The Mediating Effect of Leadership Style on the Relationship between Green Practices and Business Sustainability of Restaurants: A Triple Bottom Line Theory

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ABSTRACT

Business sustainability is challenged by various barriers affecting the enterprise' ability to ensure long-term economic viability, fostering resilience, and competitiveness. This study is a quantitative approach using descriptive-correlation and regression and conducted to determine the influence of green practices on business sustainability and the mediating role of a specific leadership style as well as the significance of their relationships in restaurant setting in Zamboanga City. There were 150 respondents from the various types of restaurants selected through purposive random sampling. The study found that the restaurants were implementing high levels of green practices and the longevity of the restaurant's operations reflected business sustainability is present. The study also found a strong relationship between green practices, business sustainability, and leadership style. The study concludes that there is evidence of the mediating effect of leadership style in partial mediation between green practices and business sustainability indicating the positive impact of green practices on business sustainability is partly influenced by the adoption of a specific leadership style.

Keywords: business management, business sustainability, green practices, homegrown restaurant, leadership style, Zamboanga City, Philippines

INTRODUCTION

Business sustainability is critical to entrepreneurs as it means the ability to ensure long-term economic viability, minimize environmental impact, and fulfill social responsibilities, thereby fostering resilience, competitiveness, and positive societal outcomes. Business sustainability is challenged by several factors in the modern age especially the impact of climate change and greenhouse gas emissions (Epstein & Buhovac, 2014). It is also affected by massive resource depletion and waste management challenges according to Rezaei et al. (2015). Another challenge in business sustainability is social inequality and labor practices. Rich economies turn to poor countries for cheap labor says Bansal (2005) as well as ethical business practices and governance issues as evidenced by business closure due to unethical practices as pointed out by Crane et al. (2014). On top of those are leadership issues of ensuring the business and the stakeholder are engagement with corporate social responsibility as posited by Freeman et al. (2010). These issues shed light on the significance of addressing climate change, resource depletion, social inequality, ethical practices, and stakeholder engagement for the enterprise to achieve business sustainability.

Business sustainability is critical to an enterprise in contemporary times as it means ensuring long-term profitability, committing to mitigate environmental risks and societal challenges, and creating value for both the company and its stakeholders. Jansson et al. (2017) pointed out that sustainability in business involves leadership commitment. The study pointed out the importance of market structures and entrepreneurial commitment to be geared towards business sustainability. Some authors posited that business sustainability can be achieved through the path of green practices according to Čekanavičius et al. (2014), Hollis (2018), and Spiliakos (2018). The study of Hami et al. (2014) indicated that due to the many challenges faced by enterprises, businesses must re-establish strategies by developing and implementing more integrated

sustainable practices. The need for these strategies is due to the setbacks faced by enterprises and more specifically, in the food industry, Kami and Ismail (2012) have pointed out the need for the Implementation of environmentally friendly practices which is weak in the restaurant sector.

The importance of business sustainability varies from one company to another due to the broad context of sustainability. A company needs to be environmentally aware as it means customer-centricity. It implies that when you are environmentally aware, you are considering the impact of your business actions on society on top of profitability (Maryville 2022). Externally, customers grew environmentally aware in their purchase of products thinking about the company's environmental impact (Martins 2022). It is due to sustainable change in the way people think globally which has given rise to the idea of sustainability. It has forced company to review how they conduct their operations. The growing concern for business sustainability and green practices among restaurants globally were not met with the same enthusiasm among restaurant operations. Restaurants were found to contribute large amounts of waste (Lee et al., 2019; Dahlan et al., 2022; Rabbi, 2022) as studied in Hong Kong, USA, and other key cities of the world. Another problem in business sustainability and green practices lies in the source of food and the non-use of sustainable raw materials (Halloran et al., 2014; Principato, 2018). The authors highlighted restaurants to address the issue at the beginning of raw material sourcing. The lack of implementation to address the many concerns is a leadership problem (de Freitas et al., 2017). Finally, the problem on the ignorance of managers and employees according to Elsayed (2018). The author posits that the lack of implementation is due to the lack of knowledge including the non-use of technology that would support green practice. Though some managers claimed to be informed and concerned about environmental issues, they are hesitant to invest and implement on environmental practices. Hence, lack of investing on environmental management systems and lack of implementing environmental practices are one of the issues in the restaurant sector. (Kami & Ismail 2012)

This study and its results will be understood significantly from the variables used such as the green practices of the restaurants as the independent variable. Business sustainability is the dependent variable that is believed needed in making decisions today that will assure future access to resources (Pavlou 2022). Leadership style will also be used to find evidence of its mediating effect initially provided in the literature. Thus, this study would like to determine the influence of green practices on business sustainability and the mediating role of a specific leadership style as well as the significance of their relationships in restaurant setting in Zamboanga City.

