Migration Letters

Volume: 20, No: 6, pp. 185-202

ISSN: 1741-8984 (Print) ISSN: 1741-8992 (Online)
www.migrationletters.com

The Effect of Sustainable Entrepreneurship on Economic Development in Jordan: The Mediating Role of Environmental Performances

Majdi Azzam Al-habash[1], Ola Buraik[2], Maria Yousef[3], Abdulla Mousa Falah Alali[4], Kadri S. Al_Shukri[5], Baha Aldeen Mohammad Fraihat[6]*

Abstract

This study examines how Jordan's economic development is impacted by sustainable entrepreneurship (SE), with an emphasis on the mediating function of environmental performances (EP). To be more precise, we look at how Jordanian entrepreneurs' entrepreneurial leadership, culture, and mentality support SE and ultimately impact economic development through EP. We use data gathered from a sample of 250 Jordanian entrepreneurs to evaluate our assumptions using a Partial Least Squares Structural Equation Modelling technique. According to our research, SE significantly and favourably influences EP, which in turn mediates the relationship between SE and economic development. Furthermore, the findings demonstrate that Jordanian entrepreneurs' entrepreneurial leadership, culture, and mentality all have a favourable impact on SE. Policymakers, business owners, and other stakeholders interested in advancing sustainable economic development in Jordan should take note of these results. Our research emphasises how critical it is to create an entrepreneurial ecosystem that supports entrepreneurs' sustainable leadership, culture, and way of thinking. Furthermore, our results imply that Jordan's economic development may benefit from initiatives to enhance EP, offering policymakers a possible way to encourage sustainable entrepreneurship. Overall, by analysing EP's mediating role in the relationship between SE and economic development, this study adds to the body of knowledge on sustainable entrepreneurship and offers insightful information to practitioners and policymakers who wish to support sustainable economic development in Jordan.

Keywords: *Economic Development, Environmental Performances, Jordanian Entrepreneurs, Sustainable Entrepreneurship.*

Introduction:

Entrepreneurship is seen as crucial to the development of developing nations like Jordan, where the economy is still in its their earliest years. It has been shown to stimulate economic development, increase revenue, spark creativity, and even create new job openings (Kasabov et al., 2020; Lashitew and Zhu, 2020; Manolova et al., 2021;

[1] Department Business Administration, Balqa Applied University, Amman, Jordan, majdi_alhabash@bau.edu.jo
[2] PhD in AI and cloud computing in finance and Accounting, Business faculty, Jerash University, Omsburaik@hotmail.com
[3] Instructor in Department of Computer science, Middle East University (MEU), myousef@meu.edu.jo
[4] Department of Computer Science, Isra University, Amman, Jordan, Abdulla.alali@iu.edu.Jo
[5] Department of Management Information Systems, Ajloun National Private University, Ajloun, Jordan, qadri.shukri@anu.edu.jo
[6] Assistant Professor, Department of Management Sciences, Business Faculty, Jerash University, Baha1f@yahoo.com, https://orcid.org/0000-0003-1385-8092

Alkhawaldeh, et al., (2023a)). However, the world could be harmed if business ventures aren't eco-friendly. The traditional view of entrepreneurship places an emphasis on personal profit at the expense of consideration for others or the environment. According to Carree et al. (2015) and Pacheco et al. (2010), this method has resulted in pollution, climate change, and overexploitation of natural resources. Sustainable entrepreneurship has evolved as a response to these unintended outcomes. The economic, social, and environmental components of sustainable development are all included in this firm ownership model. According to Schaltegger and Wagner (2011), the point of sustainable entrepreneurship is to make a positive impact for more than just the company's bottom line, Alkhawaldeh, et al., (2022). New company opportunities that are sustainable economically, socially, and environmentally are prioritized. Goal 8 (decent job and economic development) and goal 13 (climate action) are two examples of how sustainable entrepreneurship contributes to achieving the United Nations' SDGs (United Nations, 2021). The rise of entrepreneurship as a driving factor in Jordan's booming economy and expanding job market has been widely praised. Entrepreneurship is a popular option for Jordan's young population and job seekers due to the country's high unemployment rate and challenging economic climate (Hashemite Kingdom of Jordan, 2015). Realizing the importance of entrepreneurship to the country's long-term economic development, the Jordanian government has enacted legislation and initiatives to facilitate the growth of the entrepreneurial ecosystem in Jordan. Some of these efforts include the development of entrepreneurship-friendly institutions, the introduction of new courses on the topic, and the supply of monetary and in-kind resources to budding entrepreneurs (Al-Qudah and Tarhini, 2018). But despite these efforts, Jordanian entrepreneurs still confront significant challenges. These challenges include, but are not limited to, a scarcity of skilled workers, a dearth of available financial resources, and an inadequate support infrastructure (Hashemite Kingdom of Jordan, 2015). And Jordan has not done nearly enough to mitigate business's negative impact on nature. Sustainable entrepreneurship has the potential to solve these problems because it promotes resource-efficient business operations, reduces resource consumption, and increases environmental consciousness among entrepreneurs and the broader public. This research aims to understand how sustainable entrepreneurship (including entrepreneurial mindset, culture, and leadership) contributes to Jordan's economic development and environmental performance. This study investigates the role that environmental performance plays in mediating the connection between sustainable entrepreneurship and economic development. This research contributes to our understanding of the link between sustainable entrepreneurship and economic development. It reveals the challenges and possibilities facing Jordanian entrepreneurs and guides initiatives to promote Jordan's long-term economic development.

Literature Review

Theory

Resource-Based View (RBV) theory is an important conceptual framework for understanding the positive impacts of sustainable entrepreneurship on businesses, communities, and the natural environment. Recognized scholars such as Barney (1991) and Wernerfelt (1984) contend that successful entrepreneurs create lasting value for their companies by leveraging unique advantages that are difficult for competitors to replicate. These unique advantages include environmental innovation, sustainable supply chain management, green technologies, and green marketing strategies (Lopez-Gamero et al., 2020). According to the RBV theory, business owners may help ensure the long-term health of the economy by using their special skills and resources to the creation of eco-friendly and socially conscious goods and services. By utilising waste management measures and converting to renewable energy sources, for instance, business owners in Jordan can lessen their negative impact on the environment (Lashitew & Zhu, 2020;

Alkhawaldeh, et al., (2023c)) and attract more socially and morally conscientious customers. RBV theory also states that sustainable entrepreneurship can spur economic growth by generating new businesses and employment prospects, especially in developing countries such as Jordan. Companies can increase sales and profits by offering environmentally friendly products, differentiating themselves from their competitors, and venturing into new markets (Kasabov et al., 2020). Ultimately, this can stimulate the economy by creating revenue and employment opportunities.

