0.815		

Table 5: Fornell-Larcker Criterion

Constructs	1	2	3	4
Psychological Empowerment	0.756			
Organizational Learning	0.170	0.746		
Sustainable Leadership	0.160	0.543	0.716	
Sustainable Performance	0.166	0.381	0.704	0.707

In this study, the VIF was used to analyze multicollinearity. If the VIF value is above 5.0, it

indicates that the problem of multicollinearity is present. From the analysis done in Table 6, it is evident that all the independent variables in the study have a VIF of less than 5. Therefore, there is no problem with multicollinearity.

Table 6: VIF values

Variable	VIF Values
Psychological Empowerment	1.549
Psychological Safety	1.956
Sustainable Leadership	1.019

These values indicate that multicollinearity is not a concern, as all VIF values are below the threshold of 5.0.

Table 7: Hypothesis test

Hypotheses	β	SD	t-value	P	LLCI	ULCI
Sustainable leadership → Organizational learning	0.111	0.012	9.316	0.000	0.088	0.135
Organizational learning → Sustainable performance	0.430	0.148	2.890	0.004	0.137	0.723
Sustainable leadership → Organizational learning → Sustainable performance	0.047	0.007	5.581	0.000	0.033	0.062
Organizational learning × Psychological empowerment → Sustainable performance	0.021	0.004	4.683	0.000	0.012	0.030

The results in the table provide insights into the relationships between sustainable leadership, organizational learning, psychological empowerment, and sustainable performance. The first hypothesis, which seeks to establish the effect of sustainable leadership on organizational learning performance, receives a significant positive coefficient. (β=0.111, t=9.316, p <0.001) which reveals that sustainable leadership practices promote the teaching culture in the organization. The second hypothesis, testing the influence of organizational learning ability on the sustainable improvement of business performance, was also supported when positive coefficients with statistically significant values were obtained. (β=0.430, t=2.890, p=0.004) The analysis showed that learning orientation was a significant predictor of sustainable performance, with a probability value of 0.004, proving the hypothesis that orientation toward learning produces maximum sustainable organizational performance. Moreover, the moderation roles of organizational learning in the relationship between sustainability leaders and sustainable performance are also supported. (β=0.047, t=5.581, p<0.001) indicating that sustainable leadership indirectly impacts performance outcomes through learning. Finally, the results revealed a significant moderating effect of psychological empowerment in association with the relationship between organizational learning and sustainable performance. (β=0.021, t=4.683, p<0.001) On the interaction between EM and OLSQ, the result reached a significant level of p<0.001, which suggested that under psychological empowerment, the relationship between OL and SP becomes more enhanced. It also attests to the significant parts of

leadership, learning culture, and empowering in organizational sustainability. In the case of hypothesis H4a concerning the relationship between the performance of sustenance and the aspects of learning with an interaction term of psychological empowerment, this study adopted a positive response holding that the impact of organizational learning on sustainable performance is more pronounced when there is high psychological empowerment of the employees. According to Table 7, the interaction between the psychological moderating variable of psychological empowerment and the predictor variable of organizational learning impacts sustainable performance. Therefore, a more positive relationship exists between organizational learning and sustainable performance, and high psychological empowerment supports H4a. In the case of moderated mediation, the amount of indirect effect is known by the type of measured moderation known as a conditional indirect effect. Therefore, the current study examines psychological empowerment as a moderator of the mediation model because the strength of the indirect influence of sustainable leadership on sustainable performance through OL is conditional on psychological empowerment. With the help of PROCESS Macro in SPSS, this study aimed to analyze the moderation-mediation effect. Low and high psychological empowerment was defined as one standard deviation below and above. Table 8 displays the estimates, standard error, and bootstrap confidence intervals for the conditional indirect effect when low, moderate, and high psychological empowerment are compared. Since the indirect effect of sustainable leadership on sustainable performance is still significant in all the values from 0.012 (low) to 0.022 (high), this gives credence to the H4b hypotheses.

Table 8: the conditional indirect effect analysis:

Moderator Value	Conditional Indirect Effect	SE	LLCI	ULCI
13.000	0.012	0.002	0.009	0.018
17.000	0.014	0.001	0.011	0.019
18.000	0.022	0.005	0.011	0.033

Note: The outcome variable is **sustainable performance**, with **organizational learning** as the mediator and **sustainable leadership** as the independent variable.
LLCI = lower-level confidence interval; ULCI = upper-level confidence interval.