The gap found in the articles reviewed includes geographical gap where the study on business sustainability, green practices, and leadership style were found limited in Zamboanga City. Another gap determined in this study is the empirical gap on the implementation of triple bottom line (TPL) as a business sustainability framework applied to restaurants. Often, business sustainability in research refers to the economic performance of restaurants such as profitability, ROI, sales growth, business growth, expansion, and the like. Restaurants if there are, seldom measure business sustainability from social and environmental impact like performance on environmental degradation, waste contribution, and non-practise of green practices. Often restaurants only look at TPL as programs for implementation but seldom as a performance metric.

Chief Purpose

This study aimed to address the pressing challenges faced by businesses in achieving sustainability, especially in the restaurant sector in Zamboanga City, Philippines. Business sustainability, encompassing economic viability, environmental responsibility, and societal engagement, is hindered by various factors, including climate change, resource depletion, social inequality, and ethical governance issues. This research adopts a quantitative approach, utilizing descriptive-correlation and regression analyses, to investigate the impact of green practices on business sustainability. It also explores the mediating role of specific leadership styles in this context.

METHODS

This study will use quantitative approach specifically using descriptive correlational technique to assess the significant relationship between variables using statistical analysis. Descriptive correlational technique is a statistical method used to explore the relationship between variables. The correlation coefficient can range from -1 to +1, with a value of O indicating no correlation, a positive value indicating a positive correlation, and a negative value indicating a negative correlation. According to Creswell (2014), descriptive correlational technique is a research method used to describe the relationship between two or more variables without manipulating them. This technique is commonly used in the social sciences to explore the relationships between variables such as age, gender, income, and education as highlighted by Bhandari (2022).

In this study, the researcher will describe the relationship between green practices and business sustainability using descriptive correlational technique. Instead of attempting to infer cause and effect correlations, the goal of descriptive correlational research is to describe the relationship between two variables. In circumstances when the researcher has no control over the independent variables, the variables that are thought to cause or impact the dependent or outcome variable, descriptive correlational studies are helpful for describing how one occurrence is related to another as posited by Lappe (2000).

Moreover, it will also use regression analysis for the mediation technique to determine the mediating effect of leadership styles between the variable green practices and business sustainability. The mediating approach is a type of quantitative research that has a variable that connects the independent and dependent variables and whose existence explains the relationship between the other two variables which is known as a mediating variable according to Hefner (2022).

Research Locale. This study will be conducted in Zamboanga City as the fastest growing industry in the region is the restaurant industry according to the Department of Trade and Industry Zamboanga in 2022. Zamboanga City have identified the key issues in the city in terms of sustainability and these are solid waste management, water waste and disposal management Salazar (2021) One of the challenges faced by the Zamboanga City is the solid waste management and the lack of cooperation of garbage generators (OCENR) In addition, the growing waste pollution in Zamboanga City is contributed heavily by the restaurants according to the study of Lee (2013). Moreover, homegrown restaurants will be the setting of this study. All national food chains will be excluded in the study as the nature of strategic management is done at the headquarters of the restaurant and not in the local stores. The inclusion criteria for selecting restaurants is it should be operating for at least one year to be part of this study either fast food, casual dining or fine dining restaurant.

Research Respondents. The respondents of this study will be the employees of the homegrown restaurants operating in Zamboanga City. The total population of local restaurants was determined and provided by the City Government of Zamboanga provided based on the request of the researcher. The total population as of December, 2022 is 181 local restaurants registered which is the sampling frame of this study. The total population of restaurants excludes all national food chains operating in the City.

The study will employ purposive sampling to select respondents based on specific criteria or characteristics that will be relevant to the research question or objectives. According to Patton (2015), purposive sampling is the deliberate selection of individuals or group particular characteristics which are sought after because they are of particular relevance to the research being studied. The researcher will set an inclusion criteria when choosing the respondents of this study. The purpose of purposive sampling is to choose the respondents base on the specific characteristics and criteria that the researcher will be setting. The total population of restaurants in Zamboanga City is 181. Thus the number of respondents that will be used in

this study will be 150. The inclusion criteria in the selection of respondents would include the respondent must be a rank and file employee. If the respondent is a rank-and-file employee, they must have been connected with the restaurant for more than one year and must be willing to answer the questionnaire. The restaurant must have operated also for more than one year. All national food chains will be excluded in the study as the nature of strategic management is done at the headquarters of the restaurant and not in the local stores.

Research Instrument. This research study will be using adapted survey questionnaire in gathering data. The instrument appended is composed of four parts. The first part is the demographic profile which will descriptively measure the profile of the respondents. The second part is the Independent variable Green Practices with four domains including waste management, energy conservation, water conservation, food packaging and furniture. This part of the survey questionnaire was adapted from Cuevas et al. (2020).

The third part of the survey questionnaire is the dependent variable which is business sustainability with four domains including economic sustainability strategies, environmental sustainability strategies, social sustainability strategies, and business growth. This part of the survey questionnaire was adapted from the study of Nyamogosa and Obonyo (2022).