Moreover, RBV theory emphasizes sustainability as a source of competitive advantage, implying that companies that prioritize sustainability can outperform their competitors by adopting environmentally friendly practices. Companies that meet the increasing demand for environmentally conscious products and services have a good chance of market success (Manolova et al., 2021; Fraihat, et al., (2023a)). By emphasizing sustainability, entrepreneurs can simultaneously serve society, the environment, and their financial ambitions. In the field of green business, social cognition theory (SCT) plays a central role in explaining how individuals' cognitions and beliefs influence their behavior. SCT has found extensive application, particularly in studying the impact of sustainable business practices. Muralidharan and Sheppard (2019) used SCT to study the impact of sustainable business practices on Indian SMEs, Alkhawaldeh, et al., (2023b).

Their study found that entrepreneurs who have a robust entrepreneurial mindset are more likely to adopt sustainability measures because they believe in their own capabilities. Similarly, Wahyuni et al. (2020) used SCT, to investigate the role of entrepreneurial leadership in the adoption of sustainable business practices in Indonesian SMEs. Their findings suggest that leaders who practice self-regulation and engage in sustainable behaviors are better able to promote sustainability initiatives in their companies. Pacheco et al. (2010) used SCT to study the adoption of sustainable practices by U.S. entrepreneurs. Their research found that entrepreneurs who value environmental sustainability are more likely to adopt environmentally friendly practices, primarily because they believe they have a significant impact on their company's environmental impact. Collectively, these studies highlight the utility of SCT in deciphering the cognitive processes, such as observation, modeling, and self-regulation, that underpin an entrepreneur's decision to adopt environmentally friendly practices. Cultivating a strong entrepreneurial mindset, nurturing an entrepreneurial culture, and effective entrepreneurial leadership can enable entrepreneurs to model and advocate sustainable practices while fostering the cognitive and behavioral acumen needed to adopt and implement them, Fraihat, et al., (2023a).

Hypotheses Development

The Sustainable Entrepreneurship and Economic Development

The link between sustainable entrepreneurship and economic development has been the subject of an increasing body of empirical study. Multiple studies (Kasabov et al., 2020; Lashitew and Zhu, 2020; Manolova et al., 2021; Fraihat, et al., (2023b)) have found that sustainable entrepreneurship positively affects economic development and growth by increasing GDP, spawning new employment opportunities, stimulating innovation and creativity, and promoting long-term prosperity. For instance, Kasabov et al. (2020) found that sustainable entrepreneurship positively affects economic development by promoting social and environmental sustainability. The paper claims that sustainable entrepreneurship helps the economy grow and flourish by encouraging new ideas, increasing resource efficiency, and bettering people's quality of life. Lashitew and Zhu (2020) carried out additional research to investigate the impact of sustainable entrepreneurship on Ethiopia's economic growth. According to this study, sustainable entrepreneurship raises people's standards of living, reduces poverty, and expands employment prospects, Fraihat, et al., (2023c) all of which boost economic growth. It has

also been discovered that socially and ecologically conscious company practises support long-term economic growth. Manolova et al.'s (2021) study on sustainable entrepreneurship in the US revealed that it boosts economic growth in a number of ways, including the creation of new businesses, the promotion of creativity and innovation, and the enhancement of resource efficiency. It has also been discovered that socially and ecologically conscious company practises support long-term economic development. Empirical evidence suggests that social and environmental sustainability are both enhanced through sustainable entrepreneurship, which in turn creates new opportunities for economic development, technological advancement, and job growth. This contributes positively to economic development. These findings highlight the importance of supporting sustainable entrepreneurship as a path toward long-term economic development. Based on the above evidences, this study proposed that:

H1: There is a positive and significant relationship between sustainable entrepreneurship and economic development in Jordan

H1a: There is a positive and significant relationship between entrepreneurial mindset and economic development in Jordan

H1b: There is a positive and significant relationship between entrepreneurial culture and economic development in Jordan

H1c: There is a positive and significant relationship between entrepreneurial leadership and economic development in Jordan

The Sustainable Entrepreneurship and Environmental Performances

Sustainable entrepreneurship, as suggested by the empirical literature, can have a beneficial effect on environmental performance. Sustainable entrepreneurship in the context of Malaysian SMEs enhances environmental performance, according to research by Ahmad et al. (2020). A similar finding was made by Li et al. (2019) in their research on sustainable entrepreneurship in China's hospitality sector: it enhances environmental performance by promoting green innovation and environmental management practices. Sustainable entrepreneurship in China's agriculture sector has been shown to boost environmental performance by increasing the uptake of environmentally friendly practices and technologies, according to research by Hu et al. (2020). A different study on sustainable entrepreneurship in Brazil by Farnese and Abreu (2020) found that environmental performance mediates the connection between sustainable entrepreneurship and business performance. This data provides support for the hypothesis that sustainable entrepreneurship improves bottom-line results for companies. According to research conducted by Quinlan et al. (2021), sustainable entrepreneurship in Australia's wine industry boosts environmental performance by promoting sustainable viticulture practices and decreasing pesticide use. Tandori et al.'s (2021) research on sustainable entrepreneurship in the Hungarian wine industry found that it improved environmental performance by promoting the use of environmentally friendly vineyard management techniques and cutting down on water consumption. Empirical studies have shown that sustainable entrepreneurship helps the environment since it promotes the use of green practices. These findings highlight the need of promoting sustainable entrepreneurship as a means to achieve sustainable development and mitigate the negative environmental impacts of economic activity. Based on the above evidences, this study proposed that:

H2: There is a positive and significant relationship between sustainable entrepreneurship and environmental performances in Jordan

H2a: There is a positive and significant relationship between entrepreneurial mindset and environmental performances in Jordan

H2b: There is a positive and significant relationship between entrepreneurial culture and environmental performances in Jordan

H2c: There is a positive and significant relationship between entrepreneurial leadership and environmental performances in Jordan