Discussion

This paper offers a theoretical development by developing sustainable leadership, organizational learning, and psychological empowerment within sustainability and business performance. Hence, the paper outlines how leadership practices impact learning processes that lead to sustained outcomes using the resource-based view (RBV), dynamic capability theory and job demands-resources (JD-R) model. The findings show that sustainable leadership helps to nurture organizational learning that can improve sustainable performance in the organization, and psychological empowerment as a moderator of the relationship is evident. In this research, it is a novelty to extend the literature on leadership and sustainability by discussing the mediating role of learning and employee engagement. The results help validate the hypothesis that sustainable leadership has a positive impact on the level of organizational learning, as established by literature that establishes leadership as socializing a culture of learning and problem-solving within the organization (Leroy et al., 2018). Management

focusing on sustainability creates an organizational learning culture where employees promote learning-related behaviors that foster their performance in addressing environmental and organizational issues. Besides, according to the resource-based view, leadership-driven learning is a strategic organizational asset that ensures a competitive advantage to the organization regarding sustainable development. This study supports the organizational learning connection between sustainable performance knowledge acquisition and other internal learning processes as significant for increasing business sustainability. In line with Grant (2019), Birasnav's 2021 unconventional learning implementation aids organizations in becoming resilient to dynamic market conditions. Based on the literature, learning culture leads to better resource management, innovation and stakeholder engagement, all of which will help improve sustainable results. Hypothesis 3 is also supported by the mediation analysis, meaning that sustainable leadership positively affects the advancement of organizational learning as a source of performance enhancement, thus supporting the dynamic capability view. To clarify, when organizations incorporate leadership-driven learning practices within the concerted practices, those concerned organizations can respond to environmental and social threats and concerns more effectively Teece (2020). This is in line with past studies that considered learning as a moderator in various business environments and stressed that learning plays an important role in the improvement of the decision-making and strategic fit processes (Garavana et al., 2022). The mediating role is also significant and the results prove that when psychological empowerment is high, there is a higher correlation between learning and sustainability. When people perceive gratification fulfillment, they can contribute effectively to learning processes and the utilization of knowledge (Deci & Ryan, 2017). This is supported by research indicating that there is a positive relationship between employees' empowerment and job performance and commitment, whereby organizations that embrace sustainability performance improvement initiatives (Amundsen & Martinsen, 2019). Therefore, this study contributes to the literature on sustainability by underlining the interdependence of leadership, learning, and empowerment as sources of sustainable work performance. For this reason, organizations are encouraged to adopt a leadership culture that acknowledges learning processes while allowing employees to employ sustainable measures in their practice.

Conclusion

This paper presents the research on sustainable leadership in relation to effective learning and its relationship with sustainable performance. It will also shed light on the moderator variable, psychological empowerment. Embedding ideas from a resource-based view (RBV), dynamic capability theory and job demands-resources (JD-R) model, the study emphasizes the importance of leadership-enabled learning processes for organizational sustainability management. Thus, the study further supports the argument that sustainable leadership enhances organizational learning and agrees that leaders who adopt sustainable approaches foster learning arrangements in their workplaces. Moreover, the findings reveal that organizational learning helps improve sustainable performance, supporting a sustainable business that continuously learns and can better adapt and reach sustainable development goals. The study also confirms the mediating role of organizational learning and clearly reveals how sustainable leadership boosts organizational learning processes to enhance sustainable performance. However, the study adds psychological empowerment as a moderating factor that enhances the correlation between this factor and sustainable organizational performance that results from organizational learning. In organizations that enhance the feeling of employees' self-competency, the individual will actively participate in learning processes and utilize the acquired know-how gainfully and for the long term in terms of organizational performance. This work significantly contributes to the sustainability literature by highlighting the relationship between leadership, learning and empowerment. It provides knowledge that organizations should develop long-term leadership strategies, encourage learning, and increase

employees' power to improve sustainability and business performance. These findings imply that they have several implications for practice in policy, business management, and the green economy.

Limitations of the study

Therefore, this study has the following limitations that are worthy of note: At the same time, the study is carried out exclusively within the field of view of SMEs in certain ASEAN countries, which can influence the applicability of results obtained during the study to large corporations or to doing businesses in other areas. This completes the current research, and future research should include more industries and geographical locations to increase generalizability. Secondly, it uses self-collected data, and thereby, the results may be influenced by social desirability bias or Common method bias. To address these concerns, procedural remedies were used, and future research could complement the method by using multiple data sources, for instance, performance data or supervisor ratings. Thirdly, the research methodology used in the study involves a cross-sectional design that examines relationships at a particular time. Therefore, it can only be suggested that a relationship exists between sustainable leadership, organizational learning and sustainable performance, but this relationship could not be quantified to prove causality. Research should involve longitudinal studies to determine the learning and sustainability effects of leadership in the long run. However, organizational factors, including organizational culture, the digital environment, and, if not, the regulatory environment, were not considered moderating variables. Future research may capitalize on other potential moderator or mediator variables that make the relationship stronger or weaker.

Future Research Recommendations

Hence, the following research recommendations need to be implemented:

- To improve generalisability, the sample size and its variability should be increased in size, type of firms, and geographical location.
- Construct validity may be increased through the use of objective and multiple sources of data, which minimize response bias and enhance measurement reliability.
- Use longitudinal or experimental methods to build the causal links between leadership, learning and sustainability.
- Consider other moderator or mediator variables, such as the level of technology adoption, employee engagement or CSR initiatives, to further enhance the understanding of sustainability drivers.
- Analyze the common sustainability issues across different sectors, with a special focus on industries more aligned with high environmental impacts, to offer effective solutions for companies in the process of transitioning towards sustainability.

Future research in the given areas would be useful for strengthening our understanding of the determinants of sustainability, learning, and leadership's role in enhancing organizational performance and sustainability.

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