The fourth part of the survey questionnaire is the mediating variable leadership style with three domains including participative leadership, supportive leadership, and instrumental leadership. This part is adapted from the study of Kim and Hancer (2016). Since the adapted questionnaires were not provided with reliability index through Cronbach's alpha, the researcher will conduct a pilot study.

The survey questionnaire with 4 parts appended uses a 5-point Likert scale and for interpretation purposes, the matrix below will provide the researcher a guide scale and description. Before its implementation, reliability testing was done through 30 employees which resulted to a chronbach's alpha .825 which is deemed reliable.

Data Gathering Procedure. The data gathering procedure followed three critical processes including pre-collection, during the collection and post collection. The pre-collection stage of data gathering will include the approval of the study by the Dean of the graduate school, the approval of the research ethics committee to pursue the study. It will also include the preparation of the survey questionnaire and the sending of the request to participate in the study to the restaurant managers and owners. The researcher will be writing a letter to the owner of the restaurants to seek permission to conduct the study. During the data collection, the researcher secured the consent form from the targeted respondents and ensured that the form is signed indicating their approval to participate. The conduct of the data collection was done through face to face. When the letter is approved, the researcher then conducted the survey. The form will be distributed in 5 days then collected back. The researcher then gave thanks to the respondent through a simple token for taking part in the survey.

Statistical Tool. This study utilize some statistical tools for the data analysis. On the descriptive-correlational process, the researcher used frequency measures to determine the personal and organizational demographic profiles of the respondents. The personal demographic profiles provided information in terms of gender, educational background, years of employment, and citizenship. In terms of organizational demographic profile, frequency were determined in terms of number of years of operation, business sub-classifications, number of employees, size of the business, among others. The means of the variables measured specifically on the level of green practices and the level of business sustainability will be determined through the said measure of central tendency. This measure answered the research questions one and two on the levels of the independent and dependent variables and their respective domains measured. On the third research question specifically on the significance of the relationship, the researcher utilized the Pearson-r correlation and determined the significance of the relationship between green practice and

business sustainability as well as the significance of the relationship between leadership style and business sustainability. In this study, the regression analysis will be conducted through mediation analysis. This study will follow the Baron & Kenny (1986) steps and then bootstrapping for significance testing. The said authors hypothesized that Baron and Kenny a third variable – a mediator variable affects the direction of the relationship between an independent variable and an outcome. The researcher would like to determine the impact of leadership style between the IV and DV and determine if mediation is full or partial mediation. In addition, bootstrapping will be used to test the mediation effect.

Ethical Considerations

Every step of this study requires the researcher to consider ethical issues that may occur. Therefore, it is a requirement that one must follow the rules and regulations established by the academe. With that, this research paper will undergo review by the University of the Immaculate Conception Research Ethics Committee (UIC -REC) to assess the ethical considerations that needs to be applied in the study. By doing so, the study will be able to adhere to the institution's principles and core values, avoiding ethical conflicts. Preventative actions will be implemented to ensure that research ethical principles and research rights are respected. The study's ethical aspects will be addressed by the following measures. The respondents will be properly informed about the study's purpose and assured that their participation in answering the survey questionnaires is strictly voluntary; all sources of information used in the study by the researcher will be fully referenced; the survey questionnaires to be conducted will not contain any degrading or discriminatory language that could harm the respondents as well as the establishments; and all data gathered will be strictly confidential. To comply with the ethical standards set by the UIC-REC the researcher will abide to the ten 10 dimension of research ethics that include social value, informed consent, vulnerability issues, risk-benefit ratio, privacy and confidentiality of information, justice, transparency, qualification of the researcher, adequacy of facilities and community involvement.

Results

Table 1

Levels of Green Practices, Business Sustainability, and Leadership Style

Variables	Standard Deviation	Mean	Descriptive Level
Green Practices	.507	3.985	**High**
Energy Conservation	.615	3.993	High
Waste Management	.511	4.113	High
Water Conservation	.581	4.019	High
Food Packaging and Furniture	.658	3.815	High
Business Sustainability	.537	4.144	**High**
Economic Sustainability	.558	4.272	Very High
Environmental Sustainability	.729	4.011	High
Social Responsibility	.583	4.123	High
Business Growth	.588	4.172	High
Leadership Style	.695	4.319	**Very High**
Participative Leadership	.604	4.176	High
Supportive Leadership	.679	4.163	High
Instrumental Leadership	.677	4.331	Very High