The Environmental Performances and Economic Development

There is an increasing body of research demonstrating the positive feedback connection between environmental performance and economic development. Studies have shown that resource-conserving, productivity-increasing, and innovation-promoting environmental regulations and policies (Berrone et al., 2016; Porter and van der Linde, 1995) can improve economic performance. For instance, Berrone et al. (2016) found that companies that adopted environmentally friendly methods had more financial performance than those that didn't. The research analyzed the financial and environmental results of Spanish businesses and found a significant link between the two. Similar findings were found in a 2018 study by Papanastassiou et al., who found that green innovation (innovation with a positive impact on the environment) positively influenced the export performance of enterprises situated in the United Kingdom. There is also evidence that environmental performance contributes to economic development and job creation. Marzucchi et al. (2015) looked at the connection between environmental innovation and job growth in European enterprises and found a positive correlation. New opportunities and jobs in the green economy may be on the horizon thanks to environmental innovation, the report suggests. Environmental regulations aimed at lowering carbon emissions were found to have a beneficial effect on economic development in Australia, according to research conducted by Culas and Mahadevan (2017). Finally, empirical studies show a positive relationship between environmental performance and economic development. There are productivity gains, creativity boosts, and financial benefits for businesses that go green. In addition to these benefits, eco-friendly practices have been shown to stimulate economic development and generate new employment opportunities. These findings highlight the importance of promoting eco-friendly practices for achieving long-term economic development .. Based on the above evidences, this study proposed that:

H3: There is a positive and significant relationship between environmental performances and economic development in Jordan

Environmental Performances as a Mediator

The mediating effect of environmental performance between sustainable entrepreneurship and economic development is the subject of a growing amount of empirical study. The importance of businesses adopting environmentally friendly practices to achieve sustainable economic development has been highlighted by studies showing that environmental performance can have a significant impact on the relationship between sustainable entrepreneurship and economic development. Fakhar et al. (2020) conducted research in Pakistan to determine how environmental performance mediated the connection between sustainable entrepreneurship and economic development. Researchers found that a middle ground existed between sustainable entrepreneurship and economic development, and that ground was environmental performance. This research hints at the positive feedback loop between sustainable entrepreneurship practices and economic development. Przychodze et al. (2020) conducted research to investigate the mediation effect of environmental performance on the relationship between sustainable entrepreneurship and economic development in Poland. The importance of sustainable entrepreneurship practices in achieving environmental performance that can lead to sustainable economic development is demonstrated by the study's findings, which show that environmental performance fully mediates the link between sustainable entrepreneurship and economic development. Daud et al. (2020) also investigated the connection between sustainable entrepreneurship and economic development in Malaysia, but from the perspective of environmental performance. Findings from this research suggest that sustainable entrepreneurship practices can lead to improved environmental

performance, which in turn can support sustainable economic development because of the positive feedback loop established between the two concepts. Taken together, these studies highlight environmental performance's significance as a moderator of the connection between sustainable entrepreneurship and economic growth. If businesses adopt sustainable entrepreneurial practices and put a premium on environmental performance, they will have a better chance of achieving sustainable economic development and making a positive contribution to a more sustainable future. Based on the above evidences, this study proposed that:

H4: Environmental performances mediate the relationship between sustainable entrepreneurship and economic development in Jordan

H4a: Environmental performances mediate relationship between entrepreneurial mindset and economic development in Jordan

H4b: Environmental performances mediate relationship between entrepreneurial culture and economic development in Jordan

H4c: Environmental performances mediate relationship between entrepreneurial leadership and economic development in Jordan

Model

The research model is represented diagrammatically in Fig. 1 where the mediating effect of Environmental Performances on the Sustainable Entrepreneurship (Entrepreneurial Mindset, Entrepreneurial Culture, and Entrepreneurial Leadership) on Economic Development in Jordan are shown.

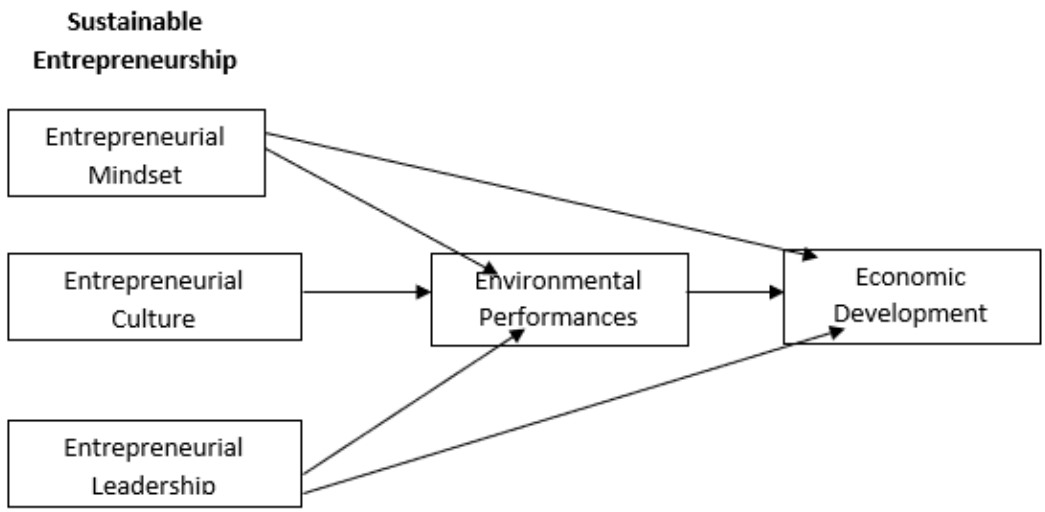

Fig 1 Model

Research Methodology

Using a cross-sectional survey design, the researchers in this study collected data from sustainable entrepreneurs in Jordan. To choose the study's sample population, a non-probability sampling technique called purposeful sampling was employed. 250 sustainable business owners from a range of Jordanian industries, including manufacturing, tourism, agriculture, and construction, make up the sample. The investigation's data is gathered via a questionnaire. Questions in the survey's accompanying questionnaire examine sustainable entrepreneurship, an entrepreneurial attitude, entrepreneurial culture, entrepreneurial leadership, environmental performance, and economic development. The study uses scales that have already been validated to

measure the pertinent variables. This study measures the following: entrepreneurial mindset (EM) (Morris et al., 2013), economic development (ED) (Winters & Yusuf, 2007), environmental performances (EP) (Gonzalez-Benito & Gonzalez-Benito, 2006), and entrepreneurial leadership (EL) (Hmieleski & Corbett, 2006). The Likert scale has seven points for rating each item. We used PLS-SEM to analyse the survey data. Even with a little collection of data, complex models can be examined using the statistical technique known as Partial Least Squares (PLS-SEM). As part of the analysis, the measurement and structural models' validity, reliability, and goodness-of-fit are assessed. In addition to examining the mediating role of environmental performance in the direct and indirect advantages of sustainable entrepreneurship on economic development, the analysis verifies the study's assumptions. The participants provided their informed consent, and their personal data was kept confidential. Prior to survey administration, the study receives approval from the relevant institutional review board.