The green practices of the restaurants in Zamboanga City are presented on table 1. The green practices are classified in terms of water conservation, energy conservation, sustainable food practices, and waste

reduction and recycling practices. The data shows that all variables were rated high such as Green Practices with a mean of 3.985 and standard deviation of .507 and Business Sustainability was rated with a mean of 4.144 and a standard deviation of .537. Moreover, Leadership style was rated highest among the three variables by the respondents with a rating of 4.319 or very high and a standard deviation of .695. The mean rating of 3.985 and the low standard deviation of 0.507. Based on the data, it implies that Zamboanga City are implementing green practices at a high level. This finding supports the findings of Chaturvedi et al. (2022) which found food establishments implementing green practices to ensure safety and customer satisfaction. A significant emphasis on water conservation, energy conservation, sustainable food practices, and waste reduction and recycling practices. This is aligned with the study by Cuevas et al. (2020) which highlighted the importance of conservation as the purpose of green practices. This indicates that the restaurants are actively taking steps to reduce their environmental impact and promote sustainability. In addition, the high rating of 4.144 for Business Sustainability, along with a low standard deviation of 0.537, indicates that the restaurants are also achieving a high level of sustainability in their operations. This suggests that their efforts in implementing green practices are translating into positive outcomes in terms of business sustainability.

Moreover, the result also has an implication on the respondents' rating of Leadership Style being the highest among the three variables. The mean was 4.319 and a standard deviation of 0.695, implies that the leadership within these restaurants is highly effective and influential. The high rating suggests that the leadership style adopted by the management is instrumental, participative, and supportive, as mentioned earlier. This leadership style is likely contributing to the successful implementation of green practices and the overall business sustainability. The study of Jony et al. (2019) although not in food business emphasizes that leadership styles drive the enterprise to achieve its goals and that it is a driving factor that impacts organizational performance even business sustainability. The domains of each variable were also rated with high levels.

Green Practices. The domains of Green Practices were all rated by the respondents high including energy conservation with a mean of 3.993 and a standard deviation of .615. Waste Management was rated the highest among the domains of Green Practices has a mean of 4.113 and a standard deviation of .511. Water conservation has a mean of 4.019 while food packaging and furniture was rated the lowest with a mean of 3.815. Their standard deviations are .581 and .658 respectively. Based on the results provided, it implies that the specific domains of the Green Practices were rated at high levels by the respondents. This finding confirms the findings of the study by Nicolau et al. (2020). The authors posited that the purpose in conservation in green practices is found in enterprises as it aims to achieve a level of business sustainability. In addition, on Energy Conservation, the mean rating of 3.993 and a standard deviation of 0.615 suggest that the restaurants in Zamboanga City are actively implementing measures to conserve energy. The low standard deviation indicates a relatively consistent level of energy conservation practices across the restaurants.

Moreover, the Waste Management domain among the domains of Green Practices, received the highest rating with a mean of 4.113 and a standard deviation of 0.511. This indicates that the restaurants are particularly focused on managing waste effectively, which may involve practices such as recycling, composting, or reducing overall waste generation. Similarly, Water Conservation was also rated high with a mean rating of 4.019 which suggests that water conservation practices were also given high importance by the restaurants. The relatively low standard deviation of 0.581 indicates a consistent emphasis on water conservation across the establishments. This particular finding supports the study of Cuevas et al. (2020) in Laguna that employees demonstrate green practices through water conservation in restaurant setting.

Finally, the Food Packaging and Furniture domain received the lowest mean rating of 3.815. This result suggests that the restaurants may have relatively lower levels of emphasis on sustainable practices related to food packaging and furniture. The higher standard deviation of 0.658 implies that there might be more variability in the extent to which restaurants prioritize sustainability in these specific areas. Aligned with the

study of Shin and Cho (2022) similarly in a restaurant setting, the enterprises were found to achieve environmental performance through sustainable food practices like food packaging among others as a sustainable practice.

Business Sustainability. The domains of business sustainability were all rated high with economic sustainability rated very high by the respondents with a mean of 4.272 and a standard deviation of .558. The means of business growth, social responsibility, and environmental sustainability are 4.172 (σ=.588), 4.123 (σ=.583), and 4.011 (σ=.729) respectively. Based on the results provided, it implies that the different domains of Business Sustainability were rated at high levels by the respondents.

The rating of the domain – Economic Sustainability was very high, with a mean of 4.272 and a standard deviation of 0.558 which suggests that the restaurants in Zamboanga City prioritize economic sustainability. This indicates that they are focused on ensuring the long-term financial viability and profitability of their businesses. In like manner, Business Growth was also rated high with a mean rating of 4.172 and a standard deviation of 0.588 which indicates that the restaurants also place a high emphasis on business growth. It also implies that the restaurants are actively pursuing strategies and initiatives to expand their operations and achieve sustainable growth. Business growth according to Jang and Lee (2020) is the primary economic reason for implementing restaurant programs including the use of new technology, innovations, safety practices, and green practices, among many others.

On the domain, Social Responsibility, the mean rating is 4.123 and a standard deviation of 0.583 which suggests that the restaurants recognize the importance of social responsibility. This indicates that they are committed to engaging in activities that benefit the local community, employees, and other stakeholders, beyond just their economic interests. Similarly rated high is the domain Environmental Sustainability. The mean rating of 4.011 and a higher standard deviation of 0.729 suggests that while environmental sustainability is still considered important, it might be rated slightly lower compared to the other domains. However, the high mean score indicates that the restaurants in Zamboanga City still recognize the significance of minimizing their environmental impact and implementing sustainable practices. The purpose of environmental protection is to be socially responsible posits Hami et al. (2014). Thus, the earlier finding supports the said study. The finding also supports the study of Meija (2020) highlighting the importance of social sustainability strategies to remain socially relevant.

The high ratings across the domains of Business Sustainability indicate that the restaurants are committed to various aspects of sustainability. Economic sustainability and business growth appear to be particularly prioritized, followed by social responsibility and environmental sustainability. This suggests that the restaurants in Zamboanga City are striving for a well-rounded approach to sustainability, considering economic, social, and environmental factors in their operations.

Leadership Style. The domains of leadership style were also rated high with instrumental leadership rated very high by the respondents with a mean of 4.311 and a standard deviation of .667. Meanwhile, the other domains participative leadership was rated with a mean of 4.176 with a standard deviation of .604 and supportive leadership with a mean of 4.163 and a standard deviation of .679. The details of the indicators are provided on Appendix F. Based on the data provided on table 1, it implies that the different domains of Leadership Style were rated at high levels by the respondents.

The domain – Instrumental Leadership was rated very high with a mean of 4.311 and a standard deviation of 0.667. It connotes that the respondents perceive this leadership style of managers to be highly prevalent and valued in the restaurants. Instrumental leadership is characterized by a focus on achieving specific goals and driving performance. Instrumental leadership was found earlier in the study by Adda et al. (2020) in a government setting to cause high levels of employee performance. Instrumental leaders, as revealed in the said study never reprimand the employees publicly nor condemn their staff. They give advice and still

deliver results. The domain Participative Leadership has a high rating with a rating of 4.176 and a standard deviation of 0.604 which indicates that participative leadership is also highly rated by the respondents. This connotes that the restaurants in Zamboanga City involve employees in decision-making processes, value their input, and promote a collaborative work environment. Similarly, Supportive Leadership was rated high with a mean rating of 4.163 and a standard deviation of 0.679 which suggests that supportive leadership is considered important by the respondents. Supportive leaders create a positive and nurturing work environment, provide assistance to employees, and guidance that promote the well-being and growth of the employees.

Thus, the high ratings across the domains of Leadership Style indicate that the respondents perceive the leadership within the restaurants to be effective and supportive. Instrumental leadership, which focuses on achieving goals, is highly valued. Participative leadership, which involves employees in decision-making, and supportive leadership, which creates a positive work environment, are also considered important. The specific indicators for each domain of leadership style can be referred to in Appendix F for further details on how the respondents perceive and evaluate each aspect of leadership style within the restaurants.

Relationship between Leadership Style and Green Practices. In terms of leadership style and green practices, the correlation coefficient between Leadership Style and Green Practices is positive 0.51. The positive correlation implies a moderate relationship between Leadership Style and Green Practices. In some studies, leadership style was found to cause green practices and business sustainability as in the case of the study by Milhoff and Rowold (2020) and Adda et al. (2022). In addition, a coefficient of 0.51 indicates that there is a tendency for higher levels of Leadership Style to be associated with higher levels of Green Practices. Moreover, the p-value of 0.000 (significance level < 0.05) indicates that this correlation is statistically significant. The data provided on table 2 provides three important implications.

First, on the Positive Relationship between Leadership Style and Green Practices. The correlation coefficient of 0.51 between Leadership Style and Green Practices indicates a moderate positive relationship between these two variables. This implies that there might be a causal relationship described as the level of Leadership Style increases, there is a tendency for higher levels of Green Practices to be implemented in the restaurants. This suggests that the leadership style adopted by the management has an influence on the implementation of sustainable practices. It implies that effective leadership plays a crucial role in promoting and encouraging environmentally friendly initiatives within the restaurants. More specifically, the study by Garcia et al. (2020) focused on supportive leadership among restaurant managers in various forms of implementation practices such as stakeholder engagement, environmental responsibility, morality in the workplace, and social responsibility, among others. Thus, the finding of the study on leadership style also supports the findings of Garcia et al.

The second implication is on the significance and reliability of the relationship of the variables. The p-value of 0.000 indicates that the correlation between Leadership Style and Green Practices is statistically significant. This means that the observed relationship between these variables is unlikely to occur by chance. The significance level of less than 0.05 suggests a high level of confidence in the relationship. Moreover, the correlation coefficient of 0.51 reinforces the reliability of the relationship, indicating that it is not just a random association of the variables, but a consistent pattern observed in the data.