Results

Measurement Model

Internal, convergent, and discriminant validity are all three categories that are covered. Cronbach's alpha (CA) is used to quantify internal consistency, and the composite reliability (CR) and average variance extracted (AVE) coefficients are used to assess convergent validity. To assess discriminant validity, one uses the Fornell-Larcker criteria. The dependability of each item was evaluated using Cronbach's alpha coefficients; in accordance with Hair et al. (2022) recommendations, all variables had alpha values more than 0.70 (Table 1). All variables have reliability coefficients more than 0.80, according to the results of the evaluation of composite reliability. (Listing 1). Using Dijkstra-rho Hensele's values above 0.70 and all AVE values above 0.50, convergent validity was guaranteed (Table 1). The fact that all variance inflation factors (VIFs) were less than 3.3 indicates that multicollinearity was not significantly problematic. (3 Tables). In order to make sure that the study's components can be distinguished from one another with clarity, discriminant validity was examined using multiple techniques. Since all of the loading values were greater than 0.6, each component is distinct and has its own definition (Table 2). EC1 was eliminated from the final analysis because of its low factor loading (Hair et al., 2022). The discriminant validity of each component was evaluated using the Fornell and Lacker criterion (Table 4), which compares the square root of AVE from each component to the correlation between constructs. The discriminant validity of each construct was ascertained using the Heterotrait-Monotrait ratio (HTMT) method. Every value is less than 0.9. (5 Tables) Significant correlations between the variables were found using both approaches, demonstrating the discriminant validity of the study's constituent parts. To lower the chance of common method variance (CMV), participants were informed that there was no right or incorrect answer and that their privacy would be protected. This study used Harman's one-factor test (Table 5) to identify the presence of CMV. This test involves taking one component out of all the components and determining if it accounts for less than 50% of the variance. The data are shown in Table 6, where it can be shown that CMV accounted for 44.669% of the variation, though not quite 50%. Furthermore, VIFs from a collinearity test should be less than or equal to 5 according to Kock's (1987) proposal, in order for a model to be free of common method bias. With VIFs less than 3, every structural model component indicated that there was no CMV in this investigation.

Table 1 Validity and Reliability

Variables	CA	CR (rho_a)	CR (rho_c)	AVE
EC	0.893	0.705	0.814	0.527
ED	0.875	0.876	0.914	0.728
EL	0.863	0.860	0.908	0.713
EM	0.876	0.864	0.82	0.604
EP	0.854	0.861	0.89	0.575

Table 2 Factor Loading

Variables	EC	ED	EL	EM	EP
EC1	Deleted				
EC2	0.769				
EC3	0.769				
EC4	0.776				
EC5	0.766				
ED1		0.805			
ED2		0.886			
ED3		0.891			
ED4		0.829			
EL1			0.720		
EL2			0.875		
EL3			0.883		
EL4			0.887		
EM1				0.840	
EM2				0.787	
EM3				0.698	
EP1					0.793
EP2					0.759
EP3					0.780
EP4					0.747
EP5					0.751
EP6					0.716

Table 3 Variance Inflation Factor (VIF)

Variables	VIF
EC2	1.69
EC3	1.737
EC4	1.395
EC5	1.171
ED1	1.802
ED2	2.838
ED3	2.998
ED4	1.939
EL1	1.328
EL2	2.947
EL3	3.311

EL4	3.042
EM1	2.545
EM2	2.447
EM3	1.080
EP1	2.200
EP2	2.602
EP3	2.519
EP4	2.990
EP5	1.416
EP6	1.733

Table 4 The Fornell and Lacker Discriminant Validity

Variables	EC	ED	EL	EM	EP
EC	**0.726**				
ED	0.570	**0.853**			
EL	0.620	0.666	**0.844**		
EM	0.687	0.639	0.635	**0.777**	
EP	0.608	0.492	0.688	0.532	**0.758**

Table 5 Heterotrait-Monotrait ratio Discriminant Validity

Variables	EC	ED	EL	EM	EP
EC	Nil				
ED	0.676				
EL	0.514	0.668			
EM	0.596	0.766	0.678		
EP	0.645	0.546	0.670	0.580	Nil

Table 6 Common Method Bias

	I.E			E.S.S.L		
C	T	% of V	Cum %	T	% of V	Cum %
1	11.167	44.669	44.669	11.167	44.669	44.669