The third implication has something to do with the Implications for Management. The positive and significant correlation between Leadership Style and Green Practices highlights the importance of leadership in driving sustainability efforts within the restaurants. This implies that restaurant managers and leaders have a key role to play in promoting and implementing environmentally friendly practices. By adopting an effective leadership style that emphasizes sustainability, managers can inspire and motivate their employees to engage in green practices. This can lead to improved environmental performance, enhanced reputation, and increased business sustainability.

Relationship between Leadership Style and Business Sustainability. On the relationship between leadership style and business sustainability, the correlation coefficient is positive 0.69. The positive correlation indicates a relatively strong relationship between Leadership Style and Business Sustainability. A coefficient of 0.69 indicated in the matrix suggests that higher levels of Leadership Style are associated with higher levels of Business Sustainability. Moreover, the matrix also indicates that the p-value is 0.000 (significance level < 0.05) which indicates that this correlation is statistically significant. Based on the results, there are three major implications that can be derived from.

The strong positive relationship between Leadership Style and Business Sustainability is indicated in a correlation coefficient of 0.69. This implies that as the level of Leadership Style increases, there is a tendency for higher levels of Business Sustainability to be achieved within the restaurants. Again, leadership style was found to cause business improvement and sustainability in several studies such as those by Jony et al. (2019), Adda et al. (2022), and Garcia et al. (2022), The strong correlation results provide evidence that the leadership style adopted by the management has a significant impact on the overall sustainability of the business.

Finally, the significance and reliability of the relationship was indicated in the p-value of 0.000. It implies that the correlation between Leadership Style and Business Sustainability is statistically significant. This means that the observed relationship is unlikely to occur by chance. Likewise, the significance level of less than 0.05 provides a high level of confidence in the relationship. The strong positive correlation coefficient which is 0.69 further reinforces the reliability of the relationship, indicating a consistent and robust association between Leadership Style and Business Sustainability. The strong positive correlation between Leadership Style and Business Sustainability as evidenced by the data on the correlation highlights the critical role of leadership in driving and achieving sustainable outcomes within the restaurants. It implies that effective leadership, characterized by instrumental, participative, and supportive behaviors, plays a crucial role in fostering and maintaining business sustainability. Leaders who prioritize sustainability and adopt appropriate leadership styles can influence and motivate employees to align their actions with sustainable practices, leading to long-term environmental, social, and economic benefits.

Relationship between Green Practices and Business Sustainability. Furthermore, the correlation between Green Practices and Business Sustainability as indicated in the correlation matrix presented, indicates that the correlation coefficient between Green Practices and Business Sustainability is positive 0.71. The positive correlation indicates a relatively strong relationship between Green Practices and Business Sustainability. The data which shows a coefficient of 0.71 suggests that higher levels of Green Practices are associated with higher levels of Business Sustainability. Likewise, the p-value of 0.000 (significance level < 0.05) confirms that the relationship between variables is statistically significant. The data provided indicates three major implications of the finding.

First, on the strong positive relationship between Green Practices and Business Sustainability. Nicolau et al. (2022) revealed the same finding but was conducted earlier than this study. The said authors found that green practices is the basis for establishing business sustainability models where profitability waste reduction, and cost reduction were the effects of green practices. Moreover, the correlation coefficient of 0.71 indicates a relatively strong positive relationship between Green Practices and Business Sustainability. This is a manifestation that as the level of Green Practices increases within the restaurants, there is a corresponding increase in the level of Business Sustainability. A strong positive correlation implies that implementing and prioritizing environmentally friendly practices can have a significant impact on the overall sustainability of the business.

Another implication is related to the significance and reliability of the relationship of the variables. The p-value of 0.000 indicates that the correlation between Green Practices and Business Sustainability is statistically significant. This implies that the observed relationship is unlikely to occur by chance. With a

significance level of less than 0.05, there is a high level of confidence in the relationship. The strong positive correlation coefficient of 0.71 further reinforces the reliability of the relationship, suggesting a consistent and robust association between Green Practices and Business Sustainability.

The third implication is on the importance of Green Practices for Business Sustainability. The strong positive correlation indicated on table 2 highlights the importance of implementing and promoting green practices as a means to achieve and maintain business sustainability. It suggests that adopting sustainable practices related to water conservation, energy conservation, sustainable food practices, and waste reduction and recycling can contribute significantly to the overall sustainability performance of the restaurants. By integrating and prioritizing green practices, businesses can reduce their environmental footprint, enhance resource efficiency, and contribute to long-term economic viability.

The three implications provided underscore the value of incorporating sustainability practices into the operational strategies of restaurants. The strong positive correlation between Green Practices and Business Sustainability indicates that businesses that prioritize and invest in sustainable practices are more likely to achieve long-term success and resilience. It highlights the importance of adopting environmentally responsible practices as a key driver of business sustainability, customer satisfaction, and positive environmental impact.

Mediation Effect of Leadership Style between Green Practices and Business Sustainability of the Restaurants in Zamboanga City. The mediation analysis uses regression model to determine the mediating effect of leadership style has on the relationship between green practices and business sustainability. Table 5 provides the regression results of green practices on business sustainability. The regression table specifically indicates that green practices influence business sustainability 75.3% of the time indicating a massive influence at a significance level of .000.

Table 5

Direct Effect of Green Practices on Business Sustainability
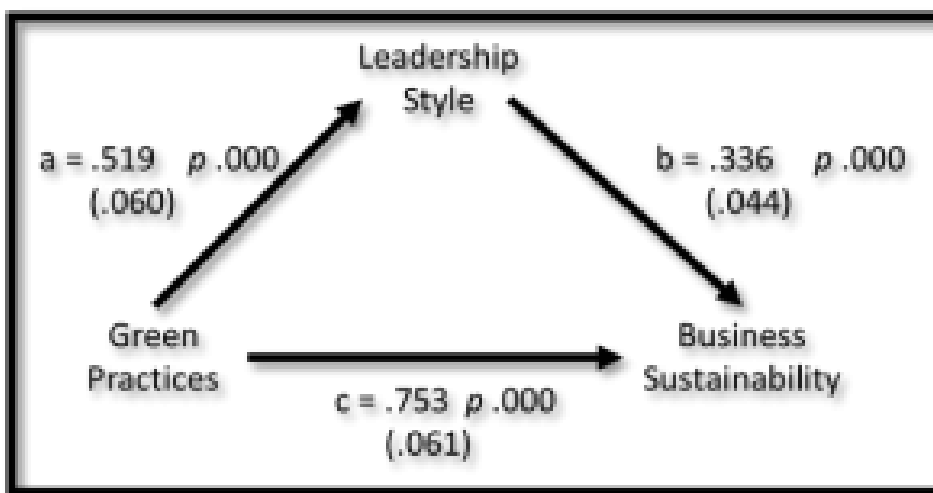
This indicates that the influence is significant. It also means that there are some other factors constituting 24.7% representing other factors that influence business sustainability. Moreover, the regression was tested linear on scatter plot provided on Appendix F. It was assumed that data is independent taken from the cross-sectional assumption. Also provided on the same appendix is theresult of the histogram indicating normality of the data. Again, using the scatterplot, we see the data tends to be more homoscedastic. The linear regression assumptions tests show that the prediction that green practices influence business sustainability is reliable.

The mediation relationship is shown on Figure 4, green practices of the restaurants have an effect on the leadership style (a= .519, p= .000) Leadership style also affects the business sustainability (b=.336, p=.000). There is a significant relationship between green practices and business sustainability (c= .753, p= .000).

The coefficient "c" is the direct relationship between the independent and the dependent variables. It has a value of 0.753 which indicates a significant positive relationship between green practices and business sustainability. The p-value of 0.000 suggests that this relationship is statistically significant. It implies that higher levels of green practices are associated with higher levels of business sustainability.

The coefficient "a" of 0.519 indicates a significant positive relationship between green practices and leadership style. The p-value of 0.000 suggests that this relationship is statistically significant, indicating that higher levels of green practices are associated with a higher likelihood of a particular leadership style being adopted. It means that the leadership style described which is particularly an instrumental, participative, and supportive leadership is important to respondents. Walker (2020) provides a literature support of this finding where people including leadership when embracing green practices results to environmental protection primarily on top of business results.

The coefficient "b" of 0.336 indicates a significant positive relationship between leadership style and business sustainability. The p-value of 0.000 suggests that this relationship is statistically significant, indicating that a particular leadership style has an impact on the level of business sustainability.

Mediating Effect of Leadership Style between Green Practices and Business Sustainability. The mediating effect of leadership style is indicated by the relationship between green practices, leadership style, and business sustainability. The coefficient "c" of 0.753 was derived using product coefficient mediating method which represents the direct relationship between green practices and business sustainability. The p-value of 0.00 suggests that this relationship is statistically significant. This means that higher levels of green practices in restaurants are directly associated with higher levels of business sustainability as presented earlier in the regression model. In addition, there is a partial mediation due to a non-zero value of "c". Appended on Appendix F is the result of Sobel Test to test the indirect effect statistical significance.

The mediating effect of leadership style between green practices and business sustainability means that on top of the direct relationship between green practices and business sustainability, there is also an indirect effect of green practices to business sustainability mediated by leadership style. The indirect effect is appended on Appendix F. This implies that higher levels of green practices lead to a particular leadership style which includes instrumental, participative, and supportive, which, in turn, positively influences business sustainability. It also means that leadership style acts as a mediator variable that explains in part the relationship between green practices and business sustainability. In some studies, such as those of Fawehinmi et al. (2020, Hammid et al. (2020), and Cho and Yoo (2021), all confirmed the role of leadership through its commitment to pursue green initiatives. Although the authors were studying different fields and not necessarily restaurant, all agreed on the importance of leadership and its commitment towards the environment in the form of green initiatives. The mediating effect was also tested using Sobel test of significance and mediating effect was tested significant. Thus, it suggests that the positive effect of green practices on business sustainability is partially explained by the leadership style adopted by the restaurant management in Zamboanga City.