The Results of the Structural Model Analysis

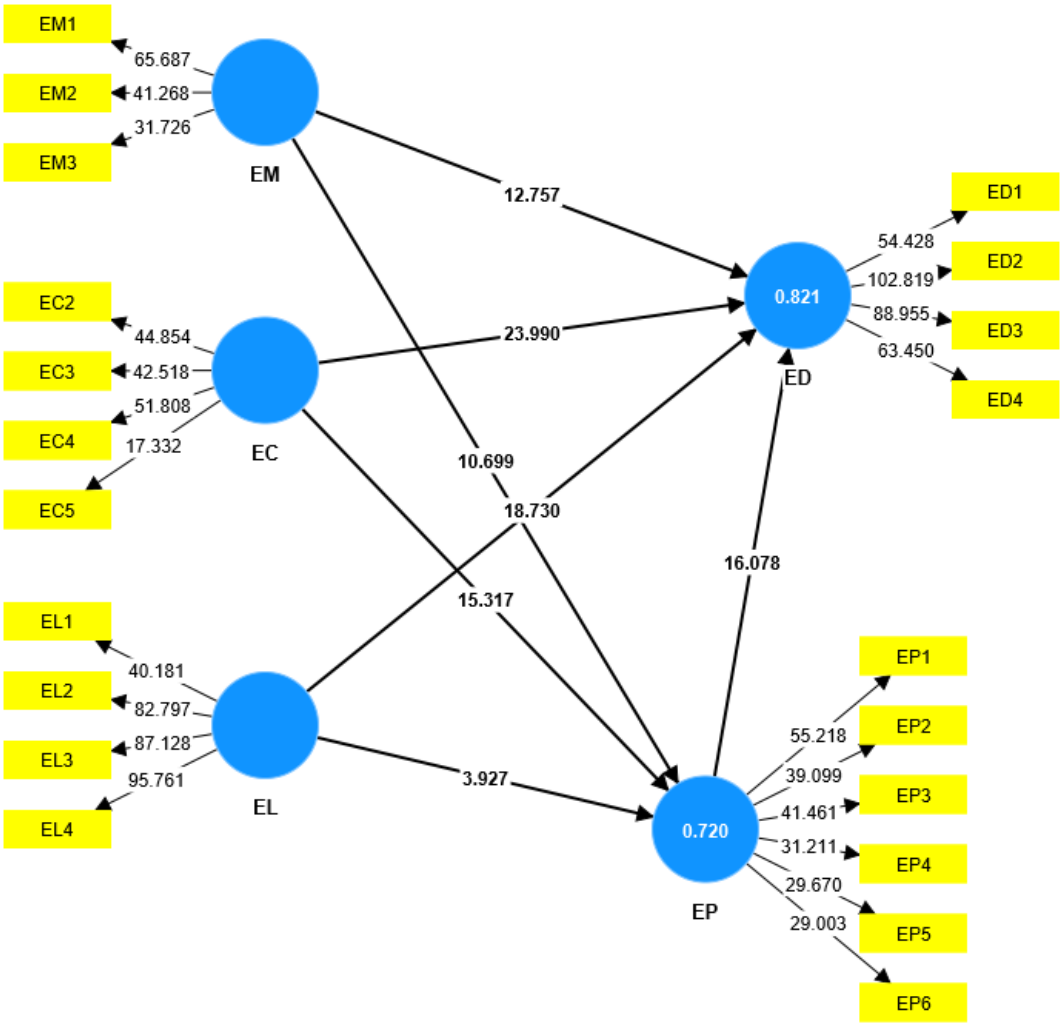

Fig 2 Path Analysis Result

Table 7 Path Analysis Result

Path	Estimates	STDEV	T statistics	P values	Decision
EM -> ED	0.305	0.024	12.757	0.000	Supported
EC -> ED	0.751	0.031	23.990	0.000	Supported
EL -> ED	0.501	0.027	18.730	0.000	Supported
EM -> EP	0.299	0.028	10.699	0.000	Supported
EC -> EP	0.505	0.033	15.317	0.000	Supported
EL -> EP	0.134	0.034	3.927	0.000	Supported
EP -> ED	0.683	0.042	16.078	0.000	Supported
R^2					
ED	0.821				
EP	0.720				
Q^2					
ED	0.590				
EP	0.404				

Table 7 and Fig. 2 above summarize the SmartPLS Structural Equation Model (SmartPLS SEM) used to represent the outcomes of this investigation. This is shown by the path coefficients, STDEV values, and P-values obtained in this analysis for each construct. There was also a strong positive correlation between EM and ED. The study found that a 1% rise in EM would lead to a 0.305 percentage point increase in ED in Jordan. A significant positive association was also found between EC and ED. According to the findings, if energy consumption (EC) in Jordan increased by 1%, economic development (ED) would improve by 0.751. The results also demonstrate that EL has a positive effect on ED. The study found that the rate of ED in Jordan would rise by 0.51% for every 1% increase in the global rate of ED. There was also a strong positive correlation between EM and EP. The results indicated that in Jordan, an increase of 1% in EM would lead to an increase of EP of 0.299. The results also show that EC and EP are positively related. Results showed that a 1% increase in EC will lead to a 0.505 percentage point increase in EP in Jordan. The results also demonstrate that EL has a positive effect on EP. Results indicated that a 1% rise in ED in Jordan would lead to a 0.134 percentage point increase in EP. The overall result demonstrates that EP significantly benefits ED. If EP were to rise by 1% in Jordan, economic development (ED) would improve by 0.683 percent, as shown by the data.

The R2 number indicates the extent to which the independent factors account for the variance-independent variables. The R2 estimates are included in Table 7 of the model. It was shown that the variation in the dependent variable may be expressed in terms of the variance in the independent variables. Table 7 shows that the predictors of economic development explain for 82.1% of that variance. That is to say, the economic development mistake variance is responsible for somewhere around 17.9% of the overall economic development variance. Environmental performance factors were also shown to account for 72.0% of the variance (see Table 7). Simply put, the error rate in estimating environmental performance accounts for about 28.0% of the total variance in that metric. Similarly, Q2 was strongly predicted by all exogenous latent components in the current analysis. Hair et al. (2014) found that values of 0.02, 0.15, and 0.35 indicated that an exogenous construct had moderate, substantial, or great predictive relevance for a given endogenous construct, respectively.

Mediation Analysis

The present study follows the suggestions offered by Preacher and Hayes (2004, 2008) to examine the mediating relationship. The bootstrapping technique revealed the mediating connection via the knock-on effect. In addition, the 95% boot confidence interval (CI: LL-UL) for the indirect impact does not include a "0" between the variables, as reported by Preacher and Hayes (2008). Table 8 displays the results of testing the mediating hypothesis.

Table 8 Indirect Method

Path	Estimates	STDEV	T statistics	P values
EM -> EP-> ED	0.205	0.026	7.959	0.000
EC ->EP-> ED	0.345	0.027	12.867	0.000
EL -> EP-> ED	0.092	0.025	3.646	0.000

The bootstrap results for the indirect effect are shown in Table 8; this impact is significant at p0.01 (EM->EP->ED, t-value=7.959, β=0.205). To further verify the existence of mediation, the researcher employed the indirect effect of 0.205, 95% Boot CI: (LL= 0.256, UL= 0.159). The research in Jordan indicated that this was the role of EP as a mediator between EM and ED. The bootstrap results for the indirect effect (EC->EP->ED, t-value=12.867, β=0.345, p<0.01) are shown in Table 8. The researcher confirmed that there is mediation based on the fact that the indirect impact of 0.345, 95% Boot CI: (LL= 0.401, UL= 0.295), does not lie entirely within the range of 0 to 1. According to the

results, EP acted as a mediator for EC and ED in Jordan. Table 8 shows that the bootstrap results for the indirect effect (EL->EP->ED, t-value=3.646, β=0.092) are statistically significant at the $p<0.01$ level. The researcher also relied on the indirect effect size of 0.345, 95% Boot CI: (LL= 0.149, UL= 0.049), which lent credence to the existence of a mediating influence. That, according to the findings, is EP mediating role between EC and ED in Jordan. Therefore, researchers conclude that EP positively mediates the effect of EM, EC, and EL on ED.

Discussion

The finding that there is a significant and positive correlation between an entrepreneurial mindset and economic development in Jordan is in line with earlier studies for instance, Mawoli and Shepherd (2018) found that an entrepreneurial mindset correlates favorably with economic development in Nigeria. To a similar extent, Naude and Malebana's 2019 study found that an entrepreneurial mindset contributed to the growth of the South African economy. These findings suggest that an entrepreneurial spirit is a driving force behind economic development in many countries. The positive correlation between an entrepreneurial mindset and economic development can be accounted for in a number of ways. To begin, entrepreneurs that have an innovative and forward-thinking mindset are more likely to notice and seize growth and change opportunities. New products and services, new jobs, and increased productivity could emerge as a result. Second, an entrepreneurial mindset is associated with risk-taking and tenacity, both of which are critical to a company's long-term viability. Last but not least, entrepreneurs with a positive mentality are more likely to actively seek out and make use of networks and opportunities that can help them grow.

The findings corroborate past research showing a positive correlation between Jordan's entrepreneurial culture and the country's economic development. One study found that when there was an entrepreneurial culture in place, small and medium-sized firms in Jordan did better. This was conducted by Al-Shaikh et al. (2020). Researchers in Jordan discovered that an entrepreneurial mindset contributed to the growth of family businesses (Al-Dmour et al., 2017). Other studies have confirmed the positive effects of an entrepreneurial culture on a country's economy. Younis and Al-Razzaz (2019), for example, found that a supportive entrepreneurial culture correlates positively with the country of Iraq's economic development. Abu-Rumman et al. (2020) came to a similar conclusion about the positive effect of Palestine's pro-entrepreneurial culture on the development of SMEs. These findings highlight the importance of nurturing entrepreneurial cultures in promoting economic development, not only in Jordan but worldwide.

The positive correlation between entrepreneurial leadership and economic development has been repeatedly demonstrated in academic research. Abdullah et al.'s 2021 research, for instance, found that entrepreneurial leadership positively correlates with economic development in Malaysia. Similarly, the 2021 research by Wainaina et al. found that entrepreneurial leadership positively affected Kenya's economic development. Entrepreneurial leadership can be seen as essential in promoting sustainable entrepreneurship and economic development since it needs the ability to detect and seize opportunities, take measured risks, and motivate and encourage personnel to work toward common objectives. Therefore, business leaders may inspire innovation and originality, which in turn will lead to the development of novel products, services, and markets and ultimately boost economic development. There is a positive correlation between entrepreneurial leadership and economic development, which lends credence to the idea that sustainable entrepreneurship can generate value not only for the entrepreneur but also for society and the environment, leading to sustainable economic development.

Consistent with the existing literature, we demonstrate that an entrepreneurial outlook and environmental performance are positively and strongly associated in Jordan. Several research (e.g., Kuckertz et al., 2019; Schaltegger & Wagner, 2011) have found that taking on an entrepreneurial mindset—one that is open to risk, innovation, and the pursuit of new opportunities—can lead to more sustainably minded actions. This is due to the fact that companies whose owners care about the environment are more likely to create and implement environmentally friendly technologies, implement green supply chains, and promote their products in environmentally responsible ways. Adopting an entrepreneurial mindset can lead to more effective use of resources, which in turn boosts environmental performance (Dean & McMullen, 2007). Since entrepreneurs have unique access to resources and abilities that allow them to benefit both society and the environment, it follows that there is a high correlation between an entrepreneurial attitude and environmental performance in Jordan. Our research suggests that developing an entrepreneurial mindset among Jordanian entrepreneurs could help to sustainably grow the economy and encourage more environmentally responsible business practices.

An important and positive correlation between Jordan's entrepreneurial culture and environmental performance was also found. This suggests that the more a society promotes entrepreneurship, the better it is at preserving the environment and promoting sustainability. Numerous research that have looked at the correlation between entrepreneurship and environmental performance back up this claim. For example, research by Akbar et al. (2021) found that environmentally conscious entrepreneurs tend to have a positive effect on their communities. Another study by Brouthers et al. (2020) found that entrepreneurs who prioritize sustainability in their operations enjoy greater long-term profitability. Consumers are increasingly interested in eco-friendly options, and businesses who fail to respond may find it difficult to thrive in the future.

The findings also indicate a positive and statistically significant correlation between entrepreneurial leadership and environmental performance in Jordan. Entrepreneurial leadership is a leader's capacity to inspire and motivate others to take the plunge into business ownership. The implication of the remark is that environmental performance will improve as a result of leaders' increased willingness to adopt ecologically sustainable practices. Several recent researchers have found support for this claim. For instance, Adeyeye et al.'s (2020) research found that entrepreneurship significantly promotes environmental sustainability in SMEs. Researchers found that companies whose leaders demonstrated a commitment to sustainability were more successful in meeting environmental goals. The relationship between CSR and entrepreneurial leadership in South Korea was studied by Kim et al. (2021). The poll found that businesses whose owners put a premium on CSR were more likely to engage in eco-friendly practices, which in turn improved their environmental performance.

According to the results, there is a positive and significant correlation between environmental performance and economic development in Jordan. As a result, improved environmental performance is associated with rising GDP in most countries. This link has been corroborated by a number of subsequent researches. For instance, Kibria et al. (2021) found that better environmental performance is good for the economy of developing countries. The paper claims that better environmental conditions can lead to economic development by increasing tourism, luring foreign investment, and enhancing the health and well-being of local residents. The link between environmental performance, environmental regulation, and China's economic development was studied by Jiang et al. (2021). The research found that stricter environmental rules can improve environmental performance, which in turn can stimulate economic development by encouraging innovation and the creation of new jobs. The study implies ecological efficiency may mediate Jordan's economic growth and environmentally conscientious company practises. This study suggests that environmental performance affects sustainable entrepreneurship and economic development, as indicated by entrepreneurial

leadership, attitude, and culture. Recent academic study has examined environmental performance as a mediator between sustainable entrepreneurship and economic development. Boons et al. (2020) demonstrated that environmental performance mediates the association between sustainable entrepreneurship and financial success in SMEs. The study found that SMEs are more inclined to prioritise sustainability when they want to enhance their environmental performance, which could boost their financial performance.

Conclusion, and Implications of the Study

The primary purpose of this study in Jordan was to investigate how environmental performance influenced the relationship between economic development and sustainable entrepreneurship, as evidenced by entrepreneurial leadership, culture, and mentality. According to the study's findings, environmental performance is an important mediator of this relationship. In particular, the findings show that enhancements in environmental performance help explain the positive relationship between sustainable entrepreneurship and economic development in Jordan. Politicians, entrepreneurs, and other stakeholders in Jordan can learn a lot from this study. It begins by stressing the importance of encouraging sustainable business for the betterment of the environment and the economy. The development of a sustainable culture, strong leadership, and an entrepreneurial spirit are all factors that can help achieve this goal. Second, the research argues that better environmental performance can stimulate economic development by attracting investors, increasing tourism, and improving the health and well-being of the general people. Thus, laws and initiatives that promote environmental sustainability may also benefit the economy. Nonetheless, it is critical to note that this study contains a few caveats. To begin with, the study only applies to Jordan and may not be generalizable. Sustainable entrepreneurship has been linked to economic development, but how this relationship is mediated by environmental performance is a topic for future research. Second, data from a poll of Jordanian entrepreneurs who provided their own answers are used. Despite using PLS-SEM to investigate intricate relationships between variables, the study suffers from the limitations of self-reported data, such as response bias. Finally, the approach puts too much emphasis on the mediating function of environmental performance, while ignoring other potential moderators or mediators of the connection between sustainable business and economic development. Sustainable entrepreneurship, environmental performance, and economic development are all interconnected in complex ways; future research could investigate the role of other factors, such as social capital or technical innovation. Despite these limitations, the study contributes to our understanding of sustainable business and the link between economic and environmental outcomes. Results suggest that improvements in environmental performance can help Jordan's economic development, highlighting the need of encouraging sustainable entrepreneurship as a means of achieving both environmental and economic goals.