Furthermore, these findings suggest that restaurants incorporating green practices in restaurants has a direct positive impact on business sustainability. Additionally, the adoption of a particular leadership style described as instrumental, participative, and supportive leadership further enhances the relationship between green practices and business sustainability. Therefore, both green practices and leadership style are important factors to consider for achieving sustainable outcomes in the restaurant industry.

CONCLUSIONS

The researcher concludes that the restaurants in Zamboanga City are implementing green practices at a high level. The mean rating of green practices and the low standard deviation suggest that the restaurant possess consistency and significance on the practices related to water conservation, energy conservation, sustainable food practices, and waste reduction and recycling practices. This indicates that the restaurants are actively taking steps to reduce their environmental impact and promote sustainability.

The restaurants in Zamboanga City are achieving a high level of business sustainability. The high mean rating and the low standard deviation for Business Sustainability is conclusive that the restaurants are successfully integrating sustainable practices into their operations. This suggests that their efforts in implementing green practices are translating into positive outcomes in terms of business sustainability.

The study also concludes that the leadership style within the restaurants is highly effective and influential. This is evidenced by the highest rating provided by the respondents with a favorable standard deviation. This suggests that Leadership Style of the leaders of the restaurants is instrumental, participative, and supportive. The leadership style likely contributes to the successful implementation of green practices and overall business sustainability.

In terms of the relationship of the variables, the researcher concludes that there is a moderate positive relationship between Leadership Style and Green Practices. However, as the level of Leadership Style increases, there is still a tendency for higher levels of Green Practices to be implemented in the restaurants. The study also provides evidence of a statistically significant correlation. It means that effective leadership plays a crucial role in promoting and encouraging environmentally friendly initiatives within the restaurants.

The study also concludes that there is a relatively strong positive relationship between Leadership Style and Business Sustainability. The higher levels of Leadership Style are associated with higher levels of Business Sustainability. The correlation is likewise statistically significant indicating a high level of confidence in the relationship. Leadership style has a significant impact on the overall sustainability of the business, and effective leadership is crucial for driving and achieving sustainable outcomes.

In addition, the study also concludes that Green Practices and Business Sustainability has a relatively strong positive relationship. The higher levels of Green Practices are associated with higher levels of Business Sustainability. The correlation is also statistically significant indicating a high level of confidence in the relationship. Implementing and prioritizing environmentally friendly practices among restaurants can significantly contribute to the overall sustainability of the business.

The study provides evidence of the influence of Green Practices on Business Sustainability. The result of the study is a manifestation that Green Practices have a significant direct positive influence on business sustainability. The higher levels of green practices are associated with higher levels of business sustainability. This direct relationship is statistically significant and indicates that implementing green practices in restaurants positively influences business sustainability.

The study also concludes of the mediating effect of Leadership Style between green practices and business sustainability. The mediating effect is partial mediation which suggests that the positive impact of green practices on business sustainability is partly influenced by the adoption of a specific leadership style. Further, the mediating effect was tested using the Sobel test, which confirmed the significance of the mediating

effect. These conclusions highlight the importance of both green practices and leadership style for achieving business sustainability in the restaurant industry. Furthermore, implementing green practices in restaurants directly influences business sustainability, while the adoption of a particular leadership style further enhances this relationship. The findings suggest that restaurants should prioritize and invest in both green practices and effective leadership to promote sustainable outcomes and long-term success.

Thus, the study rejects the null hypotheses that there is no significant relationship between green practices, business sustainability, and leadership style and that there is no mediating effect influenced by leadership style between the relationship of green practices and business sustainability. The study found manifestation that there exists a significant relationship between green practices, business sustainability, and leadership style. Furthermore, that leadership style was found to have partial mediation effect and there is an indirect relationship between green practices and business sustainability through leadership style.

Finally, the study also concludes that the result of this study supports the Triple Bottomline Theory. This is evidenced by a positive and significant relationship between leadership style and both green practices and business sustainability where, as the level of leadership style increases, there is a tendency for higher levels of green practices and business sustainability to be implemented within the restaurants in Zamboanga City. This implies that effective leadership plays a crucial role in promoting and encouraging environmentally friendly initiatives and overall sustainability within the business. Moreover, it highlights the importance of leadership in driving sustainability efforts and achieving business sustainability. It also suggests that restaurant managers and leaders have a key role to play in promoting and implementing environmentally friendly practices. By adopting an effective leadership style that emphasizes sustainability, managers can inspire and motivate their employees to engage in green practices, leading to improved environmental performance, enhanced reputation, and increased business sustainability.

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