References

Abdullah, F., Yahya, S., Ahmad, F. S., & Mad Lazim, H. (2021). Entrepreneurial leadership and economic development: The moderating role of innovation. Journal of Small Business and Enterprise Development.

Abu-Rumman, A. H., Al-Mahamid, S. M., & Saleh, A. S. (2020). Entrepreneurial culture and the growth of small and medium-sized enterprises: Evidence from Palestine. Journal of Entrepreneurship in Emerging Economies, 12(1), 89-109.

Adeyeye, O. J., et al. (2020). Entrepreneurial leadership, sustainability practices, and environmental performance: An empirical study of Nigerian SMEs. Journal of Cleaner Production, 244, 118767.

Ahmad, N. H., Ahmad, F. S., & Shafie, F. A. (2020). Sustainable entrepreneurship and environmental performance: the role of environmental management accounting practices. Journal of Cleaner Production, 253, 119904.

Akbar, A., et al. (2021). Entrepreneurship and environmental sustainability: An empirical study of the UAE. Journal of Business Research, 130, 603-613.

Al-Dmour, R., Al-Sa'di, A., & Al-Shibli, A. (2017). Entrepreneurial culture and success of family owned businesses: Evidence from Jordan. Journal of Entrepreneurship, Business and Economics, 5(1), 47-74.

Alkhawaldeh, B. Y. S., Alhawamdeh, H., Almarshad, M., Fraihat, B. A. M., Abu-Alhija, S. M. M., Alhawamdeh, A. M., & Ismaeel, B. (2023). The Effect of Macroeconomic Policy Uncertainty on Environmental Quality in Jordan: Evidence from The Novel Dynamic Simulations Approach. Jordan Journal of Economic Sciences, 10(2), 116-131.

Alkhawaldeh, B. Y. S., Al-Zeaud, H. A., & Almarshad, M. N. (2022). Energy consumption as a measure of energy efficiency and emissions in the MENA countries: evidence from GMM-based quantile regression approach. International Journal of Energy Economics and Policy, 12(5), 352.

Alkhawaldeh, B., Alhawamdeh, H., Al-Afeef, M., Al-Smadi, A., Almarshad, M., Fraihat, B., ... & Alaa, A. (2023). The effect of financial technology on financial performance in Jordanian SMEs: The role of financial satisfaction. Uncertain Supply Chain Management, 11(3), 1019-1030.

Al-Qudah, A., & Tarhini, A. (2018). An examination of the factors affecting students' intention to use e-learning in Jordan higher education. Journal of Education and Practice, 9(14), 41-52.

Al-Shaikh, F. N., Al-Lozi, M. A., & Al-Lozi, H. M. (2020). Entrepreneurial culture and the performance of small and medium-sized enterprises in Jordan. Journal of Entrepreneurship in Emerging Economies, 12(3), 407-427.

Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Prentice-Hall, Inc.

Bansal, P., & Roth, K. (2000). Why companies go green: A model of ecological responsiveness. Academy of Management Journal, 43(4), 717-736.

Barney, J. B. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99-120.

Berrone, P., Fosfuri, A., Gelabert, L., & Gomez-Mejia, L. R. (2016). Necessity as the mother of 'green'inventions: Institutional pressures and environmental innovations. Strategic Management Journal, 37(5), 945-967.

Boons, F., et al. (2020). Sustainable entrepreneurship, environmental performance, and financial performance in small and medium-sized enterprises: A review and research agenda. Journal of Cleaner Production, 259, 120733.

Brouthers, K., et al. (2020). Entrepreneurship and sustainability: A review and research agenda. Journal of Business Venturing, 35(5), 106003.

Carree, M., van Stel, A., Thurik, R., & Wennekers, S. (2015). The relationship between economic development and business ownership revisited. Entrepreneurship Theory and Practice, 39(5), 1025-1049.

Culas, R. J., & Mahadevan, R. (2017). Carbon emissions and economic growth nexus: Evidence from Australia. Journal of Environmental Management, 198, 390-402.

Daud, N. M., Mahmood, R., & Mahmud, M. (2020). Sustainable entrepreneurship, environmental performance, and economic development: Evidence from Malaysia. Journal of Cleaner Production, 256, 120476.

Dean, T. J., & McMullen, J. S. (2007). Toward a theory of sustainable entrepreneurship: Reducing environmental degradation through entrepreneurial action. Journal of Business Venturing, 22(1), 50-76.

Fakhar, A., Ahmad, N., & Akram, U. (2020). Sustainable entrepreneurship, environmental performance, and economic development: Evidence from Pakistan. Environmental Science and Pollution Research, 27(23), 29400-29409.

Farnese, M. L., & Abreu, M. C. S. (2020). Sustainable entrepreneurship, environmental performance and firm performance: The mediating role of environmental performance. Journal of Business Research, 116, 594-602.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39-50. doi: 10.1177/002224378101800104

Fraihat, B. A. M., adnan Bataineh, K., Aln'emi, E. A. S., Ahmad, A. Y. B., Daoud, M. K., & Almasarweh, M. S. (2023). How corporate social responsibility enhances reputation, and organizational brand image?. Journal of Namibian Studies: History Politics Culture, 33, 5216-5246.

Fraihat, B. A. M., Ahmad, A. Y. B., Alaa, A. A., Alhawamdeh, A. M., Soumadi, M. M., Aln'emi, E. A. S., & Alkhawaldeh, B. Y. S. (2023). Evaluating Technology Improvement in Sustainable Development Goals by Analysing Financial Development and Energy Consumption in Jordan. International Journal of Energy Economics and Policy, 13(4), 348.

Fraihat, B. A. M., Bataineh, M. T., Taha, I. B., & Mbeadeen, B. A. (2023). The Role Of Strategic Management In Enhancing Competitive Advantage And Firm Performance In The Jordanian Telecom Industry. Journal of Namibian Studies: History Politics Culture, 33, 1004-1022.

Hair Jr, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis (7th ed.). Upper Saddle River, NJ: Prentice Hall.

Hashemite Kingdom of Jordan. (2015). National strategy for human resources development 2016-2025. Retrieved from https://www.jordan.gov.jo/wps/wcm/connect/51299fa1-42d9-4b9a-b24d-12e4f4b4f4c1/National+Strategy+for+Human+Resources+Development+2016-2025.pdf?MOD=AJPERES&CVID=lNogEgy

Hu, J., Chen, X., & Zhou, K. (2020). Can sustainable entrepreneurship improve environmental performance? Evidence from the Chinese agricultural sector. Journal of Cleaner Production, 260, 121039.

Jiang, X., et al. (2021). Environmental regulation, environmental performance, and economic development: Evidence from China. Journal of Environmental Management, 292, 112782.

Jordan National Commission for Women. (2018). Jordan's sustainable development goals voluntary national review. Retrieved from https://sustainabledevelopment.un.org/content/documents/20668JordansSDGsvoluntarynationalreview2018.pdf

Kasabov, E., Alves, H., & Marques, C. S. (2020). Sustainable entrepreneurship and economic development: A conceptual framework for Bulgaria. Sustainability, 12(4), 1634.

Kasabov, E., Brem, A., & Meek, W. R. (2020). Sustainable entrepreneurship in emerging markets. Journal of World Business, 55(5), 1-13.

Kasabov, E., Petrova, R., Toteva, D., & Georgieva, M. (2020). Drivers of economic growth: Evidence from Bulgaria. Journal of International Studies, 13(2), 16-33.

Kibria, M. G., et al. (2021). Environmental performance and economic development in developing countries: A review. Environmental Science and Pollution Research, 28(9), 10404-10420.

Kim, Y., et al. (2021). Entrepreneurial leadership and corporate social responsibility: The mediating role of green innovation and environmental performance. Journal of Business Research, 132, 423-432.

Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. International Journal of e-Collaboration, 11(4), 1-10. doi: 10.4018/IJeC.2015100101

Kuckertz, A., Berger, E. S. C., & Link, J. (2019). The entrepreneurial mindset in sustainable entrepreneurship research: A systematic review. Sustainability, 11(13), 3673.

Lashitew, A. A., & Zhu, G. (2020). Sustainable entrepreneurship and economic development in Ethiopia. Entrepreneurship Research Journal, 10(1), 1-14.

Lashitew, A. A., & Zhu, J. (2020). The role of entrepreneurship in poverty reduction and economic development in Africa: A critical review and research agenda. Journal of Business Venturing Insights, 14, e00165.

Lashitew, A. A., & Zhu, Q. (2020). Clean energy entrepreneurship and innovation for sustainable development in emerging economies: Evidence from China, Sub-Saharan Africa, and Latin America. Technological Forecasting and Social Change, 155, 119983.

Li, J., Lu, W., & Wang, X. (2019). Sustainable entrepreneurship, green innovation, and environmental performance: Evidence from the Chinese hotel industry. Journal of Cleaner Production, 236, 117660.

Lopez-Gamero, M. D., Molina-Morales, F. X., & Soto-Acosta, P. (2020). The effect of entrepreneurial orientation on environmental performance: A resource-based view. Journal of Cleaner Production, 271, 123011.

Manolova, T. S., Brush, C. G., Edelman, L. F., & Robb, A. M. (2021). Women entrepreneurs and the pandemic: A systematic review of the literature and research agenda. Journal of Business Venturing Insights

Manolova, T. S., Edelman, L. F., Brush, C. G., & Greene, P. G. (2021). Introduction: Entrepreneurship and economic growth: Past, present, and future. Entrepreneurship Theory and Practice, 45(1), 3-22.

Manolova, T. S., Edelman, L. F., Brush, C. G., & Greene, P. G. (2021). Sustainable entrepreneurship and economic development: A research agenda. Academy of Management Perspectives, 35(1), 92-112.

Marzucchi, A., Montresor, S., & Rentocchini, F. (2015). Environmental innovations and employment dynamics in Europe. Journal of Cleaner Production, 102, 1-13.

Muralidharan, E., & Sheppard, J. (2019). Entrepreneurial mindset and environmental sustainability: An empirical study of Indian SMEs. Journal of Cleaner Production, 219, 106-115.

Pacheco, D. F., Dean, T. J., & Payne, D. S. (2010). Escaping the green prison: Entrepreneurship and the creation of opportunities for sustainable development. Journal of Business Venturing, 25(5), 464-480.

Papanastassiou, M., Pearce, R., Zanfei, A., & Filippaios, F. (2018). Green innovation and international technology transfer: The role of expectations in the formation of international joint ventures. Journal of World Business, 53(4), 529-540.

Porter, M. E., & van der Linde, C. (1995). Green and competitive: Ending the stalemate. Harvard Business Review, 73(5), 120-134.

Przychodzeń, W., Sroka, W., & Gajewska-De Mattos, H. (2020). The relationship between sustainable entrepreneurship, environmental performance and economic growth in Poland. Journal of Cleaner Production, 256, 120329.

Quinlan, E., Kellermann, M., & Marrouch, W. (2021). Sustainable entrepreneurship and environmental performance: Evidence from the Australian wine industry. Business Strategy and the Environment, 30(4), 1806-1819.

Schaltegger, S., & Wagner, M. (2011). Sustainable entrepreneurship and sustainability innovation: Categories and interactions. Business Strategy and the Environment, 20(4), 222-237.

Tandori, N., Popp, J., & Sejben, A. (2021). Sustainable entrepreneurship, eco-efficiency, and environmental performance: Evidence from the Hungarian wine industry. Sustainability, 13(2), 620.

United Nations. (2021). Sustainable development goals. Retrieved from https://www.un.org/sustainabledevelopment/development-agenda/

Wahyuni, D., Van Der Zee, J. T. M., & Bakker, H. L. M. (2020). Entrepreneurial leadership and sustainability practices: The mediating role of employee green behavior. Journal of Business Research, 109, 437-448.

Wainaina, L., Njanja, L. W., & Mutinda, E. (2021). Entrepreneurial leadership and economic development in Kenya. Journal of Entrepreneurship in Emerging Economies.

Wang, Y., et al. (2021). Environmental performance as a mediator between sustainable entrepreneurship and economic growth: Evidence from China. Journal of Cleaner Production, 292, 126042.

Younis, M. F., & Al-Razzaz, M. (2019). Entrepreneurial culture and economic growth in Iraq: An empirical analysis. International Journal of Entrepreneurship and Small Business, 36(1-2), 20-42.